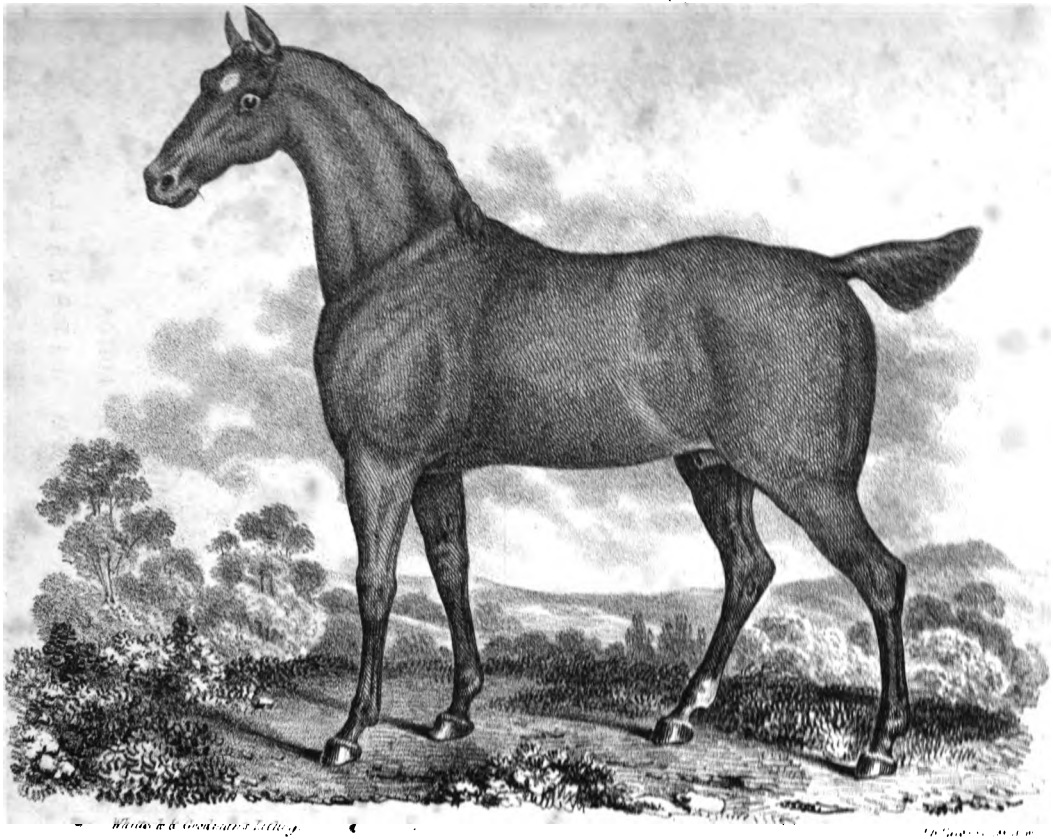

THE

FARRIER AND NATURALIST;

OR,

HORSEMAN'S CHRONICLE.

VOL. II.

London:

PUBLISHED FOR THE EDITOR,

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1829

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THE

FARRIER AND NATURALIST;

OR,

HORSE-MAN'S CHRONICLE.*

No. 13.] JANUARY 1, 1829. [Vol. II.

ADDRESS

ON

COMMENCING THE SECOND VOLUME.

IN commencing a new volume of "The Farrier and Naturalist," the proprietors assure their friends and readers that no exertion or expense shall be spared, to render the work deserving a continuance of the patronage and support already conceded to it.

It is intended to produce in future two numbers in each month, and to sell each of these at half the price heretofore charged for the monthly number; advantages may be anticipated from this arrangement that need not be here enumerated. An addition is made to the title of the work, by which its objects will be more fully expressed, as it is intended to embrace all matters interesting to the Horse-man. By this term it is not meant merely to describe the traveller on the back of the animal; but he who accords with Gervase Markham's description of a complete Horse-man: one who "rides, keeps, cures, and all perfection knows;" by which must be understood, one who has, or at

* Horse-man, one who "rides, keeps, cures, and all perfection knows."
Gervase Markham.

least aims at having, a knowledge of the horse in all states; whether as regards breeding, work, or pleasure, or as labouring under disease, accident, or the consequences of previous mismanagement.

In the present state of the graphic art, the forms and characters of all our native animals are delineated with so much correctness and spirit, by a long list of distinguished artists, and these delineations are so numerous, that the task of selection for the mere purpose of embellishment is difficult, and may lead to partiality; the prefixing a print to each number will therefore be discontinued: but when it becomes necessary to illustrate peculiar conformation, appearances under disease, the effects of accident, or any novel occurrence, the greatest care will then be taken that this part of the plan shall be ably and correctly executed.

It will be the aim of the editors of this work to call things by their most significant designation; when therefore it becomes necessary to animadvert on unfounded or shallow pretensions to distinction, or to expose abuses, whether thinly veiled or shrouded in mystery, they will not shrink from a candid but faithful discharge of this unpleasant part of the duty they have undertaken.

The Veterinary College at St. Pancras, as the only recognised Veterinary school in these kingdoms, claims, and will receive, especial attention. The doctrines there promulgated must not be viewed with indifference, for while those which result from persevering attention and close observation cannot be too fondly cherished, the sordid motives that aim at gain through patent rights—crude, hasty, and therefore on most occasions erroneous conclusions, and mere speculative opinions—must be fully and freely considered; it is the province of the student to attend to the precepts of the teacher, therefore the promulgation of error through such a source is indeed baneful.

Natural History, the Horse, the Dog and Domesticated Animals, Equipments for the Horse, Veterinary Tools and Instruments, Riding, Driving, Extraordinary Performances, Diseases and their Treatment,

Stable Management, and, generally, on all matters appertaining to these objects will be subjects for discussion, and communications regarding them will be candidly considered.

VETERINARY COLLEGE.

MR. GOODWIN, some years ago, endeavoured to draw attention to the medical examination of Veterinary pupils, and he has published a letter addressed to him on that occasion; I insert it here for the purpose of making some remarks on this extraordinary production.

"*Veterinary College, Feb.* 28, 1823.

"Sir,

"I am directed by the Medical Examining Committee of the College to acknowledge the receipt of your's of the 24th inst. and to inform you that, by the existing laws of the institution, they are precluded from making any alteration in the constitution of their Board."

Now this sounds very important and very official; it is headed "Veterinary College," where however this committee never meet, unless indeed at the festive board of its Professor. The letter thus proceeds:

"I am desired to add, that as Veterinary science has for thirty years eminently flourished under the present system of education and examination," [so far as I understand the question, the subject of education had not then been mentioned,] "the committee are decidedly of opinion that they cannot, with propriety, recommend to the general meeting of the Governors of the College the adoption of the alteration you propose, as they are persuaded it would not tend to promote either the reputation of the College or improvement of the pupils.

"I have the honor, &c.

"W. SEWELL."

Now, all that was asked of this "Board" was that it should give its sanction to the proposed measure of adding a limited number of

Veterinary Surgeons to the existing committee; the Professor being the only Veterinary member; and as the whole body of Veterinary Surgeons had been educated by its members, or their predecessors, and all the examinations had been taken by that committee, it could hardly be supposed possible that a suggestion so reasonable, and calculated to produce so many advantages should be not merely rejected, but rejected with taunt and reproach.

That "the College," by which must be understood its present Professor, has eminently flourished, is perfectly true; but do not let us confound things, and mistake his prosperity for that of the Profession at large: neither let us consider this College and its Professor as possessing all the horse-knowledge either practical or scientific that this country can boast of, for if we do I am afraid we shall rank very low in the scale of excellence.

I can hardly believe it possible that any member of that committee could be the author of such a production; and, in point of fact, can any thing be more absurd and contradictory than this trumpery attempt at an official communication? It boasts of the flourishing state of Veterinary science; it blends the two distinct questions of education and examination; it boasts of a maturity of thirty years; after all this vaunting comes, however, a confession that this flourishing system of Veterinary education and examination has not produced a single individual to whom the reputation of the profession of that individual can be trusted; and concludes with the signature of "W. Sewell," himself a Veterinary Surgeon, with no other claim to consideration than what he derives from being merely a deputy practitioner of the Veterinary art.

That this College may have been as unfortunate as its organ asserts I will not here question; but I in my turn will assert, and call upon reputation and facts to support me, that there are numbers of gentlemen who practise the Veterinary art with whose protection the reputation of their profession must be quite as secure as it is with those who assume this domineering importance.

I shall pursue the subject of Veterinary instruction, as carried on at St. Pancras, on some future occasion.

FRED. C. CHERRY.

Clapham, Surrey, Dec. 1828.

A TREATISE

ON

THE DISEASES AND LAMENESS OF HORSES.

By W. Osmer. London, 1766.

[THE writings of Osmer do credit to English Farriery: the works of that author are however scarce, and their value known to but few; we shall therefore re-print, from time to time, portions of his Treatise on Shoeing. Ed.]

The reader will be pleased to remember that this treatise is the result of many years consideration, and that its doctrine is confirmed by experience and observation.

CHAPTER I.—*On Shoeing.*

——— Sub Judice Lis est.

I am afraid the people who profess the art of shoeing will be much offended with this chapter, and hold it very cheap, because it proposes to instruct them in this art.

If you pretend to have your horse shod according to your own mind, it is a general saying amongst these men, that they do not want to be taught; which is as much as to say, in other words, there is nothing known in their art, or ever will be, but what they already are acquainted with. And, what is particular, there is not one of these artists, how much soever they differ in method, but gives the same answer, and has vanity enough to think that he knows more than his neighbour.—Vanity! the noblest passion of the mind, the best, the kindest gift of heaven, given us to balance each human failing.

It has been a maxim amongst wise men of all ages, and has been said by twenty authors, or more, that nature does nothing in vain; from the observation of which truth reasonable people have been apt to conclude, that nature should be the guide of all our operations.

Now, if you ask one of these artists his reason for acting in this or that particular manner, or should inquire of him the use of any part

assigned to some particular end, he can give no answer, nor even pretends to have any knowledge thereof, but is guided by custom alone.

Hence reasonable people will also conclude, that many errors have arisen in the execution of this art, and that these artists should not think themselves aggrieved by any information they may receive from any hand.

Be that as it will, my intent is to explain the proper manner, original design, use, and abuse of shoeing, as clearly and concisely as I can, so that every man of common capacity may be able to judge for himself in this matter.

When time was young, when the earth was in a state of nature, and turnpike-roads as yet were not, the horse needed not the assistance of this artist; for the Divine Artist had taken care to give his feet such defence as it pleased him; and who is weak enough to suppose His wisdom was not sufficient to the purpose in such a state.

But to prevent all supposition and cavilling on this matter, let us only appeal to our senses, and we may every day see horses, mares, and colts running about on all sorts of ground, unshod and uninjured in their feet.

In many parts of the world, to this day, even on the most rocky ground, horses are accustomed to carry their riders unshod; and in this kingdom I have known several horses rode for a considerable time unshod on the turnpike roads about London, without any injury done to their feet.

And I believe there are many horses that might travel their whole life-time unshod on any road, if they were rasped round and short at the toe, because all feet exposed to hard objects become thereby more obdurate, if the sole be never pared. And some, by their particular form, depth, and strength, are enabled to resist them quite, and to support the weight without breaking; and here a very little reflection will teach us whence the custom arose of shoeing horses in one part of the world and not in another. In Asia there is no such custom as that of shoeing horses at all, because the feet acquire a very obdurate and firm texture from the dryness of the climate and the soil, and do really want no defence. But every rider has a rasp, to shorten his horse's foot, which would otherwise grow long and rude, and the crust would most certainly split. But the horse brought up on wet and moist land will naturally have a wider and a weaker foot, it being of a cartilaginous nature, and therefore capable of contraction and ex-

pansion. Because, then, there always was a great difference in the texture of horse's feet, brought up on different soils, mankind (after certain periods of time, when the face of the earth became changed) found themselves obliged to add another defence, besides the natural one, to preserve the crust of such feet as were weak, and not so well able to support them against new and hard objects.

From the good of this practice, tried and discovered on particular kinds of feet, it is no wonder that the custom of putting shoes on all kinds of feet became general in some countries.

Our ancestors, the original shoers, proposed nothing more, I dare say, in their first efforts, than to prevent the crust from breaking away, and thought themselves happy they had skill enough to do so; the moderns also are wisely content with this in the racing way.

But, in process of time, the fertility of invention and the vanity of mankind have produced a variety of methods, almost all of which are productive of lameness; and I am thoroughly convinced, from observation and experience, that nineteen lame horses of every twenty in this kingdom, are lame of the artist; which is owing to the form of the shoes, his ignorance of the design of nature, and mal-treatment of the foot, every part of which is made for some use or purpose, though he does not happen to know it.

But waving all these modern artists know, or do not know, I suppose it will be universally assented to, that whatever method of shoeing approaches nearest to the law of nature, such is likely to be the most perfect method; and as the feet of different horses differ from each other, so, if we would arrive at any perfection in this art, the human reason must be employed in discovering and ascertaining wherein their difference consists, that each may be treated according to its nature; and yet, with respect to each and all, some general rules may be still allowed.

For the sake of those who may be unacquainted with horses' feet, and for their instruction, I shall describe such parts only of the foot, for the present, as offer themselves to our view, and become principal objects of care, when intended to be shod.

These are, the outer sole, the crust, which like a wall surrounds it, the frog, the bars, one on each side, and the spongy skin-like substance which covers the hinder and cellular part of the foot, and is continued to the heel of the horse.

With respect to the treatment of some of these, the Sieur la Fosse

(to whom the world is indebted for many ingenious observations) has already laid down some rules. And though I dare say every man who has tried his method of shoeing is convinced of its impropriety, (I mean as a general method,) yet some useful hints may be gathered from his doctrine, and the good and evil of his shoe shall be spoken of hereafter.

He says the sole should never be pared: his reason is very obvious and just; namely, that the sole, not pared, acquires a great degree of firmness and obduracy, whereby it is better enabled to resist all extraneous bodies, such as glass, nails, flint, &c.

[To be continued.]

VETERINARY SOCIETY.

THE Meetings of this Society were held on the 2d and 16th of December.

At the Meeting of the 2d of December several new members were proposed, and others ballotted for who had been proposed at the meeting before the last.

Mr. Cherry exhibited a singular specimen of strictured trachea, and read an account of the accident which produced it, the progress of the complaint, and of two operations which he performed for the purpose of dilating and keeping open the strictured part. A leaden pipe, of large diameter, was introduced, for the purpose of keeping the divided parts open, but such was the disposition to granulate and contract, that it was found impossible to maintain the opening, although extended to the length of several inches; while the opening was preserved, breathing was carried on through it most perfectly and without inconvenience.

The specimen was deposited in the Museum of the Society.

The subject of the Blood and its coagulable properties was resumed, and further remarks by Mr. Vines were read. These remarks had for their object to show that similar separations take place in the blood, although that fluid may be drawn under dissimilar circumstances. An interesting discussion ensued, which was at length adjourned to the next meeting.

At the Meeting of the 16th of December several new members were proposed, and others ballotted for.

Mr. Rogers produced the recent stomach of a cart horse, that had died from a rupture of that viscus. The horse in question had previously been in perfect health, and lived about four hours after the accident. The symptoms were those which indicated great pain in the hypogastric region. The rupture extended nearly the whole length of the greater curvature of the stomach.

Mr. Fenwick stated that three cases of this nature had occurred to him in his practice, and a strongly-marked symptom was a remarkably quick and thready pulse: this symptom was so decided in the first two cases, that in the last he was assured of the nature of the complaint previous to *post mortem* examination.

Mr. Rogers also showed a portion of stomach with bots adhering. In many places the cuticular coat was completely perforated.

The same gentleman likewise showed the lower part of a limb on which neurotomy had been performed. Absorption of bone in some places, and increased deposition in others, had taken place to a considerable extent. The surrounding textures were amalgamated, and enormously increased in size.

Mr. Vines then exhibited several specimens of chyle and blood, drawn under different states of excitement and debility; and also a recent specimen of a mesentery, in which the large lymphatics were filled with red blood.

A long discussion ensued, in which many remarks were elicited, tending to show the practical application of Mr. Vine's theory, in the treatment of disease.

The subject will be resumed at the next Meeting of the Society.

CASE OF A MARE PONY,

EIGHT YEARS OLD, THAT DIED FROM SPASM OF THE STOMACH.

THE pony was found dead in the morning, and from the undisturbed state of the grass, which was slightly covered with white frost, death must have taken place without any struggle. The pony had been

turned out near a month, and had not been worked during that time.

On examination, there was partial inflammation of the intestines, but not to any considerable degree; and all the other viscera of chest and abdomen were sound except the stomach, on the surface of which, disease was indicated by a thickening of the peritoneum; it was nearly discharged of its contents, was remarkably thick about both orifices, and much contracted in the direction of its short axis, evidently by the effect of spasm, and that to a considerable degree. On opening the stomach, the cuticular coat was much corrugated; about a dozen bots were attached to it; much mucus was adhering to the other parts.

The appearance of the stomach, together with the sudden and quiet death, warrant the conclusion that it was caused by spasm of that viscus.

CASE TREATED BY VIGOROUS DEPLETION UNSUCCESSFUL.

A BAY mare 5 years old, belonging to the 10th regiment Royal Hussars, was attacked about the 10th of March, with inflammation of the lungs. The symptoms were described as running very high, and the treatment was correspondingly vigorous. Bleeding was many times repeated, and in 14 days, no less a quantity than 48 quarts of blood by measure was drawn. A rowel was inserted on the sternum, and both sides of the chest were blistered. The blistering was afterwards several times repeated. Fever balls, and afterwards tonics were given, but from the 23d to the 30th of April, no medicine of any kind was given.

On the latter day I first saw this mare, and her treatment then came under my direction. She was much debilitated but fed well, and though there was great langour she was stated to be progressively getting better.

Liberal feeding, rest, and quietude was the treatment pursued, and on the 4th of May, the general health appeared to be improving.

From that time the mare was considered to be getting better, to be

progressing towards convalescence though but slowly, until the 23d of May, when an unfavourable change had taken place.

The mare was then rather dull, and did not feed well. Still there were no indications to require medicine.

On the 27th the degree of dullness had increased, and so also had the pulse in frequency, though very low. Breathing was quickened, and the nostrils were expanded.

Two plugs were inserted in the front of the chest, and two rowels on the sternum.

The above-described symptoms continuing, and the pulse having increased to 121, digitalis leaf in powder ℈i. was given, and this dose repeated every eight hours. The pulse progressively diminished in frequency, and after six doses of digitalis had been given, it was reduced to 78, but it was low and feeble, and no other favourable symptom had been produced.

By the 5th of June the pulse had increased to 130, was very low and feeble, the prostration of strength was great, the appetite was gone, the nostrils were greatly expanded, the breathing was laborious, and the extremeties were cold. Against these bad symptoms there was not a single favourable one.

The day was wet, cold, and stormy, but during the greater part of the day the mare was at the stable door, with her head hanging out over the half-hatch.

The degree of exhaustion continued to increase, and on the 6th of June the mare dropped and died without a struggle.

The *post-mortem* examination showed the lungs soft, with lymph effused in their texture, their substance diminished, and the cavity of the chest filled with fluid.

FRED. C. CHERRY.

DEPLETION VIGOROUSLY PURSUED; THE RESULT SUCCESSFUL.

April 17. A bay gelding, 7 years old, was attacked with disease, supposed to be spasmodic gripes. Six quarts of blood were taken, and the horse being much worse during the night, a drink was given him by a neighbouring farrier.

On the 18th I saw the horse, and there being much inflammatory action going on, took six quarts of blood, and again in the evening the same quantity. Mashes, which the horse eat reluctantly, and hay, was the only food allowed. Water, with the chill off, was given; and on the 23d a laxative ball was given, the pulse continuing rather quick.

On the 24th the inflammatory symptoms returned with increased violence; twelve quarts of blood were taken at twice, during the day, and ℥iv. of Ol. Terebinth. given; the ball given yesterday not having operated, the dose was repeated, and in the course of the night the bowels were moderately relaxed; after this every thing went on well till the 27th, when the horse was as bad as ever; indeed worse, the pulse being above 100, weak and fluttering. Twelve quarts of blood were taken, making in all 42; and the dose of Ol. Tereb. and laxative medicine repeated.

Through the 29th much uneasiness continued, the pulse not diminishing in frequency, nor increasing in fulness. Digital. Fol. ʒss. was given every twelve hours.

30th. Symptoms rather more favourable. Digitalis continued.

May 1. Symptoms somewhat better. Digitalis continued.

2d. Still better; no medicine given.

3d. Going on well; but the bowels being costive, gave a laxative.

4th. No evacuation; therefore repeated the laxative, the pulse being rather more quick.

5th. Medicine operating mildly. The food continues to be green rye, bran mashes, of which he has eat but little, and hay.

6th to 10th. Gradually getting better.

And on the 20th returned to work.

This horse continued to do well, and worked for many years.

FRED. C. CHERRY.

ON THE USEFULNESS OF THE HORSE.

A HORSE is a creature so excellent in his nature, and so generally useful, that all ranks and degrees of men, either for pleasure or profit, are glad to make use of his service. If you have seen him in the

pomp of military parade, or in battle, to give an account of his vigour, activity, and courage, is needless; but if you seek not for excellence in these sorts of employment, go to the hunter, the traveller, and the husbandman, they will all tell you what pleasant companions and necessary servants horses are. It would be endless to give a particular account of their admirable nature and great usefulness; but if you consider what long journeys are performed on horseback, and in carriages, what heavy loads and burthens are drawn from place to place, and what delight and pleasure is taken in hunting, racing, &c. to the increasing of health and vigour: in a word if you consider that in business of all sorts, and in our pleasantest and most manly recreations, a horse is some way or other assisting; you cannot but conclude, that of all those creatures that are made for the profit and delight of mankind, the horse is most excellent, and consequently, that horse-manship is a very great accomplishment in the person of a gentleman.

ON FALCONRY.

HAWKING, or Falconry, in these days is but little understood; but its rank among the sports of our ancestors may be judged of from the office of Grand Falconer being hereditary in a family of the first class of British nobility. It was so created by our sporting monarch, Charles, and held its rank among British sports long after his days; why it declined in estimation, and at length sank into oblivion, we are not prepared to state: but as some attempts have lately been made to bring this recreation into notice, we have no doubt of its again resuming its place among the recreations of our gentry; we shall therefore consider it a subject worthy of a place in the work we have undertaken.

The origin of this art is lost in obscurity, but we shall take it up and pursue it as practised in the early part of the last century. Those who wrote on the subject, about the period we have named, treat of it as a sport then fashionable and general.

The Hawks then in use were comprehended under two general heads: *viz.* long-winged and short-winged Hawks; and the rather, for that all long-winged Hawks require much the same reclaiming,

manning, feeding, mewing, the one as the other; the like do those that are short-winged, which differ much from the long-winged.

The long-winged Hawks are the Falcon, or Slight-falcon; the Ger-falcon, Lanner, Baurel, Merlin, and Hobby.

The short-winged are the Gos-hawk and the sparrow-hawk.

Note.—That all long-winged Hawks are brought to the lure, and short-winged ones to the hand.

All these Hawks have their males or tassels, which are nothing near so strong, large, and fit for service; yet they are of very good courage and serviceable, especially the Jerkin, Tassel Gentle, and Tassel of a Gos-hawk, and sometimes surpass the females. And these Tassels have names appropriate to them; *viz.*

The Ger-falcon, her Jerkin.
Falcon, or Slight-falcon, her Tassel Gentle.
Lanner, her Lanneret.
Merlin, her Jack Merlin.
Hobby, her Jack Hobby.
Baurel, her Baurel.
Castrell, her Jack Castrell.
Gos-hawk, her Tassell of the Gos-hawk.
Sparrow-hawk, her Muslet.

All the Hawks have these names; *viz.* Eyesses, Branchers, Ramage or Soar-hawks, Lentiners, Haggards, and Entermewed Haggards.

She is called an Eyess, for being taken out of the nest and bred up by hand in a room. There is another Eyess, and that is also taken out of the nest, but bred up at hack; that is, by bringing her up, and letting her fly at pleasure, but observing a certain place to feed her at, and making there a nest for her: and this sort so bred up is called a Tackler, or Hack-hawk, which generally proves the best.

She is called a Brancher, that is taken, when she is but able to hop from bough to bough: and this term properly belongs to short-winged Hawks.

When she can flee and prey for herself, then she is a Ramage, or Soar-hawk.

A Soar-hawk taken about Lent following, is properly called a Lentiner; but being taken in hot weather, generally is short lived.

If taken after Lent, she is properly called a Haggard; and when she

hath preyed for herself a year, and hath mewed most of her feathers, she is called an Intermewed Haggard.

There are other names to be observed for Hawks; *viz.* The first year she is a Soar, or Ramage-hawk; the second, an Intermewer; the third, a White-hawk; then a Hawk of the first Coat, and every year a Hawk of such a Coat, as the second, third, fourth, or the like, as long as she liveth.

The male of an Eyess, is an Eyess Tassel; of a Brancher, a Brancher Tassel; of a Lentiner, a Lentiner Tassel; of the Soar, or Ramage-hawk, the Soar Tassel; and of a Haggard, the Haggard Tassel.

According to these diversities of names and times, a Hawk is to be esteemed; for, by how much the later you take her, by so much the more difficult will she be to be reclaimed and manned, as being the more haggardly, or wilder of nature; but, being well manned, doth make the best Hawk in the field.

[To be continued.]

KING'S BENCH.

Cripps *v.* Sir James Nugent.

THIS was an action brought by a Livery Stable Keeper to recover a sum of 148*l.* 8*s.* for the use of job-horses and carriages, from October, 1827, to February, 1828.

A clerk to Cripps knew of his having supplied Sir James Nugent with horses and carriages. The account begins October, 1827. Sir James had before then hired horses and paid for them. The account goes down to February, 1828. It is monthly work for a pair of horses on job, at 18 guineas a month. The amount is 148*l.* 8*s.* The charges are under the usual price.

Cross examined. A pair of horses from Piccadilly to Waltham-cross is 1*l.* 14*s.* Never knew one guinea charged. Never pay less than sixteen-mile duty. The usual charge for a pair of horses is 1*l.* 1*s.* a day. Eighteen guineas a month is the charge for a pair of horses. Some pay 22 and 24 guineas a month.

Defendant's Counsel said he had no answer to the case. The gen-

tlemen of the Home Circuit never paid more than a guinea. They would now have this charge put upon them.

The Lord Chief Justice. You must not go from Piccadilly then; you must go from chambers.

Verdict for the Plaintiff.

COMMON PLEAS.

CUMBERLEDGE AND ANOTHER *v.* HUDSON.

THIS was an action brought by the assignees of a bankrupt named Bootle, who had been a carman, against Josh. Hudson of the prize ring, for the keep of a Newfoundland bitch and nine of her puppies, for 120 weeks, at 3*s.* per week.

A woman, who had the charge of the animals, stated, that Hudson promised to pay for their keep. She also spoke to the care taken of them, and the quantity of butchers' meat supplied to them she supposed about half a cwt. a day. (The Lord Chief Justice hoped the dogs were all dead by this time.) The old woman and another witness, stated, that the dogs were of no manner of use to the bankrupt, but were kept by him solely for the defendant, and by his desire, and that the price demanded for their keep was reasonable*.

For the defendant, it was stated, that the colour put upon the case was quite a false one. No demand was made upon the defendant until Bootle became bankrupt, and then the action was brought to see what could be got out of the defendant. The dogs were sent to Bootle at his own earnest solicitation and for the defence of his premises, and it was not till after some dispute; and when the defendant took away his dogs, that the bankrupt threatened this proceeding as a mode of revenge. Three witnesses were called to support this statement. Two of them swore that the dogs were sent to Bootle on his own pressing request, and that no sort of understanding was entered into as to paying for their keep.

Verdict for the Defendent

* 3½ cwt. of meat for 3*s.*—we should be glad to give the address of this shop for the benefit of our dog-keeping readers. ED.

Printed by John Hill, Black Horse Court, Fleet Street.

THE

FARRIER AND NATURALIST;

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HORSE-MAN'S CHRONICLE.

No. 14.] JANUARY 15, 1829. [VOL. II.

EXCLUSION OF VETERINARY SURGEONS AS SUBSCRIBERS TO THE VETERINARY COLLEGE.

[THE following correspondence was published on the 1st of the present month: the subject is of so much importance to the Veterinary Profession, the subscribers to the institution, (still designated by Messrs. Coleman & Co. the "Royal Veterinary College,") and indeed to the gentlemen whose names stand as governors there, that it cannot be too extensively circulated; we therefore copy it into the pages of our work. We shall subjoin a few notes on some parts of these epistles.]

King's Mews, Pimlico, Dec. 18, 1828.

SIR;

IN addition to the accompanying correspondence for "*The Veterinarian,*" I send you a College receipt, that I obtained from Mr. Sewell, when I *was permitted* to subscribe to the institution, which will prove that, in the year 1825, my contribution, as it is called, was then as acceptable as that of any other person.

No. 360. *January* 3, 1825.

Received of Wm. Goodwin, Esq. the sum of Two Guineas, being his Contribution to the Veterinary College *for One Year, from Michaelmas* 1824, *to Michaelmas* 1825.

G. HOLME SUMNER, Vice-President.
WILLIAM SEWELL, Treasurer.

£2. 2*s.*

The reason that it is no longer so, I am no better able to discover than your readers will be, after having attentively perused the evasive letters of Messrs. Coleman and Sewell.

The first, written at Mr. Coleman's suggestion, states, that, as a veterinary surgeon, I cannot subscribe to the institution, but that I may send the horse in another's name, provided he be a subscriber. I leave it to those whom it may concern to find out whether this is in accordance with the College regulations—to admit horses that are not the *bonâ fide* property of the subscribers.

Mr. Coleman next directs me to Mr. Sewell as the proper officer to answer any inquiries; and on writing to him I receive a luminous reply, to which I must refer the reader, stating that the admission of subscribers is limited to veterinary surgeons and pupils.

For my own part, I will not believe that the governors of a national institution like the Veterinary College, would give their consent to any such measure as has been attributed to them.

But of the contemptuous treatment that has been thus attempted towards the veterinary profession I shall say nothing, until I have laid my case before the governors; and which I intend doing, not merely as an individual, but as a member of an insulted profession.

I am, Sir,
Your obedient servant,
W. J. GOODWIN.

Mr. Morton to Mr. W. Goodwin.

Royal Veterinary College, Nov. 28, 1828.

SIR;

IN accordance with your wish, I made your request known to Professor Coleman, who desires me to state, that any person besides yourself *(a)* is at liberty to send the horse into the infirmary, provided he be a subscriber *(b)*; but we have a law which prevents veterinary surgeons *(c)* becoming subscribers without the consent of the governors. If you please, your name shall be laid before the committee *(d)*, at the next meeting.

I am, Sir,
Your obedient and obliged servant,
W. J. MORTON.

W. Goodwin, Esq.

Mr. W. Goodwin to Professor Coleman.

King's Mews, Pimlico, Dec. 1, 1828.

SIR;

WHEN I requested Mr. Morton, on Saturday, to acquaint you that I was desirous of sending a patient to the Veterinary College, I had not the slightest idea that such a regulation existed as the one alluded to in Mr. M.'s letter. I should have sent the horse straightforward to the College, had his case been any other than a suspicious one of glanders; but some time ago, when I bought two horses similarly affected, and became a subscriber solely for the purpose of trying Mr. Sewell's treatment upon them, I recollect that you gave me to understand, that it was quite optional for you to receive or reject such cases.

It was with this view of your discretionary power that I first made application to be allowed to send the horse in question to the College; and I confess that I was not a little surprised at receiving for a reply, that I was no longer eligible to be a subscriber, and consequently could not send the horse in my own name.

As I am still ignorant, I beg that you will inform me at what period my ineligibility commenced, and of the cause that could have led to it.

Hitherto I have been but a spectator of the contentions between the College and the Profession; but I can no longer remain silent, and suffer such an indignity as has been thus offered to us to pass unnoticed; and I am convinced that every member of the profession must bear the same resentment that I feel towards such unjust and illiberal treatment.

It is my intention to acquaint the profession of their situation; and I have written this to you, in order that I may be the better able to perform the unpleasant task *(e)*.

I am, Sir,

Your obedient, humble servant,

W. J. GOODWIN.

To E. Coleman, Esq.

Professor Coleman to Mr. W. Goodwin.

Royal Veterinary College, Dec. 2, 1828.

SIR;

I HAVE to acknowledge the receipt of your letter of the 1st instant; and I beg leave to refer you to Mr. Sewell, as the proper officer of this institution for the information you require *(f)*. I think it necessary, however, to state, that I am quite sure no "*indignity*" towards the veterinary profession by the governors of the Royal Veterinary College was ever intended; and that I shall at all times feel myself flattered by being consulted by you, or any other veterinary surgeon, in any case or cases of difficulty or danger, and will admit (when the stables of the Veterinary College are not full), for *experiment* or *experience*, any diseased animal belonging to any veterinary surgeon, from which we are likely to derive veterinary knowledge *(g)*.

I remain, Sir,

Your most obedient, humble servant,

EDW. COLEMAN.

Wm. J. Goodwin, Esq.

Mr. W. Goodwin to Assistant Professor Sewell.

The King's Mews, Dec. 4.

SIR;

THE inclosed communications will sufficiently explain the object I have in sending them to you; and I request that you will be good enough to inform me, whether such a law does exist as is alleged in Mr. Morton's letter.

Having been a subscriber to the College, and knowing that there are veterinary surgeons subscribers to the institution, I am desirous of learning from you, as the organ of the committee of the governors, the precise state of the case; and am, Sir,

Your obedient, humble servant,

W. J. GOODWIN.

W. Sewell, Esq.

Assistant Professor Sewell to Mr. W. Goodwin.

Royal Veterinary College, Dec. 6, 1828.

SIR;

I HAVE *(h)* received your letter and its inclosures, which are returned herewith.

In addition to the information already communicated to you by Mr. Morton, (the clerk,) I have only to add, that the resolution of the governors, at a special general meeting in June last, limits the admission by ballot, at a committee of governors, to veterinary surgeons and pupils, until the sense of the next annual general meeting of subscribers is taken on the subject.

I am, Sir,

Your most obedient servant,

W. SEWELL,

W. Goodwin, Esq. *Assistant Professor, &c. &c.*

Mr. W. Goodwin to Professor Coleman.

Royal Mews, Pimlico, Dec. 11, 1828.

SIR;

IT was by your instruction that Mr. Morton wrote to inform me of my being no longer eligible to be a subscriber to the Veterinary College; and it was at your recommendation that I addressed Mr. Sewell on the subject.

The inclosed, Mr. Sewell's reply, states, that a resolution of the governors limits the admission (of subscribers) to veterinary surgeons and pupils, until the sense of the next annual meeting of subscribers is taken on the subject. Therefore I beg to be informed of your motive for refusing my subscription to the institution.

I am, Sir,

Your obedient, humble servant,

W. J. GOODWIN.

Edward Coleman, Esq.

Professor Coleman to Mr. W. Goodwin.

Royal Veterinary College, Dec. 14, 1828.

SIR;

I HAVE to acknowledge the receipt of your letter, in which "you beg to be informed of my motive for refusing your subscription, to this institution." In reply, I have to observe, that it forms no part of my duty to receive subscriptions to the Royal Veterinary College; and the spirit and meaning of my instruction to Mr. Morton on the subject of your subscription, was merely to make you acquainted with the resolution of the governors, and which has been sent to you by the proper officer of this establishment, Mr. Sewell *(i)*.

I am, Sir,

Your most obedient, humble servant,

EDWARD COLEMAN.

William Goodwin, Esq.

NOTES ON THE FOREGOING CORRESPONDENCE.

(a) This declaration, emanating from a "Royal" Establishment, may excite surprise. Here we have the veterinary surgeon to the king expressly told that neither his money nor his horse will be received at the *Royal* Veterinary College; that, to derive benefit from this Royal Institution, he must have recourse to deceit, must employ some other person's name than his own, and then (having submitted to deception) his horse will be received.

(b) But against this dictum of Messrs. Coleman and Morton, there however stands, bearing date 1828, among the rules and regulations published as those of the Royal Veterinary College, the following, *viz.* "None but horses or animals, the property of subscribers, can be admitted into the infirmary; and should any patient procure admittance contrary to this regulation, either by the misrepresentation of the servant bringing it, or the mistake of the servant of the College who receives it, and the owner, on application being made to him shall neglect to entitle himself to the privileges of a subscriber, by sending a cheque for his annual subscription, there shall then be charged for medicines and attendance over and above the daily charge

for keep, in no case less than two guineas, and more, if more shall really have been expended, in the treatment of such patient."

(c) When was the law enacted? by whom? and when, and where published? In the rules and regulations this disqualifying stain is not mentioned; the only requisite in an annual subscriber, is that his contribution of two guineas "be paid by cheque drawn upon some banker, or mercantile house of fixed residence in London or Westminster."

(d) What Committee is here alluded to? and when, and where do its meetings take place?

(e) This letter throughout breathes a manly spirit of indignant resentment towards unjust and illiberal treatment; but we cannot agree with the writer, that he has "hitherto been but a spectator," of what he designates "the contentions between the College and the Profession." The illiberal and unjust treatment of Mr. Coleman, (for we know not where to draw the line of distinction between that gentleman and "the College") has long been evident to a few of the Profession, who have taken the trouble to think for themselves, and who have had the boldness to speak unpleasant truths, undismayed by consequences. When the Veterinary Society was established, a few individuals wished to have Mr. Coleman at the head of it; and it turned out that one of those individuals had already tendered him the office of President, and which he had generously accepted, before even the Society was formed, but with a proviso that he was to be excused from all its duties. This nomination was opposed, and many cogent arguments advanced in support of the objections urged against the propriety of constituting Mr. Coleman President of the Veterinary Society. Now it stands recorded, that "Mr. W. Goodwin indignantly cut this matter short by proposing that Mr. Coleman should be solicited *(solicited!)* to become the Honorary President;" and he supported that proposition with much warmth and energy, but the proposition on being put from the chair was lost. The unpleasant task, now entered on by Mr. W. Goodwin, has long been commenced, and will be continued: the end will be accelerated and more perfectly accomplished by the aid of his co-operation and powerful support.

(f) The correspondence begins by Mr. Coleman desiring the clerk to state that any person but Mr. W. Goodwin might send the horse in question; but when that gentleman very naturally is desirous of some information, as to why he is precluded from doing so, what information does the Professor give? why he refers him to Mr. Sewell as the proper officer to give the information sought for, who, poor man!

is thus forced into an attempt to write a letter which we shall presently have to notice.

But although Mr. Coleman will not tell Mr. Goodwin when his ineligibility to continue a subscriber to the Veterinary College commenced, or the cause that could have led to it, yet some unmeaning compliments are attempted in regard to his feeling happy in being consulted in any case of difficulty or danger. The propriety of Mr. Coleman's decision, that he will not put a horse into a stall when there is no stall to put him into, no one can question.

(g) Who are the "*we*" here meant? The veterinary surgeon is pronounced by Messrs. Moreton and Coleman, to be excluded without going through the tedious and school-boy operation of asking leave to be admitted a subscriber. The rules and regulations say that "none but horses or animals the property of subscribers can be admitted into the infirmary," the veterinary surgeon is only to be allowed to do so, if at all, by a tedious process; but Professor Coleman says, "I will admit for experiment or experience," as he happily expresses it, "any diseased animal belonging to any veterinary surgeon, from which WE are likely to derive veterinary knowledge:" this point we shall advert to hereafter.

(h) We come now to Mr. &c. &c. Sewell's letter, which seems to state, (for its meaning is very badly expressed,) that what he calls a Special General Meeting has abrogated old laws and enacted new ones. Now we must take the liberty of being again inquisitive, and asking, By whom was this special meeting convened? and in what manner? When did the meeting take place? and where? Who were present? Where this law, as it is called in another place, is recorded? and how it has been promulgated?

(i) This letter, after an interval of three days, certainly affords some information; since it tells Mr. Goodwin that it is not the duty of the Professor to exercise the office of Treasurer; that nevertheless he (Mr. Coleman) had instructed Mr. Morton, who was *not* the proper officer to communicate some resolution of the governors, and that such resolution had also been sent by Mr. Sewell, who was the proper officer.

When the questions we have put are answered, we shall be enabled to proceed with the subject; and if they are not answered, why then we must resume it in a different form.

In the mean time, towards assisting us to arrive at the most correct conclusions in regard to this matter, we shall gladly receive any communications appertaining to it.

A TREATISE

ON

THE DISEASES AND LAMENESS OF HORSES.

By W. Osmer. London, 1766.

[Continued from page 8.]

THERE is another reason equally obvious, which is, that the wisdom of the Creator intended this outer sole, and its obduracy, as a natural and proper defence to the inner sole, which lies immediately under the other, between that and the bone of the foot; this inner sole being nothing else but the expansion of one of the flexor tendons of the leg, which is continued to the bottom of the foot, and overspreads the bone thereof.

This tendinous expansion, when the outer sole is pared, and the animal put into violent motion, is, for want of its defence, susceptible of great pain, consequently liable to great inflammation, and from this cause many a horse has been rendered lame for ever.

If it be asked, What becomes of the sole when not pared? It dries, separates, and scales away.

La Fosse has also said, the frog should never be pared; his reason is, that the frog, being united to that tendon of the leg which is continued down to the bottom of the sole, (all which tendons are inelastic bodies) is itself an elastic body, is placed there as a proper point of support, and serves as a basis to relieve this tendon at each step or motion. But if the frog be pared, it cannot be admitted to touch the ground; for want of which support the tendon is elongated and strained; hence frequent lameness of this tendon is occasioned, and from this cause also wind-galls are most frequently produced.

I know there are many people who maintain tendons to be elastic bodies, but it is a ridiculous and vulgar error; for all tendons or muscles are confined to their proper sphere of acting; and from hence it will follow, that if they were elastic, the force of any muscle (part of which is tendinous) would be eluded, before such tendinous part could act on its proper object.

Moreover, every man's eye will show him that tendons are not elastic, from their loose uncontracted figure, which is easily to be perceived in the hinder leg of the horse, when he moves gently.

There are other reasons why the frog should not be pared.

If admitted to touch the ground, it helps to stop the horse from sliding, as the figure of it will plainly evince.

The frog, together with the bars, occupying the hinder part of the foot, is designed by nature to distend and keep it open; which, when cut away, suffer the heels, the quarters, and the coronary ring to become contracted, whereby another lameness is produced, which shall be treated of in its proper place.

The bar is that part situated between the heel, the frog, and the quarter, on each side, and is not to be scooped out according to the general custom, for the reason last mentioned, because, together with the frog, its use is to keep open the hinder part of the foot, as well as to defend it.

The spongy skin-like substance is not to be cut away till it becomes raggy, because it is the expansion of the skin round the heel, its use being to unite more firmly the foot and its contents, and to keep the cellular part of the heel from growing rigid; it also surrounds the coronary ring, and may be observed to peel and dry away as it descends on the hoof.

These are general rules to be observed with respect to every kind of foot.

But because La Fosse has said, the sole and frog should never be pared, many of our countrymen, mistaking his meaning, have fallen into another extreme, and so have not pared the foot at all. Yet it is necessary that the crust of all horses which are shod should be pared more or less, according to its different degrees of strength. But no general method can be laid down in this respect, because the nature of feet differ greatly from each other, by which alone the artist is to be guided.

[To be continued.]

VETERINARY SOCIETY.

THE Society met on the 6th inst.

Several members were ballotted for, and others proposed.

The following subjects were proposed for future discussion, *viz.*

Sandcrack, its nature and its treatment.
Farcy and glanders.
The rot in sheep.

And these were added to the list accordingly.

Several gentlemen known to the Society having paid much attention to the latter malady, and being ready to communicate their knowledge on the subject, a motion was put and carried, that such gentlemen be invited to attend, and the Secretary was directed to write to them accordingly.

The subject of the blood was then resumed, and notwithstanding the time that has been already devoted to it, many new circumstances were brought forward, and others that had been only touched upon were more fully discussed.

The practical application of Mr. Vine's new facts and theories was proceeded with; and much still remaining to be said on this interesting question, its further discussion was adjourned to the next Meeting, *viz.* Tuesday, Jan. 20.

KING CHARLES AND THE DUKE OF NEWCASTLE.

THE estimation in which the horse was held in this country so long ago as the reign of our second Charles, is shewn by many circumstances. Among others, we have a work on Horsemanship, by William Cavendishe, Duke of Newcastle, who, though a great egotist, must have been passionately fond of this noble animal. He must have been one of the personal friends of that monarch, and shared his exile. His book on Horsemanship embraces the art of riding, and the art which in more modern times is known by the term Farriery. Indeed these arts, in the old books, are always treated of conjointly, and appear to have been exercised by the same individual. The alliance is natural, and most appropriate, and on this subject we shall offer some more extended remarks at a future period.

The duke, after commending one of his horses with rather a poetic fancy, states that he was pressed to sell him to a Duke of Guise, and offered by letter a high price; but, continues the duke, "he was dead three days before I received their letter; and had he lived, I would not have taken any money for him; for he was above price:

and besides, I was then too great a beggar to think to be made rich by the sale of a horse. I have bestowed many thousands of pounds in horses, and have given many, but never was a good horse courser; selling being none of my professions."

Speaking of the king, whom he commends most highly, the duke thus continues: "And having had the honour, when I was his governor, to be the first that sate him on horseback, and did instruct him in the art of horsemanship, it is a great satisfaction to me to make mention here of the joy I had then, to see that his majesty made my horses goe better than any Italian or French riders (who had often rid them) could do; and to hear him say that there are very few that know horses; which was knowingly said and wisely judged of his majesty: it being very certain, that all men undertake to ride them, but very few know them, or can tell what they are good for."

MR. DARVILL ON THE RACE HORSE.

A VERY useful book on the Care, Treatment, and Training of the English Race Horse, has been published by Mr. Darvill, Veterinary Surgeon to the 7th Regiment Hussars. It evidently is the result of sound sense, much experience, and accurate observation; and well deserves to be perused by every man fond of the horse. In the following remarks, which we extract from the above work, are some self-evident truths, but we have never heard them better put, and indeed adverted to by very few. Mr. Darvill is not only entitled to the credit of having placed this part of his subject in a clear light, but also has a just claim to being the first who has published so correct a view of the question.

"It has been pretty generally remarked by those who have travelled on the continent, and I have observed the same myself, that horses there are not to be seen lame in their feet, to any thing like the extent of our horses in England. This circumstance has led many people to suppose that there must be some very great defect in the shoeing of horses in this country, which does not exist on the continent.

"This is certainly not the fact. In proof of this contradictory assertion, I shall take, by way of example, the horses most frequently and the most actively employed on the continent—the French post or diligence horse. The hunters of that country I know nothing about; and as to their saddle horses, I have never seen any of them out of a walk, or slow jog-trot. It is to be observed, that these horses are of a very different description from our English horses. The French post horse may be said to be a well-bred light sort of cart horse. The French diligence horse is of a similar description, but larger: both of them have large, open, strong feet. These horses are not only very differently used, but they are also very differently kept, to what the mail, post, and stage-coach horses are in England. The French horses go much shorter stages, many of which are not half the distance of our stages; and besides this, they travel a much slower pace —not more than five or six miles per hour; and often on paved roads, which I am inclined to think is another circumstance in favour of the French horses' feet.

"The stables in which the French post and diligence horses are kept are seldom or ever paved; neither is it by any means a general rule with the French stable people to bed down their horses by day. Their horses' feet are therefore much exposed to the cool, soft, and somewhat moist surface of their stable floors. But when we come to look at our English post, mail, or coach horse, we find that with regard to breeding he is altogether a different sort of animal; his feet are small and strong, and he is not only differently employed and differently kept, but he is mostly going at the rate of from ten to twelve miles an hour, a pace that produces great concussion and heat in a horse's feet, and more particularly in hot weather; and not unfrequently many of our post horses are driven this telling pace for a distance of twelve or fourteen miles before they are put into the stables; and when they are there, they are generally up to their knees in bedding, necessary for them to rest and lie on, but which keeps their feet very hot, notwithstanding the cow-dung with which they may be stopt at night. I am of opinion, that it is the rapidity of pace and the long lengths so often repeated, that subject so many more of our horses to lameness in their feet; and I do not think, as is generally supposed, that the horses of the continent are less subject to it from any superiority in the French method of shoeing."

ONE OF BRACKEN'S STORIES.

DR. BRACKEN, the author of a Treatise on Farriery, is a good relater of a story, and some of them are facetious enough. Take, for instance, the following: "One Dumball happened to receive a stroke upon one of his eyes in a quarrel, which entirely deprived him of sight on that side, although his eye was as full as the other; nor did he tell me that he had much pain after the misfortune.

"I observed the humours of the eye displaced, though I had reason to believe their coats pretty whole and entire: so that finding the eye in this pickle, I advised the poor man to rest contented, and not throw away his money. But this man's evils did not end here; for a few years afterwards he happened to fall out with one of his neighbours, who in the fray twisted his finger into poor Dumball's hair, and squeezed his thumb with such violence into his eye, that, as the first, so was the other lost, and as near as possible remained in the like situation and circumstance with it. And this, indeed, was a deplorable case, which made the poor man seek out on every hand for help, notwithstanding that I had given him my opinion that his eyes were incurable by art, and if he ever recovered it must be by accident.

"This poor fellow, after he had been blind some years," came under the hands of a man then famous, "who promised to restore him his eye-sight;" and this "mountebank," as Bracken calls him, "poked with his needle for some considerable time in this poor man's eye, but without success." No harm, however, appears to have been done, and things went on as before for some time. "But a few years afterwards he happened to be jesting and wrestling with one of his neighbours, who caught him round the head in his arms, and squeezed his face against his breast, and a button by accident happening to light against one of the blind man's eyes, it seemed to hurt him very sore, and some blood was, by the violence of the squeeze, forced out of the eye; but what is most to be wondered at, the blind man received sight of that eye from this accident; which is more than all the surgeons, oculists, &c. put together could have done by art. And whosoever should tell me he could have performed this by an instrument, or other contrivance, I should look on such person as no more than a vain empty coxcomb, who can say more in one minute than he will perform in his whole life, though he should outlive Methuselah."

CASE OF DISEASED BLADDER AND URINARY ORGANS.

June 16. This pony is known to be twenty-five years old, and has been very hard worked.

The penis is much excoriated, and the urine is voided by continuous drops: the fæces very hard; the anus flabby and relaxed; no appetite; miserably low in flesh, and has been so for some time, though he has continued to work till within these few days.

There seems no probability of the pony being again useful, but the owner wishes to give him a chance; therefore

Lubricated the sheath with ol. olivæ et aqu. lytharg. a. a. and gave one of the following balls: aloes ʒv. sulph. ferri ℥j. zingibre ℥ss. pulv. liquorice ℥j. et aniseed ʒj. petroleum ʒij. divided into five balls.

17th. Ball repeated.

18th. Ball repeated.

19th. The anus is less relaxed, and the urine scarcely drops. Ball and liniment repeated.

20th. The anus in its natural state; the urine drops occasionally; the pony is more lively, and altogether is better.

21st. Great pain has again ensued; frequently straining to stale, but unable to do so, from a stoppage near the end of the penis, from whence to the bladder the urethra is much distended, and the anus much relaxed.

Passed a bougie, the return of which was followed by a discharge of fœtid matter, with but very little urine. Fomented the sheath with warm water, which produced a relaxation of the parts, and the accumulated urine was gradually discharged, together with a quantity of fœtid matter, similar to that which followed the withdrawing of the bougie. The pony soon afterwards became as well as he was on the previous day.

23rd. A stoppage of urine again took place, but nature relieved herself, and it ran off; but there being no probability that the pony would be worth keeping, the owner determined on having him destroyed; and, without any opportunity being afforded for a *post mortem* examination, the body was buried.

CASE OF PUNCTURE THROUGH THE SOLE OF THE FOOT BY A FRAGMENT OF BONE.

June 4. Ths sole of the off fore-foot was punctured near the point of the frog by a bone picked up on the road. Notwithstanding the sole was of a good thickness, the bone had perforated completely through its substance, and several fragments of the bone remained in the wound. On thinning the sole and removing the fragments, much blood flowed, and the coffin-bone was distinctly felt with the probe.

Dressed with tr. myrrh and applied a plaister of tereb. Venetæ over this, and filled the cavity of the foot with tow and common ointment.

5th. The dressing was renewed.

6th. The like.

7th. Terebinth. Venetæ only applied to the wound, and the foot filled up with common stopping.

8th. The wound suppurating very freely, tr. myrrh was again applied to the wound, and a plaister of terebinth. over it. The foot stopped as before.

9th. The wound being now dry, a plaister of terebinth. only was applied. Stopping as before.

11th. Dressing repeated.

13th. The orifice of the wound is almost closed, and the horse is much less lame, but the denuded bone still remains so, as ascertained by introducing the probe without violence. Dressing repeated.

15th. The horse being but very slightly lame, applied a plate shoe, with a view to his working, and dressed with terebinth. com.

18th. The stopping remains in the foot, and the horse goes sound.

21st. The stopping renewed, the horse continuing sound.

30th. Removed the shoe, and stopped with terebinth. com. The wounded part looks healthy, and the horse continues sound.

July 10. The horse remains sound; the wounded part is healthy, though still soft; re-applied a broad shoe to protect it.

From this time no treatment was required; the horse continuing at work, and quite sound.

Printed by John Hill, Black Horse Court, Fleet Street.

THE

FARRIER AND NATURALIST;

OR,

HORSE-MAN'S CHRONICLE.

N°. 15.] FEBRUARY 1, 1829. [VOL. II.

A TREATISE

ON

THE DISEASES AND LAMENESS OF HORSES.

BY W. OSMER. London, 1766.

[Continued from page 26.]

AND to prove this necessity of paring the crust, it is to be observed, that the superficies of the crust of every foot, whereon the shoe rests, becomes rotten in a few weeks; so that if a new shoe be set upon an unsound foundation, it will not stand firm or long. The crust also, in such case, will shell or break away.

Now where the foot is deep and hollow, the crust is generally thick and strong; this cannot be pared down too low (so as not to fall into the quick) because the strength of the crust alone will occasion such a compression on the interior parts of the foot, as to produce a lameness, which will be shewn in its proper place.

In all broad fleshy feet, the crust is thin, and should therefore suffer the least possible loss. On such feet the rasp alone is generally sufficient to make the bottom plain, and produce a sound foundation, without the use of the desperate buttress.

And thus each kind of foot is to be treated, according to its different degree of strength or weakness.

The superficies of the foot, round the outside, now made plain and smooth, the shoe is to be made quite flat, of an equal thickness all

round the outside, and open and most narrow backwards at the extremities of the heels for the generality of horses; those whose frogs are diseased, either from natural or incidental causes, requiring the shoe to be wider backwards: and to prevent this flat shoe from pressing on the sole of the horse, the outer part thereof is to be made thickest, and the inside gradually thinner.

In such a shoe the frog is admitted to touch the ground; the necessity of which has been already shown. Add to this, the horse stands more firmly on the ground, having the same points of support as in a natural state.

Here now is a plain, easy method, agreeable to common sense and reason, conformable to the anatomical structure of the parts, and therefore to the design of nature: a method so plain, that one would think nobody could ever swerve from it, or commit any mistake in an art where nothing is required but to make smooth the surface of the foot, to know what loss of crust each kind of foot will bear with advantage to itself, and to nail thereon a piece of iron adapted to the natural tread of the horse; the design, good, or use of the iron being only to defend the crust from breaking; the sole wanting no defence if never pared.

If we now examine the present method of shoeing, by comparing it with what has been already said, we shall easily perceive its sad effects; which shall be the subject of the ensuing chapter.

CHAPTER II.—*Is relative to the First.*

Now the modern artist uses little difference in the treatment of any kind of foot; but with a strong arm, and a sharp weapon, carries all before him, and will take more from a weak-footed horse at one paring, than nature can furnish again in some months, whereby such are rendered lame.

If a strong-footed horse, with narrow and contracted heels, be brought before him, such meets with treatment yet more severe; the bar is scooped out, the frog trimmed, and the sole drawn as thin as possible, even to the quick, under pretence of giving him ease; because, he says, he his hot-footed, or foundered. By which treatment, the horse is rendered more lame than he was before, as I shall immediately show.

In the interior part of the foot (which few or none of these artists

have ever examined, at least to little purpose,) there is a broad cartilage annexed to each superior end, or corner of the foot-bone; there is also a small bone, called the nut-bone, placed transversely in the foot, between the bone thereof and the coronary bone; the ends of which are articulated to the inner sides of the foot-bone, which ends are also cartilaginous; and from the situation and concern of these in all motion, it is necessary that they should be of a cartilaginous, and pliant, or yielding nature.

Now when this same foundered foot (as it is called) is robbed of those parts, which were designed to keep it open, the heels and the coronary ring become more contracted than they were before; by which means these cartilages of the foot-bone are more compressed. All the membranes and tendinous expansions of the foot are compressed and inflamed, and the cartilaginous ends of the nut-bone, together with the ligaments, are squeezed as in a vice.

And it is to be observed, that whenever the heels of the horse are deep or narrow, and there is a stricture round the coronary ring, such feet are generally more or less lame, after some use, and that merely from the compression above-named. The truth of which will be more readily conceived by examining the interior structure of the foot.

But the modern artists, not content with ruining and destroying the work of Providence, seem resolved, that all their operations shall be of a-piece, and in everything act by contraries. And, to prove this, I shall demonstrate, that the shoe commonly made use of, is contrary to sense and reason, as well as to the natural tread of the foot.

It is to be understood, that no horse can go, if the shoe rests upon the sole; and to avoid this evil, the modern shoe must be formed, and stand concave; because the modern shoe is made thinnest on the outside, and thickest on the inside.

Mark now the inconveniences arising from the unequal surface of such a shoe.

The horse having fewer points of support, is more liable to blunder, to strain the tendons, injure the cartilages and ligaments, break the bones of the foot, and to dislocate some of the joints of the fore part.

The weight of the horse bears chiefly on the inner side of this shoe, which is the highest part; so that the nails at the heel (when the horse comes to act) must break or give way, or tear the crust; hereby the shoe gets somewhat loose, the finer sand insinuates itself between the foot and the shoe-heel, and the horse is, according to our phrase

gravelled; perhaps, gets a corn, with which he is lame for life, no cure being supposed to be had for this evil.

In this kind of shoe, though the frog be not pared, it will be removed to such a distance from the ground, that it cannot be admitted to touch it; by which intervention of the shoe, the flexor tendon of the foot loses its support, as much as if the frog was actually pared.

Further, the heel of the horse is corroded and eat away, and the crust more liable to be broke; nevertheless, these men are obstinate and weak enough to affirm the contrary, and give it as a reason for making the outside of the shoe thinnest, not perceiving the consequence of such unequal pressure on the crust.

Having now proved, that variety of lameness is produced by a wrong method of shoeing, I shall leave what has been said to the consideration of the reader; the truth of which observation and experience will make manifest.

[To be continued.]

VETERINARY SOCIETY.

JAN. 20th. The Society held its ordinary meeting; the President, Mr. Cherry, in the chair.

The minutes of the preceding meeting were read, and a new member proposed.

Mr. Vines being prevented from attending, in consequence of indisposition, the adjourned discussion on his subject—the blood—was further adjourned to the next meeting.

Several cases of practice were related, and a very interesting discussion took place respecting the employment of stimulant medicines combined with tonics, in the treatment of farcy and glanders. Mr. Brightwin mentioned several cases in which they had been used, at the suggestion of Mr. Bracy Clark, and the result was successful. He particularly mentioned the combination of cantharides with sulphate of zinc, with which he stated that he had cured one confirmed case of glanders were there was ulceration of the schneiderian membrane to a considerable extent; he said that he occasionally suspended the exhibition of cantharides, for instance, when the mouth became much affected. The beneficial effects of moderate stimulants, in many cases, was generally admitted, and Mr. Cherry described certain

states in which debility, induced by an ordinary purge, had a strong tendency to produce glanders.

Mr. Clark mentioned a disease which is common in North America, though unknown in England; it is marked by a great degree of swelling of the head, without any other part being affected, and generally proves fatal: the best plan of treatment was found to be making deep incisions with the actual cautery in the cheek, but its pathology was not by any means understood.

TO THE SUBSCRIBERS TO THE ESTABLISHMENT AT ST. PANCRAS, CALLED THE VETERINARY COLLEGE.

My Lords and Gentlemen,

AS a Veterinary practitioner of long standing, and as one who has paid much attention to the Veterinary art, and to the means presented for studying and adapted for promulgating it, I now address you; and though the manner in which I commence doing so may at first appear singular, and be unpopular, the only request I have to make is, that you will read through this address, before you are induced to give an opinion on the subject it relates to.

That the Veterinary art is better understood, both in theory and practice, than it was thirty years ago, I most readily admit; but I mean to maintain that it has not kept pace with the advances made by other branches of knowledge; more especially when the powerful support and high patronage it has received are taken into consideration; and I propose to show some of the causes to which this deficiency is to be attributed.

And these may be referred, among other causes of deficiency, 1st, to there being no rivalry as a stimulus to emulation; 2dly, to Mr. Coleman's duty of a public teacher and professor being at variance with his interest as a contracter for supplying government horses with medicines; 3rdly, to a deficiency of horse-knowledge on the part of Professor Coleman and his Assistant Mr. Sewell; 4thly, to the imperfect education that is within reach of Veterinary pupils; and, 5thly, to the defective practical examination of such pupils as to their knowledge of the Veterinary art.

[To be continued.]

THE VETERINARY COLLEGE DINNER.

THE St. Pancras pupils have put forth an invitation to their annual dinner much earlier than usual, and it will have taken place while these remarks are in the press. Mr. Sewell's name has been tacked on to the list of Veterinary surgeon makers, and accordingly his name is included among those to whose "honor" the libations are to be made at the Free Masons' Tavern, on the 28th of January. Formerly the eminent teachers were lauded for their *gratuitous* instruction, but on the present occasion it is for having *admitted* Veterinary students to their lectures. Now at a time when the Medical Examining Committee declare that among the hundreds of Veterinary surgeons they have made, there are none whom they will admit for their associates in examination; and the governors of this royal institution have further declared, that they will not admit a Veterinary surgeon as a subscriber to it until they have enquired his character: this discrimination on the part of the dinner-givers is judicious and well-timed; it is humble and respectful, and may, perhaps, save the Veterinary students from the reproaches that have been aimed at their elder brethren, the Veterinary surgeons.

While speaking of gratuitous instruction we must ask whether such instruction ever was really gratuitous? for our own parts we should answer, decidedly, No; unless, indeed, as a gratuity to Mr. Coleman, who always has been, and still is, liberally paid for all the instruction that is given to the Veterinary pupil.

ON BROKEN KNEES.

By MR. CHERRY.

BROKEN Knees diminish the value of a greater number of horses than any other single cause; for although in numerical precedence lameness might stand first, yet this proceeds from various causes, and has its seat in numerous different parts.

But although broken knees are so common in this country, there is no disease or accident, call it which you please, that is very often so erroneously treated; and, as a fair inference, none, the nature of which is very often so little understood.

It is now more than twenty years since my attention was first especially directed to a careful observation of the course nature itself takes

towards the reparation of this kind of injury. I was previously tolerably well acquainted with the general course or courses of treatment adopted in such cases,—with the consequences of the interference of art.

Having made some remarks on that treatment which I consider wrong, I shall then endeavour to point out that which is right. At least the remarks I shall offer will be founded on the laws of physiology and pathology, and unbiassed by prejudice in favour of any nostrum or any supposed discovery. All I intend, is to bring well-known truths to bear on this particular subject.

Many persons, and among them some of considerable experience and talent, assert that a horse can only be in one of two states, that is, sound or unsound: I am now speaking of the limbs, merely so far as regards lameness. But the line between these states is often so fine as not to be seen by the most experienced eye. What one experienced man will call sound, another will call lame. My own experience leads to the conviction that there is very often a state intermediate between the two, that never was, or will, be well defined.

Well, no matter whether a horse is lame, or stiff, or careless from indisposition, or carelessly rode, or feeble in legs or feet, from these parts having been violently exerted, or from moderate exertion having been continued too long; no matter whether from one or all of these causes, or from any other, a horse tumbles down; what then ensues?

[To be continued.]

BALASSA ON SHOEING INTRACTABLE HORSES.

WE have received a useful little book, entitled "The Art of Shoeing, without the application of Force; by Constantine Balassa." It is a translation from the German; and the original, as stated in an advertisement, was published by the express command of the Austrian government.

From its title the mere English reader might suppose that it contained directions as to paring the foot, fitting the shoe and fixing it, but these controverted points form no part of its subject.

The English farrier, it is well known, holds without assistance the fore feet of all horses between his knees, and the hind feet by

supporting the limb, partly by the knee and partly by the hip, while paring the foot and fixing the shoe. This practice simplifies the operation, and enables a farrier to ascertain, with a great degree of certainty, whether any nail that he drives is taking a wrong direction.

Throughout the greater part of the continent of Europe, this part of the business of shoeing is divided between two persons, one of these, denominated the assistant, being employed solely in lifting the foot, and holding it in a convenient position for the operating farrier.

The object of the author of the book under consideration is to give such directions as shall enable the *assistant* to perform his part of the business with ease and safety.

The author, after some general remarks on the effect produced by the voice, the look, the eye, the hand, and use of the rein, gives six principal points as the whole method of proceeding, by which almost incredible effects may be produced on spoiled and refractory horses; these are,—

" 1. On stroking the forehead and over the eyes of the horse with the open hand.

" 2. On knowing how to overawe him without the application of physical constraint.

" 3. On being able to make oneself understood by the horse by gentle means.

" 4. On possessing the address to anticipate him at the seasonable moment, so as to prevent the practice of his vices and obstinacy.

" 5. In so placing the assistant in shoeing, that he can never be bitten or kicked by the horse.

" 6. Lastly, on the due instruction of the assistant how to lift up the foot and put it down again in a proper manner."

These points are very well illustrated, and we shall now make only one other short extract, intending to return to the subject at a future opportunity.

" To anticipate the horse at the right time, means, not to wait till the horse has practised his vicious tricks, but to frustrate his evil intentions by threats, with voice, looks, and gestures, or to release the foot in time, or to yield in any other suitable way. The eyes of the horse are the mirror of his soul, and the infallible indicators of his purpose; the trainer must therefore be guided entirely by their expression. When, for instance, the horse shows by his eyes and looks, (as in fig. 5.) that the assistant is holding his foot too long, he must

immediately order him to set it down, and if the smith work too roughly with the paring-knife, and the horse indicate this by his looks, (as in fig. 5.) the smith must in like manner be directed to desist from his improper procedure, or to release the foot."

The book is published by Ackermann.

ON FALCONRY.

[Continued from page 15.]

AN eyrie of hawks consists sometimes of more, sometimes less; four or five being a good eyrie, and seldom more.

The mails of Hawks are to be observed: the first year they are of a reddish plume; after they have mewed they are blueish; and the older they are, the bluer and whiter is the mail; and it is observed, that the white mail proves the best conditioned; the dark mail is brave-mettled, but subject to crowing; that is, to fly at Crows.

The earlier a Hawk is hatched in the year, the redder, brisker, and livelier will her eyes be, (which is her excellency, and sheweth a good Hawk,) and one to be in health; for when she is sick, her eyes will be pale and wan.

Thus having given some general heads of the several sorts of Hawks now in use amongst us; in the next place I shall treat of each Hawk apart; and first of long-winged Hawks, among which the Ger-falcon requires the first place.

The Ger-falcon.

This Hawk is much larger than any other Falcon, and thence it is that they have sometimes been esteemed a peculiar kind of Bird, not comprehended under the general name of Falcon; and for her largeness, some esteem her to be a kind of Eagle. She is very fierce and hot, which causeth her to be so hard to be reclaimed; so that her keeper had need to be endowed with patience, and must treat her gently; but being overcome, she proves an excellent Hawk, and will scarce refuse to fly at any Game, as the Hern and River Fowl; but her largeness is such, that it frights the Fowl which are in these parts, which hinders her killing her Game; and therefore, she is not esteemed so useful as the Haggard-falcon, or Ramage-falcon.

She is a stately Bird to behold, and most fit for princes, and persons of quality. Her head and eyes are like the Haggard Falcons,

with a large bending beak somewhat blueish; her wings are shorter than the Slight-falcon; she hath large nares, and a mail like a Lanner's; her feet are large, and strong armed, and her train is much like the Lanner's.

In going up to her gate, she is much of the nature of the Merlin, not using the same way as other Falcons, for they climb up upon the train when they find any Fowl, and as soon as they have got above it, they make several throughs, or down-shoots, till they have killed or bound it; and after she hath killed her game, reward her as you do the Falcon, which shall be next treated of.

Her keeper had need to have a great care how to make her at first, (as indeed all other Hawks,) for being well made, she will keep so; therefore be not too over-hasty in your manning and reclaiming her, but use a gentle and familiar way.

If you intend her for the brook, lure her as you do the Falcon, and also feed her so, unless she be a slack-mettled Hawk; and then her meat must be washed, and stones often given her, and tyrings constantly when she is empty, keeping her warm after it.

When you have brought her forward, give her often castings, to cleanse and purge her, as also to prevent the growth of too much glut and fatness in her inward parts, which will endanger her life, (which is but short at best) unless in very skilful hands, which, together with the great trouble and charges in keeping her, makes it that she is in so little use among the gentry, and the rather for that the Haggard Falcon doth perform the same, and better, unless it be at the Hern or Kyte, for which flights the Ger-falcon and Jerkin are only fit.

Of the Falcon, or Slight-falcon.

The Falcon, or Slight-falcon, is of several shapes, *viz.* some large, some small, others long-shaped, and some round-trussed; so are they also of several mails, as white, black, brown, and russet.

The principal sorts of Falcons are by all agreed to be the Intermewed Haggard and the Lentiner Falcon, now much in use.

Those that are excellent are thus shaped, *viz.* broad-shouldered, carrying her breadth down to her train wide and strong, with short arms and a large foot, a short beak and a large nare, and close-plumed, high thighs, with white on the insides, great, full, black eyes, a large breast, her head plumed dark or black, and a white wreath. In her flight she is known from another Hawk, by her

nimble and quick getting up to her place, by her strong stirring, and by her skill in her stooping, and killing her game.

She is very bold and hardy, of a great strength and courage to endure both wind and weather, gaining her prey by main wing; and into what place soever she cometh she is victor. By nature she is very hot, and consequently the better able to endure cold weather: witness her high soaring in the air; and likewise when once she begins to cast her feathers, she meweth with more expedition. Her greatest fault is, she is more difficult to be reclaimed than any other Hawk.

From this bird the Falconer is said to derive his name, as well as the art itself; for that it seems the chief end of a Falconer; and the art of Falconry, is rightly to reclaim and man the Falcon; for she flyeth at all games, both in field and river, but most proper for the river: so that he that thoroughly understands how to bring the Falcon to that perfection that she is capable of, may well deserve the name of a master of this art.

This Hawk is a great pains-taker, no weather discouraging her from her game, if possible to be found; and though she hath laboured two or three days together in ill weather, yet she will not be tired; and indeed every Hawk requireth exercise; but old staunch Hawks should have more rest.

There is a pretty way for flying at the Kyte, which affords good diversion; it is thus performed: get an owl, and tie a small fox-tail, or some such device, to one of her legs, that she may not give you the go-by; and being in the field, the day being warm and clear, you will soon discover a Kyte cooling herself in the air; then let your owl fly, and the Kyte will not fail to make near her to gaze upon her; and when the Kyte is descended pretty near her, then let fly your Hawk, and the Kyte perceiving the surprise, doth endeavour to preserve herself by mounting up, and winding the most she can. And here the combat begins, but oft-times none can see where it ends, both mounting out of sight; but in the end the Hawk becomes victor, and by main strength and courage beat down the Kyte; yet not without many turns and wrenches in the air, to the great pleasure of the spectators.

[To be continued.]

MR. DARVILL ON THE RACE HORSE.

[Continued from page 29.]

WE return with much pleasure to Mr. Darvill's book, and present our

readers with an extract relating to the preparation for PHYSIC. His remarks on this part of stable treatment are minute and appropriate.

"The preparing of race horses for their physic in the autumn, may be done in much the same manner as with horses in common use; as more time may be allowed for those horses of strong constitutions to be kept on mashes, than when they are in training. Three or four mashes a day, of equal parts of bran and oats, for a couple of days, will relax their bowels, and thereby facilitate the action of the medicine on them; and a less portion of aloes in their physic than is generally given to them when in regular training, will answer the purpose of purging them equally well. It was formerly a rule with grooms, and it may, I have no doubt, be much practised by many at present, that whenever they were going to physic several horses on the same day, to give the whole of them their physic early in the morning. With strong constitutioned horses this may be very proper; for in the common way of preparing those horses, the medicine seldom operates until the following morning, that is, it generally remains in the bowels of those strong horses for four-and-twenty hours before it begins to purge them. But with others, which may be more delicate, it will be seen to operate in the course of eight, ten, or twelve hours.

"As we are not in so great a hurry for the medicine to act now, as we should be were the horses in training, or were they labouring under disease, we prefer giving them their physic at different times, with a view to have them all purging on the following morning when at exercise. In endeavouring to accomplish this, the groom must bear in mind, when he is about giving physic to a number of horses on the same day, (say fifteen or twenty for example,) that the constitutions of so many horses will vary more or less; consequently, he must vary the quantity of aloes in each dose, according to the age, constitution, and condition of each horse; but he must also regulate the time of day that different horses should have their physic given them after they come in from exercise in the morning. Those of craving constitutions may have their physic given them immediately after they come in, at seven or eight o'clock in the morning. Those with constitutions not quite so strong, may have theirs given them at twelve o'clock in the day; and those which may still be more delicate (if it be determined to physic them), may have theirs given them at four or six o'clock in the evening: and by this method they may be got to purge pretty nearly at one time, which is an object worth attending to, as the groom can more readily judge how each

dose of physic operates on each horse, in proportion to the quantity of aloes given.

"Such horses as are known to the groom to be shy drinkers in physic, must be watered sparingly at twelve o'clock, the day before the physic is given, instead of at four or six in the evening. From this treatment they are most of them inclined to drink pretty freely on the following day. And on the night previous to giving them their physic in the morning, it would be advisable to keep them short of hay, more particularly the craving ones. Instead of giving them their usual allowance, let them have half the quantity; and those which may be inclined to eat their litter may have the setting muzzles put on, when the boys go into the stables to go to bed. Let those that do this be set as sharp as they would be for their sweat or race. The groom, on first opening the stables in the morning on the day the physic is to be given, should give each of the horses a small portion of mash, before they go out to exercise, and when the horses return to the stables again, the craving ones, after their heads are dressed, before they are turned round in the stall, may have their physic given them, and the other light horses, at the different periods which I have already directed. All the horses, after having their physic, remain in the stables for the day, and the usual stable hours are kept, at which times they have their warm water given them, and are afterwards stripped and brushed over; their clothes again put on, and their legs rubbed. Their mashes are given them, with small portions of hay, and they are shut up. Horses in physic, particularly those which may be a little sick, should be fed sparingly. When it is observed they are not inclined to eat their mashes, they should be taken from them; if they do not seem inclined to eat their hay, they may have a little clean sweet straw given them, to pick and pull about, and amuse themselves with; many of them will eat it, when in physic, in preference to any thing else."

[To be continued.]

CASE OF DISLOCATION OF THE PATELLA.

A BAY mare, five years old, belonging to the 10th Regiment Royal Hussars, was under treatment for common catarrh, and doing well. In this state she was not exposed of course to any violent exertion.

May 12. An occasional displacement of the patella has several times taken place; this was manifest by the leg being distended backwards, and the patella being displaced outwards. It occasionally slipped back into its proper place, and at any time might be made to do so by a slight degree of pressure applied in the proper direction, when the limb was immediately brought forward and moved without difficulty; nor did any pain appear to remain.

As this displacement evidently arose from a relaxation of the ligaments connected with that part, a blister was applied to the whole surface of the stifle-joint.

13th. The blister has produced a good effect, the part being much tumefied, and no displacement has occurred since its application.

23rd. The tumefaction having subsided, a blister was re-applied, notwithstanding no displacement had taken place since the parts began to swell from the effect of the first blister that was applied.

June 5. The part became tumid as before, but it has now nearly regained its natural state.

From this time no further surgical treatment was considered necessary: in about a fortnight she returned to regimental work, and nine months afterwards she had remained at all times perfectly sound, with every prospect of continuing so.

FRED. C. CHERRY.

A CASE SHEWING THE BENEFICIAL EFFECTS OF DIGITALIS.

APRIL 30. A bay mare, 4 years old, belonging to the 10th Regiment Royal Hussars, is affected with cough, and has difficulty of swallowing. Has been bled to six quarts. Purgatives have been given, and the throat blistered. Keep the mare quiet, and feed with bran mashes.

May 3. The cough has rather increased. Insert rowel on throat.

4th. Gave a laxative.

9th. The cough is less violent.

10th. Take out rowel.

12th. The submaxillary glands are full, but remain soft. Repeated laxative ball.

14th. The gland on the near side has increased in fulness, but

without being hard, and there is discharge by that nostril. Blister between the inferior maxillary bones.

15th. The blister has operated well. The discharge from nostril has rather diminished.

23rd. Inflammatory symptoms having returned, eight quarts of blood has been taken at twice, and a rowel inserted in the chest.

24th. Inserted two other rowels on chest and two on the sternum. The breathing continues very quick and the pulse very low.

27th. The quickness of breathing has increased; the nostrils open; pulse was yesterday 93 and 94, this morning it is 94; extremities most generally cold, but occasionally not so. Give digitalis in doses of ℈j. till the pulse is reduced to 50.

Give also diuretic mass ʒj. daily; bandage the legs, giving them, if requisite, a good brisk rubbing till warm.

28th. Three doses of digitalis were given yesterday; the pulse is now down to 73.

29th. Three doses of digitalis given yesterday; the pulse now 59.

30th. Two doses of digitalis were given yesterday; the pulse is now 48.

The unfavourable symptoms have gradually diminished; ʒj. of diuretic mass has been given each day.

June 5. The unfavourable symptoms have all subsided, and the mare appears to be fast approaching to convalescence.

6th. Is doing well.

11th. Continues to get better.

17th. Is doing well.

24th. Free from complaint.

FRED. C. CHERRY.

CASE OF HOCK LAMENESS.

To the Editor of the Farrier and Naturalist.

SIR,

I HAVE sent you the following case, should you think it worth inserting. The plan of treatment followed was different from that usually recommended, but the result may perhaps be thought worth recording.

I am your obedient servant,

Jan. 15, 1829. I. P. M.

A black mare, six years old, received a kick on the point of the hock. In two days the hock began to swell, and when the mare was

brought for treatment it had attained the size of a large orange, and occasioned considerable lameness. Discutient lotions were tried some time without effect. It was distinctly perceived that the swelling was caused by an accumulation of fluid in the joint capsule of the hock. It was now considered advisable to evacuate the fluid, in preference to blistering, which it was thought would produce more thickening: this was accordingly done on April 2nd, when a considerable quantity of serous fluid mixed with vitiated synovia was discharged.

April 4. The tumour had again filled, and on pressure being made, fluid of the same quality as the former was discharged. No other application was used than a small pledget of tow inserted in the orifice of the wound.

7th. The hock considerably inflamed; the wound now discharges pus. Directed the limb to be fomented several times a day, and gave aloes ℥ss. Diet, hay and mashes.

10th. The limb very much swollen, and the discharge profuse. Fomentations continued.

12th. A tumour has formed on the inside of the thigh, which appears on the point of suppurating.

14th. The tumour on the inside of the thigh has suppurated; the limb is less swollen, and the lameness diminished.

16th. The abscess is fast healing, but the swelling of the hock still continues, and two fresh tumours have made their appearance, one on each side below the point of the hock. Fomentations continued.

18th. The tumours have discharged; the mare suffers a good deal from their irritation. Gave aloes ℥ss. Applied a linseed poultice all over the hock.

19th. The mare is better.

21st. Discontinued the poultice, and dressed with turpentine ointment.

24th. The sores have been dressed daily with the ointment, and are fast granulating, and the swelling is diminishing.

30th. The sores have now nearly healed, but there being still a considerable degree of thickening of the parts remaining, and it being considered that the mare wanted nothing more than rest and time for her complete recovery, she was turned out to grass.

June 20. The swelling is now quite gone; the mare is sound and at work.

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THE

FARRIER AND NATURALIST;

OR,

HORSE-MAN'S CHRONICLE.

N°. 16.] FEBRUARY 15, 1829. [VOL. II.

VETERINARY COLLEGE CORRESPONDENCE.

MR. EDITOR;

IN perusing the "FARRIER AND NATURALIST" I have felt myself particularly interested in a correspondence that appears between Mr. William Goodwin, Veterinary Surgeon to the King, and the Professor and the Assistant Professor (who, it appears, is treasurer) of the Royal Veterinary College.

Now it seems that this correspondence took its origin from the following circumstance: Mr. W. Goodwin, who, as I have before observed, is his Majesty's Veterinary Surgeon, having heard of some successful treatment, as practised by Mr. W. Sewell, the Assistant Professor, upon glandered horses, became desirous, as in duty he was bound, to ascertain how far these reports were grounded upon facts. For I must tell you the reported cures of this malignant disease was doubted by many, although it was said a considerable sum of money had been awarded by the Governors of the College to the Assistant Professor for the discovery.

Now, it is well known, that Mr. W. Goodwin is a very intelligent man, a well-wisher to the interest of the Royal Veterinary College, and a gentleman of considerable estimation in the practice of the Veterinary art: as he happened to have a horse which he greatly suspected was glandered, it was natural enough for him to think that the heads of the Royal Veterinary College would have rejoiced at an opportunity

of giving a further proof (admitting the horse should be found glandered) of showing the efficacy of the mode of treatment adopted by Mr. W. Sewell; and, therefore, without entertaining a doubt in his mind of its being received as a patient, sent it to the college.

Here, however, it is necessary to look a little into dates; Mr. Goodwin presents to our view a receipt which acknowledged him as a subscriber from Michaelmas, 1824, to Michaelmas the following year; now, therefore, if he had not renewed his annual subscription, and he does not shew that he had done so, his right to send a patient to the college in his own name must have ceased, and upon that principle the Professor was justified in giving his clerk orders to send the horse back, with a letter of explanation.

Had Mr. Morton's letter contained this intimation only, there is no doubt but Mr. W. Goodwin would have seen its propriety, have paid the subscription money without delay, and with a true feeling for the advancement of the Veterinary science, have gladly sent back the horse to the college stables.

But, Mr. Editor, I must now beg your particular attention; here is an official letter sent to a gentleman of the profession, not only to convey to him the fact of his not being a subscriber, but the intimation also of his being ineligible to become one, unless by the consent of the governors, and the only reason assigned is—because he is a Veterinary Surgeon. This law, as it is called, took place last June, at a special meeting of the governors, according to the epistle of Mr. Assistant Professor Sewell, if his meaning, by his phraseology, can be correctly understood.

Now, Mr. Editor, I beg to inform you that I am a Veterinary Surgeon. I have studied at the College and obtained my diploma. It is many years since, yet I can safely declare, that I have never received the smallest remuneration by the practice I have had for the expense I was at, or the time I expended in acquiring the small share of knowledge I possess of the Veterinary art. Under these circumstances, you must suppose that I feel myself disappointed and considerably chagrined at the late regulations, or law as it is called in the correspondence, before alluded to, inasmuch that I find myself disgraced by it. Can I be admitted a subscriber to the College under the same circumstances as other gentlemen? I must decide, as a Veterinary Surgeon I cannot; and, therefore, by the above described law, I must consider myself disgraced and shamefully treated. But,

Sir, I should be glad to know what reason there coul
a special meeting of the governors of the Royal Veterinary 51
in June last.—There must have been some cause for such a measu
Were the governors dissatisfied with the proceedings of the College? Was it convened by them, or by the Professor? If it was by the command of the governors, I must consider that it arose from some dissatisfaction on their part, respecting the conduct of the officers attached to the establishment; and, when I take into consideration the law (as it is called) that passed at that special meeting, I think that I am fairly warranted that it was so. It is possible that some representation may have been made to them, that the Professor, for the sake of the admission fee, had been introducing such persons into the Profession as ought to be kept out; such as would rather deteriorate than add to the respectability of the Institution. I should be sorry to think it possible; but from the nature of the law, whereby Veterinary Surgeons may be admitted by ballot to become subscribers may reasonably be so construed.

Let us however take it in another way. I will consider that the special meeting of the governors of the Royal Veterinary College was called at the instigation of Mr. Coleman, (the Professor I mean). Now then let us admit that it was so. Still, still there must have been some cause for this strange law; it never could have been moved and seconded without some reason, and I suspect a grievous one too. How does Mr. Coleman stand in the opinion of the most experienced and able practitioners in London? (I know nothing of those in the country.) Do they consider him to be a Veterinary Surgeon of sound judgment? Do they consider that he is doing his duty in order to advance the character of the science, as he was wont to promise in the earlier period of his professorship? where are his annual reports? and what is become of his late discoveries and improvements? I must confess I have not seen any or heard of any of late years. Now it appears to me, and I have heard it whispered, that some of these gentlemen who are now established as Veterinary Surgeons, have been bold enough to question many of his principles, and to call upon him to adopt a more liberal system. This the Professor does not approve, and therefore labours with all his influence to keep such gentlemen as these as far off as possible.

But, Sir, I do not like these special meetings; they are generally convened for interested purposes, and I will assure you that I do not

the governors of the Royal Veterinary College would have even thought of such a thing had they not been called upon. You will therefore conclude what my opinion is:—That it was a meeting got up entirely by the ingenuity of the Professor; and, if so, for reasons peculiarly to suit his own purposes. There are always a select few that may be found and collected together on these occasions; a sort of sneaking hole-and-corner gentlemen, who having few ideas of their own, are at all times ready to sanction the suggestions of others; mere tools to party, without talent to discriminate between right and wrong. A party of these trifling, simple, silly, wrong-headed gentry, I am convinced, were the conclave that framed the resolutions and made the law which will for ever be a disgrace to the Royal Veterinary College. But as for the general body of the governors, they are noblemen and gentlemen of the highest distinction, whose only motives were, by lending their names, to countenance and encourage the growth of science in this necessary and useful art; and I feel confident, when they are made acquainted with the preposterous law made so snugly in this ridiculous special meeting, that they will see the evil tendency of it, and expunge it from the journals of the Institution with that contempt it so deservedly merits.

I remain, Sir,

Your obedient servant,

HIPPOCOMUS.

FURTHER CORRESPONDENCE

RESPECTING

VETERINARY SURGEONS AND THE ROYAL VETERINARY COLLEGE.

(Copy.)

Clapham, January 26, 1829.

SIR;

I WAS a Subscriber to the Veterinary College in 1826; also, in 1827; and, at the corresponding period again, in 1828, I tendered my subscription to the Collector; when, to my surprise, it was refused,

and I was referred to the College. On my subsequently applying there, Mr. Morton, the Clerk, not less to my surprise, told me I was rejected because I was a Veterinary Surgeon, but that my name should be given to the Governors.

In the correspondence between Mr. W. J. Goodwin and Messrs. Coleman, Sewell, and Morton, lately published, it is stated that by a law of the Royal Veterinary College, Veterinary Surgeons are prevented *becoming* Subscribers to that Institution.

Now, as it is also stated, in the correspondence I have mentioned, that you are the proper Officer to give the information I am seeking, I beg leave to ask if it is intended to say that a law also exists to prevent Veterinary Surgeons *continuing* Subscribers? and, if there is no such law, I beg that the Collector may be desired to call on me for my annual subscription, or that directions be given to receive it at the College. On the other hand, if it is alleged that such a law does exist, I then request that I may be informed when it was made, and when it was published.

I am, Sir,
Your obedient Servant,
FRED. C. CHERRY.

W. SEWELL, ESQ.

Royal Veterinary College, Jan. 28, 1829.

SIR;

I HAVE to acknowledge the receipt of your letter, and have nothing to add to the information already communicated to you by Mr. Morton, (the clerk).

This, and any other letters which may be received, in future, shall be laid before the next committee of governors, and such answer returned as they may be pleased to direct.

I am, Sir,
Your obedient servant,
W. SEWELL,
Assist. Profess. &c.

VETERINARY COLLEGE DINNER.

THE Anniversary Dinner of the Veterinary Pupils took place on the 28th of January. Sir Astley Cooper was in the chair. The dinner was excellent, and the Stewards paid great attention to the comfort of the company. After the table-cloth had been removed, *Non nobis Domine* was sung by Messrs. Broadhurst, Fitzwilliam, and another gentleman.

The first toast was, as usual, "The King."

"God save the King" was then sung by the professional gentlemen in attendance.

"The Duke of Clarence and the Navy."

"Rule Britannia". was then sung.

Sir Astley then said that he was going to propose the health of one of the greatest men that ever lived; he meant the Duke of Wellington. He described him as being twice the saviour of his country; once he had saved it from its foreign enemies by his bravery, and again by his eminent qualities as a statesman; and that every thing was to be expected from his straight-forward line of politics.

Sir Astley then gave "The College of Physicians and Dr. Babington," whom he warmly eulogized for his eminent abilities, his support of the Veterinary College; in short, he said, a better man than he was, in every respect that became a man, could not exist.

Dr. Babington, in returning thanks in behalf of the College of Physicians, said that though an old man he was but a young Fellow of the College, and that it was gratifying to a man of his age to be considered young at all; and that he hoped the company did not think him so vain as to believe all the good things Sir Astley had said of him.

Mr. Coleman then proposed the health of the College of Surgeons.

Mr. Herbert Mayo returned thanks, and was exceedingly pleased to find so much science in the Veterinary profession. In making some experiments on the Nerves, he had applied to Mr. Field for his assistance in the prosecution of his experiments, and was truly astonished at the knowledge he displayed.

Mr. Coleman proposed the health of Sir Astley and Lady Cooper.

Sir Astley gave the health of the Governors of the Veterinary College.

The health of Mr. Coleman. Sir Astley said that he had known Mr. Coleman nearly 40 years; that he had always been eminent for his physiological researches, and his knowledge of pathology; and, under a man of such eminent abilities, the profession could not but flourish; which was shewn by the flourishing condition of Veterinary Surgeons, whose own fault it was if they did not maintain a situation of the highest respectability. He instanced the high character of Army Veterinary Surgeons.

Mr. Coleman returned thanks, and was much gratified by the manner in which he had been treated that evening. He lamented that he had many enemies; that some persons had hinted that he ought to retire. In the common course of things he must soon do so; but so long as he had the applause of the Pupils, and the approbation of the Governors, he should not quit his post.

Sir Astley then gave the health of Mr. Sewell, who, he said, had done much for the Veterinary Art, and the profession would owe a large debt of gratitude if he had not done more than the discovery of the nerve operation.

The healths of Messrs. Vines and Morton were then drank.

Mr. Vines returned thanks.

Mr. Coleman then proposed the health of Mr. Youatt, and complimented that gentleman.

To this he of course replied, and said much about his having taken an inferior branch of the profession; and announced that his lectures were open to Veterinary Pupils on their own terms.

Soon after 10 o'clock Sir Astley left the chair, which was then taken for the rest of the evening by Mr. Sewell.

VETERINARY SOCIETY.

THE Veterinary Society met on the 3d of February. Mr. R. Rogers in the chair.

A letter from Mr. Morrah was read, accepting the honorary membership.

Mr. Vines, the discussion of whose case was to have been resumed, was absent from indisposition.

Mr. Rogers related several very interesting cases of lameness of unusual occurrence, and in which the diagnosis was very difficult.

When these cases had been discussed, Mr. E. Cherry read a case of obstinate costiveness in a dog, from whose rectum considerable lumps of agglutinated bone and fæces had to be removed with a pair of bullet forceps.

The Society was then adjourned to Tuesday, February 17th.

BRIGHTON ROAD.

Mr. Editor;

PERCEIVING that you have opened your pages to what may be interesting to horsemen, I send you a few remarks on a journey to Brighton. In October last, in the morning part, I sent a servant to book two inside places in ——— coach, for the following day, for which a deposit of a sovereign was paid, and a receipt was returned by the book-keeper. About nine o'clock in the evening a porter was sent to say the book-keeper had made a mistake, that the coach was full, and could not take us. My reply to this barefaced trick was, That I had made no mistake, and that, if I was disappointed, I should take a post-chaise at their expense. The time arrived, and the coach was full; myself and friend were waiting in Cockspur Street, where they had engaged to take us up. ——— was not driving, but the coachman stopped to say the ——— coach would take us. As we were quite prepared for the journey, rather than have any more trouble or vexation, we submitted to the imposition; at the same time, if we had posted the journey, as I at first intended, it is now pretty clear that ——— must have paid the piper; which he could then very ill afford, as the whole concern has since been sold off the road; and it is very fit that all such catch-penny, trickery concerns should meet with a similar fate, and sooner or later it is generally so. The —— arrived soon after, (and it so happened that there were two vacant places; had it been otherwise, we must either have posted the journey, or have been disappointed,) in which we took our seats: this coach

was driven by young ———, so I was informed; he went at a pretty good pace, and altogether a tolerable good coachman, as far as driving goes; but he appeared to me most egregiously ignorant of what I call horse-knowledge, and such as in these times, where the march of intellect is so much relied on, I expected to have met with a different character driving a fast Brighton coach, as the following remarks will evince. On stopping at the end of one of the stages, I perceived a horse much distressed, very poor, low in flesh, a long ragged coat, and most wretchedly out of condition, and by no means fit to put to one of the slow concerns, or indeed any concern. Presently I heard young ——— say, "Will, that 'ere horse don't eat his corn; do you be sure to tell the blacksmith to burn out his lampers well; mind, don't you forget." At this time of day I did not expect to hear so ignorant or such a silly remark from a fast Brighton coachman, and if he pursues such treatment, it will not be long before his team is a slow one. Again, at the end of another stage, there was a cleverish mare went hopping into the stable. ——— observed to the horsekeeper, "I say, ——, that 'ere mare goes very crippley; do you tell the blacksmith to take her fore shoes off, pare her feet out, and open her heels well;" and this mare had large, broad, flat feet, with thin soles and wide heels. These instructions show his total ignorance of all useful horse-knowledge. If he studies his own interest, he will either make himself acquainted with these things *, or consult some professional man, before he drives much further. On our arrival in Brighton, I gave him three shillings as his gratuity for two inside seats, which did not satisfy him, and he observed, that two shillings each was as little as I ought to give him; to which opinion I did not assent. Twenty years ago one shilling was considered amply sufficient, nor do I see any thing in the state of the times which demands more than eighteen-pence each.

On my return in a light phaeton with a pair of post horses, I gave the boy half-a-crown at Hixstead, being twelve miles; he grumbled and growled like a bear with a sore head, and said that I ought to have given 3*d.* per mile; and on starting off from there, he held up the half-crown, and called out to the other boy, sneeringly, "Mind, I say, half-a-crown." This was a signal to the other boy, who,

* On the Foot he will find all he wants in Mr. Goodwin's book on Shoeing.

although he went not more than five miles an hour, had the effrontery to ask for 3*d.* per mile, which he did not get. Now, upon all these occasions, I am desirous that every man should be compensated for his trouble and time; and I think it would be well if these services were under regulation; but when I hear that labourers in husbandry, a man with a wife and eight or ten children, cannot earn more than from eight to ten shillings per week, have these gentlemen of the whip any reason to complain of the gratuities which I gave them. I am aware that these gentlemen receive extravagant sums from some of their employers, and that such extravagant sums have a most destructive effect upon their master's property; but as I am an old-fashioned man, and do not require or wish any servant to kill his master's horses to gratify my whim or fancy, I consequently do not expect to be called on by these gentry to remunerate them extravagantly. If, Mr. Editor, you think the preceding remarks on the Brighton Road worth a place in your useful journal, they are at your service.

PUBLICOLA.

A TREATISE

ON

THE DISEASES AND LAMENESS OF HORSES.

BY W. OSMER. London, 1766.

[Continued from page 36.]

CHAPTER III.

Contains some further Observations on Shoeing.

LET the shoe on every horse stand wider at the points of the heels than the foot itself; otherwise, as the foot grows in length, the heel of the shoe in a short time gets within the heel of the horse, which pressure often breaks the crust, produces a temporary lameness, perhaps a corn.

Let every kind of foot be kept as short at the toe as possible, (so as not to affect the quick,) for by a long toe, the foot becomes thin and weak, the heels low, and the flexor tendons of the leg are strained; the shortness of the toe helps also to widen narrow heels.

In all thin weak-footed horses, the rasp should be laid on the toe in such a manner, as to render it as thick as may be; by which means the whole foot becomes gradually thicker, higher, and stronger.

In all feet, whose texture is very strong, the rasp may be laid obliquely on the fore-part of the foot towards the toe, and the toe itself thinned, whereby the compression on the parts is rendered somewhat less, by diminishing the strength of the hoof or crust.

But this rasp is to be used with discretion, lest the crust being too thin, and not able to support the weight of the horse, a sand-crack ensue; which frequently happens, from too free, or unskilful use of this tool, and frem the natural rigid texture of the coronet.

The heel of the shoe, on all strong and narrow-heeled horses, should be made strait at the extreme points; the form of the shoe in some measure helping to distend the heel of the horse. For the same reason, the shoe on no horse should be continued farther than the point of the heel.

It has been said already, that neither frog or sole should ever be pared; nevertheless, it must be understood, that it is impossible to pare the crust, without taking away some of the adjacent sole, and it is also requisite, in order to obtain a smooth and even surface, so far as the breadth of the shoe reaches and no farther.

The frog also will become ragged, and loose pieces will occasionally separate from the body thereof, perhaps in one foot, and not in the other. When this happens, it should be cut away with a knife, to prevent the gravel lodging therein. But if it be left to the artist to do, he will be sure to take away more of it at one time, than will grow again in many weeks. The inferior point of the same, towards the toe, should also be taken down, in some kinds of feet where it grows high.

La Fosse has given us a caution against the use of cramps, or what in England we call corking; that is, turning up the shoe at the points of the heels.

He says, that the frog being hereby removed to a great distance from the ground, the tendon will be inevitably ruptured; but this is true only in part. In the summer-time, when the ground is dry and hard, I think this effect would frequently happen, especially if the horse was rode hard. But in the winter-time, when the ground is wet, this cannot happen in a flat shoe; because the corking of the

shoe-heels is then buried in the ground, so that the frog is still admitted to touch the ground, and to rest thereon. And it is necessary that all sportsmen, who hunt on hilly or slippery countries, should have the shoe-heels turned up in the winter-time, especially the hinder ones, for the security of their persons, and the fore shoes also, if they like it, without danger of laming the horse in the tendons, for the reason before given.

This method of treating the foot, and such a kind of shoe as has been described, I have used many years; and to the best of my remembrance, have not had a horse lame since, except when pricked by the artists; and it is a matter of the greatest astonishment to me, how any other form of a shoe could ever come into general use. Yet no particular method of shoeing whatsoever can take place; and this will happen from the different nature, form, and texture of horses' feet: but the prejudices of mankind, on all these occasions, may be worth remarking. One man invents a new piece of machinery which he finds to be very useful in many respects. His pride and partiality would fain have it extend to all purposes. In this light he recommends it to his neighbour, who tries it, and having found it not answer his particular purpose, he falls into the other extreme, and declares it to be good for nothing. Hence that which may contain many virtues, when used with judgment, becomes neglected, and is, perhaps, totally thrown aside; and hence the perfection of some arts is less extensive.

Now this flat shoe is not to be made with a smooth surface, after the French manner, but channelled round, or what is called fullered, after the English manner; by which the horse is better prevented from sliding about, and the heads of the nails are less liable to be broke off; both which inconveniences attend the shoe whose surface is smooth.

But so ignorant are these our artists, (who do not want to be taught, or, in other words, know every thing,) that not one in twenty of them can make these flat shoes, though a pattern lies before them, for which reason they dislike and condemn them.

It has hitherto been thought a difficult matter to prevent horses from cutting; nevertheless, it is generally very easy.

Whoever will be at the trouble of examining the feet of such horses as are accustomed to cut themselves, will at all times, and in

all horses, find the cause to be the same; namely, to turning out their toes.

[To be continued.]

EXTRAORDINARY TROTTING PERFORMANCE.

THE trotting match against time, for trotting 100 consecutive miles in ten hours and a half, was performed by an American horse, on Sunbury Common, on February 2nd. He had 20 minutes to spare, and did not seem at all distressed. He is about 14 hands one inch in height, and of miserable appearance.

THE three largest coach proprietors in Europe, singularly enough, happen not only to be females, but widows: namely, Mrs. Horn, Mrs. Nelson, and Mrs. Mountain.

CASE OF CONCUSSION OF THE BRAIN.

To the Editor of the Horse-Man's Chronicle.

SIR;

THE following case of Concussion of the Brain, and the effect left remaining therefrom, a parallel case to which I do not recollect to have seen mentioned anywhere, certainly not as occurring in the Horse, may be thought worth inserting in your valuable publication.

I am, Sir,

Your obedient humble Servant,

E. F. H.

Jan. 2, 1828. A bay mare was brought out of the stable for the purpose of being exercised; when the groom was in the act of mounting, she reared up, turned partly round, and fell on the side of the head; she remained senseless on the ground, blood pouring profusely from both nostrils; there could not have been less than from three to four quarts lost; in about five minutes she began to recover a little, and in a

short time, assisted by several men, she contrived to stagger into her stable, where she was left to recover herself a little; in the evening she was again seen; the pulse was then very small and weak, pupils dilated, great rigidity of the muscles of the jaws, had no appetite, and could scarcely be got to move; her extremities were likewise very cold; no treatment was adopted beyond bandaging her legs, and putting on additional clothing.

3d. The mare continues in the same state; no treatment was adopted beyond gentle stimulants given internally.

4th. There is some amendment; the jaws are a little more relaxed, the appetite is rather increased, but the pupils are still dilated, and the mare is quite blind.

5th. Aloes ʒij.

6th. Rather better; gave aloes ʒij.

7th. The medicine has operated.

8th. The blindness still continues, the appetite has returned a little, and the jaws are rather more relaxed. Took three quarts of blood, which nearly produced syncope.

9th. Aloes ʒij.

10th. The mare feeds better; the blindness still continues.

15th. She is now nearly recovered in every respect; but the blindness and dilatation of the pupils still continues.

20th. The mare feeds well and moves her jaws freely, but still continues blind. She is able to go to work.

This mare was sold, to work in a cart; and when seen, four months afterwards, still continued totally blind, but was well in every other respect.

HYDRARG. MUR. APPLIED TO THE CONJUNCTIVA.

CASE I.

A BAY mare, five years old, of the 12th Regiment Royal Lancers, had both eyes considerably inflamed.

Oct. 6. Was bled from the face and neck, and took ʒiij. of aloes, and ʒ iij. of resin.

7th. The eyes are very much inflamed, with a considerable por-

tion of lymph effused into the anterior chamber. Repeated the bleeding from the face and neck. Give a purge.

10th. The eyes are much less inflamed. Bathe them frequently with cold water.

12th. Continue to bathe the eyes.

21st. The eyes are much better.

23rd. A great deal better. Treatment discontinued.

Nov. 24. The eyes have again become inflamed, the near eye very much so; there is a large flow of tears, and the lids are nearly closed. Bleed from the face, and give a diuretic.

26th. Bleed from face and conjunctiva. Give aloes ʒv.

29th. The inflammation is subsiding.

Dec. 14. There is considerable opacity on the margin of the cornea of the off eye; a general turbidity of the aqueous humour, with a contracted pupil, and increased secretion of tears. The near eye is free from inflammation, but there is a degree of cloudiness of the lens.

15th. Touched the eye most diseased with hyd. mur.

16th. No apparent effect.

20th. Injected a small quantity of hyd. mur. dissolved in spirits of wine, in the proportion of ʒj. of hyd. mur. to ℥j. of spirit into the off eye.

21st. Considerable inflammation has been produced; the appendages are considerably swollen and closed. There is a discharge approaching to pus.

Jan. 8. The near eye has materially improved in appearance; the off eye is much inflamed, and the cornea is very much injected. There is a considerable flow of tears.

25th. No change in the near eye; the off eye is again getting clear.

Feb. 7. The off eye has entirely recovered from the effects of the injection; and the mare steps very correctly over uneven ground. Still the eyes are not quite free from disease. This case must therefore be considered as only relieved.

CASE II.

Nov. 24. A chesnut mare, five years old, has the ordinary indications of inflammation in the near eye. Bleed from the face, and give a diuretic.

26th. Repeat the bleeding from the face, and bleed also from the conjunctiva. Give aloes ʒv. .

30th. The eye is less inflamed.

Dec. 14. The near eye is dull, the pupil contracted, and there is every appearance of a cataract being about to form. The off eye is only slightly deranged.

15th. Touched the near eye with hyd. mur.

16th. No effect produced.

20th. Hyd. mur. ʒj. to ℥j. of spirits of wine; about ʒj. of this solution was injected into the *off* eye. It must be stated that this was done unintentionally to the eye least diseased. It will, however, be a more decisive experiment, as to the supposed advantages of destroying one eye with a view to save the other.

21st. Considerable inflammation; the appendages much swollen, and the eye closed; a considerable watery discharge. Washed the eye with soap and water.

Jan. 8. The off cornea is opaque; the flow of tears considerable. The near eye has now a more favourable appearance than on the 21st ultimo; but is stated to have been considerably affected, and nearly closed for two days, and for that time running considerably. The off eye to be frequently washed with warm water.

25th. No change in the near eye; in the off, the inflammation is subsiding.

Feb. 7. The disease in the near eye has not diminished; the off eye has recovered from the effects of the injection, except at the anterior part of the cornea, where a degree of opacity remains, and where there is the appearance of a cicatrix in the conjunctiva.

Though not perfectly restored, the case may be said to be relieved.

In these cases it is of importance to remark, how soon the very considerable effect excited by the injection of corrosive sublimate in solution subsided; the mere application of it in substance to the surface of the eye producing a scarcely perceptible effect. There is in these cases nothing to forbid the application of very strong means to induce a counter irritation in one eye, with a view to relieve the other.

F. C. CHERRY.

Printed by John Hill, Black Horse Court, Fleet Street.

THE

FARRIER AND NATURALIST;

OR,

HORSE-MAN'S CHRONICLE.

N°. 17.] MARCH 1, 1829. [VOL. II.

TO THE SUBSCRIBERS TO THE VETERINARY COLLEGE.

[Continued from page 37.]

THE fact of there being no rivalry to stimulate exertion at the Royal Veterinary College, as it is called, is one that cannot be controverted. The most unbounded confidence has been placed in the opinions emanating therefrom; though often the result of the most careless and superficial observation, and contradictory in themselves; the grave self-important demeanour of Mr. Sewell, and the facitous adroitness of Mr. Coleman, have given them the stamp of important truths, and caused them to be received as the oracles of wisdom and the most profound horse-knowledge. Now it had been well had this confidence produced a corresponding degree of zeal and industry in adding to the stores of horse-knowledge, and promulgating that knowledge by every means that presented. But has such been the case? if it could be proved that it has been so I should be most happy; but it cannot, and the consequence has been the most careless indifference beyond the unavoidable business of the passing day. The old practitioner, in his occasional visits to St. Pancras, may have heard of experiments having been made on this or that subject, but when information has been sought for with that minuteness necessary to make it intelligible and valuable it has been most studiously evaded, and the idea of a record of such experiments, or of any parts of common practice, if

adverted to for a moment has been treated with any thing but the consideration that it deserves. Again, as to the Museum, to provide a suitable apartment for which several stalls were destroyed, and considerable expense incurred, What is its state? You there see many preparations, some of them well made and perhaps valuable, was any thing known of the previous history of the disease which afforded the specimen, but there is not a catalogue even of the most imperfect kind. If an account of any particular specimen is asked for, it is either evaded or given with that degree of reluctance as to deter from the pursuit of inquiry; any written account to refer to at leisure is quite unknown. It is true some little shew has lately been made in recording the College practice in the treatment of disease, but how is this conducted? Look to the College cases published in the earlier numbers of this work, and all surprise at the desire shewn for concealment will cease, but corresponding surprise will be excited that such instances of careless inattention should pass unnoticed. Now, what say the Governors to all this? why they shew the same degree of sensative shrinking from all inquiry as do Messrs. Coleman and Sewell. They meet annually, receive such accounts as Mr. Treasurer Sewell chooses to present; go through the form of signing cheques for the payment of bills; give gratuities for what they sometimes call discoveries, and sometimes experiments; augment salaries; approve of everything; and disperse. But when, by chance, an inquisitive Veterinary Surgeon or two make their appearance at one of these annual meetings, and endeavour to acquire, and are ready to communicate information regarding their profession, these Governors instantly take fire: their time and privileges are encroached on; the interloper, though really having a stake, and that a deep one in the profession, is looked on as an incendiary, and met by clamour and rudeness; and a law is passed, secretly passed, prohibiting a Veterinary Surgeon from becoming a subscriber, or even continuing one. This may be one mode of proving the goodness of their goverment, but I believe that it is a mode confined to the Governors of the Veterinary College.

[To be continued.]

VETERINARY SOCIETY.

THE Society met on the 17th of February. Several papers standing first on the list for discussion were necessarily postponed, from the illness and other unavoidable causes for absence of their authors.

Discussion however took place regarding many cases in practice, and the Society adjourned to Tuesday, March 3rd.

CASE OF SUSPECTED GLANDERS.

To the Editor of the Farrier and Naturalist Magazine.

SIR;

ON 8th August, 1828, I was called to examine a bay cart horse, the property of Mr. H—, Cannon Mills, which he had purchased two days before at Lanark fair, from a horse dealer, for £20. The horse had not been in his possession half-an-hour, when he was informed by several persons, that he had purchased a glandered horse, that they had known the horse to be so for a considerable time; and that, for the last twelve months, he had been bought and sold for various sums, from £5. to £30. at the different markets in West Lothian, according as the persons in whose hands he happened to fall could manage to cheat a purchaser. On receiving this information, he began to inquire after the dealer who sold him the horse, but in vain, he had fled from the market to avoid detection. Finding he had little prospect of recovering his money, he exposed him for sale, but was only offered £3. for him. Under these circumstances, he considered it better to bring him to Edinburgh, and try if he could obtain a cure. During the journey from Lanark to Edinburgh, the opinion of the farriers and horse-dealers on the road (all of whom were consulted) was, that the horse was decidedly glandered. When I saw him there was a considerable discharge of rather a curdled-like matter from the off nostril, with enlargement of the submaxillary lymphatic gland of the same side; but no ulceration of the schneiderian membrane. From these symptoms, it occurred to me, that this was one of those cases

that I had heard Mr. Dick describe in his lectures, which is mistaken for glanders, but which is in fact only a cist of matter formed in one or other of the sinuses of the nose. I therefore directed the horse to be brought back for examination in eight days, when Mr. Dick, of whose advice I wished to avail myself, attended at my request, and coincided with me in opinion, that a cist had formed in one of the nasal sinuses, and that it was not glanders as had been before supposed. It was therefore proposed to the owner to make a perforation through the nasal bone, and lay open the sinus, to which he immediately agreed: as, to use his own words, we were either to kill or cure. Having laid the integuments aside, a perforation was made into the nasal sinus, one inch and a half from the inner canthus of the eye; about an inch in diameter, with a trepan. When the instrument was withdrawn, there escaped from the perforation, about half-a-pint of thick purulent matter, very white in colour, with no smell. The sinus was then syringed with tepid water, a small quantity of lint put into the orifice, and the integuments brought together by adhesive plaister. On the morning after the operation, it was found that the discharge from the nostril had entirely ceased, and although very copious discharges took place and continued rather irregularly during the cure, not a drop either of matter or of the fluids injected into the orifice ever escaped by the nostril. To give a full account of the treatment of this case would take up too great a space in your valuable magazine, I shall therefore only mention in a summary manner, the different medicines that were used during the progress of the cure.

For a short time after the sinus was laid open, it was syringed daily with tepid water to wash out the matter, and a solution of the superacetate of lead injected. This was changed in about a week for equal parts of turpentine and olive oil. A solution of alum was tried for 8 or 10 days to check the copious discharges which still continued, this afterwards gave place to a solution of the sulphate of zinc. As these means had only given a partial check to the discharge, and as it frequently burst out afresh in increased quantities, it was suspected that there might be a lodgment of matter also in the maxillary sinus, which was therefore opened by a common gimblet, but from this opening no matter escaped. The former opening was then syringed with a solution of the sulphate of copper, under the use of which the discharge gradually ceased, the perforation filled up, and the external orifice healed about the 18th November last; the horse never being one

day off work, and he has been three months quite well. I am aware that this operation has been performed and recommended by La Fosse, but I believe that the result was, that the animals were destroyed soon after, there being little appearance of a cure. I have not heard whether these cases have ever been described or observed by any veterinarian before Mr. Dick, but the result of this case certainly shews how cautious practitioners ought to be before deciding on glanders; as many valuable animals may be destroyed, having such symptoms as were exhibited in this case, while glanders do not really exist. I therefore think that this is a subject well deserving the attention of veterinary practitioners.

I am, Sir,

Your most obedient Servant,

JAMES WATT.

James Place, Edinburgh, Feb. 18, 1829.

ACCIDENT ON THE ROAD, AND ACTION BROUGHT THEREON.

To the Editor of the Farrier and Horse-Man's Chronicle.

SIR;

COULD you give, in the next number of the "FARRIER," the nature of the accident that happened to Mr. Stone's Horse, which was the subject of an action in the Common Pleas, yesterday, you will much oblige one of your readers and well-wishers in the cause you so ably espouse.

J. J.

February 19, 1829.

COURT OF COMMON PLEAS.

STONE *v.* SHUFFREY.

THIS was an action brought to recover the value of a horse, whose death, it was alleged, had been caused by the negligence of the defendant's servant. The horse was valued at eighty guineas.

It appeared by the evidence for the plaintiff, that the defendant's servant was driving a chaise-cart along Blackfriars Road at the time

that the servant of the plaintiff was riding on horseback, and leading by the reins another horse, for the loss of which the present action was brought. It was alleged that the defendant's servant drove so negligently that one of the shafts of the cart was driven with considerable violence against the thigh of the led horse, which produced so much injury that the horse died in a few days afterwards. The horse, it further appeared, at the time of the accident, was let out on a job to Mr. Serjeant Adam; and to show that the horse was of the above value, and free from vicious practices, and of a quiet temper, the Learned Sergeant was called.

On the part of the defendant evidence was brought forth to prove that at the time of the accident the defendant's servant was driving at a moderate pace on his right side of the road, and within a few paces of the foot-path. That the plaintiff's horse, being of a vicious temper, plunged and kicked, and thus caused the wound in its thigh, of which it died.

Witnesses having been called to prove the above facts,

The CHIEF JUSTICE briefly summed up, leaving it to the Jury to decide, upon the contradictory evidence, which party was entitled to the most credit.

The Jury returned a verdict for the defendant.

[We have no information on this subject beyond the above account, which we extract from the Morning Herald. Accidents of this kind are generally sudden, afford of course but little time for observation, and often occur without one or perhaps either of the parties being aware of imminent danger, until the mischief is actually done. We need not, therefore, be surprised that the accounts given by those inflicting the injury and those sustaining it should differ. That horses are carelessly rode and led, is too often the case; but the conduct of many who drive carriages is notoriously selfish and unaccommodating, and this appears to proceed in the ratio of the strength of the carriage. The climax of unfair driving is exemplified in the brewer's dray. Street and Road Keepers appear to be numerous enough, but they certainly want rousing into a little more attention to enforce the principle of give and take, in respect to the accommodation that ought to be afforded by carriages towards each other, and towards horses not in harness.]

A TREATISE

ON

THE DISEASES AND LAMENESS OF HORSES.

By W. Osmer. London, 1766.

[Continued from page 61.]

FROM hence also the necessity of boots, and bolsters, and bandages, round the fetlocks of half the horses that are trained at Newmarket, to prevent knocking their joints together.

Now, the colt standing to graze with an outstretched foot, which is no uncommon posture, rests chiefly on the inside of it, by which means that part is worn lowest; this is disregarded; and, by a habit of standing, the toe grows outward, and he becomes crooked from the fetlock joint downwards.

It may perhaps be said that this habit of turning out the toe is entailed by nature; but whether it be natural, or acquired, the true cause of it is still the same in all horses, and depends on nothing else, but the inside heel being lower than the outside.

And to prove this doctrine, as soon as you perceive the colt's toe turning out, pare down the outside of the foot as much as you can; repeat it as often as the foot will allow, and let the inside alone; so will he grow strait on his legs and feet, and never cut or knock himself about when he comes into use.

This method will also prevent grown horses from cutting, if the crust of the foot be strong enough to bear a sufficient loss; if not, the substance of the iron may be made thicker for the inside of the foot, from the heel to the toe, than it is for the outside; and where it is practicable, and shall appear necessary, both these methods may be used; and both will assist for the purpose. I have rode a horse treated in this manner several years, and have found but little inconvenience to his going, or to his feet, much depending in this case on the goodness thereof.

Such of the dealers, who are masters of their business, use this kind of shoe to raise the inside of the horse's foot, and make him point as they call it, or stand strait on his feet; and the chapman, who thinks

he has bought a strait-legged nag, is much surprised at the alteration he perceives in him, the first time he is shod in other shoes.

The crust should also be suffered to grow fullest on the inside of the foot, and the outer part thereof be rasped away as far as can be spared.

Nevertheless, the modern shoers, acting in all things by contraries, rasp away as much as they can from the inner part of the feet.

CHAPTER IV.

Wherein it will be proved, that Shoeing is but a partial Good.

It has been said already, that all horses, whose feet are contracted round the hinder part, or whose crust is deep and strong, are generally more or less lame, when they have been shod and used any time, and that from a compression on the contents of the foot.

And no method of shoeing whatsoever will prevent the lameness of some such feet; and yet no man ever saw a horse (with this, or any other kind of foot) lame, but by some injury, or from too great a length of toe whilst he remained unbroke, and running about in a state of nature.

Now if ever La Fosse's shoe be useful, it is chiefly in this case; for in such a shoe the heel of the horse rests in some measure upon the ground, receives some share of weight, and is, by means of such weight and pressure, kept open and expanded; by which expansion of the heels, the compression on the interior parts of narrow footed horses is removed, and he that was before lame is, by degrees, as the foot spreads, rendered sound,—if there be no disease in the interior parts of the foot.

Again, where horses have feet inclined to the other extreme, whose heels are weak and low, if the shoe be set somewhat short at the points of the heel, such will, by degrees, improve and grow higher. Yet an English farrier can never be prevailed on to believe, that weak low heels will become stronger by leaving them exposed to hard objects. But it must be expected that horses, with weak or diseased feet, who have been accustomed to go in long broad shoes, will at first go very lame in shoes which are either short or narrow. And many that are lame of the shoer with various disorders in their feet, would be cured by La Fosse's shoes if the frog, sole, and bars were not pared out. But when those things which are designed by the

Divine Artist as a natural defence to the interior part, are cut away by the superior wisdom of our earthly artists, why then undoubtedly La Fosse's shoes will not do, for the horse requires some artificial defence, to supply the loss of the natural one. Now it is the weight, unequal pressure, form and action of the iron, made use of to protect the foot when it is thus horribly abridged by our artists, that is productive of almost all the evils incident to horses' feet.

So then for training, La Fosse's shoe will be proper for horses, whose feet are of too strong a texture, and for those which are too weak, or affected with various disorders; but for horses that have good feet, I would choose to have the iron continued to the point of the horse's heel, but no farther; and for all horses that are used on training ground, the iron should be very narrow, little wider than a plate, without a wash, of a thickness sufficient to keep it from bending, according to the size and weight of the horse. But these shoes will not answer for some particular kinds of feet, where horses are used on the road.

These are the advantages attending the short shoe; but if Mr. La Fosse was to ride a fox-hunting down the sides of our steep and slippery hills, I dare say he would not use them twice; for horses so shod, have, in this kind of work, great difficulty to stand at all; besides, from such slipping and sliding about, they are certainly more liable to be lamed; and from the inequality or sloping of the ground, that hunters go over in most countries, the tendinous fibres of the leg are, more or less, occasionally strained and elongated. And this I can truly aver, having myself made the experiment, and lamed a horse in the tendons of both legs, the very first day of hunting him in these short shoes.

There are many men, who can distinguish these ass-footed horses, and pronounce with certainty the lameness thereof, even without seeing them move at all; as readily as others shall distinguish gold from silver, or lead from iron.

But because all men have not been attentive enough to make the same discoveries, some through ignorance, or prejudice to their own opinions, have asserted and maintained other kinds of lameness, which do not exist at all; and talk of horses being chest-foundered, and shook in the shoulders, when the disorder is in the feet alone.

Wherefore know all men by these presents, that whosoever talks of

horses being chest-foundered, or shook in the shoulders is an ignorant pretender to the knowledge of this animal, and is himself shaken in the head.

[To be continued.]

ON INJURIES OF THE BRAIN.

To the Editor of the Farrier and Horse-Man's Chronicle.

SIR;

I BEG to inform your correspondent E. F. H. who has communicated the case of blindness arrising from concussion of the brain, that there have been several cases occurring to the human subject where amaurosis has been afterwards present to the latest period of life; but your correspondent may certainly claim the credit of being the first to publish such a case as occurring in the horse. Injuries to the brain of the horse are very rare, and as such every case is worth mentioning; I have only seen one during a practice of several years, and that was compression of the brain from a depressed portion of bone, the attendant symptoms were coma, total loss of appetite, and great disinclination to move; this case was treated successfully by the operation of trephining.

I am, Sir,
Yours, &c.
A CONSTANT READER.

MR. DARVILL ON THE RACE HORSE.

(Continued from page 45.)

"BY way of caution to grooms, and with a view to prevent them in future from falling into similar errors, I will here state different causes from which I have known horses occasionally die in physic. I have already observed that there are some horses much more easily purged than others; but the horse which now and then leads the groom astray,

is, the one of a craving constitution. A groom generally judges of the constitution by the size of his carcass, and width of his loins, as also from the manner in which he feeds, and from the work he takes in training. From these points he will be able to form a tolerably just idea. When a groom was about physicking a strong, craving, large-carcassed horse, his practice was thence to regulate the quantity of aloes the dose was to contain, which, on such occasions would most likely be from nine to ten drachms of Barbadoes aloes; and it has frequently happened, that a dose of physic of this strength has had no effect whatever in purging a horse of a strong constitution, when in training. If such a dose of physic had been given to a horse in common use, it would have more than purged him sufficiently; it would, in all probability, have purged him to death. It also occurs at times, that a horse in training is purged for too long a period, or perhaps till he dies, and from the following cause. The groom having given him a dose of physic, such as I have described, and finding it to have produced little or no effect on the horse after a proper interval of time, considers it necessary to give the horse another dose; and in making up this second dose, he concludes it will be necessary to add a larger portion of aloes, perhaps two or three drachms more than was contained in the first. Nor is this a very unreasonable conclusion for a man to make who is unacquainted with the properties of medicine. It is in consequence of this treatment that a groom has now and then been so unfortunate as to have a horse die in physic, which arises from his ignorance of the effect of the aloes on the constitution when the quantity is increased beyond that which is generally given at one time, to purge such a horse. When the aloes, being increased to the extent above mentioned, begin to operate, the action is sometimes continued in proportion to the quantity given, and by stimulating so large a surface as that of the intestines of the horse for so great a length of time, and to much excess, the powers and constitution are not able to support it. The general consequence is, great debility and irritation, sometimes followed by inflammation of the bowels, which occasions the death of the horse. This has at times occurred to some grooms, from their having relied too much on the power of medicine alone, to purge a strong horse, and merely preparing him for his physic in the usual way, by giving him mashes the day previous, with a view to relax the bowels, and then the first thing on the following morning administering the whole of the dose at once, mixing therein a very large

portion of aloes, for the reason and under the impression which I have already pointed out. Now, the common method of preparing the horse, and giving the physic, would be very proper to one which may be easily purged, and which required but a moderate portion of aloes to produce the effect. But to administer physic sufficiently powerful to operate on a horse in training, prepared in this way, and which horse it may be difficult to purge, is rather a dangerous experiment. Nor is it done but by those grooms who are not acquainted with the advantages to be derived, either by giving the physic or by preparing the horse differently. If the horse be prepared, and the physic be given in the way I shall by-and-by have occasion to explain, a less quantity of aloes than is usually given will purge a strong horse sufficiently well, and less danger will thereby be incurred.

"Another course of treatment which has at times occasioned the death of a horse by physic is, when a groom has given a dose which may have remained in the bowels of a horse for a couple, or perhaps even three days, without producing any effect whatever, (and this is not at all an extraordinary occurrence,) the groom considers, from the period which has elapsed, and the physic not having worked, that it was much too weak, and finding that it has not operated on the third day, he gives another dose, with an additional portion of aloes in it; and I have known it happen, that in the course of an hour or two after the second dose has been given, the first has begun to operate; the consequence of which has been, the effect of the second dose has been to continue the operation of purging until the horse has died.

"Whenever a dose of physic has been given to a horse, without producing the desired effect at the usual time, or which indeed may not have purged him at all, but may have passed off, as it sometimes will do, by urine,—under either of these circumstances, it would be advisable not to repeat a second dose until after a lapse of seven or eight days.

"Horses in high condition, and hearty feeders, are consequently much accustomed to be physicked; and in the preparing of such horses, should they only have a mash or two given them in the evening, and should they at night be allowed their usual quantity of hay, and not be taken out to exercise in the morning before the physic is given, (which I have known repeatedly to be the case,) it will seldom be found practicable to succeed in purging them by the proper time. The quantity of food not only retards the operation of the medicine,

for two or three days, but is very often the cause of the physic not producing any effect whatever. These are the causes which have led grooms into error, supposing the physic not to be sufficiently strong to purge the horse; and from such supposition, they adopt the practice of giving very large portions of aloes. I have known ten, and sometimes twelve drachms of Barbadoes aloes given at one time, and when the succotrine aloes have been given, twelve and fourteen drachms have commonly been the dose. There is no occasion for giving, at any one time, so large a quantity of either of these aloes, to any horse in training. It is not only attended with considerable danger, but by physicking horses in this manner, they often purge to great excess, which very much debilitates them, and they are a long time before they recover their former strength and vigour."

[To be continued.]

OF THE BAYA, OR INDIAN GROSS-BEAK.

By Athar Ali Khan, of Dehli.

From the Second Volume of the Asiatic Researches.

THIS extraordinary little bird, called Baya in Hindu, Berbera in Sanscrit, Babui in the dialect of Bengal, Cibu in Persian, and Tenawit in Arabic, from his remarkable pendant nest, is rather larger than a sparrow, with yellow-brown plumage, a yellowish head and feet, a light-coloured breast, and a conic beak very thick in proportion to his body. This bird is exceedingly common in Hindustan: he is astonishingly sensible, faithful, and docile, never voluntarily deserting the place where his young were hatched, but not averse, like many other birds, to the society of mankind, and easily taught to perch on the hand of his master.

In a state of nature, he generally builds his nest on the highest tree that he can find, especially on the palmyra, or on the Indian fig-tree, and he prefers that which happens to overhang a well or a rivulet; he makes it of grass, which he weaves like cloth, and shapes like a large bottle, suspending it firmly on the branches, but so as to

rock with the wind, and placing it with its entrance downwards to secure it from birds of prey. His nest usually consists of two or three chambers; and it is the popular belief that he lights them with fire-flies, which he catches alive at night and confines with moist clay, or with cow-dung. That such flies are often found in his nest, where pieces of cow-dung are also stuck, is indubitable; but, as their light could be of little service to him, it seems probable that he only feeds on them. He may be taught with ease to fetch a piece of paper, or any small thing, that his master points out to him: it is an attested fact, that if a ring be dropped into a deep well, and a signal given to him, he will fly down with amazing celerity, catch the ring before it touches the water, and bring it up to his master with apparent exultation; and it is confidently asserted, that, if a house or any other place be shewn to him once or twice, he will carry a note thither immediately on a proper signal being made. One instance of its docility I can myself mention with confidence, having often been an eye-witness of it: the young Hindu women at Benares, and in other places, wear very thin plates of gold, called ticas, slightly fixed, by way of ornament, between their eye-brows; and, when they pass through the streets, it is not uncommon for the youthful libertines, who amuse themselves with training Bayas, to give them a sign which they understand, and send them to pluck the pieces of gold from the foreheads of their mistresses, which they bring in triumph to the lovers.

The Baya feeds naturally on grasshoppers and other insects, but will subsist, when tame, on pulse macerated in water. His flesh is warm and drying, of easy digestion, and recommended in medical books as a solvent of stone in the bladder or kidneys; but of that virtue there is no sufficient proof. The female lays many beautiful eggs, resembling large pearls; the white of them, when they are boiled, is transparent, and the flavour of them is exquisitely delicate. When many Bayas are assembled on a high tree, they make a lively din, but it is rather chirping than singing; their want of musical talents is, however, amply supplied by their wonderful sagacity, in which they are not excelled by any feathered inhabitants of the forest.

ON FALCONRY.

[Continued from page 43.]

The Lanner.

THIS is a Hawk well-known and much used, being called a Kitchen-hawk, and that not improperly, as being able to make more flights in a day than any other Hawk, except the Gos-hawk. She is both for the river and for the field, but chiefly for the latter, for pheasant and partridge.

If she is excellent, she should have her head small, her beak short, her feet bluish, with short talons; her feathers before mixed with black and white, not traversed, as the Falcons, but with straight spots amongst the plumes, and her neck short and thick.

She is very easy to be manned, yet hard to be made a good Hawk, by reason of the slackness of her mettle; and he only can make her a good Hawk that can keep her stomach in good order.

She is thus known from other Hawks; she is of a more blackish colour, is less armed and pounced, and hath a lesser beak.

The Lanner is less inclining to the crock than any other long-winged Hawks, and therefore most fit for a young Falconer. She holds her perch without baiting more constantly than any other Hawk.

If you fly with the Lanner, she must be kept very sharp.

She keeps her castings long; therefore give her hard castings made of tow, and sometimes knots of wormwood, and often stones.

After she has flown to mark, she will sit or fly according to her mettle and nature, and for that reason is very observant to the dogs, giving great attention to their questing; and all to give herself a labour, and that she may kill at her ease and pleasure.

She is of a harsh and stubborn mettle, and wants neither courage nor strength in the field, being wild; and yet, when under our keeping, will stand in need of all the spurs that can be given her, to make her do her business; so that her keeper had need use all the care and gentleness he can towards her, more than towards any Falcon. The Eyesses are indifferent gentle, but the Haggards surpass in wildness.

All the time of her luring, the lure should be garnished with hard washed meat only, and most of her rewards should be bits from her

keeper's hands; and being of a hard and strong constitution, you are to use hard washed meats, with stones, according to her temper.

She is exceedingly addicted to carry, and therefore the greater care ought to be had in restraining her from this vice, which may be thus prevented: When she is brought to know the lure, you must lure her only one at a time, she being subject to catch at another; and if you observe not this, you hazard her spoiling; for when once she begins to know the lure, she will settle her love on it with a greedy desire to hold it fast, and not to part with it: and from hence it is, that if you use it often, she will, through fear of being deprived of it, endeavour to carry it from you.

You must be very careful of begetting a good acquaintance and familiarity betwixt her and the spaniels; for she hath a coyness more than other Hawks; and therefore at first accustom her to few spaniels, and such as are staunch, and well beaten to the field, and at good command; for should she at first take any offence at them, it is a hard matter to reclaim her from it.

The Lanners may be made to fly the river, but it will require great care, long training, and much skill and conduct; however she is capable of it. But then you must neither feed too hard nor fly too much, either drawing her down from her wonted gate and high flying, although she were never so hard and able. You must therefore be careful to feed her well, and not set too sharp an edge on her stomach, when you design her for flying; for her nature rather leads her to return to her keeper for a reward, than to take pains for it.

What hath been said of the Lanner, may be said of the Lanneret, observing to keep her high, and as full of flesh as you can; to do which rightly, you must give her due quantities of stones and castings, lest she be overcome with glut and fat: but being well trained, and made in ward to the man, she may be flown to the river, and being well quarred, proves a good killer. But I hold she is best for the partridge, if you can thoroughly reclaim her from her aversion to the spaniels.

In summer, the weather being hot, you ought to feed so much the cleaner, and wash the harder. In winter, being cold, feed the better; and by this means you may hold an even hand over them.

[To be continued.]

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THE

FARRIER AND NATURALIST;

OR,

HORSE-MAN'S CHRONICLE.

N°. 18.] MARCH 15, 1829. [VOL. II.

ON THE NAVICULAR DISEASE AND THE OPERATION OF NEUROTOMY.

BY MR. MOORCROFT.

To the Editor of the Farrier and Horse-Man's Chronicle.

SIR;

I HAVE the pleasure of sending you the inclosed paper on the much canvassed operation of Neurotomy, and think Mr. Moorcroft, whose production it is, has the best claim to priority in having performed the operation. The ability with which the paper is written will best speak for itself.

I remain, Mr. Editor,
Your sincere well-wisher,
INQUISITOR.

Feb. 24, 1829.

To the Editor of the Calcutta Journal.

SIR;

WITH reference to your paper of the 23d inst. (columns 803-4,) noticing, as discovered by Mr. Sewell within about the last 18 months, a cure for a lameness in horses, commonly called coffin-joint lameness, I beg leave to observe, that the mode of treatment alluded to, so far from being a discovery of the last 18 months, was practised by me about 18 years ago. About 20 years ago I was sedulously engaged

in endeavouring to detect the causes of the lamenesses in the fore-feet of the horses in England. This inquiry was pressed upon me by their frequency; by my insufficiency to afford permanent relief in many instances; and by the vast loss resulting from horses being reduced, through permanent lameness, often to one-third of their first value. For a long time previous to this period it had been fashionable to attribute most lamenesses in the fore limb of the horse, of which the causes were not glaringly obvious in alteration from natural form, to some disease in the shoulder imperfectly understood, but it was become fashionable at that time to impute the same kinds of lameness as generally to a contracted condition of the foot: and, in truth, I was more instrumental in generalizing this assumption of cause than consisted with subsequent experience; for this experience shewed, that although the removal of the contraction, in some instances, wholly removed the lameness, in others it totally failed. In some cases it appeared, that a contracted state of the foot was itself an effect of other injury, though when existing in a great degree it tended to increase the lameness.

A comparison of great numbers of foot-lamenesses in process of time furnished grounds of observation by which it could be predicted, almost with certainty, whether the removal of contraction would fail or succeed to remove the lameness. This distinction, available for preventing loss and disappointment, formed the first step of an approach towards improvement in practice.

The removal of contraction was effected by more than one process; but no process was found capable of removing, permanently, certain kinds of lamenesses. On dissecting feet affected with these lamenesses, the flexor tendon was now and then observed to have been broken partially or entirely, but more commonly to have been bruised and inflamed in its course under the navicular or shuttle-bone, or at its insertion into the bone of the foot. Sometimes, although seldom, the navicular bone itself has been found to have been fractured; at others its surface has been seen deprived of its usual coating, and studded with projecting points or ridges of new growth, or exhibiting superficial excavations, more or less extensive.

To detail further varieties of diseased change of structure observable on dissection in parts connected with the joints of the foot, and arising from injury by mechanical violence, seems unnecessary. They have all the character of being accompanied with inflammation

and pain, which seldom permanently terminates, except with the death of the animal. It is acknowledged that those parts, which in their healthy state are endued with a low degree of sensibility, are greatly tenacious of sensibility when it is excited beyond a certain point. A man with a bruised or inflamed tendon, can place it, wherever situated, in a state of rest favourable to the dispersion of the inflammation; but this is not the case with the horse, when the flexor tendon of his fore-foot has been injured and inflamed, for this tendon not only supports, passively, a certain proportion of the weight when the animal is standing and at rest, but actively, whenever the limb is put into the slightest motion; and the horse cannot possibly place the tendon in a state of repose and inactivity, except during the time he lies on the ground, and it is subject to pressure, invariably, both in his lying down and getting up. This constant exposure to pressure, in addition to the nature of the parts injured, renders inflammation permanent, and prevents coffin-joint lameness receiving permanent relief. The horse indeed, guided by his feelings, relieves the tendon temporarily in a degree, from pressure and pain, by pushing the foot forwards, raising the heel, and throwing a large portion of the weight of the fore part of the body on the opposite or sound leg. By this expedient however the heels of the diseased foot, through not being kept in action by the direct pressure of the limb, gradually approach each other, and the foot becomes smaller on its outer circumference, and narrower and more hollow on its lower surface; whilst the fetlock joint of the opposite leg, distressed by an over proportion of weight, frequently inflames and thickens. Foiled in attempts to remove coffin-joint lameness, by removing contraction through mechanical contrivance, modifications of temperature, and various actions of medicated applications, I was led to consider some less usual modes of diminishing the vital activity of the parts injured. It was remarked, on dissecting coffin-joints thus diseased, that they were surrounded by a much greater proportion of blood vessels, and that these were much more distended with blood, than the same vicinity of coffin-joints uninjured. It was determined therefore to lessen the quantity and force of the blood supplied to a diseased coffin-joint, by tying at the fetlock-joint one of the two arteries that carry blood to the foot; for by having tied one of the carotid or large arteries of the neck, the progress of inflammation of the brain was arrested and the horse recovered; and, before I understood the principles on which the cure

of the spongy sore in the foot called canker ought to be conducted, I had tied a fetlock artery in the view of checking immoderate discharge of fluid, and with beneficial effect. One fetlock artery was accordingly tied in several cases of coffin-joint lameness without any benefit. But as I had, in a single instance, tied both the carotids in inflammation of the brain, and the horse recovered and was as useful as before the attack, I thought it justifiable to push the principle of diminishing the supply of the material of inflammation, as far as practicable, in coffin-joint lameness, by tying both the inner and outer artery of the fetlock. In no instance however were the horses subjected to this operation benefitted, but on the contrary, contraction of the foot seemed to be hastened thereby, and lameness to be proportionally increased.

[To be continued.]

VETERINARY INSTRUCTION.

SIR;

HAVING a boy that I have some intention of sending to the Veterinary College, I should be much obliged if you can inform me whether Mr. Coleman has made the amendments and alterations he admitted were necessary. I have studied considerably in the plain farrier's way, and am quite ready to admit the necessity of a College Education, but consider the way that young men are sent from the Veterinary College any thing but creditable. My boy can ride well, can bleed, rowell, drench, &c. which I think every Veterinary Surgeon ought to be able to do; but, Mr. Editor, is it the case? certainly not, and it is a sad injustice to the pupil, the profession, and the public.

I remain, Mr. Editor,

Your humble servant,

A FARRIER.

Suffolk, Feb. 18, 1829.

We are not aware of any change having taken place at the establishment of Messrs. Coleman and Sewell. ED.

A FEW REMARKS ON THE PASSING EVENTS IN THE VETERINARY PROFESSION.

I PERCEIVE that Mr. &c. &c. Sewell has, at last, began to try his hand at becoming a public character*; public did I say, I beg pardon, I now recollect an advertisement of his which appeared in the newspapers about five or six years back, that he was then preparing for the press, and would soon publish a "Treatise on the Glanders," and what is more important, a cure for that greatest of all curses on horse-flesh; but to this day this discovery has not appeared before the public. Did he promise more than he could perform, or more than the public gave him credit for? Does Professor Coleman believe that his Assistant possesses that power? if so, why is the treatment he pursues not in the general orders of every regiment, for the guidance of every regimental Veterinary Surgeon? Why are they left without orders, when it is notorious that horses are constantly destroyed for glanders? Yet Mr. Sewell goes on telling his Pupils, in his Lectures, that he can cure the glanders; and some cases were laid on the table by one of the Governors at a general meeting, preceded by a long prefatory eulogy on Mr. Sewell having made this all-wonderful discovery, and there the matter ended; for upon some of the members of the profession, who were there, having become subscribers for the purpose of refuting any unfounded statement where the interest of the profession was concerned, rising to deny this most impudent of all claims, which Mr. S. has made, the chairman abruptly stopped all further discussion on the subject, stating there was no question before the chair, evidently wishing to avoid any information coming from those professional gentlemen present, although he, the chairman, had allowed the Governor alluded to quietly to deliver his eulogy on this great discovery. Thus it appears that no statements or information, however well founded, coming from any Veterinarian, whose views differ from the Professor and his Sub, will have any influence at that establishment. Can it therefore

* Having given a short account of some of the causes of roaring, in the "Veterinarian."

be doubted, that the profession are indebted to Messrs. Coleman and Sewell for all the indignities they have received through the Bastard Examining Committee, and the Governors.

At a subsequent general meeting, the important subject of cure for the glanders was resumed by the professional gentlemen before mentioned, when the Governors denied having advanced a sum of money to Mr. Sewell for having discovered a *Cure* for the glanders, but admitted it was for having made *experiments*. It therefore appears they do not believe fully in Mr. S.'s statements.

But how does that accord with Mr. S., openly and without mistification, telling all persons who communicate with him, and even to his Pupils at his Lectures, that he does cure the glanders. A Veterinarian, of great experience, disputing this knotty point with him before a number of the Pupils, and pointing out to him the necessity of putting this great professional question at rest, he inquired by what means it could be done; a committee of experienced Veterinarians was proposed, to whom all cases and experiments he chose to make should be referred, which proposition was met by observing that he would not be tried by a jury of Veterinarians. The professional gentleman before alluded to replied, that he supposed a jury of old washerwomen would suit him better, there the discussion ended. Where are the practical men that will testify to this claim of Mr. S.? and why does the Professor still withhold his assent to his protégée's discovery? What then becomes of this boasted discovery? It is all quackery and delusion, and its effects are sorely felt by many who listen to such stuff; it is notorious that Pupils who have attended to this nonsense have gone into the country, believing it to be all gospel, have prevailed on Horse Proprietors to keep horses, which had been condemned, about their premises, under the delusive hope of being cured by Mr. S.'s blue broth, until many others were inoculated, which might not have happened if those infected had been destroyed earlier.

More of this hereafter.

VETERINARIAN.

The Governor here alluded to produced his handful of papers as certificates of cures having been effected by Mr. Sewell's treatment of glanders; but even the Chairman of these Governors admitted that

these certificates proved nothing, on the Veterinary Surgeons present contriving to point this out.

At the next annual meeting, for these Governors do not trouble the governed very often, the Veterinary Surgeon above alluded to, when a statement of the number of horses that had been admitted, discharged, and died during the preceding year, was read over by Professor Coleman, without remark or comment, as his REPORT for the year, requested some information respecting the treatment of glanders, and the result of such treatment, it turned out that nothing of the kind was forthcoming. It was then remarked that as a considerable sum of the subscribers' money had been given to Mr. Sewell for his cure of glanders, some official information on the subject might fairly be expected. This bold and proper inquiry however was not to be endured, the maker of it was reproved for mis-statement, for that *cure* was not assumed, and the money was given for *experiments*. Yes, for *experiments* that Mr. Sewell had made.

Now we beg to ask how long it has ceased to be the duty of the Professor and his Assistant to make experiments? how long it has been necessary, in addition to their ample salaries and allowances, to pay them for performing that which surely is a most essential and important part of their duty? The establishment at St. Pancras is called a School, a College, a Public Institution: it has ample funds for its support; its officers are paid liberal salaries; and if experiments are not to be there made, aye, and their results made public too, from whence, we ask, are they to be looked for? Besides, we must ask with what view these certificates, as they were called, in favour of Mr. Sewell were brought before the meeting? had he been accused of idleness, and did he have recourse to Messrs. A. B. C. and so forth, rarely visiting the College and not troubling themselves with Mr. Sewell or his concerns either, to certify that he was not idle? No; they were produced for the purpose of strengthening an already asserted claim to having discoved a cure for this disease, and perhaps might with the non-professional, uninformed Governors, have succeeded, but the fortunate presence and interference already mentioned put a stop to the ill-founded pretensions.

This statement will perhaps throw some light on the subsequent proceedings of these Governors, in regard to their driving out Veterinary Surgeons from among them. ED.

CASE OF SPINAL AFFECTION TREATED SUCCESSFULLY.

A BROWN mare, five years old, belonging to the 10th Regiment Royal Hussars, was formerly hurt in the back, and was then nearly three months under treatment.

May 26. She has since been at work; but, on stopping short and turning quickly, the former complaint still shews itself.

There is now also an enlargement on the inner and under side of the near knee, with considerable stiffness of that joint.

Blister the enlarged joint.

June 5. The blister has operated well, and the lameness has materially diminished. Repeat the blister.

11th. The blister again operated well, and the lameness from the knee has nearly or quite subsided; but the effects of the spinal injury have materially increased, the controul over the action of the limbs is very imperfect, and she can hardly avoid tumbling down.

Give a purge; and keep up the action of the bowels by repeating the dose at short intervals.

17th. The mare goes rather better: continue the medicine as before directed.

24th. There is again further improvement: continue the exhibition of purgatives at short intervals.

July 1. The mare goes much better; continue the medicine as before.

11th. The last dose of physic was given on the 8th, and to-day the mare has been tried with a man on her back; she rears, plunges, and stops resolutely and strong, showing no symptoms of the late complaint.

16th. The mare has been taken to the field; but in a short time she became lame, with random action, and nearly in her former state. She was this day shew to be cast, and the circumstances respecting the case were stated, but she is to be kept to see the result.

Repeat the physic and increase the dose from ʒvj. of cape aloes to ʒj.

24th. No improvement has taken place: continue the medicine as

last directed, and repeat it so as to keep up increased action of the bowels.

Aug. 13. Considerable improvement has taken place in the manner of going. Continue the treatment.

24th. The mare again appears free from complaint; but continue the medicine.

Sept. 9. The treatment was discontinued at the end of August, and the mare having continued to go strong and well, she has been dismissed from the sick-list and sent to riding drill.

This case has been a successful one, and the treatment adopted certainly deserves further trial; but as a relapse may possibly ensue the case is only considered as being relieved.

No relapse however had occurred at the end of five months.

FRED. C. CHERRY.

THE VETERINARY PUPILS' DINNER TO THEIR EXAMINERS.

IN a previous number we have inserted an account of the Veterinary Dinner that was furnished to us by a correspondent; we now insert some remarks of our own on that meeting.

This annual complimentary meeting took place at the time we announced, and presented the not very usual occurrence of one of the guests—of one of that select body to whose honour the feast was provided—being placed in the chair. We say "one of the guests," because although the invitation to participate, at one guinea each, in the good things provided for the occasion does not take a very clear distinction between the inviters and the invited, we do not suppose that Professor Coleman and his friends, however "liberal" they may be, have contributed to the getting up of a meeting in honour of themselves.

However, be it or be it not so, the opportunity of praising each other was not lost, and such were the overflowings of kindly and congenial feelings, that even an absent lady was not omitted.

These were the comet port and chateau margeaux feelings; but

they were not unalloyed; un peu du vin ordinaire, peut-être vinaigre, had somehow or other found its way to the cross table (cross in more senses than one) at the head of the room, which overcame the good-nature of even the Professor himself; he whined about having been misrepresented and traduced by his enemies; if he has any does he expect compliment from them? but then recovering himself, he manfully declared that so long as the Governors were satisfied with his conduct he would pursue his course, in spite of all opposition and calumny.

However convenient it may be to talk about enemies, calumny, and misrepresentation, we do not believe that Mr. Coleman really confounds these assumed passions with admonitions respecting the advancement of our profession as a science, or the improvement of its practice as an art, and the interests of those engaged in its practice. That these admonitions have progressively increased in number and force is true, but they have only done so with the necessity of the occasion; in proportion as such admonitions have been unattended to or treated with rebuke and contempt have they increased. But the "talent" that Mr. Coleman compliments his few powerful enemies, as he mis-calls them, with possessing, has always prevented their exceeding the strict bounds of his public conduct—he enjoys, or at any rate receives, the advantages of a public character, and he has no right to exemption from the scrutiny that every public character is open to from any one who chooses to enter on so unenviable a task.

This unenviable task of endeavouring to rescue our profession from the thraldom of two self-elected clubs, each of them unconnected with the profession, each of them uninformed as to its true interests, and both agreed in grasping at, and keeping possession of powers that do not belong to them, was commenced and has been continued, by a few of the older and more experienced members of the profession, who fearlessly connected their names with the cause they espoused and have steadily supported. Now if any anonymous or vacillating, time-serving pretenders have endeavoured, for purposes of their own, to mix themselves up with this cause; and in doing so have misrepresented circumstances of which they probably know but little, and instead of stating facts have vented calumnies, why does not the Professor or his friends point out such misrepresentation and calumny? if any exists it must be easy to demonstrate it; then why in the name of justice is it not done? the originators of the spirit of inquiry

that is now abroad are, we state on authority, open to personal censure if they deserve it.

Whether the vin ordinaire had by chance found its way to the chairman's glass, or whether he winced at finding himself in that situation, when he had been invited as a guest; in finding himself called on to do the honours of the table at a dinner that professed to be given in honour of him,—or whether he feared that these allusions and charges, on the part of his friend and colleague, might excite in the breasts of the very few Veterinary Surgeons who were present a recollection of the situation in which these speech-makers on the one hand, and the committee of governors, under whose wing the Professor took shelter, had on the other hand placed them, does not appear; but it does appear that he rose with feelings of anger, of anger towards his friend for having broached such a subject; for having condescended to notice the impotent and despicable efforts of the malignant and disappointed—*fellows*, that he would regard with the scorn and contempt they deserved. The storm having vented itself, no reply having been provoked by this tirade, and the visitors having exhausted their compliments towards each other, the worthy chairman proceeded to take some notice of the Veterinary Profession, which he did much in the usual common-place style. At an advanced period of the meeting we find some of the profession venturing on returning thanks for the honour done them, by then mentioning their names in connection with the bibulous enjoyments of the company.

One of the visitors highly distinguished as an Anatomist, Physiologist, and Teacher, related the pleasure he experienced at witnessing some experiments of Mr. John Field, on the nerves, and the celerity and precision with which the operations were performed. This was justice and independence, since the anatomy and physiology of the nerves is not taught at the College, nor is Mr. Field indebted for his acquirements to that establishment.

There were not more than half-a-score of Veterinary Surgeons present, they were principally staunch supporters of the "powers that be;" but they took no part in the discussions and compliments of the evening, beyond returning thanks on two or three occasions when the nature of the toast seemed to require this ceremony, and it was made as short as possible. Thus has the anniversary meeting of the Veteterinary Profession dwindled into nothing, under the the auspices of the Veterinary College.

A TREATISE

ON

THE DISEASES AND LAMENESS OF HORSES.

By W. Osmer. London, 1766.

[Continued from page 74.]

NOW to prove the truth of this doctrine, and that shoeing is but a partial good, take this same narrow-heeled, or strong-footed horse, (which, because it is fair to the eye, is perhaps called a very good one,) pare down the crust as much as you can, cut the toe off round and short, and turn him out to grass bare-footed, he will become sound in course of time, if the interior parts of the foot are not diseased.

The true cause of which is, that the foot not being confined in a shoe, the weight of the horse expands the same; the crust, and the stricture of the coronary ring, is relaxed by the dews and moisture, and the compression on the parts is removed.

And herein alone it is, that the unskilful are imposed on by the farrier, who (having done something to your horse, for what he calls a lameness in the shoulder, and ordered him to be turned to grass) vainly believes such soundness to be the effect of his remedy; and you, for want of better knowledge of the animal, are persuaded to believe the same.

Take the same horses, whose feet by their open figure and relaxed state are become sound, confine them again in a shoe, keep them at house, in spite of all art some of them will become lame again, perhaps the first time of riding; especially if the weather be hot and dry, merely from the compression above named.

Who now does not see the horrid barbarities of rowelling, blistering, nay, even boring of the shoulders with a red hot iron (under pretence of curing a lameness therein) committed on this most noble animal, by the obstinacy, pride, or folly of mankind.

Yet I would not be understood to mean, that there is no such thing as a lameness in the shoulder; because the muscles and ligaments thereof are liable to be strained, as well as other muscular and ligamentous parts.

But that no man may ever after be mistaken herein I will lay down one unerring rule, whereby he may distinguish the reality of this disorder without consulting the farrier at all: which is that the horse, in this circumstance, always drags his toe upon the ground; for it is impossible that the horse can extend his foot to go on, without extending also the muscles of the shoulder, which act of extension he, to avoid pain, or from inability, does not choose to have performed.

It appears also, from the nature of the articulation of the humeral-bone, with the scapula, or blade-bone, that such is capable of dislocation, either forward or backward; and there are many farriers in this kingdom, who pretend to have cured this dislocation, by the means of a patten-shoe put on the foot of the lame leg; the truth of which they would attest on oath, perhaps seal with their blood.

But a patten-shoe, in this case, must of necessity do harm instead of good; because it will force the head of the humeral-bone further from its articulation with the scapula.

Since the first publication of this Treatise, I have seen an instance of a dislocation of this bone in a horse, which was easily reduced by being immediately taken in hand, which puts this matter out of dispute; I say dispute, because some of our learned writers on the subject of horses, have boldly said, such a dislocation cannot happen. Which doctrine of theirs will serve to shew how little such men are acquainted with that part of the anatomy of a horse which relates to the nature of articulation. But when this humeral-bone is reduced, it may be very proper for the horse to wear a patten-shoe for some time afterwards, till the ligaments belonging to this joint have recovered their former strength. Towards which the frequent use of vinegar will contribute as much as any application.

Now the proper method of reducing all dislocations is by making extension both ways.

By diseases arising from the contrated form of the feet, from consequent pain, and manner of standing in the horse, to ease these feet, the muscles of the shoulders occasionally waste away; and this is what is meantby the word chest-foundered, or shook in the shoulders, which mistake arises from not understanding the nature of feet.

So from pain occasioned by a sprain, or other disorders in the joint of the hock, the muscles of the quarter will frequently waste away; but it will be equally absurd in either of these cases to say that the lameness of the horse is in the shoulder, or in the quarter; in both

these cases the cause is the same; namely, pain, and habit of standing. And yet from violence received on the shoulder, the muscular parts may waste away, in like manner as in the human species.

But to set this matter in the clearest light, it is to be observed, that where both shoulders are wasted, you will readily perceive the cause of it in both feet; but if both feet are not concerned, or one shoulder only be wasted; it is owing to some impression or violence upon the nerve, or artery, for which, I believe, there is no remedy in either case; but these distinctions are so far of use, that they may be the means to prevent our punishing the animal to no purpose, which too often happens, from our not being acquainted with the real causes of disease.

To prove still further that shoeing is but a partial good. When any other kind of foot becomes shelly and broken, the crust thin, or the heels low, turn the horse out to grass without shoes, rasp the foot short at the toe, keep it constantly rasped as it grows, such foot will in a short time flourish again, and become just as it was in a natural state, when he was a colt.

And here let be remembered, that it is much to the advantage of all colts to keep their toes short; mares also in foal will by this means carry their load much easier. Discretion being had thereunto, as in paring the human nail, which, if cut too close, will cause a temporary soreness.

Nevertheless no harm, except an immediate soreness, which will soon go off, attends cutting the toe of the horse even to the quick, as shall be immediately shewn.

If you have a horse, whose foot is fleshy, whose sole is higher than the crust, take him and cut him round at the toe, till the blood follows, and stands in drops; turn him to grass bare-footed, he will in a short time make a new shoot at the coronet, the weak crust will become by degrees more solid, and the thin sole more obdurate, the heels will get high and strong, and behold, where you could not before well find a place to drive a nail, the whole foot is now rendered tough and firm, will bear hammering like a piece of board, will carry as flat a shoe as any other kind of foot, and will continue so to do, if it be never pared or stopped. Provided always the interior parts of the foot have not been injured by disease or accident.

[To be continued.]

MR. DARVILL ON THE RACE HORSE.

(Continued from page 77.)

"NOTWITHSTANDING these occasional results, it has always been the custom with training grooms, as long as I can remember, to physic their own horses, or rather, those which are sent to them by different noblemen and gentlemen of the turf to be trained; for to discover the proper course of treatment would puzzle most men who may be in very high practice in the physicking of horses in common use, and who may physic such horses very properly; yet, if these same men have not been in the habit of physicking race horses, and have not at any time lived in racing stables, so as to have observed the different methods of preparing horses there for their physic; such men would find it extremely difficult to purge strong horses when in training, that is, if they were to pay the same attention that a training groom would, not to impair the constitution of a strong horse when in training, by feeding him too freely on mashes, which would cause him to be relaxed. For this is a soft sort of food, and not sufficiently nutritious to feed a horse on for two or three days, until his bowels have become sufficiently relaxed, so as to admit of a less portion of aloes being given to work him, without his going back in his condition. This plan will not be found to answer with such a horse, unless it is intended that he should lay by for six weeks or two months. The treatment for refreshing a horse under such circumstances is very different, and will be fully explained in its proper place."

DESCRIPTION OF THE CORMORANT.

THE cormorant is not without beauty. His eager, steady, determined flight; his plunging into the waters, his wild look, as if conscious of guilt, his bustle on being alarmed, shaking the moisture from his feathers, and dashing about till he gets fairly disengaged, are all amusing circumstances in his history. But he is a merciless villain; supposed by naturalists to be furnished with a greater variety of predatory arts than any bird that inhabits the water. When the tide retires, he wings his ardent flight, with strong pinions and outstretched neck, along the shores of the deserted river, with all the channels and currents of which he is better acquainted than the mariner with his

chart. Here he commits infinite spoil. Or, if he finds his prey less plentiful in the shallows, he is at no loss in deeper water. He dives to the bottom, and visits the eel in her retirement, of all others his favourite morsel. In vain the fowler eyes him from the bank, and takes his stand behind a bush. The cormorant, quicker sighted, knows his danger, and parries it with a glance of his eye. If he choose not to trust his pinions, in a moment he is under water, rises again in some distant part, instantly sinks a second time, and eludes the possibility of taking aim. If a random shot should reach him, unless it carry a a weight of metal, his sides are so well cased, and his muscular frame so robust, that he escapes mischief. If the weather suit, he fishes dexterously at sea. When he has filled his maw, he retires to the ledge of some projecting rock, where he listens to the surges below, in dosing contemplation, till hunger again awaken his powers of rapine.

A FRENCHMAN'S OPINION OF A FOX-CHASE.

———. This gentleman was in my neighbourhood, on a visit to the late Lord Castlehaven, who, being a great sportsman, thought he could not oblige his friend more than by letting him partake of an amusement which he himself was so fond of; he therefore mounted him on one of his best horses, and shewed him a fox-chace. The Frenchman, after having been well shaken, dirtied, tired, run away with, and thrown down, was asked on his return, "Comment il avoit trouvé la chasse?" "Morbleu! Milord!" said he, shrugging up his shoulders, "votre chasse est une chasse diabolique."

TROTTING MATCH.

ON Saturday the celebrated American trotting horse, Tom Thumb, who, some few weeks ago, trotted 100 miles on Sunbury Common, within less than ten hours and a half, has been matched against a famous mare belonging to a gallant Colonel, to trot a distance of ten miles at Newmarket Spring Meeting, Tom Thumb giving the mare aforesaid one minute. The match is for £200.

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THE

FARRIER AND NATURALIST;

OR,

HORSE-MAN'S CHRONICLE.

N°. 19.] APRIL 1, 1829. [VOL. II.

ON THE NAVICULAR DISEASE AND THE OPERATION OF NEUROTOMY.

BY MR. MOORCROFT.

[Continued from page 84.]

FINDING that diminished supply of blood did not counteract the mischievous effects of pressure on the inflamed tendon, I turned my thoughts towards subduing its increased sensibility, by diminishing the proportion of nerve naturally distributed on the foot. On this principle I raised the outer nerve of the fetlock-joint out of its bed by a bent probe, and cut it across with a pair of scissors. This was done in several instances, and always with immediate and decided lessening of lameness; frequently indeed the animal when he rose from the bed appearing perfectly sound, but the result was not uniformly and permanently successful; relapse of lameness occasionally taking place after a period of soundness for some weeks; and as often at grass as at work. This was attributed to re-union of the cut ends of the nerve, and in subsequent operations, therefore, about a quarter of an inch of the lower division of the nerve was snipped off. The performance of the operation was expedited by pushing under the nerve a curved knife with a crooked beak like a bent probe, which brought the portion to be divided quickly and singly against the cutting part of the blade, and the facility and expedition with which the division was effected, induced a display of dispatch in operating, which was most severely punished. A horse with coffin-joint lameness being

thrown and secured, the nerve on the outside of the fetlock bared, by two strokes of a round edged knife, was cut across with the crooked knife: the operation took up a few seconds; but at the instant the nerve was divided the horse made a violent and sudden exertion to disengage himself; a crash, as if from within his body, was heard by the by-standers, and my intelligent assistant felt the shock of internal fracture as he lay over the animal, and whispered in my ear, that the horse had broke his back. This in fact had happened, and the animal was destroyed, with the consent of the owner, Lord G. H. Cavendish, to whom the circumstances were recited. The muscles of the back, thrown into violent contraction by the shock consequent on the sudden division of the nerve, had broken the body of one bone of the loins, right across through its whole substance, and fractured the lateral processes of several other bones of the same part. This fracture could not have happened if the body and limbs had been at liberty, and perhaps nothing but the sudden division of a large nerve could have produced so violent an exertion; for the same operation had been frequently done without exciting very violent muscular convulsion, though never without producing some degree of struggle; but in these cases the division had been effected more leisurely, and experiments made on the bodies of horses immediately they were put to death at slaughter-houses, proved that when the great nerve of the thigh was cut across *suddenly*, more violent convulsion ensued than where it was cut across slowly. These facts may be worthy attention, provided further trials bring the performance of the operation in question into greater use.

It has been stated that relapses of lameness subsequently to this operation had been imputed to re-union of the ends of the nerve, when it had been merely cut across; but one case had occurred in which certain appearances, in a substance occupying the space between the cut ends of a nerve from which a short portion of the body of the nerve itself had actually been cut away, excited a suspicion that this new growth conveyed nervous influence. I shall not stop to examine how far this suspicion was in consonance with the results of former experiments, instituted by physiologists, to determine the question of the reproduction of nervous function in the line from which a portion of nerve had been extracted, but merely to observe, that it induced me to attempt to bring the matter to issue by farther trials; for as it appeared that lameness was generally diminished, and sometimes alto-

gether removed, by lessening or destroying sensibility in the pained parts, through interrupting or cutting off their communication with the brain by dividing one nerve, it became desirable to ascertain in what manner the lameness and functions of the foot would be affected by diminishing sensibility still further through dividing both nerves.

The cases of rupture of the flexor tendon, or of fracture of the navicular bone, are very infrequent in proportion to bruise and inflammation of the tendon, as has been before remarked. Seldom indeed are the component parts of the joint soldered together by inflammation so as not to admit of motion, and by process of time, as I have often seen, in dissecting the feet of old post horses with coffin-joint lameness, and *compelled* to work, an adaptation of the surfaces of the bone and tendon take place, which affords strong reason to believe there would seldom occur any insuperable mechanical hindrance to the free movement of the joints, or any lameness, could the pain be removed.

The two nerves in going to the foot appear to give off branches in an equal proportion during their whole course below the fetlock, but as these branches cannot be traced into the tendon, it is not possible to say whether its sensibility be supplied by one or both trunks. Hence, it is uncertain which trunk should be divided generally, or whether from limitation of injury to a part, or diffusion of inflammation to the whole of the joint, it be advisable sometimes to divide one nerve, and at others both nerves. But if it should happen that the division of both nerves should completely remove the pain, and exercise restore the original facility and latitude of motion to the joint, and that by degrees the sensibility should be reproduced so far as might be necessary for the complete performance of all the functions of the foot and of the limb, a new and wide field would be opened to physiological research. It was resolved therefore to divide both nerves, in case of relapse in great lameness in a mare: the animal on rising from the bed, trotted boldly and without lameness, but now and then stumbled with the foot operated upon. The wounds healed in a few days and the mare was put to grass. Some weeks afterwards a favourable account was received of her soundness from her owner; but she was soon brought to London on account of a large sore at the bottom of the foot operated on, and extending from the point of the frog to the middle and back part of the pastern. It appeared that the mare, in galloping over some broken glass bottles, had set her foot full upon a fragment of the bottom of one of them, which

cut its way through the frog and tendon into the joint, and stuck fast in the part for some seconds whilst the animal continued its course, apparently regardless of the injury. The wound bled most profusely, but the mare appeared not lame. Many days elapsed before I saw her, and then large masses of loose flesh where cut from the edges of the wound without the animal shewing the slightest sign of suffering pain. And the processes usually attending sores went on with the same appearances that take place in sores of parts not deprived of sensibility; but such extensive injury had been done to the joint as rendered the preservation of free motion in it very improbable, even were the opening to close, which was matter of doubt.

From the preceding experiments it has been shewn that, by the diminution of the quantity of blood passing to the inflamed joint, the sensibility was not subdued, owing to adverse peculiarity of structure; that, by the diminution of sensibility, the repairing powers of the part were not injured, as far as they depended upon the action of the blood vessels; that, by a very sudden division of one nerve, a fatal accident was produced; and that, by the extinction of sensibility, through the division of both nerves, the natural guard against external injuries, an accident was rendered destructive, which in the usual condition of the foot might have been less injurious.

The unfortunate results of surgical practice, candidly related, rank in utility of record next to those of an opposite termination; errors in practice guiding experience to sound conclusions. I recollect not the number of horses operated upon successfully by me, though it was somewhat considerable, some of these were worked by myself, and the general impressions on my mind at this interval are, that horses so operated upon, when they did not again become lame, were more apt to stumble with the limb operated upon than with the other, and that this mode of treatment was likely to be more usefully applicable to coach-horses than to horses intended for single harness or for the saddle.

I am, Sir, yours, obediently,

W. M.

Calcutta, March 26, 1819.

VETERINARY SOCIETY.

THE Society held its ordinary meeting on the 17th.

Several gentlemen were proposed for members and other routine business was disposed of.

Mr. Rogers read a paper descriptive of a case of strangulated intestine, produced by an elongated portion of mesentary, being the pedicle of a tumor of considerable size. An interesting and important discussion took place on this case. It presents some singular features, and we have permission to present Mr. Rogers' paper to our readers, which we shall do as soon as an engraving can be made from a drawing illustrating the nature of the disease.

REMARKS ON THE VETERINARY COLLEGE.

MR. EDITOR;

ALTHOUGH unassuming and humbly disposed in the world, yet I cannot help to animadvert three primitive circumstances importantly connected with the Royal Veterinary College of London. Had I but the pleasure of recording those things which ought to exist, instead of being ashamed and urged by honest feelings to hint at their melancholy non-existence, it would fill the instruments of the profession with more solid nutriment. Some may be averse, and some may coincide with my sentiments, but I hope it will be remembered, that the stimuli which excites me to do so does not emanate from malignant propensities, but from sympathy grounded in me for the rise and further advancement of Veterinary Medicine in these our illustrious days. Subsequently, this institution being the primitive source for the cultivation of medical knowledge applicable to that animal which stands next in order to man, undoubtedly it has proved a happy fountain for the exercise of this science (as far as it has gone), but those purposes for which it was intended ought to be fully extended or accomplished. In one of your numbers drawing to the close of

last year, was suggested the defects of that institution not having a regular Anatomical Demonstrator, a Promulgator of Cases; and, I add, in having only one Course of Lectures instead of two at the College. Then, I ask, who ought to sustain the blame for not having these important functions fully performed? Does not the blame devolve on that illustrious character who fills the Professor's chair? Young men assemble at this school for the purpose of investigating that science, consequently those requisites ought to be perfectly extended to them. For can they, who are strangers to anatomy, rightly dissect the complicated parts of an animal body, who only remain as students for a few months? Can they, I repeat, in a small space of time, gain a proportionate knowledge of this vast and useful science without the instructions of a Demonstrator? In accordance with this, are they not justly entitled to the appellation of Semi-Anatomists? Will the neglect of illustrating morbid cases form the frame-work for pupils in their days that are to come? Can the effect of one Course of Lectures (to many who only remain to hear one) perfectly insert or graft in their minds the spacious elements of the Veterinary art? I have delineated my hints on things which I long to hear and see, but I commit them to the judicious considerations of the able. Will you insert these hints in yours publication? and, as suggestions, they coincide with the true nature of existing facts; as I hope they will (or some bearing an analogy to them) sooner or later, act instrumentally in rousing the sensorum, and in opening the eyes of that character who is the expounder of our art. If these two effects can be produced, then surely he will be convinced of the semi-performed duties which surround him; then he will not rest while his scholars labour; for they are alive to their duty. Rivalry must be the excitor; rivalry will dawn the science near to its proper station, and suspend it in the enlightened elements.

But, Sir, I hope, in the days of a *Coleman*, we shall hear of a regular Anatomical Demonstrator; the punctual and annual delivery of two Courses of Lectures; the employment of some means for the development of Pathological Cases: for the true union of these things can alone present the student with a banner on the day of practice.

Believe, now and always, to be your humble servant, and a well wisher for the further advancement of Veterinary Medicine,

A VETERINARY SURGEON.

Warwickshire, March 12, 1829.

A TREATISE

ON

THE DISEASES AND LAMENESS OF HORSES.

By W. Osmer. London, 1766.

[Continued from page 94.]

HENCE it is manifest enough, that all horses, when turned to grass for a time, should have their shoes taken off, and their toes kept rasped round and short.

The feet of stallions are also best without shoes, whether they are kept at house or abroad; the crust at the bottom of the foot being occasionally pared down, according to the depth, strength and growth thereof.

Let any man keep one foot of a stallion so managed, and the other in a shoe, he will soon find a wide difference between the two feet.

Hence it will follow, that all breeders of horses, should be well versed in the difference of feet, the laws of nature seldom varying in this or other respects.

And here occurs to me the wrong judgment of the grooms in the indiscriminate custom of stopping and greasing all sorts of feet; for greasing and stopping such feet, whose crust is weak, and whose sole is spongy, will render them more weak and more spongy; such feet cannot be kept too dry at the bottom.

Nevertheless, it is necessary to anoint the coronary ring of such with some cooling oil, ointment, or mucilaginous composition, to keep it pliant, and free from contraction and rigidity. Urine will also render the crust of weak feet tough, and help to consolidate the sole.

On the other hand, the hoof being capable of contraction and expansion, strong feet cannot be kept too full of oil, for the reasons before given.

CHAPTER V.—*Treats of various other Lameness.*

La Fosse has given us various accounts of fractured bones in the foot; for my own part, I have never seen any such thing, but can easily give credit to the possibility thereof.

Yet I have seen many instances of sudden lameness brought on horses in hunting and in racing, by a false step, which have continued lame their whole life-time; and upon examination, I have found the ligaments of the nut-bone rendered useless, for want of timely assistance and knowledge of the cause; from hence the cartilages of the same have been sometimes ossified—and the bones of the foot have been sometimes wasted, and sometimes enlarged, it being no uncommon thing to meet a horse, whose feet are not fellows, the natural form of the injured foot being generally altered hereby; and nothing can contribute more to such an accident, than the unequal pressure of the foot in our modern concave shoe.

The stricture of a deep crust, and narrow form of the foot with hard riding, and much use, will also produce an ossification of the cartilages of the joint of the foot, from which a stiffness in the part always ensues. And this may be called a spurious anchylosis; so ossification frequently happens in different parts of the human body from various unknown causes. There is also another kind or degree of anchylosis, by which is to be understood a total loss of motion in the joint, the first admitting some small degree of it.

In every joint there are glands, the use of which is to pour forth in action a mucus. To these are added certain vessels, that discharge a thinner fluid, which, mixed with the other, makes a liniment of a proper consistance, whose use is to lubricate the ends of the bones, all which, for the sake of motion, are covered with a cartilage or gristle.

Now when these glands are inflamed by motion, they grow occasionally rigid, pour forth more sparingly their mucus, and at length become dry and indurated. Hence I have been led to think, this ossification of the cartilages is a secondary disorder, depending on the state or quantity of this mucus liniment.

That inflammations attend the glands, I have seen frequent instances, where the fetlock joint of a hunted stag has been cut asunder in the summer-time, when the leaps have been strong, and the ground hard and dry; the mucus thereof having been of a very sanguine colour.

Who now shall doubt, the same may happen to the horse, especially when another weight is added to his own? Moreover, there are instances, where the mucus of the joint in human bodies has been so diseased, either by accident or bad habit of body, as to corrode the cartilaginous ends of the bones; and this will account for the true

anchylosis in some measure; which entire coalescence of a joint can never happen, without some erosion in the cartilages thereof.

The glands are liable also to disease, as well as other parts, and the long disuse of a joint from a continued and casual lameness, where the glands of the same are not primarily concerned, is capable of producing the spurious anchylosis, from the thick, and inspissated state of the mucus,—which inspissation happens, from want of friction of the ends of the bones upon each other. Hence the particles of this mucus not being divided, there will be a crispitude in the ligamentous fibres of such joint. And this inspissation of the mucus from any other cause, will account for the reason, why the horse, who goes lame out of the stable, becomes by degrees more sound; namely, because the ends of the bones do, by their action, attenuate this mucus fluid; whereby the parts are better lubricated, and for this disorder turning the horse out, or keeping him loose in some open building, will much contribute to his advantage.

Again; a joint may, in great measure, be deprived of its usual motion by a redundancy of this mucus fluid; which may be produced by bad habit of body, or because the vessels appointed to absorb, or receive the same, are not able to perform their office.

[To be continued.]

ON THE SIZE AND FITTING OF SADDLES.

By Dr. Bracken.

THE withers of a horse is the joining of the shoulder-bones before the saddle; and those horses which are thin shoulder'd, as 'tis called, are most subject to be wrung in the withers by such saddles as are wide in the tree, or want stuffing: and really it is scarce possible one and the same saddle should rightly fit several horses, whose backs differ as much as human faces. Therefore I advise every person to be so far prudent, for the poor dumb creature's ease, and his own safety, as to have his saddle rightly fitted to the very horse's back which he is to ride the journey upon. And if the saddle want stuffing, then to mind particularly, after one or two days riding, whether the same do not bear upon the horse's whithers; for the new stuffing

will settle much, and it is a great piece of ignorance and folly for any one to feel at the saddle or horse's back while he is in the stable, whether it hurts or wrings the withers, for by such trial he may be deceived. Therefore let him mount, or set a heavier man upon the horse, and then let him try if he can get the breadth of two fingers between the withers and saddle, which space is sufficient; for if it set too high it is a great fault, because it wrings him in the points, and will make him travel with pain and uneasiness, besides bruising the flesh, and causing him to carry the rider's weight in a wrong and very improper part: for if the saddle be too narrow in the tree, or the pannel have too much stuffing in at the points, in such case the horse cannot be said to carry the weight upon his back, but rather upon his shoulder-blades. And although many jejune and frolicksome riders mount a horse for a long journey, without first having the saddle well fitted to the back; yet it is a piece of great indiscretion and bad conduct, to neglect so good and beneficial a piece of economy; and whoever slights these precepts, I hope it will be voted *nem. con.* that such rider be obliged to carry his horse instead of the horse carrying him, or at least to walk half the journey on foot. And so far I must speak in my own commendation, as to the particular of saving the horse I ride from being wrung or hurt in the withers, that though I take good care of my saddles, yet I cannot ride five miles an end, without feeling now and then with my fingers under the saddle next the horse's withers whether it sit down (as it is called). Furthermore, it is most easy for a horse to travel and carry his weight upon a good large-seated saddle, and the more so, if the person who rides him be fat and bulky; for then he may be truly said to carry his weight in so great a compass as that it will not gall or fret his hide, &c. Therefore how preposterous and unnatural must it be for a heavy man to ride upon a cockney-saddle? which may be fitly compared to a silly man carrying two buckets of water upon his shoulders with a round pole, instead of a flattish one hollowed and mechanically fitted to receive his shoulders. If the horse be young, and his back not used to the burthen, it will be more necessary to ride him with a large saddle, that his back may not warble, or however as little as possible; for if the weather be hot, and journey long, it will be exceeding difficult to keep the back of a young horse from galling: however, the best method is a large saddle often scraped with a knife, beaten and cleaned upon the pannel from sweat and dirt, and the horse's back bathed

every night with a little cold water wherein some alum has been dissolved. And it may not be amiss, every day at noon, to take off the saddle and cool his back, by only throwing a single woollen cloth over it. Nor is there much fear of catching cold from these practices, if the rider only consider the season, and cover the horse's back more or less accordingly, while the saddle is off: for if we consider the thing rightly, we must know that it is the motion and heat of the saddle which causes a kind of blistering upon the horse's back. And though it may be imagined, by some short-sighted folks, that a large saddle is too hot, and will sooner gall a horse than a small one, which (to them) seems much cooler; yet it is plainly the contrary, and every day's experience shews, that large saddles are not only easier, but in reality cooler to horses' backs, as well as much more easy and safe to all men who are not accustomed to top a five-bar'd gate, than the small sort can possibly be. And if, instead of the follies and fopperies of a certain neighbouring nation, we imitated them in their way of saddling horses only, we should not be so deservedly laughed at as I am afraid we are. I could farther enlarge upon this point, and shew the Scotch carriers' cunning, or rather dexterity, in saddling their horses, and making them carry much heavier packs without than our carriers can with saddles: but I hope what I have said is enough to convince any reasonable man, that a large saddle is easier and more convenient than a small one both for man and horse. Permit me now to proceed to the cure of a sore back from a crush with the saddle.

If the saddle be altered in due time, I mean before the blood-vessels, &c. are all crushed, the best application must be camphorated spirit of wine; but lest the apothecaries you get it from should have a spice of the knave in them, when camphor happens to be dear, you should buy the spirit of wine and it separate, and then you are safe. Therefore I shall set down the due proportion of spirit and camphor for this purpose.

Take spirit of wine rectified, four ounces; camphor, six drachms. Mix.

By the continual use of this three times a day for a few days, and removing the cause of the complaint, *viz.* the pressure of the saddle-bow upon the withers, I dare say the swelling will disperse; but if it turns to matter, or grows soft and fuzzy, then it must be opened for fear of a fistula, and treated accordingly.

Every one has his nostrum or secret for the cure of a crushed back;

such as a cold sod of earth, bole armoniac, white wine vinegar, and whites of eggs, commonly called by grooms the cold charge; or salt and black soap, &c. which any one may try at pleasure; for, as I have some time ago said, whatsoever is either potentially cold, or so in its own nature, must be accounted a repellent, and proper, in some cases, to apply to tumours from heat and inflammation; nay, even if you come to a dishclout by turns squeezed out of cold spring-water and applied to the part, it is as potent a repellent, in my opinion, as most others which bear a more pompous title. Yet by the ill use of repellents many and bad consequences are brought about.

[To many of our readers these farther remarks from the same author may be very acceptable; at any rate they are founded in good sense, and have the stamp of experience.]

It may not be amiss to tell the reader how he may preserve his own posteriors, as well as the horse's back, from galling, fretting, or excoriating, and herein I should be a pretty competent judge, not only by reason the subject is of the human species, but because I myself, though I often ride, am very apt to gall and have the skin fretted off my posteriors, unless I take great care. And even in this we see the great difference or peculiar disposition of one person from another; for some will bear to ride farther upon a bare saddle-tree without any cover or leather, than I can upon a very easy saddle.

The first thing is, as I have just now said, to ride upon a large saddle, that your weight may be carried (let me speak philosophically) upon more points than it is possible, in a little saddle, to touch upon: and by this you will find that every additional point, provided you be not quite out of all reason, will still ease the places in the middle where you press hardest upon the saddle.

[To be continued.]

DEATH OCCASIONED BY THE BITE OF A HORSE.

ON the 19th ult. an inquest was held at St. Bartholomew's Hospital, before T. Shelton, Esq. on view of the body of Richard Scheveitzer, who died in consequence of a bite from a horse. The following evidence was taken:—

Mr. James Fresby, of 35, Basinghall Street, tailor and draper, being sworn, said the deceased had been in his employ for about nine months, as groom, and was by birth a German. He did not see the accident, but met the deceased going to his surgeon, Mr. Lake, on Thursday afternoon. Deceased told him that on coming down from the hay-loft his foot slipped, and struck the horse, on which the animal bit him severely in the abdomen. Witness had had the horse for nearly nine years, and never knew him to do any one an injury before. Deceased was in the habit of playing with the animal. Mr. Lake recommended the deceased to go to St. Bartholomew's Hospital, whither he was conveyed in a coach.

Mr. James Earle, one of the house surgeons, saw the deceased shortly after he was brought to the hospital. The skin of the penis was torn near the body, and stripped down to the extent of an inch and half; the teeth of the animal did not appear to have penetrated. There was a high degree of inflammation, which was followed by mortification, of which the deceased died on Monday.

The Jury, after some consultation, returned a verdict of "Accidental Death," with a deodand on the horse of 1*s*.

CASE OF A FRACTURE OF THE LOWER MAXILLARY BONE.

TUESDAY, March 27, 1810. A mare, five years old, belonging to Mr. M'Vicar, ran away with a gig from the Leaping Bar Stables in Blackfriars Road, about nine in the evening; she was followed through the Marsh Gate, and over Westminster Bridge, to Charing Cross; but having got much a-head of her pursuers all trace of her was there lost.

The next morning she was found at a yard in St. Martin's Lane, and it appeared that at Charing Cross she came in contact with a coach, against the pole of which she shattered the end of the lower jaw bone, splitting off the two right-hand teeth, and displacing the two centre teeth; she bled considerably, but appeared to have received no other injury, except a slight cut over one eye. She walked cheerfully to Croydon, and on her arrival there the portion of bone split off,

with the two corner teeth loosely attached, was removed, it being much shattered, and several other splinters of bone were likewise taken away.

The mare had gruel, bran mashes, ground oats and chaff, which she eat very readily; there was but little or no inflammation, and every thing appeared to be going on well till Monday, April 2, when the under lip began to swell. On the following day the swelling increased; fomentations were used, and she was bled.

On the 4th there was but little alteration, and the fomentation was continued.

The 5th, the swelling increased in a trifling degree; and on the morning of the 6th, setons moistened with ol. tereb. were put in contiguous to the swollen part. The pulse continued regular, the general health was no way affected, and the mare appeared to suffer no more than might be expected from the stiffness occasioned by the swelling. In the evening the pulse had increased to about 80, the swollen part was rather flattened and cold; it had before been tense and very hot. The setons were again moistened with ol. tereb. but were not raised in the least. The shattered bone had from the first been very fœtid, even the morning after the accident the wound smelled very offensive.

On the 7th in the morning there was every symptom of approaching death; the setons had produced no effect, but were again moistened with oleum terebinth. The swollen part was cold; the pulse 76; the mare became weak, rising with difficulty, and when up unable to stand firmly; the extremities and skin becoming cold. These symptoms terminated about one o'clock, eleven days after the injury was inflicted, in death; evidently occasioned by the extensive mortification that had taken place.

FRED. C. CHERRY.

A BULLET ENCYSTED IN THE HEART OF A DEER.

DR. BRACKEN, the author of the Art of Farriery, speaking of the fatal effects of wounds of different parts, and of the heart as the *primum mobile* of the whole animal machine, adds, " and yet there

are not wanting instances where even wounds of the heart have not proved mortal; particularly I remember the heart of a deer kept as a rarity at Lowther Hall, the seat of that honest and worthy nobleman, the Lord Viscount Lonsdale, which had a musket-ball lodged in it that was healed over, and a callous or hard substance all round it; which convinced me plainly that such a ball had been lodged there a considerable time before that which might be the death of him. And herein we may find, that Nature will often perform things beyond the reach of human skill or foresight.

ACTION ON THE WARRANTY OF A HORSE.

LINDHAM *v.* ROSSITER.

MR. SERJEANT WILDE (with whom was Mr. Crowder) stated, that this was an action upon the warranty of a horse sold by the defendant to the plaintiff. From the evidence in support of the case, it appeared, that on the 19th of August last the plaintiff, Major Lindham, called on the defendant, and inquired if he had a good horse to dispose of. The defendant shewed him a mare, which he warranted sound, and agreed to sell for £12. and two bullocks of the value of £8. The plaintiff consented to the bargain; but on the very day of sale, and particularly three days after, the mare was found to be lame in the near foot, to have tender eyes, and a *prodigiously* bad cough, and was, in fact, so unsound, that it could only waddle down hill, and coughed so violently, that it could be heard from the stable to the kitchen; and it disturbed one of the witnesses so much in smoking, that the pipe fell from his mouth. And, upon examining the mare's fore feet, it was found full of corns. Under these circumstances, the plaintiff was obliged to bring the present action.

Mr. C. F. Williams submitted that, inasmuch as the exact nature of the contract was not set forth in the declaration, the plaintiff must be nonsuited.

Mr. Serjeant Wilde having replied,

Mr. Justice Littledale said he was of opinion that there was a case to go to the Jury, but he would reserve the point of law, and would allow the defendant to move for a nonsuit.

Mr. C. F. Williams (with whom was Mr. Coleridge) addressed the Jury for the defendant, and observed that his client was most anxious to bring this case before them. This was not a common case between a horse-dealer and a gentleman, but the plaintiff was the person who applied to the defendant to know if he had a horse to sell, and the latter knowing him well, sold him the mare without suspecting it was unsound; and if he had any improper motive, he never would have consented to put off the time of payment for three months. Some of the witnesses for the plaintiff went so far as to say the mare was lame the very day it was sold; and, if so, why did the Major, who was an old soldier, never send her back for nine days. Before the action, the lameness was always imputed to the off foot; and Major Lindham wrote a letter on the 27th of August, in which he stated that the feet were all sound, and the lameness was in the off shoulder; and mark the old soldier (said the Learned Gentleman), for he wrote that "he had not mentioned to any one the fact of the mare being lame, and that he had told his servant not to speak about it." He should have thought better of the Major if he had omitted that paragraph. All the witnesses called to support the case, proved that the lameness was in the near foot; and it would be proved, that on the day the mare was sold the shoes were taken off, and no sign of corns was perceptible; and the persons who had the mare from the time it was foaled, to the day it was purchased by the plaintiff, said it was free from any imperfection. Why was not the mare brought here? Because the plaintiff knew the Jury would (as was often done) have an opportunity of seeing whether it was sound or not. It would also be proved that it was not the mare that coughed, but an old black horse belonging to the plaintiff. If the mare had any imperfection, it arose after the sale, and was caused by a pressure on the foot from improper shoeing. He should put these facts in evidence, and would be entitled to a verdict in favour of his client.

Several witnesses having been examined in support of the above statement,

Mr. Serjeant Wilde replied at considerable length.

Mr. Justice Littledale having summed up,

The Jury found a verdict for the defendant.

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THE

FARRIER AND NATURALIST;

OR,

HORSE-MAN'S CHRONICLE.

N°. 20.] APRIL 15, 1829. [VOL. II.

A TREATISE

ON

THE DISEASES AND LAMENESS OF HORSES.

BY W. OSMER. London, 1766.

[Continued from page 105.]

THE fetlock-joint is liable to frequent lameness, from blows received thereon, whereby the ligaments surrounding it become inflamed and rigid, and the integuments are thickened or indurated.

And lameness will be occasioned by strains of the muscular, or tendinous parts of the leg, continued down to the foot of the horse—from windgalls, running thrushes, splints, ring-bone, canker in the foot, straining the tendons of the leg, and what is called a letting down, or relaxation of the sinew, from broken bones, and dislocations.

Now these which have been recited, are the only kinds of lameness, that I have ever been able to discover attending the fore part of the horse—except such as are occasioned by the crisis of a fever, or by injuries received from extraneous bodies. And I have been the more particular in setting forth the nature of some of these, that the unskilful may not be imposed on by the ignorance of farriers, nor the horse punished for incurable disorders.

In the hinder part of a horse, lameness is much less frequent than in the fore part, and less various.

A dislocation of the hip, or whirl-bone, happens very seldom, and

whenever it does, it proceeds from a rupture of the round ligament (occasioned by some violence) or an elongation of the same, from a disease of the part; instances of both which I have seen in a bullock and a horse, as well as of fractures of the head of the thigh bone, and of the os illium.

Now to distinguish with certainty the reality of these, it must be observed, that when the bone is broke in either of these cases, the animal will in a few days begin to rest upon that leg a little, and gradually more and more, till the bone consolidates, and becomes united; but when the round ligament is ruptured, or elongated to a certain degree, the head of the bone falls from the socket, the leg swings, and the animal cannot rest upon it at all, and continually bearing all the weight upon the other leg, he soon becomes lame of that also, and at last does not chuse to stand at all. Moreover, in the case of elongation or rupture of the round ligament, the whole limb becomes longer; and in the case of a fracture of the thigh bone, it becomes shorter; but in a fracture of the os illium, this abbreviation may or may not happen, depending alone on the nature or manner of the fracture.

But the common lameness attending this joint is occasioned by the relaxed state of some of the ligaments belonging to it, brought on by some strain at first, and by exercise continued on such weak part.

From a sudden strain, or exercise continued on a weak part, a swelling will rise on the hock, attended by lameness.

From a strain sudden swellings will arise in the cavities on each side the hock, attended with great pain.

Of spavins there are two sorts, one called the bone spavin, the other the blood spavin.

A curb is a swelling on the joint of the hinder leg, below the hock —all these are generally productive of lameness.

Now these different kinds of lameness befalling the hinder parts of the horse, are, I think, easily distinguished from each other, by their effects on the horse, when put into motion—for instance—if the horse, when made to go on, be lame in any of the parts belonging to the foot, he will endeavour to give the foot ease, by not setting it fully on the ground—if the lameness be in the fetlock-joint, or the tendons of the leg, or proceed from windgalls, or be in the hock, or proceed from any swellings surrounding the hock, or be occasioned by a curb, or spavins, or canker, all such causes will be very manifest to the eye—

if the lameness be in the stifle, he cannot so well perform the extension of the limb, but will drag his toe upon the ground, more or less, according to the degree of injury he has received, as in the manner of lameness in the shoulder; and if it be in the ligaments belonging to the joint of the hip, or whirl-bone, he will in such case rest his foot fully upon the ground, but will halt or step short in his trot with that leg, and yet perhaps be very sound in his walk; and these rules cannot vary, because the parts affected do, from their nature and use, if understood, readily point out the true cause or seat of complaint; that is to say, the motion of the limb will be certain and determinate, according to the injury done to particular parts.

Another lameness there is, which, according to the jockies stile, proceeds from humours.

Now most of the learned world, who have wrote on this subject, have made themselves merry with the jockies and farriers, for using the word humours, when the horse is supposed to have a crazy constitution, or bad habit of body.

And yet herein the learned and unlearned both mean the same thing, as appears from the practice of the one, and writing of the other. The unlearned in this case administer physick, and pissing drinks, put in rowels, and turn to grass; the learned recommend purging, and alteratives, and salt marshes.

But as all words are arbitrary, and at the will of the imposer, it seems to me of little consequence what choice we make of words, provided always, they are used to bear a determinate meaning—so that, for the sake of peace, distinction, and custom, I am well content this good old phrase should stand its ground unmolested.

There is lameness then proceeding from humours; that is to say, the blood and juices in some constitutions are very viscid, and not passing so readily through the various canals of circulation, obstructions do arise, by which the soft parts are affected with pain, and lameness ensues sometimes in one part, sometimes in another.

Pray why is not the word *humours* as proper here, as any other word, if not applied to any other purpose?

[To be continued.]

ON PROFESSOR COLEMAN'S SYSTEM OF SHOEING; AND REMARKS ON NAILING, BY MR. GOODWIN.

IN 1798, Mr. Coleman, with only four years' experience, published a book professing to teach the principles and practise of shoeing, by which the hoof was to be preserved in its circular form, and free from contraction, corns, thrushes, and canker. He moreover, in the same book, advertised certain shops where his system, as he called it, was faithfully practised.

Now if the shoeing smiths he employed proved faithful, his system proved a jilt, as once in about every seven years from that time the reputation of his then system has required the prop of a new fancy, to wit, the iron frog, the internal clip, and the split frog shoe; the birth of each sickly bantling being duly announced with all the importance to be derived from the King's Patent. Like the Re-animating Solar Tincture, the Cordial Balm of Gilead, and other nostrums equally boasting royal patronage, these productions of the Professor's powerful genius have sunk to the tomb of all the Capulets.

But the authority and high sounding name of the Professor of the Veterinary College was so astounding, that none of the host of writers who entered on a consideration of the horse's foot and the modes of shoeing it, were hardy enough to enter the lists against so formidable a champion, and question the truth of his statements. The bubble, as to his system keeping horses sound, had burst, and the credulity which induced a belief that he really had made discoveries in the art of shoeing was smiled at, still the subject might rather be said to be slurred over than to be fully and fairly discussed.

At length Goodwin's book appeared, and there the correctness of Coleman's statements were questioned and fully discussed; since which there has been much less coyness in denying the truth of Coleman's dicta. Now Goodwin, being a practical observer, has devoted a chapter of his book to the subject of nailing, an important part of the operation of shoeing which had theretofore been but lightly considered. It is our intention to present this chapter to our readers, because this is really an important part of the business of a farrier, and we are not aware of any writer who has treated the subject with so much ability.

"Nailing is an important part of the art of shoeing, and deserves mature consideration, as upon it very much depends whether a horse goes sound immediately from the hands of the smith. From a defect in its principle, nailing contributes to the production of those permanent diseases so frequently spoken of. If lameness be caused by a direct stab, it will be seen instantly, as it arises from taking too much hold, pitching the nail inward, and at the same time driving too high in the crust; or from the point of the nail splitting, and taking a contrary direction to what was intended.

"In other cases where the injury is not severe, but where the nails are driven too near, and press on the sensible parts, lameness will not show itself so soon; and the time of its appearance after shoeing will be in proportion to the degree of pressure. In all cases of lameness, where there is no particular external indication, it is prudent to take the shoe off, when, if it proceeds from the effect of a nail, it will soon be discovered; the usual remedies to counteract inflammation will succeed in these cases: Collections of matter on some occasions are found, and produce troublesome ulcers; they are, however, only of a temporary nature. It must have been observed, from the ordinary fuller being made too near the outward edge of the shoe, and from the manner of punching the holes in the fuller, that the nails are intended to be driven into the crust; and Mr. Coleman observes, that, so long as nails are made of iron this must be the practice; nevertheless, since the introduction of the French nail, it has not been so at the college. For instead of driving the nails as was formerly the case, merely into the crust, the French system is now adopted, and the nails are driven obliquely through the sole and the crust. It has, however, been productive of great mischief, inasmuch as it has a tendency to break down and destroy that defence which nature intended to protect the internal sensible contents of the hoof.

"When the diameter of the crust is considered, even in perfect hoofs, and compared with the diameter of the shank of the ordinary nail, it cannot excite surprise to see the hoofs of horses split and mutilated in the manner they are; but when it is further considered that one-half of the feet of horses are defective in the natural production of horn, and have consequently a thin crust, this mode of nailing must add considerably to the number; and as it has been shewn by the nature and direction of the hole, that nails must be pitched inward, and as the hole is so near the outward edge of the shoe, the nail must

necessarily be driven a considerable height in the crust, to get hold enough to afford the shoe the necessary support; and the nail having been driven inwards, it must, in the course of its direction through the hoof, before the point comes out, have taken a curved direction, when the curved part being the nearest to the sensible contents, it must more or less have a tendency to press, in proportion to the degree of curve and approximation, on the sensible parts.

"Much depends on the proper size of the nail. I have on many occasions seen smiths, for want of a proper assortment, drive large clumsy nails into small delicate feet; and on the other hand, small feeble nails, not large enough to fill the clumsy holes of a heavy shoe, for a large foot. The nail holes are generally too near each other; so that the frequency of driving nails so near together, renders that part of the crust a mere shell, full of holes; and the difficulty is great, which smiths frequently meet, in finding even a sound piece of horn to drive the clinch through. It is not unfrequent to observe a smith drive a nail half or three-fourths of the way, then pull it out again, get a fresh nail, give the point a new direction in search of a bit of sound horn to drive some part of the nail in, and repeat this driving and pulling out again eight, ten, or even twelve times, before he considers the nail safe; and it is by no means an uncommon occurrence, when shoes are taken off, to find, where the nails have perforated the crust in the way described, the whole piece come off with the shoe as high up as the clinches. The consequence of such a breach in the wall may be readily imagined; the smith is obliged to look to the remaining part of the crust, where it has not been usual to drive nails, to keep the shoe on by any means; he is therefore driven to the toe and heels, or indeed any part of the wall, where he thinks he can get a nail in, and when the manner in which the weight of the horse is bearing (only on an extreme edge of the shoe) is considered, there must be an unnecessary strain on the nails and clinches, and consequences, like those mentioned, are unavoidable. As I have already stated that a breach in the wall on one side the hoof is frequent, and as it sometimes happens that both sides of the foot are torn off in this way, the toe and back part of the heels are then the only remaining parts where a nail can be driven, and the weight of the animal is thrown on these two points; it may thence be readily imagined that he will not work long in this state; a run at grass for several months will be necessary to restore this loss and waste of horn. It is however often the

case, that so much mischief has been done to the foot, that a run at grass will not remove the consequences, and that some permanent disease has taken place."

VETERINARY SURGEONS' DINNER.

WE insert the following copy of an invitation to a Dinner of Veterinary Surgeons, to be held at the Free Masons' Tavern, on the 22d April.

It gives us great pleasure to see that it is intended to get up an independent dinner, and which we trust will not resemble that usually denominated the "Veterinary Dinner," where the parties meet with a determination to speak in one certain strain, or in other words, to praise one another and the existing state of things at the St. Pancras Infirmary. The Veterinary Surgeon who thinks for himself will not, we hope, now be doomed either to forego the pleasure of meeting his fellow practitioners, or to meet but a very small portion of them, at a Dinner where he had scarcely the power to make a single remark, and certainly not, if it was to the effect that they, the authorities, in a great measure self-constituted, were not all models of perfection.

We understand that an attempt was made by a few persons to confine the dinner to the members of one society. The liberal part of the Profession will rejoice to see that the attempt of these machinators has been completely defeated.

SIR;

THERE will be a Dinner of Veterinary Surgeons held at the Free Masons' Tavern, on Wednesday, April 22, when the favor of your company is requested, to meet a few of your professional brethren, who are desirous of establishing an Anniversary Meeting of the Profession.

Tickets, £1. 1*s*. each, to be had at the bar of the Tavern. Dinner on the table at half past five o'clock precisely.

In order that the necessary arrangements may be made, should it be convenient for you to attend, you will oblige by signifying the same, on or before the 15th, (if by letter addressed post paid) either

to Mr. W. Goodwin, King's Mews, Pimlico; or to Mr. Langworthy, 10, Calthorpe Street, Gray's Inn Road.

March 30, 1829.

VETERINARY SOCIETY.

THE circumstances that have attended the Anatomical Theatre in *Little* Windmill Street, have deprived the Veterinary Society of its ordinary place of meeting. A suitable and permanent place for depositing their preparations, and for meeting, is on the point of being engaged; this will be announced in "THE FARRIER AND CHRONICLE," and the regular sittings will then be resumed. The last two meetings have been held by special adjournment, and the ordinary business of the society has been transacted.

A SINGULAR FACT IN NATURAL HISTORY.

Communicated by the Right Hon. the Earl of Morton, F.R.S. in a Letter addressed to the President of the Royal Society.

MY DEAR SIR;

I YESTERDAY had an oportunity of observing a singular fact in natural history, which you may perhaps deem not unworthy of being communicated to the Royal Society. Some years ago, I was desirous of trying the experiment of domesticating the quagga, and endeavoured to procure some individuals of that species. I obtained a male, but being disappointed of a female, I tried to breed from the male quagga, and a young chesnut mare of seven-eighths Arabian blood, and which had never been bred from: the result was the production of a female hybrid, now five years old, and bearing both in her form and colour very decided indications of her mixed origin. I subsequently parted with the seven-eighths Arabian mare to Sir Gore Ouseley, who has

bred from her by a very fine black Arabian horse. I yesterday morning examined the produce, namely, a two-years-old filly, and a year-old colt. They have the character of the Arabian breed as decidedly as can be expected, where fifteen-sixteenths of the blood are Arabian, and they are fine specimens of that breed, but both in their colour and in the hair of their manes they have a strong resemblance to the quagga: their colour is bay, marked more or less like the quagga in a darker tint. Both are distinguished by a dark line along the ridge of the back, the dark stripes across the forehand, and the dark bars on the back part of the legs. The stripes across the forehand of the colt are confined to the withers, and to the part of the neck next to them; those on the filly cover nearly the whole of the neck, and the back as far as the flanks. The colour of her coat on the neck adjoining to the mane is pale and approaching to dun, rendering the stripes there more conspicuous than those on the colt. The same pale tint appears in a less degree on the rump; and in this circumstance of the dun tint also she resembles the quagga.

The colt and filly were taken up from grass for my inspection, and owing to the present state of their coats I could not ascertain whether they bear any indications of the spots on the rump, the dark pasterns, or the narrow stripes on the forehead with which the quagga is marked. They have no appearance of the dark line along the belly, or the white tufts on the side of the mane. Both their manes are black; that of the filly is short, stiff, and stands upright, and Sir Gore Ouseley's stud groom alleged that it was never otherwise. That of the colt is long, but so stiff as to arch upwards, and to hang clear of the side of the neck, in which circumstance it resembles that of the hybrid. This is the more remarkable, as the manes of the Arabian breed hang lank and closer to the neck than those of most others. The bars across the legs, both of the hybrid and of the colt and filly, are more strongly defined, and darker than those on the legs of the quagga, which are very slightly marked; and though the hybrid has several quagga marks, which the colt and filly have not, yet the most striking, namely, the stripes on the forehand, are fewer and less apparent than those on the colt and filly. These circumstances may appear singular, but I think you will agree with me that they are trifles, compared with the extraordinary fact of so many striking features which do not belong to the dam being in two successive instances communicated through her to the progeny, not only of another sire

who also has them not, but of a sire belonging probably to another species, for such we have very strong reason for supposing the quagga to be. I am, my dear Sir, your faithful humble servant,

MORTON.

Dr. W. H. Wollaston.

P.S. I have requested Sir Gore Ouseley to send me some specimens of hair from the sire, dam, colt, and filly, and I shall write to Scotland for specimens from those of the quagga and of the hybrid.

I am not apt to build hypotheses in a hurry, and have no predilection either for or against the old doctrine, of impressions produced by the imagination; but I can hardly suppose that the imagination could pass by the white tufts on the quagga's mane, and attach itself to the coarseness of its hair.

(Note by Dr. Wollaston.)

By the kindness of Sir Gore Ouseley, I had an opportunity of seeing the mare, the Arabian horse, the filly, and the colt, and of witnessing how correctly they agreed with the description given of them by Lord Morton. Having shortly afterwards described the circumstances to my friend, Mr. Giles, I found that he had observed some facts of nearly equal interest.

CASE OF A NEGLECTED CORN.

A BAY mare, lame of a neglected corn, was turned out to grass. In about two months, when she was taken up, a hole was found on the inside of the foot, running upwards under the horn toward the coronet. The horn being cut away the sinus was found to extend to the heel of the coffin-bone, which was denuded to a considerable extent.

Nov. 10. The wound was injected with a solution of sulph. zinc.

12th. The wound is in the same state with a serous discharge; dressed as before.

14th. No better; some powdered arsenic was introduced into the wound, and pushed quite down to the bottom with a probe.

18th. The bone appears to be in progress towards exfoliation, in other respects the wound appears the same; a pledgit of tow spread with turpentine was merely laid over the orifice, and the coronet blistered.

23rd. The bone appeared to have exfoliated; the horn was removed from around the orifice of the wound, and several small spicula of bone extracted; it was then syringed with solution of sulph. zinc, and a plaister of turpentine tied over it.

26th. Rather better; dressed as before.

30th. Ditto ditto

Dec. 4. The mare is better, but the wound does not go on as kindly as might be wished; it was injected with acid nitric ʒij. aqua ʒj.

From this time till the end of the month the part continued to go on well, when the wound was healed and the foot was very little deformed, the mare going sound.

EDWARD F. CHERRY.

CASE OF INDIGESTION.

MARCH 4. A black mare, aged, was found in great pain, frequently lying down and struggling, the symptoms very much resembled those of spasmodic gripes; they differed however inasmuch as the pain seemed more continued, and was attended with great prostration of strength.

Ol. tereb. ʒiv. with aloes ʒij. was administered in some gruel; two quarts of blood were taken, though with some difficulty, as the blood flowed slowly and was very dark coloured. The mare however, not being relieved in about two hours, was removed to the infirmary, whither she was conducted with great difficulty, as her hinder parts were nearly paralysed: she was assisted, or rather carried the whole distance, about 500 yards. It was now decided that over distension of the stomach was the cause of these symptoms, ʒiv. more of the ol. tereb. with ʒvj. of aloes were administered; she soon afterwards became more tranquil and continued so through the night.

5th. Is better; can move round the box, though very weakly. Medicine operates, but slightly; has had two evacuations, two-thirds of which consisted of undigested corn; the eyelids are very much swollen from the effects of the bruises inflicted during her paroxysms of pain.

6th. Is nearly in the same condition; medicine has only occasioned two more evacuations, which like the former consisted chiefly of undigested corn. The mare eats a small quantity of hay and drinks freely of water. On being led out she walked very weakly, but inclined very much to the left side.

7th. About the same; gave aloes ʒix.

8th. The mare purges gently, a great deal of corn comes away from her; she walks better, but still has the same inclination to the left side.

10th. Rather better.

11th. Gave aloes ʒvj. the bowels being rather confined.

12th. Purges freely, and although the mare has not had any corn since the first attack, several grains were observed among the dung.

13th. The mare walks better but still inclines very much to the left side; she appears very weak, eats hay and mashes.

14th. She returned to her own stable, where she was treated with tonics until the 20th, when she was fit to go to work.

I consider the above a well marked case of indigestion, or, as it was formerly called, stomach staggers. It is somewhat remarkable that notwithstanding the purging, corn in an undigested state should have come away from her eight days after she had eaten any. The owner, on being questioned, stated that she had been allowed as much corn as she chose to eat, of which indulgence she had taken ample advantage, at the same time eating but a very small quantity of hay.

EDWARD F. CHERRY.

[THE two following cases of mortification and of locked jaw were sent to us by a scientific and successful Veterinary Surgeon. They were recorded by him while an apprentice to a Farrier, and were

lately found among some old memoranda. Too much cannot be said on the advantages of acquiring a habit of recording practice.]

CASE OF MORTIFICATION, OCCASIONED BY BRUISES.

A HORSE was severely bruised in the elbow by being drawn some distance while under the shafts.

Treatment.

Gave him a dose of physic and fomented the parts; inserted a rowel in the brisket; continued the fomentation until the wound had a healthy appearance, and discharged a good white matter; it was in an apparently good state.

On Friday, a dropsical swelling surrounded the rowel, gave him a cordial ball and opened the swelling with a budding iron, and applied a stimulating ointment to the surface of the swelling.

Saturday. In much the same state; syringed some digestive ointment into the wound.

Sunday. The wound had a very peculiar scarlet appearance, and in the night the horse was very restless.

Monday. No discharge from the wound and surrounding parts cold, the wound having a peculiar sort of smell. The horse died in the course of the morning.

On opening the horse, the elbow was found in a complete state of mortification.

CASE OF LOCKED JAW, OCCASIONED BY PICKING UP A NAIL.

A HORSE picked up a kennel nail: on the 15th of March the foot was poulticed and a diuretic ball given.

16th. The foot was pared thin and a bar shoe applied, the foot dressed with a drawing stopping; a diuretic ball given, and a rowel inserted in the brisket.

17th. Foot and leg dressed as before, and dose of physic given.

18th, 19th, 20th. Foot and leg dressed as before. At this time the horse went sound, and, after a day or two's rest, the proprietor worked him very hard.

On the 29th sent for to the horse, found him rather feverish, and that he could not open his mouth sufficiently wide to admit of giving him a ball. Gave him some opening medicine in drench, and took about two quarts of blood from the neck, and rubbed some stimulating ointment into his glands.

30th. Inserted a rowel on each side of the neck and sweated glands.

31st and 1st April. Ditto.

2d. Ditto, and plugged ears with garlic.

3d, 4th, 5th, 6th. Sweated glands.

7th. Bled in both jugular veins and sweated glands.

8th, 9th. Sweated glands.

10th. Inserted a rowel under the jaw and blistered glands.

11th. Opened both eye veins.

12th. Horse so bad that they ordered him to be killed.

He wore a hood from the commencement of the disorder, and was kept moderately warm. Subsisted entirely on gruel and mashes.

CHARACTER OF THE MAHRATTAS AS HORSEMEN AND FARRIERS.

(From the New Ann. Reg.)

THE bigotry with which all sects of Hindoos adhere to their own customs is well known; still when these customs are strikingly injudicious, and totally abstracted from religious prejudices, perseverence degenerates into obstinacy, and simplicity into ignorance. So it is with the Mahrattas in abiding by their present practice of cutting the hoof and shoeing horses: they cut away the hinder part of the hoof, in such a manner that the pastern almost touches the ground, and the frog is suffered to grow so that the hoof is nearly a circle, in which form the shoes are made, the hinder parts almost touching;

and so thin, that a person of ordinary strength can easily twist them. Instead of making the back part of the shoe the thickest, they hammer it quite thin, making the fore part thickest, and the shoe gradually becoming thinner, ends in an edge.

The farriers travel about camp, and, whenever they are wanted, do the business on the spot; as they carry a dozen ready-made shoes, with nails, and all their implements in a bag. The anvil weighs five or six pounds, and is driven into the ground; a hammer or two, a pair of pincars, and a clumsy knife to pare the hoof are all their tools. They use no rasp, but pare the hoof to fit the shoe. During the job, the horse-keeper, or groom, holds the horse's foot up with a thong, that the operator brings in his bag. The nails are clumsy, with round heads, and are not let into a groove in the shoe: its thinness would not admit of it. With difficulty two or three were prevailed upon to learn our method of making and fixing shoes, and were employed by almost our whole line, but will, doubtless, when we left them, have taken again to their former manner.

It is but justice, however, to give them credit for their skill in that part of farriery that relates to cutting, in which we think Europeans might take a lesson. The part is not extracted whole, but a ligature is tied tight round the scrotum, so as to prevent any nourishment being received, and in a few days the part to be removed is dissolved, the scrotum punctured, and its contents let out in a kind of pus. Emmolients are put into the scrotum, and in a short time the horse is well. This method is certainly, upon the whole, more expeditious, less painful, and said to be safer than cutting; indeed the operator will insure the horse for a trifle. The animal is commonly purged and brought to a proper temperament before the operation. It is not, however, common, among the Mahrattas, to make geldings; never indeed, but when, from vice, a horse is unmanageable. Bullocks are made in the same manner, and in another very cruel one.

With the Mahrattas long fetlock-joints are esteemed, although they are not ignorant of its being a sign of weakness, they say it makes the animal easier in his paces, which may be true, as it would appear that a horse's fetlocks act like springs to a carriage.

POWER OF THE SWORD-FISH.

THE following curious account of the surprising power of the sword-fish, we extract from Barrow's Voyage to Cochin China:

"There are instances, still more extraordinary than the salmon leap, of the astonishing power which the muscles of fishes are capable of exerting; so very extraordinary indeed, that were they not authenticated in such a manner as not to leave the possibility of a doubt, they would certainly be considered as the invention of voyagers. Ships' sides of thick oak plank have been completely perforated by the snout of the sword-fish, not of the common species, the *Xiphias Gladius*, of which we struck one at the entrance of Porta Praya Bay, but another, or at least a variety, of greater dimensions, being sometimes from twenty to thirty feet in length, and distinguished by a large spotted black fin, and by the rounded extremity of the snout or bony proboscis. Van Schouten, of Horns, in his very entertaining voyage round the world, about the beginning of the 17th century, states that 'a great fish, or a sea-monster, having a horn like a common elephant's tooth, not hollow but full, struck the ship with such great strength that it entered into three planks of the ship, two of green and one of oaken wood, and into a rib, where it turned upward, to their great good fortune.' In the year 1801, a Danish ship came into the Cape of Good Hope, in consequence of springing a leak off the Brazil coast. On examination, it was found that she had been struck by a sword-fish, the snout of which had penetrated the bottom, where it still remained, having snapped close on the exterior side of the vessel. In the same year, a small English ship came into Table Bay, having received, in the Southern Atlantic, a stroke from a sword-fish, which buried part of the bony snout so deep in the stern-post as to impede the action of the rudder. These two facts consist with my own knowledge, which, together with the piece of plank from the bottom of an East Indiaman, now in the British Museum, transfixed by the sword of this fish, may satisfy the doubts of the most sceptical on a subject which was known to the ancients perhaps more than 2,000 years ago, as it is mentioned by Pliny to be a fact indisputably established long before his time."

Printed by John Hill, Black Horse Court, Fleet Street.

THE

FARRIER AND NATURALIST;

OR,

HORSE-MAN'S CHRONICLE.

N°. 21.] MAY 1, 1829. [Vol. II.

A TREATISE

ON

THE DISEASES AND LAMENESS OF HORSES.

By W. Osmer. London, 1766.

[Continued from page 115.]

CHAPTER VI.

Treats of the Management of these Kind of Lameness which have been already recited.

NOW the farriers, when the cause of lameness in the fore part of the horse is not visible to them, do most frequently assert, that it is in the shoulder, and by chance, that it is in the foot.

When they allow this last to be the case, their method of acting is first to blister, and then to fire upon the coronary ring all round, at various intervals of space.

But blistering inflames, and firing contracts the coronary ring, which is, or should be of a pliant nature, and renders it more rigid; the effects of which seem to want no annotations.

For strong and deep or narrow feet keeping at grass, or loose in a house, and short shoes, are very beneficial; and most horses with such feet, especially on training ground, would do full as well, perhaps better, if their fore feet were never shod at all, but were kept rasped short at the toe, and their crust at the bottom was occasionally pared down.

For lameness arising from a sudden false step, which, if I rightly understand La Fosse, he calls a compression, and which he accounts for by the action of the coronary bone pushing the nut-bone against the tendon, and compressing the same as between an anvil and a hammer, he has proposed two remedies, to remove the inflammation caused by it, and its bad consequences,—one is to draw the outer sole—the other is to pare it, till it becomes thin and flexible, to bleed in the foot, and to use emollient poultises and fomentations round the foot and the coronet; three-fourths of these cases, he says, are cured by such methods without drawing the sole; and I beg leave to add, that I believe all might be, if they were immediately taken in hand, and the crust or hoof was also pared down as low as possible, and rendered thin on every part—because, the interior inflamed parts will be more relieved by external applications, when the thickness and stricture of the crust are removed, than when the outer sole only is pared away—but the great objection I have to drawing the sole, besides the cruelty of the operation, is, that nineteen horses in twenty (here in England I mean) have always been more or less lame afterwards, when used again, and that from a contraction of the hoof occasioned by such operation.

And here I beg leave to add one observation more on the folly and absurdity of our English shoers, with respect to their treatment of ass-footed horses, and which has been in part spoken of before. Now horses with such feet being generally lame, it is a constant custom with these men, to pare away all the outer sole of such horses as much as possible, and to render their feet hollow. By this they propose to remove the pressure or binding of the outer sole upon the inner, and so to cure his lameness, which, by the by, I never yet saw give so much as a temporary relief—but if it did, it would still be a bad custom—for the pressure or binding of one sole upon the other, is in this case owing to the depth and strength, and contexture of the crust or hoof first compressing the outer sole; so then by paring away the outer sole, which helps to keep the crust or hoof expanded and open, such crust or hoof is rendered deeper, stronger and narrower also than it was before; by which addition of strength, depth and contraction, the outer sole, as it grows again, is also more strictly embraced and compressed than it was before; hence the pressure or binding on the inner sole is increased, and that still more, every time such outer sole is pared away, till the horse at length becomes so lame, that he cannot well carry himself.

Now the proper way of treating such feet is, to pare down the crust as much as possible, without falling into the quick, to keep the frog high, and the outer sole full, and even with the crust, and to relax, and soften and expand the hoof by all methods.

[To be continued.]

MEDICINE CONTRACTOR *v.* VETERINARY PROFESSOR.

To the Editor of the Farrier and Horse-Man's Chronicle.

SIR;

YOUR intelligent correspondent "VETERINARIAN," in the Number for March 15, of your independent professional Journal, asks, "Does Professor Coleman believe that his Assistant possesses the power of curing glanders? if so, why is the treatment he pursues not in the general orders of every regiment, for the guidance of every Regimental Veterinary Surgeon? Why are they left without orders, when it is notorious that horses are constantly destroyed for glanders?"

Now whether Professor Coleman does or does not believe in his Assistant's power of curing glanders, I will not decide; but the following statement of facts may be something like a reason, why that treatment, whatever it may be, or any other, is not pursued in the army; and further, why experiments are not varied and multiplied in this ample field for experiment and observation.

Be it known then, that Professor Coleman, who is furthermore Principal Veterinary Surgeon to the Cavalry, is also Contractor for the supply of Horse Medicines to the Cavalry at a fixed sum per horse: it therefore follows that his profits are in proportion to the smallness of the quantity of medicines consumed.

Now as no experiments can be made, or medical treatment pursued towards the curing of glanders, without a consumption of medicine; and as I have already shewn that the cost of the medicine so to be consumed must be stopped and diverted from its course on its way to the Contractor's pocket, it follows that the Principal-Veterinary-Surgeon-Contractor looking to his own interest, (and those who know him will not accuse him of negligence on this score,) cannot be

very anxious to encourage medical treatment or the making of experiments in a disease which has obtained the reputation of being incurable. A pistol bullet is no expense to the Contractor, and it cuts short every other.

If amplification on this subject is necessary I am prepared to go on with it under my real name, but for the present, I shall merely subscribe myself,

Your well wisher,

AN ARMY VETERINARY SURGEON.

April, 1829.

[We have much to add on this most important subject which has long engaged our serious attention. The question is of much more importance in its consequences than may at first be supposed, and these consequences shall be developed. ED.]

VETERINARY SURGEONS' DINNER.

IN our last number we inserted a copy of an invitation to a Dinner of Veterinary Surgeons, to be held at the Free Masons' Tavern, on the 22d of April.

That invitation was superceded byanother letter, of which we now insert a copy, as follows: *viz.*

SIR;

THE Anniversary Dinner of Veterinary Surgeons, will take place at the Free Masons' Tavern, Great Queen Street, on Wednesday, April 22d, 1829.

Professor Coleman in the chair. Stewards, W. J. Goodwin, Esq.; John Green, Esq.; A. Henderson, Esq.; J. H. Langworthy, Esq.; W. Percival, Esq.; James Turner, Esq.

Dinner on table at six precisely.—Tickets, one guinea each, to be had of the Stewards, and at the bar of the Tavern.

In order that the necessary arrangements may be made, should it be convenient for you to attend, which is earnestly requested, you will oblige by signifying the same, on or before Monday, the 20th

instant, if by letter (post paid) addressed to Mr. W. Goodwin, King's Mews, Pimlico; or to Mr. J. H. Langworthy, 10, Calthorpe Street, Gray's Inn Road.

We beg to apologize for troubling you with a second circular, but it is in consequence of Professor Coleman taking the chair, which was not at first expected.

14*th April*, 1829.

We are not acquainted with all the circumstances that rendered necessary this second letter; however it appears, that an anniversary meeting proposed on the 30th of March, *to be established*, had by the 14th of April, become matured into "*the* Anniversary Dinner of Veterinary Surgeons;"—a rapidity of growth that can only be accounted for by Professor Coleman taking the chair, which was not at first expected.

The dinner took place on the 22d of April, and was most respectably attended by nearly forty gentlemen of the Profession. It somehow or other had got abroad that Professor Coleman was to make certain propositions, tending to remove some of the grievances now generally complained of by the Profession, and to enter on other matters connected with its welfare. The viands were excellent—toasts were given and drank—songs were called for and sung—but still not a word from the chairman respecting the Profession, or any matters connected with it.

At length a gentleman rose, and in a somewhat sermonizing strain, drew attention to one of the supposed objects of the meeting; this brought forth a long speech from Mr. Coleman, in which he travelled over an already well-beaten track, and professed much regard for the honour and well-being of our Profession; still no tangible proposition was submitted to the meeting.

Several gentlemen in succession briefly addressed the meeting, and the prevalent opinion was, that reformation of some kind was necessary in the constituted authorities: but as the evening was now advanced, and it was evident that much matter would be brought forward, that much time would consequently be necessary for its consideration, it was decided that the remainder of the evening should be devoted to conviviality, and that a meeting should take place at the Free Masons' Tavern, on Monday, the 27th of April, at seven o'clock

in the evening, for the especial purpose of considering the real state of the Veterinary Profession, and discussing any propositions that may be brought forward. With the proceedings of that meeting we shall endeavour to furnish our readers.

Good humour, good sense, and a freedom of speech that we have but rarely heard in the presence of the Professor, marked the character of the meeting; evidently shewing that the spirit of inquiry now abroad cannot easily be stifled. As early and zealous labourers in the vineyard of reform, we must hail these appearances with great pleasure.

A METHOD OF

OBTAINING A GREATER NUMBER OF ONE SEX,

AT THE OPTION OF THE PROPRIETOR,

IN THE BREEDING OF LIVE STOCK.

IN the "*Annales de l'Agriculture Française,*" Vols. 37 and 38, some very interesting experiments are recorded, which have lately been made in France, on the breeding of Live Stock. M. Charles Girou, de Buzareingues, proposed, at a meeting of the Agricultural Society of Séverac, on the 3rd of July, 1826, to divide a flock of sheep into two equal parts, so that a greater number of males or females, at the choice of the proprietor, should be produced from each of them. Two of the members of the society offered their flocks to become the subjects of his experiments, and the results have now been communicated, which are in accordance with the author's expectations.

The first experiment was conducted in the following manner: he recommended very young rams to be put to the flock of ewes, from which the proprietor wished the greater number of females in their offspring; and also, that, during the season when the rams were with the ewes, they should have more abundant pasture than the other; while, to the flock from which the proprietor wished to obtain male lambs chiefly, he recommended him to put strong and vigorous rams four or five years old.

The following tabular view contains the result of this experiment:

FLOCK FOR FEMALE LAMBS.

Age of the Mothers.	*Sex of the Lambs.* Males.	Females.
Two years -	14	26
Three years -	16	29
Four years -	5	21
Total	35	76
Five years & older	18	8
Total	53	84

N.B. There were three twin births in this flock. Two rams served it, one fifteen months, the other nearly two years old.

FLOCK FOR MALE LAMBS.

Age of the Mothers.	*Sex of the Lambs.* Males.	Females.
Two years -	7	3
Three years -	15	14
Four years -	33	14
Total	55	31
Five years & older	25	24
Total	80	55

N.B. There were no twin births in this flock. Two strong rams, one four, the other five years old, served it.

The second experiment is thus related by the author:

During the summer of 1826, M. Cournuéjouls kept, upon a very dry pasture, belonging to the village of Bez, a flock of 106 ewes, of which 84 belonged to himself, and 22 to his shepherds. Towards the end of October he divided his flock into two sections, of 42 heads each, the one composed of the strongest ewes, from four to five years old; the other, of the weakest beasts under four or above five years old. The first was destined to produce a greater number of females than the second. After it was marked with pitch in my presence, it was taken to a much better pasture behind Panouse, where it was delivered to four male lambs, about six months old, and of good promise. The second remained upon the pasture of Bez, and was served by two strong rams, more than three years old.

The ewes belonging to the shepherds, which I shall consider as forming a third section, and which are in general stronger and better fed than those of the master, because their owners are not always particular in preventing them from trespassing on the cultivated lands, which are not inclosed, were mixed with those of the second flock. The result was, that the

	Males.	Females.
First section gave - -	15	25
The second - - -	26	14
The third - - -	10	12
In the first section there were two twin births	0	4
The second and third there were also two	3	1

Besides these very decisive experiments, M. Girou relates some others, made with horses and cattle, in which his success in producing a greater number of one sex rather than another also appears. The general law, as far as we are able to detect it, seems to be, that, when animals are in good condition, plentifully supplied with food, and kept from breeding as fast as they might do, they are most likely to produce females. Or in other words, when a race of animals is in circumstances favourable for its increase, nature produces the greatest number of that sex which, in animals that do not pair, is most efficient for increasing the numbers of the race: but, if they are in a bad climate, or on stinted pasture; or, if they have already given birth to a numerous offspring, then nature, setting limits to the increase of the race, produces more males than females. Yet, perhaps, it may be premature to attempt to deduce any law from experiments which have not yet been sufficiently extended. M. Girou is disposed to ascribe much of the effect to the age of the ram, independent of the condition of the ewe.

MIGRATION OF BIRDS, EXTRAORDINARY POWERS OF DIGESTION, &c.

THE following is a table of the migration of several of our British birds, taken on the average of about twenty-six years, from the observations of Mr. Markwick:

	FIRST SEEN.	LAST SEEN.
Swallow	April 18	October 31.
Swift	May 9	September 3.
Cuckoo	May 1	July 10.
Wheatear	May 4	September 26.
Land Rail	September 1	October 20.
Quail	August 20	———
Field Fare	November 21	April 10.
Red Wing	November 20	March 18.
Woodcock	October 20	April 1.
Snipe	November 20	March 20.
Jack Snipe	December 26	March 16.
Royster Crow	May 22	March 26.

These observations were made in Sussex. The time must considerably vary, owing to the impossibility of seeing them on their immediate arrival, and the impossibility of ascertaining the departure of the last of the species.

It bas been affirmed, that the peculiar notes of all birds are acquired, and by no means natural to them. Thus, it is said that if a sparrow were taken, when very young, and placed in the nest of a bullfinch, it would chirp exactly in the same note. But I think, from actual observation, that little reliance is to be placed upon this opinion, as it is universally known that a cuckoo never rears its own offspring, but lays its eggs in the nest of some other bird—see Bewick on Birds,—and leaves them to be hatched and reared by their foster parent. If, then, the young bird always acquired its note from hearing the old one's note, how could we possibly ever hear the voice of the cuckoo, since it must necessarily, according to the mistaken opinion, use the same song as the bird that reared it? On the contrary, also, young cuckoos have been reared by other birds, without once hearing the voice of a cuckoo, and have still uttered their native "Cuckoo." Besides, if this mistaken notion took place with regard to birds, it must also have the same effect with regard to beasts; and, although experiments of that description have frequently been tried, I challenge the world to produce an instance of a cat that has been reared by a bitch, barking; or of a squirrel reared by a cat, mewing.

Mons. Reaumur, a celebrated French naturalist, has demonstrated, that if you stop up the pores of an egg with varnish, or a thin covering of mutton-suet, it may be preserved perfectly fresh, and generally fit for incubation, five or six months after it has been laid.

The stomach of a cock, in twenty-four hours, wore away the angles of a piece of glass, it was made to swallow for the sake of experiment, and, on inspection, the gizzard was found not to be in the least lacerated or injured by it.

Twelve strong tin needles were firmly fixed in a ball of lead, the points of which projected about a quarter of an inch from the surface. It was forced, in this state, down the throat of a turkey. The bird retained it almost two days, without the least appearance of uneasiness. The points of all the needles were broke off close by the ball, except two or three, of which the stumps projected a little.

In the same manner, twelve small lancets were given to a turkey-cock. On dissection, nothing appeared but the naked ball, the twelve

lancets having been broken all to pieces, while the stomach was perfectly sound and uninjured.

These are authentic facts, and I hope you will deem them worthy of insertion. In the hope of which I beg leave to subscribe myself your most devoted admirer.

AUCEPS.

REVIEW.

THE JOURNAL OF A NATURALIST, *pp.* 396. *post* 8vo. 15*s.* 1829. MURRAY, London.

AS a considerable portion of our work is devoted to the diffusion of Zoological knowledge, we cannot allow the present volume to pass unnoticed, as it deserves the perusal of all classes—and for the benefit of our readers we shall give an analysis of this interesting *Journal*, for the language is so facile and easy, science and amusement being so blended together, that the reader is almost insensibly led gradually onward, and acquires a very great portion of instruction, while he imagines himself only engaged in an agreeable species of amusement.

The work commences with a brief but comprehensive description of the nature of the soil surrounding the author's residence, which is "situate upon a very ancient road, connecting the city of Bristol with that of Gloucester, and thus with all the great towns in England."

The first of our extracts shall be an interesting but short account of

"The FOX-GLOVE, *(digitalis purpurea,)* which is found with us, in one or two places only, rather existing than flourishing, manifesting, like many other plants, a marked partiality to particular soils. It produces an abundance of seed, yet seems to wander little from the station its progenitors had fixed on, as if that alone was congenial to its habits; but with us the soil varies greatly. In the west of England it thrives and increases with particular luxuriance; but many counties may be searched in vain for a single specimen. It seems to prefer a sandy, gravelly, or loose drained soil; not I think vegetating

in strong retentive earths. We have few indigenous plants, not one perhaps which we have so often summoned to aid us in our distresses as the fox-glove: no plant, not even the colchicum, has been more the object of our fears, onr hopes, our trust, our disappointment, than this: we have been grateful for the relief it has afforded, and we have mourned the insufficiency of its powers."

"As a mere flower, the digitalis is a very handsome plant: and could we rely upon its yielding the virtues it is considered to possess, or could we regulate or controul its influence, it would exist unrivalled for beauty and worth amidst our island plants." *pp.* 89.

We regret the author has not given a botanical description of this and many other plants he mentions, had he done so it would have been beneficial to the student during his rural rambles; however, as we shall shortly give the history, powers, peculiarities, &c. of the various veterinary remedies, we shall quit this subject, and call the reader's attention to our author's description of

"The MOLE *, *(talpa Europæa,)* is common with us, as it appears in most places: and no creature gives more certain indications of its presence, such places as its predecessors have done, though years may have intervened since they were frequented, and rains, and the treading of heavy cattle, have compressed to solid earth the ancient runs; and however assiduously we may destroy them, should they appear again, it will probably be in the same places that have been formerly perforated by others. The earth that these animals eject from their runs, being obtained from very near their surface and finely pulverized, has tempted me more than once to have it collected for my green-house plants, but not with the success which I had conjectured. Some persons have advocated the cause of moles, as being beneficial to vegetation, by loosening the soil about the roots of plants. Evelyn and others, again, censure them as injurious creatures; and there is a strange variation in Buffon, accusing them of eating all the acorns of a newly set soil. I am not aware of any benefit occasioned by their presence; their warpings certainly give our pastures in the spring a very unsightly appearance, and in grounds designed to be mowed oc-

* We shall, in a subsequent number, insert a paper on the comparative anatomy of this animal, by an eminent Zootomist.

casion much trouble, by obliging us frequently to spread and remove them; and in newly sown corn lands they disturb, by their runnings, the earth at the root of the grain. But these, perhaps, are trifling complaints, these, almost imaginary grievances, are the only evils that can be attributed to them."

"In those wild creatures that are not immediately applicable to our use or amusement we are more generally inclined to seek out their bad than their good qualities; and though I cannot produce any instance in which the utility of the mole is manifested, yet it is reasonable to conclude that they eminently are so, either directly or collaterally, nature having provided in an especial manner for a constant supply*, and their increase is prodigious when they are not molested. I have killed, for two years in succession, between forty and fifty in each season, in a very few acres of ground; and, notwithstanding all our stratagems for their destruction, and the ease with which they are entrapped, still plenty always remain to recruit our annual waste of them. These creatures are supposed to have a very imperfect vision, and, like insects, have not any external ear, or manifest organ through which sounds can be received; yet we can in no way suppose that they have been created with any deficiency of power to accomplish all the objects of their being, but that every possible exigency has been provided for. Perceptions may be conveyed in very many instances by intelligences unknown to us, and unquestionably are so. The defect of one power is frequently supplied by the increased activity of another; and the sense of smelling in the mole must be unusually acute, to enable it to pursue and capture its prey with the facility it does. Its sole food, we believe, is worms; and these sensitive creatures retire immediately upon the smallest moving of the earth in which they reside. Now, as it follows them through all their meanderings, in which neither eyes nor ears would assist it, a fine sense of smelling seems necessary to enable it to catch them; and that its success is equal to its wants, and that it feeds plentifully, is manifest by the excellent condition in which the mole is found at all seasons of the year.

"It will penetrate banks of earth after worms lodged in the interior, hunt for them in the richest part of the field, or on the edges of dung-heaps: in all of which pursuits some unknown faculties may

* See Ray's Synopsis.

direct it; but no sense, that we are acquainted with, could promote its objects so effectually as that of smell. My *talparius*, a very skilful capturer of these animals, is so sensible of the power that moles are gifted with of readily discriminating smells, that his constant practice is, to draw the body of a captured animal through his traps, and the adjoining runs and passages; to remove all suspicious odours which might arise from the touch of his fingers. Its feeling, too, must be acute; as, when casting up the earth, it is sensible of the pressure of a very gentle foot; and, unless our approaches are conducted with great caution, it ceases its operation and instantly retires."

"Whoever will examine the structure of the body of a mole, will perhaps find no creature more admirably adapted for all the purposes of its life. The very fur on the skin of this animal manifests what attention has been bestowed upon the creature, in providing for its necessities and comforts. This is singularly, almost impalpably, fine; yielding in every direction, and offering no resistance to the touch. By this construction the mole is in no degree impeded in its retreat from danger while retiring backwards, as it always does upon suspicion of peril; not turning round, but tail foremost, until it arrives at some collateral gallery, when its flight is head foremost as with other creatures. If this fur had been strong, as in the rat or mouse, in these retreats for life it would have doubly retarded the progress of the creature; first, by its resistance, and then acting as a brush, so as to choke up the galleries, by removing the loose earth from the sides and ceilings of the arch-ways; thus impeding at least, if not absolutely preventing, retreat; but the softness of the fur obviates both these fatal effects." *pp.* 142—147.

"The flesh of the mole is remarkably rank and offensive, as, from the nature of its food, might be expected; and it taints the fingers, which have touched it, with its peculiar odour, so that one washing does not remove it." There are but few animals that prey on this creature on this account. However "foxes eats moles, and will at times dig out the traps containing them. The brown owl too feeds on them, when it can meet with them outside of their runs hunting after dew-worms; and probably the smaller vermin do the same; but the cat and the dog turn from them with manifest aversion as food; though they will hunt and kill them as objects of the chase.

"These animals we might suppose, while in their subterranean

dwellings, would be secure from all injury, by such as generally pursue their prey upon the surface of the earth; but I have several times known the weasel caught in the mole-traps, making it manifest, that it hunts after the mole for its food, and in doing so, according to our comprehension, must encounter infinite danger from suffocation; but it is more probable, that so active a creature as the weasel is endowed with powers to accomplish its object with impunity, which we are not yet acquainted with." *pp.* 149, 150.

We have to regret that our limits will not permit us to allow further extracts; the above, however, are sufficient to give our readers a specimen of the *materiel* composing this volume, *viz.* a Selection from the Author's Diary; his delineations of the habits of the migratory and indigenous birds, are easily to be recognised by all observers of nature; and had the author been more perfect in the botanical department, it would (as we have already stated) have rendered it more valuable. The engravings are exceedingly well executed.

H. W. D.

ASSININE ANATOMY;

OR,

THE LAMENT OF NEDDY BRAY.

A CHARACTERISTIC CAMDEN TOWN CHAUNT.

AIR.—" *There's nae luck about the house,*" *&c.*

OF *body-snatching*, much of late
Some folks have had to say;
But, at the *Horses'* College gate,
Oh! list to *Neddy Bray.*
Alas! I'll tell a *Tale* of strife,
Tho' *tail-less* is my *head;*
How hard in *Death* my *Tale* of *Life*
Should thus be *Re-tail-ed.*

I was the *oldest* of the flock
That poor *Old Neddy* had;
Nine others form'd the *Youthful Stock*
Of my Old *Dame* and *Dad:*
We all *fell* here—'tis known full well—
And deathly *falls* they were,
As each *fell off*, the list to swell—
"*What a falling off was there.*"

I liv'd, alas! to weep their *loss,*
Nor thought I *lost* should be;
But, ah! I found there was a CROSS*,
That *crossly* look'd at me:
And *cross'd* I was—but not in Love,
As you shall quickly know;—
A knife *under*—my throat—did prove
My *cross* and *overthrow.*

I did not *think* there were such folk,
All *feeling* to resign,
Who *think* it nothing but a joke
To *act* so *Assinine:*
To *snatch* poor *Donkeys* while alive,
Is nothing less than Turk-ish;
And those who sell them should not thrive,
By *acts* so vile and BURK-ish.

Now while you hear my dismal lays,
Oh *think* how *hard* and cruel
Has been the fate of all the BRAYS,
Thou *Demonstrator*† SEWELL.
Let *soft* compassion *warm* your hearts,
If *warmth* there yet can be;
COLEMAN—if you don't take our parts,
What a *Cold-man* you must be.

* The College knacker.

† This gentleman has but little to answer for on the score of Donkey-slaughter; demonstrations, by him, seldom occur.

But as for *parts*—alas, I've none,
Though once I had *four* feet;
My *legs four* different ways are gone,
My *head's* in *Nassau Street:*
As for my *Eyes*, once *clear* and *bright*
As *morning-star* that *shines;*
All *dicky* now, they're *dull* as *night*,
Cut up by *Dickey Vines.*

My *carcase* and *internals* too,
All sold to *Simon Snidge*,
Are in a *cart*—sent off to *stew*
For *Cats*—at *Battle Bridge.*
I wish the *Cats* were on his back,
Well arm'd with all our *fine tails;*
I'm sure he then would feel a thwack
Of more than *Cat-o-nine Tails.*

Such things are done in *Camden Town*
As scarcely bear reflection;
Poor *Horses* groan and *Donkeys* moan,
At MORTON and *Dissection.*
Adieu, thou sad and dreadful School
For *Asses* and for *Horses;*
I was no *Mule*—yet know by Rule,
This world is full of CROSSES.

The morning dawns, the fresh'ning air
Warns me I must away;
I hope you'll list to my last pray'r,
And pity NEDDY BRAY.
For my survivors yet I sue,
And hope they'll find some *backers*,
To keep their Lives in constant view
And save them from the *Knackers.*

LIONEL LONGCHEEK.

Printed by John Hill, Black Horse Court, Fleet Street.

THE

FARRIER AND NATURALIST;

OR,

HORSE-MAN'S CHRONICLE.

N°. 22.] MAY 15, 1829. [VOL. II.

ADJOURNED MEETING OF VETERINARY SURGEONS.

THE meeting of Veterinary Surgeons, which was announced in the last number of the "FARRIER AND CHRONICLE" as intended for the 27th ultimo, was held at the Free Masons' Tavern on that day; about thirty-five gentlemen were present, and Professor Coleman was in the chair. The advance made in the vital question of Veterinary Reform at this meeting may be judged of by the annexed resolutions, published under the authority of the Chairman.

1*st.* It was carried, with one dissentient voice, that an alteration was advisable in the present examining committee; and that Veterinary Surgeons should share in the examination of Veterinary Pupils.

2*nd.* That an efficient Examining Committee of Veterinary Surgeons should be elected by the body of the Profession, before whom the Pupil should appear, and by whom he should be approved, before he could obtain his diploma as a Veterinary Surgeon.

3*rd.* That a Memorial be presented to the Governors praying their consent to these resolutions; and to the Medical Examining Committee, soliciting their recommendation of these resolutions to the Governors, and their co-operation with the profession.

4*th.* That the number of Veterinary Examiners shall be six, in addition to the Professor and Assistant-Professor; but that they shall have power to increase their numbers, elected in the same manner, should the first Committee be found inefficient.

5th. That a Committee of nine be appointed to carry these resolutions into effect.

The four last of these resolutions, by the authority above referred to, are stated to have been carried unanimously, but the 4th was carried by a majority of two only; the minority being in favour of a much larger number.

The subject of reform has been taken up by a new set of advocates, the above is the first effort of their labours; and in their hands the most important points that had been previously discussed, and partly obtained, are entirely lost sight of.

The question of who are to be Veterinary Examiners is one of comparatively little consequence; the main points to look to are the fitness of the individual, in respect to previous acquirements, to be admitted a Veterinary Student, and the providing of adequate means of instruction, whereby, with due diligence, he may be matured into a competent practitioner. Certificates of fitness, even when given with the greatest caution, go but for little; the ability of the practitioner is estimated by his general conduct, and not by a piece of paper, however elegantly it may be framed, or however high and imposing may be the names attached to it.

The evening however was frittered away in discussion that led to no results; for when the resolutions are examined they are completely nugatory. It is true that a Committee has been named and has met, but if any thing is accomplished by that Committee it must be on its own responsibility, and cannot result from resolutions of the general body, as matters were managed.

The first resolution declares that ALTERATION in the present Examining Committee is advisable—in what the alteration is to consist is no where even hinted at.

The next resolution declares that a NEW Examining Committee should be constituted, without whose approval no Student could obtain his diploma; here then the functions of the present Committee, whether altered or not, are set aside, the power of passing a Student for a Veterinary Surgeon is taken from it, and its authority of Veterinary-Surgeon-making is virtually dissolved.

Whether this alteration in form in the one instance, and abrogation of function in the other, is or is not desirable is not now under consideration, still they are substantial declarations and as such should be treated.

But then comes a third resolution, and this sets aside the former ones—they are by this held in abeyance, and a memorial is directed to be presented to the Governors *praying* their *consent* to the former substantial declarations; and as if fearful that this *consent* may be withheld, though *prayed* for in due form, another memorial is directed to be presented to the Medical Examining Committee, *soliciting* them to recommend these resolutions to the Governors. If the Medical Examining Committee can reject this sacrifice at the shrine of their importance, and, if not rejected, the Governors can withstand this double appeal to their charitable consideration, they must indeed be made of impenetrable stuff.

Much remains to be said on this vitally important question as regards the well-being of the profession, and the security of those who place their property in the charge of individuals belonging to it. I shall now confine myself to re-printing a series of propositions that Professor Coleman pledged himself to support, and use his utmost influence to obtain, more than two years ago.

FRED. C. CHERRY.

Clapham, May 7, 1829.

Propositions for Reform agreed to by Professor Coleman, in March, 1827.

"Several meetings having taken place between Mr. Coleman, Mr. Goodwin, and Mr. Cherry, (in the months of February and March, 1827,) for the purpose of taking into consideration some of the means by which the education of Veterinary Pupils may be improved, the Veterinary College made more useful, and the Veterinary profession advanced, it has been agreed to propose the following alterations, and to support the attainment of them by all means in their power:—

"That the Committee of Examiners be increased to twelve members, exclusive of the President, and exclusive of Mr. Coleman, or any other teachers at the Veterinary College that may hereafter be appointed, and that the new members be selected from the Veterinary profession.

"That the nomination of the members to be added to the present number, be with the present Committee, subject to the approval of a majority of Subscribers present at the next General Meeting.

"That each vacancy, as it occurs, shall be filled by a Veterinary

Surgeon, until one-third of the members, exclusive of teachers as above described, be Veterinary Surgeons; and that these relative proportions be preserved.

"That the President be a Physican or Surgeon.

"That an efficient Demonstrator be engaged, who shall be constantly present in the dissecting room from ten till four o'clock, during three days in the week, besides occasional attendance on other days, throughout the season for dissections.

"That experiments regarding the effects of medicines be made, and the results of those experiments be accurately registered; and also all cases admitted into the College, and the result of those cases be likewise registered, and so far promulgated as to be free to the access of Veterinary Surgeons at all reasonable times.

"That, adverting to the advantages resulting from attendance at a slaughter-house, it is desirable that one should be established on some part of the College property, or as near to the College as possible, so arranged and conducted as to avoid its becoming a nuisance.

"Or, in the event of this measure being deemed impracticable, that then a supply of subjects, not exceeding three at one time, be provided at the expense of the College, for the purpose of obtaining knowledge by experiments.

"That prize medals be offered yearly to the profession, for the best dissertation on any Veterinary subject which may be proposed by the Committee of Examiners.

"That a catalogue of all the preparations in the Museum be forthwith made.

"That, in the event of Mr. Coleman introducing any person to a share of the lectures heretofore given by himself, it shall be incumbent on such person to give the general structure and economy of cattle, sheep, dogs, swine, and other domestic animals, the diseases to which they are subject, and the remedies proper to be applied.

"That measures be forthwith taken for the formation of a Library.

"The foregoing propositions are agreed to, on the supposition that the present members of the Medical Examining Committee continue their services: but in the event of those services being withdrawn, the following propositions have also been agreed to:—

"That in the event of the present teachers withdrawing the privilege of gratuitous admission to their lectures, and other teachers not consenting to supply their place, that then arrangements be made by

the Examining Committee with some one teacher of anatomy, chemistry, surgery, and pharmacy, respectively, for the attendance of the whole of the Veterinary Pupils at one school; or that teachers be engaged to deliver lectures at the College, at the discretion of the Examining Committee, sanctioned by the Subscribers at a General Meeting.

"That towards defraying the increased expense of this proposed arrangement, should it be necessary, the sum of Five Guineas be deducted from the amount of the fee at present paid by each pupil to the Professor."

REMARKS, HISTORICAL AND CRITICAL, ON *PROFESSOR COLEMAN'S PRINCIPLES AND PRACTICE OF SHOEING.*

SAIN BEL, the founder of the Veterinary College at St. Pancras, for it never would have had existence but for his exertions, died in 1793. He had many difficulties to contend with, and did not live long enough to derive any benefit from the plans he had formed and partly carried into effect.

A sort of interregnum followed his death, during which period conflicting parties were busily employed, each striving for the attainment of its own particular object.

It had been determined to employ Messrs. Moorcroft and Coleman, as joint Professors, probably with a view to counterpoise the inexperience of the latter by the practical knowledge of the former; but Mr. Moorcroft, from causes not necessary here to enter on, having withdrawn himself from this arrangement, Mr. Coleman was constituted sole Professor. This took place some time in the year 1794.

From various publications of that day it may be collected that Mr. Coleman was then a well-educated surgeon in very limited practice; but he was not distinguished by a predilection to the sports of riding or driving;—he neither kept horses nor used them:—in short he was not a horse-man.

These circumstances are adverted to in order to shew that Mr.

Coleman's knowledge of horses can be dated no farther back than his appointment of Professor to the Veterinary College; yet, in 1798, a book is published by him, entitled, "Observations on the Structure, Œconomy, and Diseases of the Foot of the Horse, and on the Principles and Practice of Shoeing," wherein is the following statements:—that he has found by experience, (of four years,) his mode of shoeing to be capable of preserving the form, structure, and œconomy of the hoof unimpaired;—and this statement is repeated in two other places in his book of 120 pages.

Now this certainly was a rapid acquisition of knowledge; but it turned out to be, like most knowledge rapidly acquired on difficult and complicated subjects, not to be worth much, and its fallacy has been shewn by the patent iron frog, the patent flanch clip, and the patent frog shoes, each following in succession, and none of which would have been necessary had the statement already quoted from Mr. Coleman's book been true.

The object of publishing these hasty assertions, for they are nothing more, may not at first be evident; perhaps some light may be thrown on the subject by a perusal of the advertisement prefixed to the book; it runs thus:

"ADVERTISEMENT.

"Forges are established in Grosvenor Mews, Bond Street; and Curtain Road, Finsbury Square; under the directions of the author; for shoeing the horses of subscribers and of non-subscribers of the Veterinary College. A Veterinary Surgeon, duly qualified, attends at each of the forges, to see that the system recommended in this work is faithfully practised.

"Horses' hoofs, shod with patent shoes, may be had at the Veterinary College, or at either of the forges."

From this it appears that even then the manufactory of Veterinary Surgeons had produced some who were *not* duly qualified; against these however the frequenters of the shops advertised as above were, it seems to be, protected. This invitation, of *come to my* shop, was not much attended to, and the forges in question were soon shut up.

[To be continued.]

EXTRACTS FROM
SOME PRACTICAL HINTS UPON LIVE STOCK;
IN PARTICULAR AS REGARDS CROSSING.

By A. Ferguson, Esq. of Woodhill.

(Edinburgh Quarterly Journal of Agriculture.)

THE mind, when roused into action, is sometimes impelled, by a rage for discovery and *distinction*, beyond the pace which sound philosophy and sober reason prescribe. A tendency of this nature has too long characterized many rural improvers; and has materially sharpened the sneer which damps or extinguishes the zeal of those best fitted to enlighten agricultural science, by patient and laborious attention to facts.

It would not be very difficult to illustrate this perversion of a principle (in itself useful) by a reference to various departments of husbandry; but I shall at present limit my remarks to the *sysyphean* labours of those who aim at establishing a *permanently distinct* breed of *improved* live stock, by bringing together a male and female of qualities and habits essentially differing from, or opposed to, each other. And here I would wish to be understood as not in all cases indiscriminately and dogmatically condemning a cross. There *may be* situations and markets where cattle and sheep, &c. superior in profit to either sire or dam, will be in this way procured; but I am more than doubtful whether such a system can be carried with advantage to any great length, without reverting to the original breeds. I should likewise wish to distinguish between a cross intended to obtain a *permanent* breed, and that mixture of strange blood occasionally and judiciously transfused, which in point of fact, may be traced, I believe, in the longest pedigrees of our herd book. My object is to protect the young and zealous breeder from the disappointment which awaits him in hoping to astonish his neighbours, and establish his own renown, by calling forth a *new* and *distinct* breed from animals of totally different habits and points.

We may well feel humble, when we consider our ignorance upon this as well as many other branches of rural œconomy; but it is

undoubtedly learning *much*, when we become satisfied that we know *little*.

Climate, food, local habits, and many other circumstances, combine to give a permanent and distinct form to certain breeds of live stock in different countries, and in different districts of the same country. This is a fact open to the most ordinary observer. In warm, rich, and early tracks of lands, we meet with animals larger in size, and arriving with ordinary care much sooner at maturity, or fitness for the use of man, than those which inhabit wilder and poorer districts. The immediate descendants of *Comet* would have made but a sorry figure upon Ben Nevis; and the hardy little Highlander would pass several generations upon the banks of the Tees, ere he acquired those habits of early maturity which distinguish the improved tribe of short-horns. Under these circumstances nothing can wear a more inviting aspect, than the idea of uniting the early fattening propensity, docile habits, and large size, of the one breed, with the hardiness, and many valuable qualities of the other; securing, as is thus imagined, a permanent variety, exceeding in value either of the parent stocks. The first-fruits too, will, in general, tend to confirm this hope; but, while I admit that darkness still exists, I will venture to caution the breeder against over sanguine hope from such a system.

Naturalists are, I believe, nearly agreed, that the influence of the male greatly exceeds that of the female, in communicating qualities to the offspring, and a very providential arrangement it is, in respect that good points may be thus diffused, with far more rapidity, than could otherwise occur. The choice of the female is by no means, however, a matter of indifference; and it is only by due attention to both that perfection can be looked for. I recollect several years ago, at a distinguished breeder's in Northumberland, meeting with a shrewd Scottish borderer, (indeed, if report be true, the original and identical Dandy Dinmont,) who, after admiring, with a considerable *spice of national pique*, a very fine short-horn bull, demanded anxiously to see the dam. The cow having been accordingly produced, and having undergone a regular survey, Dandy vociferated with characteristic *pith*, "*I think naething of your bull now, with sic a caumb;*" and, unquestionably, the mould, or "caumb," must have its own share in producing shapes, though in his haste to detract (as he thought) from the merits of the bull, poor Dandy totally overlooked the additional compliment paid to the judgment of the "*Southron.*"

About the same time I had an excellent opportunity of observing, during three years, an interesting experiment, conducted upon an extensive scale, by a gentleman of much talent and zeal as an agriculturist. His object was to obtain a mixed breed, which should *permanently* retain all the good points of improved short-horns and choice west Highlanders or Kyloes. He bred from the short-horn bull and Highland cow, and had continued to do so, through many gradations, for ten or twelve years, to the period when I last inspected his stock. At this time my impression was, that the variety was fast returning to the pure short-horn. Many very fine animals were brought to market of the *mixed* breed, of whose relative progress, when compared with *pure* short-horns, some particulars may perhaps be interesting.

[To be continued.]

ON THE SYMPTOMS AND CAUSES OF INFLAMMATION.

To the Editor of the Farrier and Naturalist's Magazine.

My Dear Sir;

IT is my intention, should it meet your approbation, to send a few observations on Pathological and Zootomical (including Zoology or Natural History) subjects for insertion in your Journal. My reason for sending the annexed observations on inflammation, are, that they have been useful to a few of the Pupils of the Royal Veterinary College, who have listened to my discourses; and knowing that your magazine is taken in by the Students of the above Institution, perhaps their utility (although I do not put them forth as original) may be acknowledged, and the truths they contain further disseminated, notwithstanding Mr. Assistant-Professor Sewell's avowed opinion, that the writers in your Journal and its contempory are enemies to the College,—an idea which all liberal minds disclaim.

Observations on the Symptoms and Causes of Inflammation.

Notwithstanding the great improvements in the sciences of medicine and surgery that have taken place within the last century, yet the symptoms of inflammation were so clearly described by that ele-

gant classical Roman physician, CELSUS, that he has been followed by every writer on the subject, but none have been able to give them in clearer or more intelligible language; his words are:—

1. *Calor* ..... Heat.
2. *Rubor* ..... Redness.
3. *Tumor* ..... Swelling.
4. *Dolor* ..... Pain.

Whatever soft part may be inflamed, yet these four symptoms always make their appearance, and are easily accounted for in the following simple manner:

1. *Calor*, Heat. The part inflamed receiving a greater quantity of blood than is usual in a state of health, and circulating with greater velocity through the inosculating arteries, consequently the increase of heat is dependant on the excess of the vital fluid.

2. *Rubor*, Redness. From an increase of the red colouring particles of the blood.

3. *Tumor*, Swelling. Created by an additional quantity of blood in the vessels of the part.

4. *Dolor*, Pain. The redundances of blood, causing a pressure on the nerves nearest or supplying the part affected, produces pain; however, some parts are effected by that mysterious function—*Sympathy*.

Inflammation occasionally affords the physiologist some beautiful proofs of the inosculation of the arteries, as an example of every-day occurrence, I may refer the reader to a case of what is vulgarly denominated "*a blood-shot eye*," otherwise "Inflammation of the cornea," where this fact is remarkably well exemplified.

Causes of Inflammation.

I shall not take up my own time, or waste the reader's attention, by reciting the multitude of theories formed by ancient and modern pathologists as to the original causes of inflammation, therefore, as my object is brevity, I shall mention that mostly believed by the principal physiologists of the present day.

We are indebted to that enlightened and practical observer of physiological science, Mr. Brodie, who asserts, and illustrates his assertions by experiments, that "*in inflammation the capillary vessels of the part become dilated and admit scarlet arterial blood.*"

Mr. Brodie took the web of a frog's foot, and placing it in the field of a microscope, touched it with the point of a red-hot needle, the result was, the dilatation of the arteries and the subsequent admission of a great quantity of arterial blood.

This experiment may be easily performed, and is worthy the trial of your readers, as without doubting the assertion of the above eminent surgeon, yet it verifies the old proverb, "*seeing is believing*," and what is more important to the scientific student, stamps his memory with an impression not to be easily effaced.

My next paper on Pathology, will contain some observations on the effects produced by inflammation, succeeded by a description of its various morbid productions, so important to the human and veterinary surgeon.

Should you deem these papers worthy insertion in your valuable Journal, I shall feel gratified at seeing them in an early number, and believe me, your well wisher,

H. W. DEWHURST, *Surgeon, F. M. W. S. &c.*
Professor of Human and Comparative Anatomy, Phrenology, and Zoology.

April 25, 1829.

CASE OF WOUNDED SPHINCTER ANI.

A GREY gelding, five years old, was brought under treatment for a wound through the sphincter ani, and passing by the side of the rectum for some distance without wounding it.

A laxative ball was given immediately, and the same dose repeated on the following morning.

The bowels were freely evacuated; the parts were slightly tumefied, but beyond that and a small puncture nothing was observable.

For several days no alteration took place, when a strong disposition to costiveness became manifest, to counteract which half-a-pint of linseed oil was given every other day, which produced the effect intended.

The part contiguous to the original puncture however became more tumefied, and there was every indication of an abscess being about to

form, this at length was manifestly the case, when the puncture was dilated and a quantity of pus escaped.

A small discharge of pus continued for several days, but this gradually diminished. The bowels were kept in a lax state, and in about five weeks from the infliction of the injury the horse was free from complaint, having been occasionally used during the latter part of the time

FRED. C. CHERRY.

EXTRAORDINARY FECUNDITY OF A COW.

A cow belonging to M. Gervaise, a French Agriculturist, produced nine calves at three successive birth, *viz.* four at the first, all vigorous females, in 1817; three at the second, of which two were females, in 1818; and two females in 1819. All these calves, except two of the first birth, were nursed by the mother, and when grown up produced only one calf as usual. Nothing is said of the age or condition of the cow or the bull.—*Nouv. Bulletin des Sciences.*

ON THE BREEDING OF LIVE STOCK.

DR. STURM, Professor of Agriculture, and Director of the Agricultural Institution at Bann, has lately published a work on this subject, in which he deduces from the phenomena related, the following, among other, principles: "The male parent is the preserver and creator of a race. The first changes in crossing are always exhibited in those parts that possess the power of being reproduced, as the hair, horns, hoofs, &c. The fleshy parts change slowly, in proportion as the mother has much of the blood of the original race. The first changes take place in the head, and are gradually developed towards the hinder quarters of the animal." The author also maintains, that to produce a new race, as many generations are necessary as years are for perfecting their teeth.—*Facts from Bulletin des Sciences Agricoles et Economiques.*

ON THE LIVE STOCK OF BRITAIN, FRANCE, AND THE NEIGHBOURING COUNTRIES.

DUPIN, in a work lately published with a view to promote the numbers and breeds of the live stock of France, states, that, in Britain, the animal power is eleven times as great as the manual power, while in France it is only four times as great; hence, French labourers receive from animals only a third part of the aid yielded by them in Britain. He also states, that Great Britain consumes three times as much meat, milk, and cheese as France. The following is the number of horses for every thousand inhabitants in the countries mentioned:—

Hanover	193	Great Britain	100
Sweden	145	Prussia (Six Provinces)	95
Canton de Vaud (in Switzerland)	140	France	79

Numbers, however, give a very imperfect idea of the relative amount of horse power, the breeds being so various in the different countries.—*Facts from Bulletin des Sciences Agricoles et Economiques.*

MANNER OF HUNTING THE CHAMOIS-GOAT AND MARMOT.

THE chase of the Chamois-goat, though very dangerous, occupies most of the inhabitants of Chamouni, and carries off, in the flower of their age, many men whose lives are most valuable to their families. And when we are informed how this chase is carried on, we shall be astonished that a course of life, at once so laborious and perilous, should have irresistible attractions for those who have accustomed themselves to it.

The Chamois hunter generally sets out in the night, that he may reach by break of day the most elevated pastures, where the goats come to feed, before they arrive. As soon as he discovers the place where he hopes to find them, he surveys it with his glass. If he finds none of them there, he proceeds, always ascending: whenever he descries any, he endeavours to get above them, either by stealing along some gully, or getting behind some rock or eminence. When he is near enough to distinguish their horns, which is the mark by which he judges of the distance, he rests his piece on a rock, takes his aim with great composure, and rarely misses. This piece is a rifle-barrelled carabine, into which the ball is thrust; and these carabines often contain two charges, though but one barrel: the charges are put one above another, and are fired in succession. If he has wounded the Chamois, he runs to his prey, and for security hamstrings it: he then considers his way home. If the road is difficult, he skins the Chamois, and leaves the carcase; but, if it is practicable, he throws the animal on his shoulders, and bears him to his village, though at a great distance, and often over frightful precipices: he feeds his family with the flesh, which is excellent, especially when the creature is young; and he dries the skin for sale.

But if, as is the most common case, the vigilant Chamois perceives the approach of the hunter, he immediately takes flight among the glaciers, through the snows, and over the most precipitous rocks.—It is particularly difficult to get near these animals when there are several together, for then one of them, while the rest are feeding, stands as a sentinel, on the point of some rock that commands a view of the avenues leading to the pastures; and as soon as he perceives any object of alarm, he utters a sort of hiss, at which the others instantly gather around him, to judge for themselves of the nature of the danger. If it is a wild beast, or a hunter, the most experienced puts himself at the head of the flock; and away they fly, ranged in a line, to the most inaccessible retreats.

It is here the fatigues of the hunter begin: instigated by his passion for the chase, he is insensible to danger; he passes over snows without thinking of the horrid precipices they conceal, he intangles himself among the most dangerous paths, and bounds from rock to rock, without knowing how he is to return. Night often surprises him in the midst of his pursuit, but he does not for that reason abandon it, he hopes that the same cause will arrest the flight of the Chamois, and

that he will the next morning overtake them. Thus he passes the night, not at the foot of a tree, like the hunter of the plain, not in a grotto softly reclined on a bed of moss, but at the foot of a rock, and often on the bare points of shattered fragments without the smallest shelter. There, all alone, without fire, without light, he draws from his bag a bit of cheese, with a morsel of oaten bread, which make his common food: bread so dry, that he is sometimes obliged to break it between two stones, or with the hatchet he carries with him to cut out steps in the ice. Having thus made his solitary and frugal repast, he puts a stone below his head for a pillow, and goes to sleep, dreaming on the rout which the Chamois may have taken. But soon he is awaked by the freshness of the morning: he gets up benumbed with cold, surveys the precipices which he must traverse in order to overtake his game, drinks a little brandy, of which he is always provided with a small portion, and sets out to encounter new dangers. Hunters sometimes remain in these solitudes for several days together, during which time their families, their unhappy wives in particular, experience a state of the most dreadful anxiety: they dare not go to rest for fear of seeing their husbands appear to them in a dream, for it is a received opinion in the country, that when a man has perished, either in the snow, or on some unknown rock, he appears by night to the person he held most dear, describes the place that proved fatal to him, and requests the performance of the last duties to his corpse.

The few who grow old in this employment bear upon their faces the marks of the life they have led. A savage look, something wild and haggard, makes them be known in the midst of a crowd, even when they are not in their hunting dress; and, undoubtedly, it is this ill look which makes some superstitious peasants believe that they are sorcerers, that they have dealings with the devil, and that it is he who throws them down the rocks.

What then can be the passionate inducement to this course of life? It is not avarice, at least it is not an avarice consistent with reason. The most beautiful Chamois is never worth more to the person who kills it than a dozen of francs, even including the value of its flesh; and now that the number is diminished, the time lost before one can be taken is much more than the value. But it is the very dangers that attend the pursuit, those alternations of hope and fear, the continual agitation and exercise which these emotions produce in the mind, that instigate the hunter: they animate him as they do the gamester, the

warrior, the sailor, and even to a certain degree the naturalist of the Alps, whose life in some measure resembles that of the hunter whose manners we have described.

But there is another kind of hunting which is neither dangerous nor laborious, not fatal to any one but the poor animals that are the objects of it. These are the Marmots, animals that inhabit the high mountains, where in summer they scoop out holes which they line with hay, and retire to at the beginning of autumn: here they grow torpid with the cold, and remain in a sort of lethargy till the warmth of spring returns to quicken their languid blood, and to recall them to life. When it is supposed they have retired to their winter abode, and before the snow has covered the high pastures where their holes are made, people go to unharbour them. They are found from ten to twelve in the same hole, heaped upon one another, and buried in the hay. Their sleep is so profound, that the hunter often puts them into his bag, and carries them home without their awaking. The flesh of the young is good, though it tastes of oil, and smells somewhat of musk: the fat is used in the cure of rheumatisms and pains, being rubbed on the parts affected; but the skin is of little value, and is sold for no more than five or six sols. Notwithstanding the little benefit they reap from it, the people of Chamouni go in quest of this animal with great eagerness, and its numbers accordingly diminish very sensibly.

PREDACIOUS PROPENSITY OF THE FOX.

A FEW days ago, Miles Sill, gamekeeper to the Earl of Thanet, discovered the hole of a Fox in Whinfield Forest, and on digging the earth found six young cub foxes, having by them four lambs, three hares, two moles, one rat, two lapwings, and one red-breast, quite in a perfect state, and a great number of bones and skins of different animals, and feathers of birds.

Printed by John Hill, Black Horse Court, Fleet Street.

THE

FARRIER AND NATURALIST;

OR,

HORSE-MAN'S CHRONICLE.

N°. 23.] JUNE 1, 1829. [VOL. II.

A TREATISE

ON

THE DISEASES AND LAMENESS OF HORSES.

BY W. OSMER. London, 1766.

[Continued from page 131.]

LA FOSSE directs how to distinguish a strong compression (as he calls it) by a swelling in the coronet, and the great pain occasioned by pushing the thumb against it, two instances of which he gives us that were not cured even when the sole was drawn. Now I very much question, but these swellings at the coronet described by him were partial dislocations of the coronary-bone; and though I do not mean to detract in the least from his merit and skill in the knowledge of the parts belonging to the horse, yet I am the more inclined to think him mistaken in this particular, because he lays it down as a rule, that the coronary-bone will admit of no dislocation, being so securely tied round by ligaments, tendons, cartilages, and the construction of the hoof—whereas, in fact, all bones, which help to compose a joint, and that are capable of motion, are also capable of dislocation—and that this coronary-bone is capable of motion, will be easily proved by the use of a muscle which is inserted into it—and the foot and pastern-bone have each of them also a muscle inserted into them. Now the tendons of these three muscles may occasion-

ally perhaps become united from hard labour so as to appear one tendon; and yet in fact what is commonly called the great tendon of the fore-leg has three distinct muscles, with three insertions into these three bones before named.

Where the cartilages are ossified, there is no cure;—for an anchylosis, there is no cure;—where the bones of the foot are enlarged or wasted, there is no cure.

To remove the inflammation of the glands, and to prevent an induration and enlargement of the ligamentous parts, and the integuments of the fetlock-joint, the consequence of repeated violence, it is a good custom for all sportsmen to cause these joints of the horse, after a day's hunting, to be well fomented with flannels dipped in warm water, or a decoction of some emollient herbs; and some warm flannel cloths or rollers should be moderately bound thereon, for the ensuing night.

For want of this, or some such method, lameness (as was before said) often happens to this joint.

To cure this, the farrier blisters and fires upon the joint, by either of which methods, applied whilst the parts are inflamed, the inflammation thereof is most certainly increased, from hence a callosity of those parts is most likely to be entailed for ever, instances enough of which we may see every day, and they are as contradictory to the disorder, as endeavouring to extinguish fire by pouring spirits of wine thereon. For a lameness of the tendon he uses the same methods.

Now all tendons are enveloped in a sheath, whereon are situate many small glands, that are forced by the action of the tendons to pour forth their mucus, which serves as oil to lubricate the same, and to keep them from growing dry and rigid, as otherwise they would do like any other cord or string.

Between this sheath and the skin of the leg, where nothing intervenes but a thin membrane, what hand can determine betwixt the boundaries of these bodies, whose appearance, by the heat of the iron, is made undistinguishable to the eye.

Now mark the event of firing.

If the fire reaches no further than the skin, little advantage can accrue to the tendon, but the fibres of the skin will become contracted, and less pliant;—if the fire reaches the membrane, or sheath of the tendon, some of its glands are destroyed, and the tendon becomes more or less rigid. If the tendon be burnt, the consequence will be

still worse, and in either case the velocity of motion will be impeded; no man (I believe) remembering a race-horse once fired, equal to what he was before. Firing then will act as a bandage, and though it is sure to spoil the racer, it may on some occasions be found beneficial to horses used for other purposes.

In both these cases, where the skin or ligaments surrounding the fetlock-joint, or a tendon is inflamed or enlarged by repeated violence, or exercise continued on a weak or inflamed part, the following method may be used.

Turn your horse loose in some open building, bleed him plentifully, and give him cooling salts, let the injured parts be fomented twice a day with the decoction of some emollient herbs boiled in water, such as white lilly roots, mallows, elder leaves and flowers, bay leaves, or the like. The parts when dry, are to be filled with some cooling ointment, and some of the fomentation is to be thickened with oatmeal, to the consistence of a poultice, and kept thereon.

When the induration and tension is gone off, a cataplasm may be applied twice a day, composed of common salt and the white of eggs, mixed with a little vinegar and oatmeal, and the parts bathed with cold vinegar mixed with a little oil (heat evaporating the subtle spirit thereof); but if these remedies do not avail, why then the use of blisters, after proper and previous evacuations, may perhaps be the means of effecting a cure, by unloading the vessels contiguous to the parts affected. On all these occasions the horse should be turned to grass, and indulged with proper rest, that the diseased parts may recover their former fineness, tone, and strength.

[To be continued.]

THE VETERINARY PROFESSION AND THE VETERINARY COLLEGE.

THERE is one circumstance connected with the subject of amendment in the study and practice of the Veterinary art well calculated to excite surprise; and that is the pertinacity with which the interests of the general body of Veterinary practitioners were in the late discussions blended with those of the shop of Messrs. Coleman and Sewell,

miscalled a College, at St. Pancras. That Mr. Professor Coleman and Mr. &c. &c. Sewell should avail themselves of the aid of the Profession to prop their declining business, for it was asserted and remains uncontradicted that they have sustained a falling off of very near 150 subscribers, might be expected, but that they should be supported in this attempt by any member of a profession that has been cast off, turned adrift, and stigmatized by this would-be College and its Governors is certainly not within the range of common occurrences:—yet such has lately been the case, and the rising hopes of the Veterinary Profession have been bowed down by the falling shop for Patents and *Pro*scriptions at St. Pancras. It is amusing to hear a Veterinary Surgeon call himself a member of the "Veterinary College," when in point of fact Mr. Coleman and his colleagues refuse to have Veterinary Surgeons associated with them, and the gentlemen designated Governors say they will not even admit us as subscribers to the famed Institution. It would be quite as correct for any gentleman who has paid his guinea for a dinner at the Albion or Freemasons' to call himself a member of either of those Taverns, as for the gentleman who has paid his twenty guineas to Mr. Coleman to call himself a Member of the Veterinary College.

Even the patronage that is supposed to rest with Mr. Coleman in recommending Veterinary Surgeons for appointments in the Army does not belong to him as the Professor of the Veterinary College, it results from another of that gentleman's numerous appointments, and is entirely independent of the College. How far the selling of sixpenny balls and eightpenny powders may amalgamate the interests of this Veterinary College and Veterinary Practitioners I must leave to others to prove.

PHYSIOLOGY.

M. MONDAT, *on Impregnation by the Aura Seminalis.*

THIS theory is supported by this eminent physiologist, as the active part of the semen, and quotes, in support of his opinion, the following decisive experiments performed at Turin, by himself and two other physiologists.

The semen of a dog having been received into the cup of a funnel bent for that purpose, its tubular part ten inches long, was thrust three or four inches into the vagina of a bitch in heat, to convey to the uterus the *aura seminalis*. In eighteen out of twenty trials, impregnation was produced; and the same result was obtained upon two mares.

EXTRACTS FROM SOME PRACTICAL HINTS UPON LIVE STOCK; *IN PARTICULAR AS REGARDS CROSSING.*

By A. Ferguson, Esq. of Woodhill.

[Continued from page 153.]

IN the Agricultural Survey of Durham we find an account of three steers, two years and a half old, which gained 20st. weight in twenty weeks, each consuming daily 17st. 4lb. of Globe turnips, and, when put upon Swedish, 18st. each per day. A twin heifer of Mr. Arrowsmith's, on high keep, gained at the like rate, *viz.* a stone per week.

In certain recorded cases the *mixed* breed above mentioned appear to have exceeded these in a return of weight for food consumed, as will appear from the following detail:

No. 1, a large red steer, calved December 14, 1808, (being one month before his time,) three-fourth short-horn, or got by a pure short-horn bull, out of a cow one-half Kyloe; No. 2, a small red steer, calved March 3, 1809, got by a short-horn bull, out of a pure Kyloe; No. 3, a black steer, calved February 27, 1809, by a short-horn bull from a pure Kyloe; were subjected to a minute and regular experiment. They appear to have been reared in an equal and sufficiently hardy manner until 9th December, 1811, when they were put up together in a fold-yard, and fed with Globe and Swedish turnip and straw, until 1st May, 1812.

From tables that are given, detailing the measurements, computed weights and food consumed, it appears that in twenty-five weeks, No. 1 gained 29st. upon an average daily consumption of 14st. 3lb. of Globe, and of 13st. 4½ lb. of Swedish turnip.

No. 2 gained 24st. and No. 3, 23st. upon the same allowance of turnips; while Mr. Mason's steers and Mr. Arrowsmith's heifer gained, the former 20st. only in twenty weeks, upon 17st. 4lb. each per day of Globe, and 18st. each per day when served with Swedish turnips; the latter 30st. in thirty weeks, upon feeding far more costly.

It is undoubtedly very difficult to secure accuracy in experiments of this nature, not simultaneously conducted; and the extraordinary fact, of Mr. Mason's steers being made to consume a greater weight of Swedish than of Globe, would incline us to suspect some mistake; in which case, a result possibly more favourable to the short-horns would have ensued. The report of Mr. Mason's experiments does not specify whether the refuse of the turnips was given or not; I therefore presume it to have been included, and charge the *mixed* breed with the same.

It may perhaps, then, be fairly concluded that the system of improvement by crosses is still in a crude state, and the enlightened and prudent husbandman will do well to look about him *at home*, before he introduces *foreign* blood. Were it possible to suppose such an event as a clean sweep of all the varieties of cattle from our land, and a choice left of two breeds only from which to re-stock our hills and valleys, I should, without hesitation, declare for *short-horns* and *West-Highlanders* confident that varieties of these, possessed of *inherent good qualities*, would in due time be modified according to local means and wants.

The history of short-horn cattle, both in their original and improved state, is well known, and I cannot but regard our West-Highlanders, or rather *islanders*, as more genuine than any other breed we possess in Scotland, excepting it may be the small remnant of *aborigines* in the park of his grace the Duke of Hamilton. The moist climate, mild winter, and consequently grassy tendency, of our Western Isles, point them out as having been, in all likelihood, early stocked with the *Bovus Tauri*, of fine form and healthy constitution; and the little intercourse for commercial purposes with the main land, during many ages, gave a perminence to their *individuality* not so easily secured elsewhere.

The prudent improver, wheresoever his lot may be cast, will study well the climate, soil, shelter, husbandry, markets, &c. of his district; and, having fixed upon the system which promises the best return, he

will cast about for *choice* individuals of the stock around him. In every quarter, how faulty soever the cattle or sheep may be *as a whole*, certain animals may be always found greatly surpassing their fellows, and the improvement effected by a judicious and spirited selection of these, combined with a regular and abundant supply of food from the earliest age, is not less surprising than certain.

A regular and systematic account of the great leading breeds of British live stock, though a work of much labour, would prove, if carefully executed, one of considerable interest and value. It forms, however, no part of my object in these hints, which are simply of an admonitory nature. Sincerely happy shall I be if they draw the attention of agriculturists to the important points of *selection* from native breeds *and improved treatment of young stock*; methods of attaining perfection within the reach *of all*, and which will occasion disappointment *to none*.

Should a district early, sheltered, fertile, and not very remote from markets, be unfortunately stocked with a paltry and unthriving breed, the prudent plan would be to substitute a better *in toto* and at once. For one such case, however, which will occur, twenty will be met with where such a sweeping system would be detrimental and unwise.

Agriculture must live and grow upon *facts*, and there can be no doubt of an abundant supply, would all who are practically engaged *freely* and *frankly* communicate the fruits of their experience, whether they *may have failed* or *succeeded in attaining their end* *.

ON THE SIZE AND FITTING OF SADDLES.

By Dr. Bracken.

[Continued from page 108.]

NEXT to this is often easing yourself by alighting from the horse, and either walking slowly, or resting yourself upon some easy seat, and now and then cooling your buttocks in cold water, to harden the skin: for it is much easier to prevent, by good management, the buttocks from galling, than to make the skin come on again, upon

* These remarks apply most forcibly to Veterinary science and practice.

a journey. And herein people are as negligent and careless for their ease, as they are in other particulars relating to health; and while their buttocks are easy and well, they think nothing of a galled arse, than which scarce anything is more painful, by reason we have so often occasion to make use on it. Therefore they mount any sort of saddle, and cause an inflammation before they are aware of it; neither will they apply any helps, or use any preventive methods, before it is too late. For when by the fridging, &c. in riding, the serum or watery part of the blood is gathered between the two skins, it is then too late to prevent a sore backside. Therefore either apply pretty large plaisters spread thin upon leather with diachylon, or what is sometimes called diapalma, to the buttocks, before you really want them, or be content to jog on with a wry face and a sore arse.

There is a great deal to be said why such cooling plaister should preserve the skin from fretting, or excoriating, though I shall only name a few of its virtues. And 1*st*, it thickens your own skin, or, as it were, adds a new and stronger scarf-skin to defend the end of the blood-vessels, &c. from being heated and inflamed, and hinders the skin from rubbing into wrinkles, which is one reason why we gall so soon.

2*dly*. It performs this by a composition that is very cooling and pleasant, and an enemy to heat and inflammation in the flesh, and which is in its own nature drying and healing.

Lastly. I advise these plaisters to be large, and applied to the buttocks as plain and as even as possible, and to keep them as much as can be in the like situation.

I sometimes put them on after I am mounted, and got a little way into the lanes, for fear of their running into creases or wrinkles while I am getting on horseback; but fat and unwieldly people cannot raise themselves upon the saddle so as to do this. Therefore they must put them on just before they mount, and keep them even, as I have directed. Furthermore, it is necessary to have a number of these plaisters ready spread and rolled up in boxes for the purpose, that so you may take a fresh one as occasion requires; but while the old one will stick and keep from creases, it will do well enough.

They may be thrown by at night, and the buttocks cooled with blue milk and water, and laid on in the morning after stretching them a little.

Let them be spread thin and with a small margin, and by that means your linen and breeches will keep clear of daubing, &c.

If the traveller be so very negligent as not to follow these wholesome directions till the skin is off his buttocks, it is pity but it should continue so. However, I must tell him charitably, that nothing will in such case keep him more easy to his journey's end, than those very plaisters, which should be applied before the thing is too far gone. As to this or that sort of lining of breeches, hare or rabbit skins, and the like, they are only good as they cause the buttocks to rest more easy upon a hard saddle; which sort of furniture I by no means recommend, unless it were to be used as a penitential scourge to the posteriors, in like manner as there are a sort of penance belts to correct the sins and vices of the anterior part of the body.

If I have been tedious upon this particular, I must beg the reader's pardon, having promised a worthy gentleman of my acquaintance to speak to it in some part or other of this book.

ANIMAL CHEMISTRY.

THE URINE.

THE urine of some animals, examined by Fourcroy, Vauquelin, and Rouelle, Jun. appears to differ from that of the human subject, by the absence of the phosphoric and lithic acids, and by containing the benzoic. That of the horse, according to the experiments of the first two mentioned chemists, consists of benzoate of soda .024, carbonate of lime .011, carbonate of soda .009, muriate of potash .009, urea .207, water and mucilage .940. M. Giese, however, observes that the proportion of benzoate of soda varies greatly, so that sometimes scarcely any can be found. Notwithstanding the assertions of these chemists, that the urine of the horse contains no phosphoric acid, M. Giebert affirms that *phosphorus* may be made from it.

The urine of the cow, according to M. Rouelle, contains the carbonate, sulphate, and muriate of potash, benzoic acid, and urea; that of the camel differed from it, in affording no benzoic acid: that of the rabbit, according to Vauquelin, contains the carbonates of lime, magnesia and potash, sulphates of potash and lime, muriates of potash,

urea, gelatin, and sulphur. All these appear to contain some free alkali, as they turn syrup of violets green. In the urine of domestic fowls, Fourcroy and Vauquelin discovered lithic acid.

THE AVOSET.

THE Avoset is described, by Buffon, as principally found near Milan, and other places in Italy; as, however, it is classed by Mr. Bewick in his British Birds, we shall content ourselves with his account, as follows:—

"This bird, which is the only British species of Avoset, does not much exceed the Lapwing in the bulk of its body; but, from the length of its legs, it is much taller.

"It measures about eighteen inches in length, to the end of the toes twenty-two, and from tip to tip thirty, and weighs from twelve to fourteen ounces. The bill is black, about three inches and a half long, and of a singular conformation, looking not unlike flexible flat pieces of whalebone, curved upwards to the tip; the irides are hazel; the head round, black on the upper part to below the nape of the neck: above and beneath each eye, in most specimens, there are small white spots; but in some, a streak of that colour passes over each eye towards the hinder part of the head. The thighs are naked, and, as well as the legs and feet, are of a fine pale blue colour. The whole plumage of the Avoset is white, intersected with black; and, like most of the variegated or pyebald birds, the patches of these colours are not placed exactly the same in every individual; therefore, as the bird cannot be mistaken, a more minute discription is unnecessary.

"These birds are common in the winter about the lakes, mouths of rivers, and marshes, in the southern parts of England; and they assemble in large flocks on the fens, in the breeding season. When the female is frightened off her nest, she counterfeits lameness; and when a flock is disturbed, they fly, with their necks stretched out, and their legs extended behind, over the head of the spectator, much in the same way as the peewit or lapwing, making a shrill noise, and uttering a yelping cry of twit, twit, all the time. The

places where they have been feeding may be traced out by the semi-circular marks left in the mud or sand by their bills in scooping out their food, which consists of spawn, worms, insects, &c. Latham says, 'they lay two eggs, the size of those of a pigeon, an inch and three quarters in length, of a cinerous grey, singularly marked with deep brownish dark patches, of irregular sizes and shapes, besides some under markings of a dusky hue.' They keep near the shore, wading about, up to the belly in water, and sometimes swimming. In all their motions they are smart, lively, and volatile, and do not remain long stationary in one spot."

ON THE AGES OF CATTLE.

CULLEY, in his "Observations on Live Stock," when speaking of their ages, states, that he "had heard of particular sheep living to near 20 years old; those which the mountain shepherds call *guide-sheep, viz.* old wethers kept on purpose to guide and direct the bleating flocks upon those unfrequented wilds. I have also heard of particular bulls living more than 20 years; and I knew a horse, the property of Mr. Rain, of Snow Hall, near Gainford, in the county of Durham, live until 47 years. This horse had a ball lodged in his neck at the battle of Proud Preston, in the rebellion of the year 1715, and the ball was extracted when the horse died, in 1758. This horse was supposed to be four years old in the year 1715, consequently would be 47 in the year 1758."

VETERINARY MATERIA MEDICA.

OUR readers will recollect that in No. 21. when we reviewed the "Journal of a Naturalist," and noticed the digitalis, that we promised a series of articles on the History, Properties, &c. of the various remedies employed in Veterinary Science; we now redeem our promise, and trust it will be of service to the student, more especially as very little

is known or taught to the pupils, by the Professors of the Veterinary College of this important department of science; consequently, these unfortunate young men perceive medicines prescribed by Mr. Sewell, in silence; and, with the exception of the Lectures on Human Materia Medica attended by a few, this subject is entirely overlooked and omitted to be promoted, by those who ought to be foremost in the cultivation and improvement of the Veterinary Art.

We shall commence with the purgatives.

THE CASTOR OIL PLANT.

Officinal Name, RICINUS COMMUNIS—*Class* XXI. MONÆCIA—*Order* VIII. MONADELPHIA—*Natural Order,* TRICOCCÆ—*Linnæus,* EUPHORBIÆ—*Jussieu.*

There are two sexes of this plant: the *Generic Characters* of the MALE, are *Calyx* 5 parted, *Corolla* O. *Stamens* numerous; and those of the FEMALE, *Calyx* 3 parted, *Corolla* O. *Styles* three, bifid. *Capsule* 3 celled, *Seed* one. With palmated leaves. The specific characters are, *Leaves* peltate; lobes lanceolate, serrated. *Stem* herbaceous, primrose. *Stigmas* three, cloven at the tip*.

This beautiful plant, the oil of which is so extensively employed in human and veterinary medicine, is found growing spontaneously in many tropical districts. And is found native in almost every part of the East and West Indies, China, South America, &c. It is a fine tall annual plant. However in Africa it attains the size of a considerable tree; while in this country it seldom rises more than four or five feet in height. But, if the assertion of Cherius is correct, in Spain where he observed it, "with a trunk as large as a man's body, and fifteen or twenty feet high."

In Sicily it is found as large as the elder tree, woody and perennial†.

Description of the Plant.

It is of very quick growth; the root is thick, whitish, and furnished with many slender fibres. The stem varies considerably in its altitude; it is thick, round, jointed, furrowed, glaucous in the inferior part. The leaves are on long tapering purplish foot-stalks, large, subpeltate, and deeply divided into seven acute serrated lanceo-

* Stephenson and Churchill's Medical Botany, Vol. II. † Ray.

late lobes, of a blueish green colour. The flowers are in long green glaucous spikes, of a blueish green colour, springing from the divisions of the branches, and appear in August, and September; the males occupy the inferior part of the spike, the females the superior. The *male* flower is destitute of the *corolla*, and consists of a calyx divided into five oval pointed purplish segments, inclosing several long stamens united at the base; the *female* flower is composed of a calyx cut into three narrow segments of a reddish colour; the styles are three, slender and forked at the apex. The capsule is a trilocular nut, covered with rough spines, which bursts elastically to expel the seeds, which are usually three in number, and are of an oblong flat figure, of a greyish colour, with brownish red streaks*.

Mode of obtaining the Oil.

The oil, observes Professor Thomson, is more frequently used than the seeds, and is obtained from the seeds both by coction and expression. The former method was generally employed until lately; and was performed by tying up the seeds (freed from their husks) in a bag, which was suspended in boiling water, till all the oil was extracted and rose to the surface, when it was skimmed off. This mode of preparation is still preferred by many of the West Indian practitioners; but as the oil is apt to get soon rancid when thus prepared, it is now generally prepared by subjecting the seeds to the press, and extracting the oil in a similar manner to that adopted with almonds to procure that oil. Mr. Long† informs us, that in Jamaica, expression is always used when it is intended for medicinal purposes. The oil obtained is equal to one-fourth of the weight of the seeds employed.

Adulterations.

We often find this oil adulterated, says Dr. Thompson‡, with olive, linseed, or poppy oils, but the scientific practitioner can always detect it by adding an equal quantity of *alcohol*, sp. gr. 820 to any given quantity of the suspected oil; if it be pure, a uniform solution

* As we are forced sometimes to employ the technical botanical terms, we recommend the Student to provide himself with "The Pupil's Introduction to Botany," By John Steggall, M.D., which will give him a popular explanation of each term, that our limits do not permit.

† History of Jamaica.

‡ London Dispensatory, p. 479.

will take place, which is not the case when it is adulterated: and the same will be the case, if a weaker spirit be employed, by the addition of camphor; excepting that it is soluble in alcohol, it has all the characters of other expressed oils. Boiled in nitric acid, it is converted into a sort of wax, which melts too readily to be used for making candles.

Qualities.

Good expressed castor oil is nearly inodorous and insipid; but the best leaves a slight sensation of acrimony in the throat after it is swallowed. It is thick, viscid, transparent, and colourless, or of a very pale straw colour; that which is obtained by coction has a brownish hue; and both kinds, when they become rancid, thicken, deepen in colour to reddish brown, and acquire a hot, very nauseous taste. It has all the chemical characters of the other expressed oils, except it is very soluble in alcohol and sulphuric æther.

Poisonous Effects.

Three drams of the seeds of this plant, deprived of their envelope, were introduced into the stomach of a middle sized dog, and the œsophagus tied. The next day he showed no remarkable symptoms. The day following, at 8 o'clock in the morning, he experienced very severe vertigoes; it was impossible for him to walk without falling, he did not moan. At noon, he laid on his side, in great insensibility, his inspirations were few and deep; the pulsations of the heart natural. At two o'clock he expired.

Dissection. The mucous membrane of the stomach was not red, but exhibited some small ulcers, the centres of which were black; the rectum which was extremely red, was inflamed in its interior, the lungs though crepitating, contained a small quantity of venus blood*.

Medical Properties and Doses.

As a mild laxative it is speedy in its operation, in dogs from ʒss. to ʒij. is sufficient for a dose, but in horses it not unfrequently requires from half-a-pint to a pint, or even more before an evacuation can be obtained. This remedy is frequently of the greatest utility to the Veterinarian, in conjunction with other remedies, in cases of spasmodic colic or gripes.

* Orfila on Poisons.

This medicine was known for its purgative effects to Hippocrates *, Dioscorides, Ætius, Paulus Ægineta, Pliny, and many others, and we are informed by Turner, in his Herbal, that this species was cultivated in England in 1562.

H. W. D.

COMPARATIVE ANATOMY.

Dr. Jacobson, *of Copenhagen, on the Venous System of Birds, Reptiles, and Fishes.*

IN man and the other mammalia, the veins of the body meet in one common trunk, forming the vena cava inferior, and going directly to the heart. But in birds, reptiles, and fishes, these veins do not go to the vena cava inferior, and afterwards to the heart, but pass to the kidneys and liver.

1. In some fishes, such as the *cyprini* and *clupeæ*, the veins from the skin and muscles of the middle part of the body unite into several trunks, and run in various directions to the kidneys, in which they are finally distributed. The caudal veins meet in a common trunk between the kidneys, receive their recurrent branches, *(venæ renalis recurrens)* and uniting with other veins from the testicles or ovaries, form the vena cava inferior. 2. In other fishes, such as the *raiæ*, the *squali*, the *eroces*, and the *pleuronectæ*, the caudal vein divides into two branches, and these having received other single veins from the middle of the body, are divided in the kidneys. These single veins sometimes pass separately to the kidneys. The vena cava is formed as in the preceding case. 3. In all birds and amphibious animals, as well as in the *murænæ* and the *lophii*, the veins are formed in the same manner, with this difference, that the caudal vein before proceeding to the kidneys, gives off a large branch to the vena portæ to be carried to the liver. In amphibious animals, the caudal vein receives branches from the *proper organ*, or the membranous sac, which contains fluid, or fat, and opens into the cloaca. In birds there is a small branch formed from the ischiatic and the inferior crural vein, which goes directly to the vena cava. This is a manifest transition to the venous system of the mammalia.

* Dierbach's Materia Medica of Hippocrates, ch. v.

Dr. Jacobson is of opinion that the venous system of birds, reptiles, and fishes, is destined to convey the venous blood to the kidneys, or to the kidneys and liver, for the purposes of secretion; and hence, the venal secretions in these orders of animals is from venous blood. By a careful examination of embryos Dr. Jacobson found this system to owe its origin to the omphalo-mesenteric veins.

CASE OF EXTENSIVE LACERATION OF THE VAGINA.

ON the 4th May, 1828, a bay mare, in foaling, lacerated the vagina to a very considerable extent. On introducing the hand and arm the rent was found to extend to the margin of the os uteri, the external part of the wound gaped very much, and the torn part itself appeared of a blackish blue colour, resembling a bruise. The wound was dressed with digestive ointment, and aloes ʒ iij. given. Fomentations of warm water were likewise ordered to be frequently applied to the buttocks, and the mare to have a mash diet.

5th. No unfavourable symptoms have arisen. Aloes ʒ iij. and continue fomentations as before.

6th. The medicine has gently operated and a discharge of healthy pus comes from the vagina.

10th. The wound is granulating favourably.

15th. Continues to go on favourably.

25th. The wound is very nearly healed, with the exception of the external end, the edges of which gape, and appear to want support, two sutures of stoutish silver wire were accordingly inserted, which closed up the part as desired.

31st. One of the sutures has sloughed out, but the edges of the sore having united, the other, which was likewise sloughing out, was removed.

June 6. The wound has completely cicatrized.

EDW. F. CHERRY.

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THE

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OR,

HORSE-MAN'S CHRONICLE.

N°. 24.] JUNE 15, 1829. [VOL. II.

THE VETERINARY COLLEGE AGAINST THE VETERINARY PROFESSION.

IT has long been evident to every thinking mind that Mr. Coleman, his colleagues, and the so stiled Governors of the concern at St. Pancras, have affected to shake off the general body of Veterinary Practitioners—that they have been jealous of their reputation—have looked upon them as successful rivals—and the "College" people being unable to cope with them have sought protection by secrecy and seclusion. In this rivalry they have not strove for the lead by openness, candour, liberality, emulation and the other honourable means that were within reach; but have, on all occasions, taken most determinately an opposite course. The Medical Examining Committee have repelled the modest claim of the Veterinarian to the rank and consideration he is fairly entitled to, with taunt and reproach; or, with an affectation of liberality that can only blind and deceive the most unwary, have in terms, if not in words, expressed their hostility to any measure that can bring a Veterinary Surgeon to approximate more closely to them, than when paying his five guinea fee to be dubbed with that appellation.

The Committee of Governors, not content with excluding the Veterinary Surgeon from their own body, have declared that he shall not be even a Subscriber to the Institution over which they affect to preside; that he shall not, though it may only happen once in the year,

be permitted to hear their Professor's luminous exposition of the state of the Veterinary Art, which winds up with nothing; or their erudite Secretary, &c. &c. read his record of their own proceedings, which leaves them unintelligible: but then mark what their Professor says, why truly, that they may get a mis-conducted troublesome pupil among them, and, echoing the words of one of his Governors, supposes that the Veterinary-Surgeon-Makers may by indiscretion overstock the market with them; and if the Veterinary Surgeons, already made, had a voice in the matter, they might put a stop to this indiscreet conduct; and he remarks, whether for himself or for his governor he did not state, that it will be much better to put a stop to this,—that is, that it will be much better to allow an abuse to exist and flourish, than to allow a control to be created that might, by possibility, check the abuse. As this is a fair specimen of the obliquity of the distinguished Professor's logic, I take my leave of him for awhile.*

But there is no occasion to slumber from a lack of matter to keep attention awake, since Mr. &c. &c. Sewell steps in with his amusing epistles—amusing from the complacency with which he lends himself to insult and villify the members of the Veterinary Profession, when he himself has no claim to consideration but what he derives from belonging to that Profession. As a specimen of the lack of erudition in this poor hack—in this Clerk to his "Royal" Governors—in this Assistant-Professor as designated by himself, take the following letter addressed to Mr. Cherry, who was, and claimed a right to *continue**, a Subscriber to this College.

"*Royal Veterinary College, May* 21, 1829.

"SIR;

"I AM directed by the Chairman of the Annual General Meeting of Subscribers, held at the Thatched House Tavern this day, to transmit you the following Resolution that passed the Special General Meeting held on the 18th June, 1828, that no Veterinary Surgeon or Pupil shall be admitted in future as a Subscriber to the Institution except by ballot at a Committee of Governors, and that Resolution was confirmed by the Annual General Meeting this day. And further, with a view to satisfy the Veterinary Surgeons and Pupils of the Royal Veterinary College, that the Governors of the Institution

* See Correspondence in Farrier, No. 16. p. 52.

have no wish to exclude them from any of its benefits, the meeting have agreed to the following Resolution:

"That every Veterinary Surgeon or Pupil of the College shall be at liberty to send any horse or Veterinary subject (being *bona fide* the property of such Veterinary Surgeon or Pupil) to the College, upon the same terms as the horses or other animals of Subscribers, but without payment of a subscription. And that, in all cases of danger or difficulty, such Veterinary Surgeon or Pupil shall be at liberty to send any horses or other Veterinary subjects, although they may not be the property of such Veterinary Surgeon or Pupil, for treatment at the College upon the same terms, provided that, in the opinion of the Professor, or in his absence of the Assistant-Professor, the case shall be found to be one proper to be omitted. [qy.? *admitted.*]

"I am, Sir, your obedient servant,

"WM. SEWELL,

"Assist.-Professor, &c.

"*To F. C. Cherry, Esq.*

"*Veterinary Surgeon.*"

Now, although not one among the Governors of the Royal Veterinary College is remarkable for his knowledge of horses, or even for the use of them, yet they no doubt are all men of education and possess a fair portion of common sense among them; yet in this letter, purporting to be by their direction, what a jumble is made of Subscribers and of Governors—of benefits and restrictions—of horses and Veterinary subjects,—indeed this Assistant-Professor-Letter-Writer has so perverted terms and sentences, in themselves intelligible, as to leave information quite out of the question; in every line is a contradiction to some other part of this official letter.

In the first place we are here told that no Veterinary Surgeon or Pupil *shall be admitted in future* as a subscriber, except by ballot at a Committee of Governors, and this resolution is stated to have been passed on the 18th of June, 1828, and confirmed on the 21st of May, 1829, these being called acts of the Subscribers; still the exclusion is only contingent and is made to depend on the will or fancy of the Governors, to be expressed by ballot when in Committee. In the next place this meeting that has confirmed a resolution to admit Veterinary Surgeons, provided the Governors think them to be quiet and contented, or possessed of whatever other qualifications may be deemed

necessary, annul their own act and declare that Veterinary Surgeons shall not be admitted as Subscribers, leaving out of sight any contingency whatever.

Next comes a sort of whining declaration, that the *Governors* have no wish to exclude the Veterinary Surgeons and Pupils of this College from *any* of its benefits; but then comes an enumeration of *such only* as they will allow, and these truly are founded on the supposition that there is something really better in the treatment and management, by the brace of Professors at the stables at St. Pancras, than is to be met with elsewhere; even these Professors are to be placed lords paramount over the old and experienced practitioner, and to receive or reject, according to their mere caprice, any Veterinary subject, as Sewell expresses it, that may be sent to them by such practitioner. The rule for judging whether a case is proper or not, being the whim of these Professors upon that point.

Now as these Governors have claimed for this College of theirs so decided a superiority, it is worth while to inquire on what grounds such pretensions to consequence can be founded. The spacious stables left them by the founder of the Veterinary College are well contrasted by the miserable hovels which have been set up by "the powers that be." The stable management is of the most wretched description, and if there is one man in England who with ample means has kept horses for 30 years, and yet has his stable and horses in worse condition than any other, that man is Professor Coleman; and as for the treatment of disease let us take the published cases of the Royal College—for instance the following:

"A chesnut gelding, seven years old, belonging to Matthew Wyatt, Esq. was admitted on the 6th of August, and the disease stated by Mr. Sewell to be *Dyspepsia*.

"The horse was out of condition, and did not feed well. Was directed to have hay and corn diet, and a ball given composed of two drachms of powdered ginger, the same quantity of sulphate of copper, with sufficient turpentine to make it into a ball.

"On the 8th the dose was directed to be repeated.

"10th. Farcy tumours were to be seen under the belly, and the glands under the jaw enlarged; likewise a discharge from the nose.

"A rowel ordered to be made in each thigh, and one ounce of pow-

dered ginger, half an ounce of sulphate of copper, and the same quantity of turpentine, formed into a ball, to be given.

" 12th. The enlarged glands directed to be blistered, the ball to be repeated daily, and the rowels to be kept discharging.

" 14th. An ounce of powdered ginger to be given twice a day in a ball, and to have potatoes to eat with the corn.

" 15th. Sulphate of copper, half an ounce; powdered ginger, one ounce: to be given twice a day.

" 16th. Two ounces of ginger, and three drachms of sulphate of copper, to be given in a drink.

" 17th. Two ounces of ginger, and two drachms of sulphuric acid, to be given as a drench, in three pints of water.

" 18th. The dose to be repeated.

" 19th. Three quarts of blood directed to be drawn from the jugular vein.

" *Mr. Coleman stated, as a reason for this, that taking away blood acted as a tonic.*

" From the 20th and 21st the horse became rapidly worse, *from the effect of the tonic, and which did not appear to be a suitable one for the complaint.* The discharge from the nose became much worse, he breathed with much difficulty, and refused all food; and in the night of the 22nd he died."

" A bay gelding, six years old, belonging to T. Devas, Esq. was admitted on the 9th of July with inflammation of the foot; when, after the usual routine of bleeding in the toe, poulticing, aloes, a rowel in the chest, a seton through the frog, standing on wet straw, not omitting the *grasshopper* shoe, the horse became affected with farcy on many parts of the skin, particularly about the hind quarters and neck. Rowels were inserted in several parts, and aloes, with turpentine, given internally, and blisters were applied to some of the farcy swellings.

" He now became evidently glandered. The glands under the jaw were enlarged; a discharge took place from the membrane lining the nose, which also appeared ulcerated.

" Between the 31st July and the 21st October, when the horse was destroyed, pounds of sulphate of copper (blue vitriol) Mr. *Assistant* Sewell's *once boasted specific for glanders*, were administered; but in this as with his other vaunted cases,—*alas!* one of his *worthy* friends among the Governors, has even gone so far as to say that

Mr. S. was not considered by them to have succeeded in curing glanders; notwithstanding they have so liberally rewarded him, and his advertising to the world his forthcoming and *(now no more)* mighty specific."

If such treatment as this emanating from a would-be public institution is pronounced to be creditable to it, well may the Veterinary Art be yet considered at a low ebb; but it is to be hoped that opinion on this point will not rest on what is to be found at the Royal Veterinary College.

If the late occurrences connected with the Royal Veterinary College, its Governors, its Professors, and its Medical Examining Committee do not rouse the general body of Veterinary Practitioners to take a bold, firm, and decided step towards independence, then will the Profession be debased indeed, and the sooner the name of Veterinary Surgeon is dropped by those who are mindful of their own reputation the better; but I yet hope that Veterinary Surgeons as such, will assert their claims and assume the rights they possess.

Let a Veterinary Examining Committee be selected from among the older and more active members of the Profession; let them examine students, and when found qualified let that fitness be declared; let this be done unconnected with the Non-Veterinary Committee, the Non-Veterinary Governors, or their servants; let their motives and feelings be extensively circulated, and then let the Profession trust to the good sense that so generally exists in this country, and they will soon see that the opinions of men engaged in the practice of an arduous, important, laborious, and dangerous profession, will be more esteemed than the certificates of those who know but little about the theory, and nothing about the practice, of that profession.

This should be the first step—others would necessarily follow, but still the first, bold, and firm step would be the most important of all. I repeat that no man can feel greater respect for those against whom my remarks may appear to be directed than I do, so long as they act in the sphere that their talents and acquirements sanction them to act in; but when they quit that sphere, refuse to receive information from those who are able to give it, nay, even to admit such persons to the same table with them, and condescend to meddle with, direct, and control a Profession of which they practically know nothing, then my re-

spect ceases, though I shall ever regret being severed from a body that I have for many years viewed with feelings of esteem, and towards some individuals of which I have personal obligations that I am never backward to acknowledge.

FRED. C. CHERRY.

June, 1829.

REPORT OF THE COMMITTEE OF VETERINARY SURGEONS.

THE Committee appointed at a General Meeting of the Veterinary Profession, held at the Free Masons' Tavern, on the 27th of April last, to prepare memorials to the Governors and Medical Examining Committee, respecting the Examination of Veterinary Students, having met and prepared memorials accordingly, which were placed in the hands of Professor Coleman to be presented to those bodies respectively; they now have to report to the general body of the Profession, their having received a letter from Mr. Coleman, enclosing the decisions of those bodies *.

And having so far executed the trust confided to them, they announce that a meeting of the Profession will take place at the Free Masons' Tavern, at six o'clock, on Wednesday, the 8th of July, to consider these communications, and adopt such measures as may be deemed expedient, when several propositions will be then submitted.

COMPARATIVE ANATOMY.

Observations on the Structure and Œconomy of the Talpa Europæa. BY H. W. DEWHURST, ESQ. *Surgeon, Professor of Human and Comparative Anatomy, &c.*

IN a former number I noticed the mole in its zoological point of view, as described by an able and ingenious author †. I now pro-

* These documents will be given in our next number.

† See Farrier, No. 21. p. 139.

ceed to speak of its anatomical peculiarities, and previously, may not improperly add to its zoology the observations of M. Sonnini.

This animal appears not to have been known to the ancients, who have been wrongly accused of supposing this animal destitute of the organ of vision.—However, we find this assertion mentioned in two places by Aristotle, in his History of Animals. But the researches of modern times have confirmed his assertions, as the mole of his country was blind.

But in this country there is a small subterraneous creature, denominated the *Rat Mole*, that is totally deprived of vision, a species which naturalists have but recently become acquainted with. Zoologists are now forced to confess that the ancients had truth on their side. But the mole of ancient Greece was not only completely blind, but did not possess the slightest rudiment of the external eye *.

CLASSIFICATION.

Class, MAMMALIA—*Order*, CARNASSIER—*Family*, INSECTIVORA—*Genus*, TALPA—*Species*, —— EUROPŒA.

Distinguishing Characters. Six upper incisor teeth, small, vertical and nearly equal in height, those intermediate are broader than the lateral; eight small inferior incisors, of an oval-like arrangment, and somewhat on a declivity; in each jaw there are two canine teeth, surpassing the incisors, and are triangular and compressed, the superior are larger than the inferior. The molares are seven on each side of the upper jaw, with six below, the coronals are provided with sharp points. The head is elongated, and with a termination by a snout, and the eyes extremely small. It has no external ears, but short limbs possessing toes on all. The anterior extremities are terminated by hands extremely small, but which are very powerful. The palm is always turned outwards and backwards, the lower edge being trenchant, and the toes joined as far as the basis of the nails, which are long, strong, and sharp. The hind feet are more slender, toes more feeble, more separated, and provided with nails of moderate size. The tail is short and but slightly covered with hairs. There are six abdominal mammæ.

The senses of hearing and touch are possessed in a state of very high development, but the others are not so perfect. These creatures

* Cuvier's Animal Kingdom, by Griffiths.—Part IV. p. 198.

are admirably adapted for digging, their whole muscular force appears to be situated in the levator muscles of the head, constituting a species of lever, and their hands act as spades. Placed on a solid ground, these animals move slowly; but when they are permitted to dig, we find they speedily disappear.

Anatomical Characters. The head is extremely elongated and somewhat flattened superiorly. The cervical ligament is very strong. The bones of the anterior extremities are angular, and of such a thickness, that their transverse diameter is hardly exceeded by their length. The two bones of the fore arm are connected. The clavicles are extremely strong. One of the bones of the carpus is very elongated, and communicates solidity to the inferior edge of the hand. The sternum is very large and composed of five pieces, and like those of bats and birds, possesses a central ridge very much developed. The pelvis is extremely narrow. There is no symphysis pubis, this circumstance, according to the observations of Mons. Breton, permits the vulva to be displaced at the period of parturition, and its movement in the front of the pelvis. Without this arrangement it would be impossible that parturition could take place, as it would be impossible for this function to occur in the ordinary way, in consequence of the narrow diameter of the pelvis.

There are twenty-two teeth, of which a general detail is already given.

The muzzle is elongated, mobile, and pointed very nearly like that of the sus or swine genus. It acts as an instrument admirably well adapted to facilitate the labours of the mole; for while the animal, with the paws of its anterior extremities, removes the soil, the snout furnished with powerful muscles and a small bone, raises the earth and prepares the passage, through which the body is to pass. The muzzle terminates by two large nostrils, which advance a little beyond the opening of the mouth. The tongue is long and not unlike that of the carp. The mouth being opened by the action of the muscles of the snout, a small membrane placed below the upper lip, and descending over the inferior, hinders the earth from entering. Relatively to the magnitude of the mole, and its habits of life, the organ of hearing is perfect, though less so than that of smell, which is extremely sensible and delicate. There is no external concha to the ears, the meatus auditorius is concealed by the surrounding hairs. It is cartilaginous, and descends obliquely, as far as the cavity of the

petrous process of the os temporale—to which it adheres, by many small membranous fibres. The orifice does not exceed in diameter the quill of the feather of a pigeon's wing; and a small membranous valve, which is raised and lowered like the eye-lid, (the mechanism of which is easily perceived by shaving the head of the mole,) closes the aperture, at the will of the animal, to prevent the entrance of earth or sand. All the feet are divided into five toes. The anterior feet, which possess the configuration of hands, are broad and placed obliquely, so that the palm is always secured, and the toes, (or fingers), armed with flat and strong nails, are directed externally, and downwards. The hinder feet are much smaller than the anterior. The tail is short and scaly, like that of rats.

The stomach is membranaceous, and of an elongated form. The left or upper orifice of the stomach is surrounded by a fibrous wing, whose office is to blend this viscus together. Severinus found a transverse line, which attached it in some way and separated the pylorus. I am not aware that other zootomists have made the same observation.

The liver is divided into four lobes, though I only find three in some of this species, but other anatomists have discovered five. Their colour is of a reddish brown.

The gall-bladder is observed with difficulty, is globular, does not contain much bile.

The spleen adheres immediately to the stomach, resembles that of a dog precisely in its conformation.

There are five lobes to the lungs. The heart is of an elongated form and situated entirely on the left side. This animal possesses no cœcum. The anus is exceedingly prolonged from the origin of the tail.

But it is to the parts of generation that the mole owes its chief peculiarity. "Nature," says Buffon, "has been munificent indeed to this animal, in bestowing on it as it were the use of a sixth sense. It possesses a remarkable apparatus of resorvoirs and vessels, a prodigious quantity of semen, enormous testicles, the genital member of exceeding length, and all secretly concealed in the interior of the animal, and consequently more active and vivid. The mole is, in this respect, of all animals the most advantageously gifted, the best organized, and must of consequence possess the most vivid sensations."

The body is thick and muscular, covered with a skin that adheres strongly to the muscles, and is well furnished with close, soft, and

silky hairs, insomuch, "that," as Mr. Griffiths justly observes, "the body of the mole is not unlike a velvet pincushion, the two extremities of which are formed by the pointed muzzle, the short and round tail."

These animals bring forth their young twice a year, and generally four or five at a time, whence it is that the young may be found almost at all times, from spring to autumn. The exact period of gestation is unknown. Out of the season of sexual intercourse, and of the care of the young, every mole lives an isolated retired life, seeking its sustenance by continual labour.

I may, in concluding this paper, observe, that the Chrysocochlore Capensis*, or Gilded Asiatic Mole, differs from the Talpa Europœa by having a supernumerary bone in the fore arm, consequently he has three bones instead of two, a phenomena that is not existing in any other animal, at least as far as I am aware.

H. W. D.

June 9, 1829.

ROAD-RIDING.

SIR;

AS Editor of the "FARRIER," will you favour me with a categorical, not "*doubtful*," answer to the following query:

Admitting you were about to ride a distance of 40 miles, the horse a perfect roadster in high keep and strong exercise, usual rate of trotting ten miles (has done 14) per hour, with good springy action; would it be most beneficial to the horse to bait at the distance of 20 miles, or to do the 40 without drawing bit?

On your decision depends a dinner and wine for half-a-dozen, of which one of your Friends of the Tenth will partake, and possibly pay for.

I am, Sir,

Your Constant Reader,

J. P.

[The Editor has no hesitation in saying that under the circumstances above stated he would ride the 40 miles without drawing bit, as most beneficial to the horse.

* Count Lacépede describes this as a sub-genus of the mole family.

There are however many countervailing circumstances that may exist, or might arise, to induce a different opinion, but it is not necessary to enter into a disquisition on road-riding on this occasion.]

ON STOPPING HORSES' FEET.

MR. EDITOR;

I AM an old horsekeeper, and of horses of all denominations, that is to say, of horses employed in agriculture, posting, hunting, &c, and have therefore tolerable good experience as to the causes of lameness. In agricultural labour, horses seldom become lame; those employed in posting are more subject to lameness than any other description of work, not excepting hunting. The feet of the high-fed poster give way before the body, as you cannot give corn to the feet to enable them to bear the exertions forced upon them, by corn given to the body.

To preserve the feet of my posters has therefore been my constant study; on skilful shoeing in a great measure every thing depends, next to which is stopping the feet immediately on the return of the horse to the stable. I have tried a variety of preparations, not forgetting Mr. Cherry's felt, to all of which I have objections. Some four years since my house was under repair, and the front was covered with Parker's Cement. Observing, when mixed with water to the consistence of paste, it very shortly became hard, I determined to try the experiment of using it as stopping. I mixed up about half-a-pint measure of cement and applied it to the foot with a trowel, forcing it under the sides of the shoe, and into the interstices on each side of the frog, thus filling up the foot so as to make a surface of cement and shoe. I have continued the same system for the above period, and can assert it is the very best stopping that is at present known; by its pliability it takes the whole impression of the foot with the least possible trouble, and thus the weight of the horse is borne on a very extended surface, added to which by the natural moisture of the foot, the cement is kept in such a state as not to be productive of too great adhesion as to cause heat in the foot.

As this information is given without fee or reward, it is "*hoption-*

al," as my friend Liston says, for your numerous readers to try the experiment. Expense cannot be an objection, as stopping two feet will not exceed one half-farthing.

I am, Mr. Editor,

Your Constant Reader, and

AN OLD HORSEMAN.

[We have tried, among many other substances, the above cement as a stopping for feet, and under some circumstances it answers extremely well. There are however many practical objections to its general use;—any quantity that may be prepared beyond that which is for immediate use is so much wasted; about a pint is requisite to stop two feet, and costs more then a half-penny, which for 31 days with the fractions included is about 1*s.* 6*d.* per month. When this cement does not crack and shake out from the feet, it then becomes hard and is removed with difficulty. As to a horse being able to work with a stone-like substance in close contact with every part of the foot, it is quite out of the question. Upon the whole Cherry's felt stopping is by far the best substance that can be used; and when durability and easiness of application are considered, these stoppings are also much cheaper than any thing else that can be used, with equally beneficial effect. ED.]

DERANGEMENT OF THE TEETH.

A BAY mare, probably about 12 years old, the property of a butcher, had, for a considerable period, fallen away greatly in flesh, and when brought for treatment was exceedingly weak and emaciated. On first examination the mouth was in that slavering state which generally accompanies derangement of the teeth; a further search being made, the third and fourth molar teeth of the lower jaw on the left side were found to be completely depressed to a horizontal position, the edges, which were very sharp, lacerating and injuring the cheek a great deal; the portion of jaw-bone immediately under the third molar as well as the tooth itself was in a carious state, and so much was the process of mastication impeded that at least a double handful of quid-

ded hay was taken from underneath the two teeth, and from the left side of the mouth; there was also a considerable quantity on the right side.

Treatment. The mare being cast, the two teeth were extracted with the key instrument, on a large scale, made by Long; the third molar came out clean, but the fourth molar broke off at its neck; the wound was dressed with dilute nitric acid, which dressing was repeated on the fourth day, after which the wound rapidly cicatrized, and the animal as quickly gained strength and condition.

ED. F. CHERRY.

NATURAL HISTORY.

On the Influence produced upon the Secretion of Milk in the Ass, on removing the Foal. By SIR E. HOME, Bart.

THE following are the observations made by the late Mr. John Hunter, on the influence produced upon the secretion of milk in the ass, by removing the foal.

He says, that it is universally known, that many animals that have brought forth young shall continue to give milk, not only after the young are removed, but even for years, when the impression of having had young must have been entirely forgotten. The cow and goat, he gives as instances of this kind, but in the ass the secretion of milk is not continued after the mother has lost all impression of the existence of the foal: this is a fact so well known to the keepers of asses, that whenever an ass's foal dies, they take every means in their power to keep up the impression of the foal being alive, to keep her in milk. For this purpose they skin the foal and preserve it, so that it may be occasionally thrown over the back of another foal and smelled by the mother, more particularly when they are milking her. The ass, under the deception of having her own foal, gives down her milk, and the secretion is carried on as usual, and she is kept in milk; but if this artifice is neglected she soon goes dry. This appeared to Mr. John Hunter so curious a fact, that although well attested by

every ass keeper he spoke to on the subject, he could not give it full credit, till he had put it to the test of experiments. He took an ass in milk, that had a foal, and kept them apart every night, but had the mother milked in the morning in the presence of the foal, this was done for more than a month without any diminution in the morning's milk. The foal was then taken away altogether, and the mother was milked, instead of being sucked by the foal, particularly in the evening, at the same hour at which the foal had been taken from her, and again in the morning at the usual hour. The milk taken in the morning was compared with that taken the morning before, but in three mornings, the quantity was lessened and the fifth morning there was hardly any. The foal was then restored to her, but she would not allow it suck. The experiment was repeated with similar results.

A TREATISE

ON

THE DISEASES AND LAMENESS OF HORSES.

By W. Osmer. London, 1766.

[Continued from page 163.]

WITH respect to rest, the farrier has a great advantage by blistering and firing, because the leg is so inflamed hereby, that it is impossible to ride the horse for a considerable time after the operation; so that if he happens to get sound, it is generally thought to be the effect of blisteriug and firing; which ought, in reality, to be imputed to the rest he has had.

But when any other method has been used for this purpose, and the part looks fair to the eye, the rider mounts, his horse is lame again the first day, and the groom wisely concludes, he will never stand sound without being fired.

Now let every man, who has ever strained the tendons of his wrist or ancle, reflect on the pain he has suffered from the least motion of the parts; and how long a time has been required, before he has been

able to bear the extension of such tendons, even when all appearances have been fair.—Will not the case be such with the horse?

And here I cannot help censuring the jockey, who, having his horse matched, and in his exercise the tendons are so inflamed, that he cannot be allowed to gallop, yet constantly takes him out morning and evening to give him walking exercise.

But this walking exercise can contribute little towards keeping him in wind, or making him fit for the race, yet still helps to fatigue the tendon. Whereas, if the horse was kept quiet, and proper applications applied to the injured part, it is very possible he might recover soon enough for his purpose. Therefore, when it is thought improper for him to gallop, it must be much better for him to be quite still; and the most proper applications I know of in this case, are to bathe the parts with cold vinegar, to rub in some cooling ointment when it is dry, and to renew the cataplasm of salt twice a day; salt externally used, being the greatest discutient I am acquainted with.

The use of ardent spirits do harm to tendinous parts when there is any tension, because, if then applied they render the fibres rigid; but when the tension is gone off, such may help to brace and strengthen the parts—a high-heeled shoe will also be of use in this case, as it will help in some measure to keep the tendon relaxed.

Now I beg leave to repeat what has been in part said already; namely, that all lameness in the tendons of a draught, road, or running horse, happens generally from the unequal surface of our modern concave shoe, and from robbing that tendon, which is continued to the bottom of the foot, of its proper point of support, by paring the frog. Hunters indeed may occasionally get a lameness in the tendons, from various injuries and violence received in their different kinds of work.

[To be continued.]

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THE

FARRIER AND NATURALIST;

OR,

HORSE-MAN'S CHRONICLE.

N°. 25.] JULY 1, 1829. [VOL. II.

PAPERS ADDRESSED TO THE MEDICAL EXAMINING COMMITTEE AND TO THE GOVERNORS OF THE VETERINARY COLLEGE.

THE following has been published as emanating from the Committee of Veterinary Surgeons, appointed by the General Meeting of the Profession, held on the 27th of April, for the purpose of drawing up the necessary memorials to the Medical Committee and Governors.

The Committee, consisting of Messrs. Cherry, Sen., John Field, Jun., W. J. Goodwin, Henderson, Langworthy, John and William Percivall, and James and Thomas Turner, assembled on the 13th ultimo, and drew up the following memorials, which were forwarded to Professor Coleman, to be by him presented to the Medical Examining Committee and the Governors of the Veterinary College:—

To the Medical Examining Committee of the Royal Veterinary College.

GENTLEMEN;

As members of the Veterinary Profession, we shall ever feel grateful for the liberality and support you have invariably evinced towards us; and in soliciting your recommendation to a measure that we

deem expedient to propose to the Governors of the Royal Veterinary College, we trust that you will give us credit for that good feeling which, on our part, must ever exist towards you.

At a Meeting of Veterinary Surgeons, held at the Free Masons' Tavern, April 27, 1829, Professor Coleman in the chair, it was resolved, That the Veterinary Profession would be materially benefitted by the appointment of an Examining Committee of Veterinary Surgeons, to whose scrutiny the student should be subject, previous to his appearance before you.

And it was also resolved, as you had the kindness, on a former occasion, to recommend the appointment of a separate Committee, That you be solicited to assist us with your powerful influence, in again recommending the same measure to the governors of the Royal Veterinary College.

Confiding in a continuance of your good wishes towards our Profession, we earnestly hope that you will extend to us your aid on the present occasion, which, we trust, will insure the proposed measure a favourable consideration by the Governors of the College, and will enhance the great respect we shall ever entertain towards the members of the Medical Examining Committee.

We have the honour to be, &c.

(Signed.)

To the Governors of the Royal Veterinary College.

My Lords and Gentlemen;

We the undersigned, being a Committee elected by ballot to represent the body of the Profession, beg leave most respectfully to state to you, that a General Meeting of Veterinary Surgeons took place at the Free Masons' Tavern, on Monday, April 27, 1829, Professor Coleman in the chair, when the following resolutions were proposed and carried:—

1*st*. That it would be beneficial to have a separate Examining Committee of Veterinary Surgeons, elected by the body of the Profession, before whom the Pupil should appear, and be approved, prior to his Examination by the Medical Committee.

2*nd*. That the number of Veterinary Examiners should be six, in

addition to the Professor and Assistant-Professor, with power to increase their number, elected in the same manner, should the Committee of six be found insufficient.

3rd. That the members of the said Committee should be elected from the Veterinary Surgeons residing in London, or within ten miles of it.

Convinced that it is your wish to place our useful art on its firmest basis, and to secure the best interests of its practitioners and the public, we venture most respectfully and most earnestly to entreat, that you will be pleased to take into your favourable consideration the object of our petition,—the appointment of the said Committee.

We have the honour to be, &c.

(Signed.)

One member of the Committee declared the language to be such as he could not approve; but, nevertheless, he would sign his name among those of the other members of the Committee, in obedience to the expressed opinion of a majority of that Committee; but, however earnestly he might entreat the favourable consideration of an important right, there was a point beyond which he could not go—he could not petition,—it was at variance with his own feelings, and he was delegated to assist in preparing memorials, and not a petition. His name therefore was not subjoined.

It having been ruled that each member of the Committee should prepare a memorial in accordance with his own ideas on the subject, and that from these a general one should be formed; the member of the Committee above alluded to did so, as follows; *viz.*

To the Governors of the Royal Veterinary College.

THE Memorial of a meeting of Veterinary Surgeons representing the general body of the Profession,

Sheweth,

That amendments in the mode of preparing Veterinary Surgeons, and declaring their fitness to be intrusted with the property of yourselves and others, as Veterinary Practitioners, has long been manifest.

That this has been admitted to be necessary by the present distinguished Professor of the Veterinary College.

That one of the modes towards the attainment of this end has been admitted by that gentleman to depend on an alteration in the nature of the examination of Veterinary Students.

That at a Meeting of the Profession, held at the Free Masons' Tavern, in the last month, it was decided that you should be applied to on that subject, for the purpose of obtaining your concurrence in the measure then proposed, of forming a Committee of six Veterinary Surgeons, for the purpose of examining Veterinary Students as to their fitness to become Veterinary Practitioners.

The undersigned, as a Committee then formed for the purpose of approaching you to obtain such concurrence, therefore pray that you will be pleased to accord the same.

The replies to the above solicitation, entreaty, and petition, were communicated to the Committee of Veterinary Surgeons by Professor Coleman, and were accompanied by a letter from that gentleman. These documents are as follows:—

(Copy.)

At a Meeting of the Medical Examining Committee of the Veterinary College, held at the Free Mason's Tavern, on the 21st of May, 1827, Sir Astley Cooper, Bart. President,

Resolved,

That, in consequence of the more extended cultivation of the Veterinary Art, it appears to this meeting expedient, to recommend to the General Meeting of Subscribers of the Veterinary College to appoint, in addition to the present Medical Examining Committee, a Veterinary Examining Committee, consisting of the Professor, Assistant-Professor, and Veterinary Surgeons; and that no Diploma be in future granted to Veterinary Students, unless they shall have been examined and approved by both Committees.

Resolved,

That the above resolutions be presented by Professor Coleman to

the next General Meeting of Subscribers of the Veterinary College.

ASTLEY COOPER.

(Copy.)

AT a Special Meeting of the Medical Examining Committee convened May 20, 1829, for the purpose of taking into consideration a memorial from a Committee of Veterinary Surgeons, Sir A. P. Cooper, Bart. President.

The memorial having been presented by Professor Coleman, and duly considered,

The Medical Examining Committee resolve, That they see no reason to alter their opinion as expressed in certain resolutions on the 21st of May, 1827, and presented by Professor Coleman on the 7th of June, (1827,) to a General Meeting of Subscribers; and resolve, That in order to afford every facility to the General Meeting, should they think proper to appoint a Veterinary Examining Committee, the Medical Committee wish it to be understood, that it will be most agreeable to their feelings, that their services should be gratuitous.

Resolved,

That this resolution be communicated by Professor Coleman to the Committee of Veterinary Surgeons.

ASTLEY COOPER.

(Copy.)

AT an Annual General Meeting of Subscribers to the Royal Veterinary College, held at the Thatched House Tavern, May 21, 1829.

Mr. Coleman having presented and recommended a memorial from a Committee of Veterinary Surgeons, and resolutions of the Medical Committee, advising the appointment of an Examining Committee of Veterinary Surgeons,

Resolved,

That this Meeting viewing the proposal with the same apprehen-

sion of practical inconveniences probable to result from the adoption of such measure; and feeling themselves, and believing that the public feel, the fullest confidence in the Examination of Veterinary Students by the present Medical Committee, see no reason to depart from the resolution agreed to when the same subject was presented for their consideration on the 7th of June, 1827.

That a copy of this resolution be transmitted by Mr. Professor Coleman to the Committee of Veterinary Surgeons.

GEORGE HOLME SUMNER,
Chairman.

(Copy.)

Royal Veterinary College, May 23, 1829.

GENTLEMEN;

I HAVE the satisfaction to inform you that your memorial presented by me to the Medical Examining Committee was favourably received; and you will see, from their answer, that the Committee have not only adhered to their former opinion, in recommending the appointment of a separate Examining Committee, but, to give every facility to such an appointment, and thereby to prevent any additional expense in the Examination of Veterinary Students, the Committee have offered to the General Meeting of Subscribers, a continuation of their services *gratuitously*. But, I regret to say, that although this measure has been recommended by the Medical Committee, your memorial to the Subscribers of the Royal Veterinary College has not been favourably received; and that I have been directed by the General Meeting of Subscribers, to convey to you the enclosed resolutions of that meeting, which gives a direct negative to the appointment of a Veterinary Examining Committee.

I have the honour to be,
Gentlemen,
Your very faithful, and most obedient humble Servant,
EDW. COLEMAN.

To the Committee of Veterinary Surgeons, &c. &c. &c.

Now in respect to the first of these documents, although no disposition is shewn to amalgamate the practical knowledge of the Veterinary Surgeon with the Veterinary theories of the Physician and Surgeon, still it is plausible enough; but when information was asked as to the manner in which the duties of Examination were to be divided between two Committees none could be obtained, and the proposition died a natural death as an abortive malformation.

In the second of these documents the Committee state that they see no reason to alter their former opinion; they do not however recommend the measure, as they were requested to do, but should the General Meeting "think proper" to appoint a Veterinary Committee, they the Medical Committee then wish to relinquish the fees they have heretofore received. This looks very much like pouting, since the fees heretofore given them had not been complained of; and when the Veterinary Examining Committee was proposed at the General Meeting of Veterinary Surgeons it was distinctly stated that its services were to be given without fee. If the old Committee were not apprised of this fact they ought to have been so, through their member Mr. Coleman, who was in possession of it; therefore no facility on this score was requisite: to talk of giving facility where no difficulty existed was begging the question, and if it was intended to cordially concur in the proposal respecting the appointment of a new Committee, these remarks were quite uncalled for.

We next come to the third document, and from this it appears that Mr. Coleman took the memorial to a meeting of subscribers; now what had they to do with it? It was addressed to the Governors, then why hand it over to a General Meeting of Subscribers? but then this meeting refer to their apprehensions of practical inconveniences, and a former resolution of theirs; what these are they do not condescend to state, and while these remain secret the production, signed "George Holmne Sumner," is merely a stringing together of words, and is devoid of any difinitive meaning. It however leaves the obvious inference that they mean to have nothing to do with Veterinary Surgeons.

We come now to the consideration of Mr. Coleman's letter, and it certainly is any thing but satisfactory; coming from one so blended with the Profession as he is, and from one making such warm professions of gratitude and attachment to it as he does. That Mr. Coleman feels grateful to the Veterinary Profession for the liberal

sums of money it has paid, and for the unbounded support it has afforded him, will be readily believed; and that he also feels grateful to the Medical Examining Committee as Public Lecturers, for the assistance they have rendered in contributing to the instruction of the pupils paying him so large a fee as 20 guineas, is not to be doubted. But why the liberality of the Medical Examiner, who has for 30 years been receiving fees for his Examinations, is to be extolled, for now conditionally offering to relinquish them; while the declaration of the Veterinary Surgeons, that no fees whatever were to be charged to the student on their account, is passed over, does not appear. Mr. Coleman however assumes, that the Veterinary Examination was to throw an additional expense on the student, that to prevent this the Medical Examiners will now give their services gratuitously; nay, that they actually adhere to an opinion formerly given, and this, to Mr. Coleman, is a source of satisfaction; but then Mr. Coleman winds up his satisfaction with communicating a direct negative on the expectations that had been entertained, and the trifling concessions that had been asked for. Should the General Meeting *think proper* to appoint a Veterinary Committee, then the old Committee will feel compunctions at being paid for services; but should it be left in undisputed possession of its heretofore assumed authority, then fees may be tendered as usual. The nearest approximation that the Medical Examining Committee, in its adherence to a former opinion, makes towards recommending a Veterinary Examining Committee is, permission for the General Meeting to make such an appointment, if it "*thinks proper;*" but that meeting gives a direct negative to the little that had been asked: yet this complete failure gives to Mr. Coleman satisfaction! Between his friends the Medical Examiners and Governors on the one hand, and his friends the Veterinary Surgeons on the other, Mr. Coleman has somehow or other, to use an illustration of his own, got into a cleft-stick; how he is to be released from that painful situation must be left to future events.

EXPERIMENT IN TETANUS, BY INFUSION.

JUNE 16. A chesnut mare, aged, affected with Tetanus. The Muscles of back and neck are in a state of spasm and very rigid.

The jaws are not entirely closed, but protusion of the membrana nictatans, the shaking of the tail, and the usual tetanic aspect, is very considerable.

An opening was made into the jugular vein, just below its division at the angle of the jaw, and ʒ ss. of spt. vin. rect. which had dissolved ʒ iij. of camphor, was slowly injected. The symptoms that followed were, staggering; quickness of breathing; and increased action of the heart; which symptoms in about 10 minutes went off, and the tetanic symptoms seemed relieved. She then drank about a gallon of water and eat a small portion of hay, but soon reassumed her previous condition.

Four hours afterwards it was proposed to inject an ounce of the above mixture into the vein through the same orifice, but it was found that it was plugged up with coagulated blood. An opening was then made into the vein where it emerges from the chest, and ʒ j. of the spt. with the like proportion of camphor was injected cautiously; the symptoms induced were much more violent than in the former instance: the action of the heart was very violent, so much so that the flow of blood was as profuse as if the cava had been opened; the blood, which was very dark coloured, coming out with great violence, great difficulty was experienced in repressing the hemorrhage, and the first orifice which had been before completely stopped up was now forced open and bled very freely. These symptoms soon subsided, but there did not appear the same amelioration of the tetanic state as in the first experiment. She was soon after, by desire of the owner, destroyed.

Ed. F. Cherry.

COMPARATIVE ANATOMY.

On the Structure of the Cochlea of the Internal Ear of Birds.

By Dr. G. R. Treviranus, *Professor of Medicine, Bremen.*

THE structure of the cochlea of the internal ear of birds has been hitherto principally known by the description of Professor Scarpa, from which it appears so simple, that it is rather difficult to comprehend how a class of animals, in which many display an acuter sense of melody and of articulate tones than most of the mammalia, should, in respect to the perfection of this organ, which certainly is principally

intended for the reception of the different modifications of audible impressions, be so far inferior to them. According to Scarpa, this part contains only a hollow cartilage, in which the nerves of the cochlea terminate. I have always considered this description as imperfect, and have found my opinion confirmed by a careful examination of the internal ears of different birds. In the cochlea of the falco *lagopys*, corvus *glandarius*, ardea *stellaris*, fringilla *canaria*, and loxia *coccothraustes*, I discovered, beneath a cuticular disc or cover, a double row of cuticular folia, on the walls of which the greater portion of the cochlear nerve is distributed, while only one branch of it is distributed to the hollow cartilage of Scarpa. On the contrary, the cochlea of our domestic fowl has none of these folia, but was simple in its structure. In the duck the foliated arrangement was present, but not so decidedly marked as in the birds already enumerated. Probably the same is the case in the goose, but of this I have not satisfied myself by actual examination. Scarpa appears to me to have examined only the cochlea of this latter bird, and hence we can explain how the structure we have pointed out has escaped his attention.

Those birds which are remarkable on account of their acuteness of hearing, are those also in which the cochlea is provided with perfectly formed *cochlear plates*. By means of the great number of these plates a wider space is afforded for the distribution of the cochlear nerve, and probably the space is proportionally greater in birds, than in the lamina spiralis of the cochlea of quadrupeds. I may add, for the information of those who may wish, by actual investigation, to satisfy themselves of the accuracy of my statement, that, in order to see the cochlear plates or folia, and the distribution of the cochlear nerve, it is necessary to harden the ear, in spirits of wine, before dissection.

VETERINARY MATERIA MEDICA.

[Continued from page 175.]

THE ALOE VULGARIS, OR BARBADOES ALOES.

THIS medicine is one of great importance to the Veterinary Practitioner, is more employed than any other vegetable carthartic, and too often it is found impure and adulterated. Mr. Blaine very

properly recommends every Veterinarian to purchase it in the gross and powder it himself, as a preventative against fraud. That species of the aloe plant now in use is the Barbadoes, and is generally considered to be more pure than either the Socotrine or Cape.

The British Pharmacopœlists formerly supposed the plant yielding this species to be a variety of the aloe *perforata;* but the late Sir J. E. Smith, President of the Linnæan Society, and editor of Sibthorp's *Flora Græca*, has marked the above-named plant, which is a distinct variety, as the one that Sloane describes in his History of Jamaica as producing the Barbadoes extract.

Classification.

Class vi. HEXANDRIA—*Order* i. TROGYNIA—*Natural Order*, CORONARIÆ—*Linn.*

Mode of Preparation.

The month of March is the period for cutting the aloes in the Island of Barbadoes. The leaves are cut off close to the stem, and disposed in tubs, in such a manner that the juice runs out. After a sufficient quantity of it is collected it is exposed to heat in copper boilers; and as it becomes more inspissated by a constant and regular fire, it is ladled from one to another, and fresh juice added, until that in the last, which is denominated the *teache*, acquires the consistence of honey; when it is poured into calabashes, and hardens by age. It is brought home in these calabashes or large gourd-shells, containing from 60 to 70 pounds each.

Chemical Qualities.

All the species of aloes, when analysed, yield a small portion of vegetable mucus, resin, and a peculiar extractive matter. Braconnot found aloes to consist chiefly of a peculiar bitter matter, which he termed the resinous principle*.

The odour, taste, and medicinal properties of the drug reside chiefly in the extractive; and the other species contain less resinous matter than the Barbadoes. Boiling water dissolves nearly the whole of any of them, but as the solution cools the resinous part is deposited; by boiling aloes in water the extractive matter becomes altered, and is rendered insoluble in that fluid, and approaches somewhat in

* Ann. de Chimie, lv. 152.

its properties to the nature of resin. When the Socotrine Aloe is distilled, a volatile is procured, which is not to be obtained from the Barbadoes.

General Qualities.

The odour of the Barbadoes Aloes is stronger and less pleasant than that of the Socotrine, and has some resemblance to the odour from the human axilla. The taste is nauseous and intensely bitter. The pieces are also of a duller brown colour, less glossy, not so smooth in the fracture, but easily splintered. The edges are not so sharp and transparent; but rather blunt and of a dull yellowish hue. It softens in the hand and is adhesive. The powder is of a dull olive yellow colour.

Medical Properties, Uses, and Doses.

Although all the species of aloes differ in their sensible qualities, yet they agree in their medical properties. They are warm stimulating cathartics, of slow solution, and consequently chiefly act on the colon and rectum. As a purge the dose is from five to nine drachms; as an alterative, stomachic, or vermifuge, from one drachm to two daily; as an external detergent and stimulant application, they are used in the compound tincture of myrrh, and compound tincture of benzoin. Aloes should be powdered in frosty weather as they are powdered more readily. The watery solution of aloes recommended Mr. Blaine is thus prepared—

Take of Barbadoes Aloes, in powder, ...	16 ounces.
Proof Spirit	1½ pint.
Soft Water	2 quarts.

Macerate the aloes in the spirit for three or four days; then add the water and bottle it for use. The dose is from two to three or four ounces (including the sediment) as the case requires.

H. W. D.

TOM THUMB AND RATTLER.

To the Editor of the Farrier and Naturalist.

MR. EDITOR;

A VERY few months since we prided ourselves on possessing a breed of horses of trotting celebrity, which we would have challenged the

four quarters of the globe to equal. The arrival of the two *foreigners* have "*laughed us to scorn.*" The galloway beating with ease one of our acknowledged fastest trotters; and the horse, in a distance of three miles, gaining 600 yards upon a mare selected, from her well-known speed, to be backed against him. The distance, ten miles; the mare to be allowed the start of one minute, considered equal to 600 yards.

Tom Thumb and Rattler having thus eclipsed our *out-and-outers*, you would confer a very great obligation upon many of your readers if you would take an early opportunity of communicating the birth, parentage, education, shape, make, form, and action (as far as such information is obtainable) of those two celebrated horses.

I have heard it remarked, that 19 out of 20 amateurs of horses would not notice them were they to see them in a casual way; there must however be a *something* which would attract the eye of a man, who, like yourself, has made the physiology of the horse his study.

Trusting you will pardon the trouble I am thus desirous of giving you,

I am, Mr. Editor,

Your Constant Reader,

G. M.

CASE OF STRANGULATED INTESTINE.

By Mr. Richard Rogers, *Veterinary Surgeon, High Row, Knightsbridge.*

(Read at the Veterinary Society.)

THE subject of this extraordinary case, which I shall endeavour to describe, was a roan gelding, formerly a saddle-horse of his present Most Gracious Majesty's, afterwards coming into the possession of the late Sir Charles Bampfield, who used him as a carriage horse, and, after the melancholy event which terminated the existence of that unfortunate gentleman, was sold at the hammer at Tattersall's, to Gen. Sir Fitzroy M'Lane, in whose possession he remained apparently in a perfect state of health, until about twelve o'clock, Tuesday, the 22nd July, when he became exceedingly restless, constantly getting up and down, and looking round to his flanks. I was sent for about half-past one or two o'clock. The coachman had been exercising him, and during exercise he seemed to be somewhat relieved, but as soon as he stopped shewed a disposition to lie down. I immediately pro-

ceeded to examine him, and found by the increased state of his pulse that inflammatory action was going on, and from the symptoms I concluded in the bowels. I had recourse to copious venesection, enemas, aperients, &c. which afforded temporary relief, but in the course of an hour the symptoms returned with redoubled violence; I again had recourse to venesection, &c. but without producing the desired relief: he continued in constant pain and uneasiness notwithstanding he had voided both urine and fœces. He now became so exceedingly violent, that to prevent him from injuring himself, or the persons about him, we removed him to a large loose box at my infirmary, where, as the symptoms were not diminished, I bled him a third time, and remained with him during the night, occasionally throwing up an enema; towards morning he had profuse sweats, his extremities were alternately cold and hot, his respiration hurried, but remissions of pain became more frequent, and I felt convinced a fatal termination must ensue. I therefore left the groom with him to adjust the litter and check his violence.

About one o'clock in the day he expired, and I immediately opened him in order to examine the state of the parts before any putrefactive action could take place. Upon opening the cavity of the abdomen the intestines presented an appearance of general inflammation, a portion of them immediately in the epigastric region appeared excessively distended and exceedingly black, emitting a very fœtid smell. At this juncture my very respected patron, the late Dr. Pearson, called, and upon examining farther we discovered that a natural ligature, as delineated in the figures, which effectually prevented the circulation of the fœculent matter; this ligature included about two yards of the duodenum, and jejunum; at its extremity was attached a tumour about four inches in circumference, which consisted of coagulated lymph and adipose matter, enclosed by a vascular tunic, the pedicle was formed by, and attached to, the mesentery, and consisted of blood vessels, &c. which could be seen radiating to a focus, forming the commencement of the pedicle; the mesentery seemed twisted, and about one-fourth of its usual thickness; the two portions of intestine embraced by the pedicle were diminished in their calibre about one-third, and somewhat thickened in their substance. Immediately below the stricture, a mass of coagulated blood was thrown out between the two duplicatures of the peritoneum; and in another part a small tumour about the size of a kidney bean existed, which seemed in some measure to resemble the large one.

I preserved a portion of the fluid contained in the strictured intestine, and found by experiment that it was blood which appeared to be effused from its villous surface.

The following Figures will assist in illustrating the nature of this case.

FIG. 1.

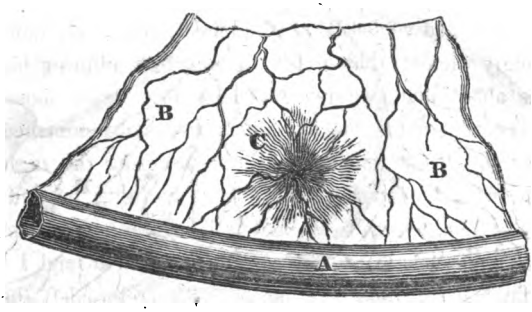

FIG. 1. A represents a portion of intestine, and B B of mesentery. C represents the commencement of the pedicle.

FIG. 2.

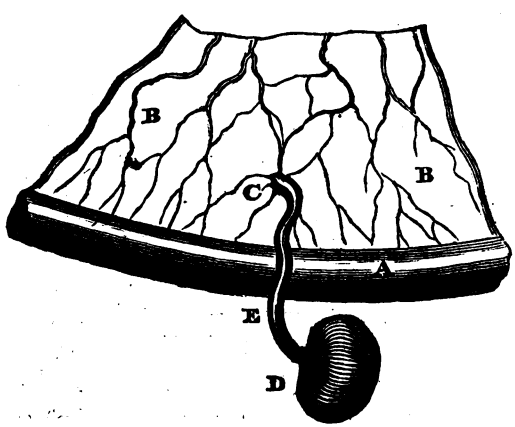

FIG. 2. represents the same parts as FIG. 1. a thickened portion of mesentery, C, having increased in substance and become pendulous, D, is supported in its growth and vitality by the elongated pedicle E.

FIG. 3.

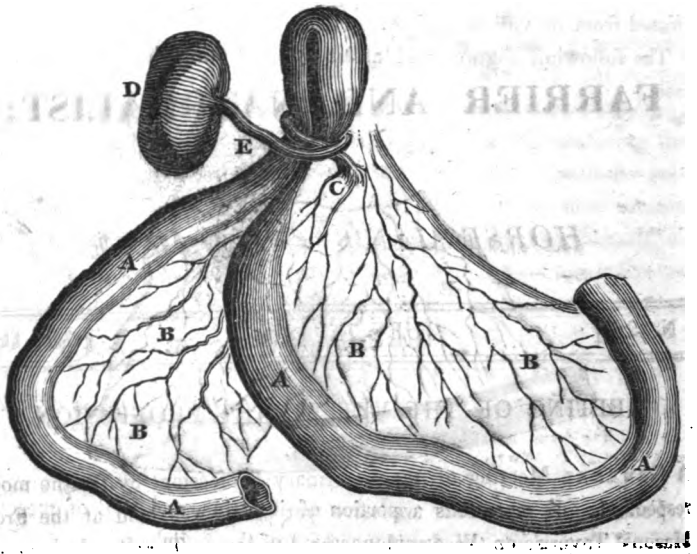

FIG. 3. shews a larger portion of mesentery than the former two figures, but the respective parts are indicated by the same letters. The pedicle E of the tumor D is here shewn tied round a portion of intestine which thereby became strangulated, and was the cause of the symptoms already described.

This Figure serves to shew the nature of the strangulation, but the portion of intestine included has, by a mistake of the engraver, been represented as much smaller than it ought to be.

NATURAL HISTORY.

A PAIR of the lesser White Throats (the Motacilla Sylviella of Linneus), male and female, were shot a few days ago by Mr. W. Proctor, of Auton Stile, near Durham, who is now preserving them. These little visiters, which have escaped the observations of most of our naturalists, are in their nature shy and solitary; they frequent thickets, and being thinly dispersed over the northern counties, have rarely been met with.

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THE

FARRIER AND NATURALIST;

OR,

HORSE-MAN'S CHRONICLE.

N°. 26.] JULY 15, 1829. [VOL. II.

MEETING OF THE VETERINARY PROFESSION.

A GENERAL Meeting of the Veterinary Profession, by far the most respectable and numerous we have yet seen, was held at the Free Masons' Tavern, on Wednesday, the 8th inst. The Resolutions of the Governors, and of the Medical Examining Committee of the Veterinary College; Mr. Coleman's letter, expressing his satisfaction, although all that was asked by the Profession had been refused; and the Report of the Committee of Veterinary Surgeons, and the documents therein referred to; having been read from the last number of the "FARRIER;" it was

Resolved,

That this meeting receives with regret and disappointment those communications.

Mr. Coleman, who entered the room after the business had commenced, now rose and delivered a long speech: besides his usual protestations of esteem, regard, good wishes, and so forth, the only meaning that could be collected from his flow of words, was that the request to have a Professional Committee had been refused, because it was asked that the Pupil should be first examined by that Committee. He did not however attempt to shew why this unimportant objection had no where been stated but in his own speech. However, whatever might have been Mr. Coleman's intention, the only effect produced by his address, was the occupying of so much of the

time of the meeting as was devoted to its delivery; and, having accomplished this end, Mr. Coleman then withdrew.

An animated discussion ensued, in which each succeeding speaker adduced fresh proof of the necessity that existed for reformation among the would-be leaders of the Veterinary Profession; and even the remarks of Mr. Coleman's personal friends, who attended for the avowed purpose of supporting "the powers that be," and their measures, no matter whether right or wrong, all had directly a contrary tendency, and shewed more clearly that an entire change is necessary.

The three following resolutions were passed in succession, by very large majorities:

Resolved,

That, from the denial given to the claim of Veterinary Surgeons to participate in the examination of Pupils, as to their fitness to become Practitioners; and, moreover, from the fact of Veterinary Surgeons being even excluded from becoming Subscribers to the Institution called the Veterinary College; it is the opinion of the present meeting that the grossest indignity has been offered to the Veterinary Profession.

Resolved,

That the Profession, being thus situated, deem it necessary to adopt such measures as appear to be for the general good of the Profession and the Public.

Resolved,

That a Committee of twelve Veterinary Surgeons, selected from the general body of Practitioners, be elected by that body; to examine such persons as may present themselves for that purpose, with authority to give Certificates of Qualifications; and that this Committee be designated the "*Veterinary Board of Examiners.*"

Several resolutions towards completing this great measure, now, for the first time, fully, freely, and fairly entertained, yet remained for consideration and adoption; but, the evening being rather far advanced, it was moved and carried, that the meeting do stand adjourned to Wednesday, the 22nd of July, at six o'clock, at the Free Masons' Tavern, when the subject will be resumed.

PATHOLOGY.

ACUTE RHEUMATISM IN THE HORSE.

RHEUMATIC affections are frequently found to occur in our domestic animals, and yet, strange to say, the works on Veterinary Science contain but few examples of them. It is therefore highly important that we should collect with care all the facts of this nature, in order that we may fix our attention upon a disease, which is the cause of a great number of those incurable claudications, which too often, unfortunately, baffle the skill of the physician.

The following case occurred about the end of August, in the year 1818. A sound horse, which till then had been in good health, appeared less free than usual in the motions of his fore-legs. This constraint continued to increase progressively, and especially in the left fore-leg, so that, on the 27th, the animal could with difficulty support himself. The appetite was good, the pulse regular, and the diseased part not sensible to the touch. On the following day, the animal did not limp on the left leg, while he could with difficulty draw the right along. The claudication increased or diminished several times during a month, sometimes attacking one limb, sometimes the other, according to the alternation of good and bad weather. At length a month dry weather produced so sensible an effect, that six months after the animal had not experienced any new accession *.

SINGULAR TREATMENT OF TETANUS.

WE extract the following article from the "Lancet;" and shall merely observe, that in a disease that baffles our treatment on physiological principle as tetanus does, we are warranted in having recourse to empyricism.

"The following extraordinary practice for the cure of this disease

* Edin. Philos. Journal, Vol. XII.

prevails amongst the inhabitants of the Tonga or Friendly Islands, in the South Pacific Ocean; among whom it is said, that traumatic tetanus prevails to a great extent. It consists in producing a considerable degree of irritation in the urethra, and discharge of blood, by the introduction of a reed of proper size, for some distance into the canal; and, when the case is very violent, a cord is passed along the urethra, and carried through the perineum. The two ends are then occasionally pulled to and fro, inducing great pain and a copious hemorrhage, with much swelling and inflammation of the penis. Two cures of confirmed tetanus are related by a gentlemen of the name of Mariner, to Professor Chapman of Pennsylvania, as having been performed by this strange and unpromising practice. The mode may suggest a principle capable of improvement."

GLANDERS, ITS TREATMENT, AND MR. BRACY CLARK.

NOTWITHSTANDING the claims put forth by the Veterinary College of being able to cure glanders, the utmost that can be fairly conceded to its Professors is, that horses occasionally recover at that establishment from this disease, in like manner as they do under the hands of other practitioners. How far medical treatment has contributed to these recoveries, there or elsewhere, must remain doubtful, from the numerous failures that have attended a repetition of the treatment, that has, in some cases, appeared to turn out successful. Still the subject is of so much importance in every point of view, that the most unceasing industry and minute observation is called for to develop new facts relating to this disease, and to establish a mode of treatment that may be fairly considered as possessing some controul over this complaint; if not in long confirmed and virulent cases, at any rate in certain stages, hereafter to be defined. The establishment of some criteria, whereby a classification of its different stages may be effected, will be a step towards establishing a cure. The opinions of those who have given attention to this disease cannot be too extensively circulated, such opinions being in themselves probably valuable, or at any rate becoming so by inducing a new train of

ideas, or producing a reconsideration of such as might have been previously entertained.

That a mode of treatment, attended with a fair average proportion of success, will, some day or other, be developed, can hardly be doubted; it can, however, only be the result of long-continued practice, extensively varied. Experiments are now going on, and will, probably, be continued by a number of persons at the same time. To preserve secrecy is quite out of the question, and to attempt it shews weakness and cunning, it retards the end in view by withholding ideas that may be more successfully matured by others; and, to take another view, the secret-monger must inevitably be excluded from participating in the reputation of success, for it cannot, from the nature of things, be confined to one individual; and if those who record observations and experiments do not publish them, they can have no claims to public consideration, and the meed of praise will fairly belong to those who do.

We have been led into this reasoning, by perusing Mr. Bracy Clark's valuable "Essay on the Bots of Horses and other Animals," which well deserves to be attentively read by every Veterinarian. A second edition of this work was published 14 years since, and he had then given "*cantharides* in small doses and the *sulphate of zinc* with great success, curing several that had been considered glandered."

He does not appear to have been led to the use of stimulants merely by chance, but by a train of reasoning that carries much weight with it. He says,

"Nor is there wanting abundant proof of the utility of local irritations in preventing the access, as well as in curing disorders. We often see a formidable disease quickly removed by blistering the skin, or by irritating the mucous membrane of the stomach or intestines by a vomit or purge. The appearance of exanthematous eruptions on the skin, and the formation of local abscesses, from the same cause of partial irritation, often relieve a general disorder of the system. The mucous membranes and the skin possess this power when irritated in the most eminent degree, and to these the larvæ of the oestri are applied. Irritating the membranes of the stomach in other animals would excite nausea and vomiting; but the horse not possessing this power, his stomach is peculiarly fitted for the stimulus of such inhabitants.

"How far the access of those dreadful disorders which sometimes arise of themselves in cattle and horses, and afterwards become contagious, as the murrain, glanders, farcy, &c. may be prevented by these peculiar irritations, it will not be easy to discover; nor whether that singular tendancy or disposition in the horse to inflammatory complaints, as the *caligo* of the eyes, termed moon-blindness, inflammations of the lungs, and of the bones, as spavins, splints, &c. may be in any degree checked or subdued by the presence of these local *stimuli*.

"In conformation of this suggestion I may remark (although I am aware other reasons may be also assigned for it,) that those horses which are not exposed to the bots, more frequently are infected with glanders, farcy, &c. as those of the army, post-coaches, post-waggons, and dray-horses, for these can rarely be spared, from the nature of their work, to graze on the commons, and thus be exposed to receive them.

"If, after a more minute research into their effects on the system, the utility of these native stimuli of animals should be established, and, like the leech or the cantharides, they should be called in to the aid of Veterinary medicine, I may venture, perhaps for the first time, to suggest that it would not be impracticable to administer them artificially, by means of their ova or larvæ in any given quantity.

"If the stimulus is considered as of too gentle a nature it is in some measure atoned for by its permanancy, and the unlimited power of increasing the dose; at least it must be acknowledged that by the administration of them in this way, we might accurately ascertain their real effects, and whether they are so fatal as has been imagined.

"Desirous that my horse, which had not been to grass for several years, should have their wholesome stimulous, I cut off the hairs from another horse charged with bot's eggs, and gave him about three dozen of them. He afterwards grew fatter and in better condition than I had ever known him, whether from their effects or not I do not undertake to determine, but think it not improbable they contributed to it.

"In nasal farcy gleets of horses, I have followed this suggestion of stimulating the stomach by cantharides in small dozes, and by the sulphate of zinc, with great success, curing several that were considered glandered.

"The domestic animals in a particular manner appear to be the

objects of this species of natural stimuli or vellicatories, which, as they are also frequently forced by man into unnatural exertions and unhealthy situations to suit his views and convenience, so, therefore, they may stand more in need of this sort of protection. Their impressions may be hardly cognizable to the senses, and produce nevertheless powerful effects upon the stomach, and thence to the system at large, as we see in the case of spices given with food, and fomentations, mild blisters, and sinapisms to the skin."

In the spirit of research and conjecture Mr. Clark may, in some points, have been carried rather too far, yet reasoning such as this is well calculated to advance the scientific part of our Profession.

A TREATISE

ON

THE DISEASES AND LAMENESS OF HORSES.

By W. Osmer. London, 1766.

[Continued from page 192.]

THE method of curing wind-galls, according to the present mode, is various; but before any thing is said touching this practice, it is necessary to shew what they are.

From strains, or blows received on the tendinous or membranous parts, the juices of the glands are poured forth, and become enveloped in a cyst or bag.

Its contents are similar to the white of an egg, and the disease is correspondent to what the surgeons call a ganglion on the human wrist.

Now some farriers let out the contents of this encysted tumour with a knife or lancet, which is always sure to be filled again when the wound is healed, after having been attended with much pain. Others blister, which for a time seems to have discharged this swelling, but when the horse comes into use it soon fills again.

Others fire upon the part, by which the outer tegument or skin is rendered rigid and indurated; hence the pain occasioned by these tumours is greater than it was before, and the horse is fit for nothing but the cart.

But the proper method is to make an incision into the skin, and take out the same with the bag and its contents; sometimes these cysts or bags lie superficial on the coats of these three flexor-tendons (which are by all writers called one, and known by the name of the great sinew), and sometimes they are buried and continued from one side of the leg to the other, through and betwixt the interstices of these tendious bodies. In such case also the cysts must be dissected out, and entirely destroyed or else the wound most frequently remains fistulous, or the cysts fill again, but when the cyst is not superficial, the operation is very difficult and dangerous too, on account of the horse's struggling.

And there are other encysted tumours incidental to the horse, whose difference consists only in their contents, and which are to be cured after the same manner as the former.

Dogs also are subject to this disorder on the knee, for the cure of which, blistering and fireing are used; thus many a good fox-hound has been spoiled, that has been of more utility to the world than two farriers. Many of these last have I cut out with a pair of scissors, leaving the cure to be finished by virtue of the dog's tongue.

Splints will sometimes occasion lameness, but if not, it is much better not to meddle with them at all; the use of blisters on these does little more than inflame the parts, and the use of a hot iron often rouses a sleeping lion; the bone of the whole leg being very often enlarged thereby; and when they do occasion lameness, they may be destroyed by mild caustics that will not, if properly applied produce any eschar, nor even occasion the loss of the hair.

For a letting down or relaxation of the sinew, the best remedy that I know of, is to make a whey with some allum boiled in milk, to foment the part with the whey, and to bind the curds thereon by way of cataplasm; and after a few days, colcothar of vitriol finely powdered and mixed with white of eggs is to be applied as a charge every 24 hours, and a smooth bandage kept on the part. Now oil in this, or any like case must do harm, because it relaxes the fibres of the tendon, which are already too much relaxed.

When the muscles and ligaments of the shoulder are strained, keep the horse tied up and free from motion as much as you can; warmth, discutient fomentations, or the frequent use of vinegar, will probably restore him to a sound state; but the muscular parts generally recover much sooner than the ligamentous or tendinous.

Extension and counter-extension are proper methods of reducing all joints.—Vinegar and the salt cataplasm is to be used after the reduction of the bone, a bandage should be applied round the joint, and proper rest must be allowed.—Oil or ointment is to be avoided here, because the fibres in these cases want to be braced, and not to be relaxed, as was before observed.

But if there be a great distention or inflammation of the parts, such should be relaxed with oil, before the reduction of the bone is attempted.

In the case of a dislocation of the hip or whirlbone, where the head of the bone is fallen down from its socket, either by rupture, or elongation of the round ligament, I believe it is in vain to think of any remedy.—But where the ligaments surrounding the joint are supposed to be relaxed, blistering and firing (which are always coupled together like two hounds) are the methods generally followed.

Now blistering, if it be ever proper, is in this case likely to be of use, by inflaming the parts, and giving a new and increased heat to the flaccid and relaxed fibres, which may be occasionally repeated. Warm strengthening charges should be applied afterwards, and proper rest given; but all that firing can effect, on this, or any other occasion, is, that by contracting the fibres of the skin, the relaxed fibres of some other adjacent part may become more strictly embraced; which cannot happen in the present case, because there are strong muscles intervening between the skin and the ligaments; and I think that firing seldom is of much use in any kind of lameness. But according to the best of my observation, more horses are undone than benefited by it.

For the same reason, when a lameness happens in the stifle, I have found blistering the most immediate and effectual remedy.—On this occasion a broad piece of cloth should be kept on the adjacent part of the flank of the horse, to prevent the inflammation, which would be otherwise produced by such blistering.

By repeated blistering, a curb is easily cured, if taken in time.

If the joint of the hock is much enlarged, whatever be the cause, there is generally a redundancy of the mucus, and the ligamentous parts and cartilages will in all probability be affected.—Here again the custom is to blister and fire:—but here also, if the parts are inflamed, as they are most likely to be, blistering must be wrong—vinegar, or warm fomentations, with spirit of sal armoniac, are to be

used, and the cataplasm of salt should be used twice a day.—In this, or any other inflammatory cases, cooling medicines should be given inwardly, and frequent bleeding is necessary.—But when these methods prove unsuccessful, blisters may then be tried, though I have never seen one instance of their doing good in this case, amongst a number of repeated trials.

But this disorder is often incurable, because the ends of the bones are in this case often enlarged.

[To be continued.]

REMARKS ON THE LAST MEETING OF THE VETERINARY PROFESSION.

To the Editor of the Farrier and Naturalist.

SIR;

ALLOW me, through the medium of your Journal, to make a few remarks on the transactions of the Meeting of the Veterinary Profession, held at the Freemasons' Tavern, July 8. At no former period has so numerous and respectable a meeting of the Profession, for the purpose of upholding its respectability and increasing its efficiency, ever taken place. Now, soon after the business of the evening was opened, Mr. Coleman rose, and made a sort of apology for the decision which the Medical Examining Committee had come to, for excluding Veterinary Surgeons from taking a part in the examination of Pupils. This apology consisted in declaring the motive which had caused the above decision to be an apprehension of practical inconvenience; and that, if each Committee had been allowed to give a separate certificate, they had no doubt that Veterinary Surgeons would have been admitted. Now, if this was their opinion, why was it not it stated at the time, or if an afterthought, does its publication at the present time look like taunt, or compunction for its past indifference. The practical inconvenience of such a plan as that proposed by the Medical Examiners must strike the most casual observer, it was, in fact, making both committees a complete non-entity, since either could be dispensed with, and a person would only to have studied either branch (whichever he thought he could most easily acquire) to the total disregard of the other, and thus obtain a di-

ploma, which would then be equally valueless with the present one, and a still more miserable class of practitioners would be the consequence. Taking leave of this digression, we come to the more immediate business of the meeting, when resolutions expressive of the determination of the meeting to raise the profession from its dependence and place it on its firmest basis—its own resources, were put and carried by a large majority. The necessity of electing an Independent Veterinary Committee, and the formation of a public school, where all horse-knowledge should be fairly taught, was freely considered; to this last several gentlemen very liberally proposed to subscribe. There were indeed a few persons who, with more warmth than argument, endeavoured to prove that the college and its managers were all perfect, and that its adherents were in no need of improvement; they likewise contended that no person was a Veterinary Surgeon who had not the college diploma, and at the same time they wished the meeting to be entirely confined to such, not seeing that a pupil had as great, if not a greater, interest in these proceedings than Veterinary Practitioners who had already, by their own exertions, to a certain extent established their reputation. One of these gentlemen, after endeavouring at great length to prove the perfection of the present system, had the good sense to see that he had completely outwitted himself, and sat down. Another, more pertinacious, dissented from every thing that was said, and asserted that a Veterinary Committee would reject any young man of ability whom they thought likely to injure any one of their own members. Thus impeaching in a flagrant manner the morality of his profession. I would ask him if the body whom he approves so much are not, for the greater part, examiners of young men of their own profession; and do they act with so much veniality towards them? then why attempt to cast such a stigma on his own profession.

The same gentleman, consistently enough with the general tenor of his observations, remarked, that if persons were admitted to the meeting who had not passed the college examination, he could bring his farriers, and others of the lowest class of horse attendants, who should carry any measure he wished! Such, however, appears to be the obtuseness of this gentleman's reasoning faculties, that I despair of his being convinced of the fallacy of his reasoning by any arguments, however feasible, and fear that he must continue to entertain his own peculiarly luminous views on the subject.

Another gentleman, with a spirit of adulation that could only be expected in the first existence of the profession, declared that Sir Astley Cooper had done every thing for the profession; denying even that its members had done any thing towards their reputation by their own industry.

The argument which all these gentlemen seemed to rely on most, was that Sir Astley Cooper's name, being so well known over all England, would be of much greater weight than that of a Veterinary Surgeon, who was only known in his own neighbourhood. But I think he does the public injustice to think they are so short sighted as to suppose, that because a man is an eminent surgeon, he must be an equally good Veterinary Surgeon. Any one who has conversed with impartial non-veterinary men on the subject will recollect the surprise they generally manifest when, asking who are our examiners, they are told there is not a Veterinarian among them; this is a question which has been put to me by several, and which for my own reputation I have endeavoured to explain, but always in an unsatisfactory manner. But in justice to these gentlemen's understanding, we must suppose them to be ignorant of what has been said and done for the last six years. After the professions some of these persons had made, and the reflections they cast on some of the meeting, it was amusing to see, when they found that they could not overrule the liberal part of the meeting, the precipitancy with which they broke up and went away.

I am, Sir,

Your most obedient Servant,

ONE WHO WAS THERE.

ON STAGE COACH DRIVING.

To the Editor of the Farrier and Naturalist.

MR. EDITOR;

HAVING horsed one of the Western Coaches a distance of 50 miles of road for some years, I beg to offer a few observations to those who have embarked, or are about to embark, in a similar speculation, of the very great importance that should be attached to the selection of coachmen.

To work the above distance required 20 horses, time allowed six hours and a quarter, from which were to be deducted thirty-five minutes for dinner; it must therefore be considered fast travelling. The same coachman drove the distance. The horses were always above their work; there were five *iron-constitutioned* ones in the batch, to which the work was play, if you did not spare the corn-bin. At the end of a stage the horses have come in fresh, the weakly and fretful not distressed, and the *labour-oar* ones ready to put their mouths into the manger.

The coachman, having an opportunity of taking a public-house, resigned his situation. Many applications were made for the box, and the one selected was well known as a crack-whip.

If a coachman is desirous of doing his duty to the proprietors, the box is a place of labour; if he is indifferent to the interests of the proprietors, it is a place of comparative ease.

To do his duty, he must have his eyes constantly upon the horses, see that they are properly bitted, keep them steady to their work, relieving the weakly ones when he observes they are distressed, and increasing the labour of those whose constitution can bear it. To a man thus driving, 50 miles is a day's work: such was the system pursued by the above coachman. Now as to the system of the crack coachman; he was sober, had a quick eye, and such perfect command of the ribbons, that were you to place half a dozen sixpences in a zig-zag direction on different parts of the road, he would run the wheel over them. In the first week, however, there was a visible difference in the horses; the weakly and free-workers came in distressed, and refused their corn, and the able ones with scarcely a hair turned. He flourished his whip, indifferent if the labour was done by two or four horses; kept his time, and all was right. In the driving of these two men there would have been a difference to the proprietors in the expenditure of horse-flesh to the amount of at least £200. per annum, which would have swallowed up the whole profits of the concern; and I can assert, without fear of contradiction, that if greater caution was resorted to in the selection of coachmen, many a coach establishment would turn out a profitable, in the stead of a sinking, fund.

I horsed the coach eight years, the same coachman driving until the last three months, and upon winding up the concern, my profits

only averaged £215.* per annum, although the coach loaded well, and not any accident occurred during the time. The late failures of two extensive coach proprietors, is a pretty strong confirmation that coaching is not a money-making business.

Wishing you every success in your publication, which may be the channel of communicating to the public a great mass of practical information,

I am, Mr. Editor,
Your Constant Reader,
H. N.

A TROTTING CHALLENGE.

To the Editor of the Farrier and Naturalist.

MR. EDITOR;

YOUR "HORSE-MAN'S CHRONICLE" has found its way into this part of the country, and we are in anxious expectation of your description of the two American trotters. We have heard of their performances, and much regret *your Southerners* being compelled to back such a *fidgetty thing* as Miss Turner against Rattler. As we are greatly annoyed in being laughed at by the Yankees, the Members of our Club have desired me to make the following offer to the sporting men of your *great city*, viz.

We will produce a mare to trot 18 miles within the hour, right out, carrying 10 stone; if they will back her against Rattler, well and good. We engage to do the 18 miles, and if she beats Rattler we do not claim any remuneration, but if she is beaten, although doing the 18 miles, we are to be secured the sum of £100. As you may judge, we have not any intention of jockeying your friends, as we inform you what we can do, and it is for them to learn if Rattler can do more; as although 10 miles were done in the half-hour, it does not follow 18 miles would be accomplished within the hour.

* A reverend gentleman horses in capital style, and drives one of our crack coaches. It is calculated that he is minus about £1000. per annum by the speculation; or, in other words, pays £1000 per annum, for the honour of driving a stage coach.

We trust, Mr. Editor, you perfectly understand the offer. The Club has decided to add to the distance one half-mile, engaging to do 18 and a half miles on the same conditions, bearing in mind if Rattler is beaten, (no matter at what rate of going) your friends are not at any expense, nor at any expense if we do not trot the 18 and a half miles within the hour, if Rattler is the winner. If the terms are accepted we shall expect to hear from you through the "FARRIER," and shall be prepared to come *to the scratch* in September.

We are, Mr. Editor,

Yours, &c.

Northallerton, July 4. S. B. & W.

ON STOPPING HORSES' FEET.

To the Editor of the Farrier and Naturalist.

MR. EDITOR;

I HAVE been reading your remarks on "Stopping Horses Feet," and give the preference to cow dung, with the addition of neat's foot oil, so as to make it of a proper consistency, which seems to me of a more cooling nature than Cherry's felt, or cement. As to the cement there need not be any attention paid to picking it out, for before the horse has trotted half a dozen yards it will crumble to pieces by the concussion.

Stopping must be admitted by every horse-man to be of the greatest importance, and attention to it should be strictly enforced; as after trotting on a hard dusty road 15 or 20 miles, any mixture of a cooling nature applied to the feet cannot but tend to the preservation of the health of the horse.

Your Constant Reader,

Windsor. S. Y.

[The Felt Stoppings, invented by Mr. Cherry, certainly retain moisture much longer than cow dung or any mixture heretofore used. ED.]

PHYSIOLOGY.

ON THE QUANTITY OF BLOOD IN ANIMALS.

By Dr. Kidd, *Professor of Anatomy in the University of Oxford.*

THOSE who have not considered the subject, must be surprised at the quantity of blood which passes through the heart of any moderate-sized animal, in the course of twenty-four hours. In man, the quantity of blood existing in the body, at any given moment, is probably from 30 to 40 pints *. Of this, an ounce and a half, or about three table spoons-ful are sent out every stroke; which multiplied into 75, (the average rate of the human pulse) give 112.5 ounces, or 7 pints a minute; *i. e.* 420 pints, or 52.5 gallons, in an hour; and 1260 gallons, *i. e.* nearly 24 hogsheads in a day. Now if we recollect that the whale is said to send out from its heart, at each stroke, 15 gallons, the imagination is overwhelmed with the aggregate of the quantity which must pass through the heart of that animal in 24 hours. It is a general law, that the pulse of the larger animals is slower than that of the smaller; but even if we put the pulse of the whole so low as 20 in the minute, the quantity circulated through the heart, calculated at 15 gallons for each pulsation, will be 432.000 gallons, equal to 8,000 hogsheads in 24 hours. The consideration of this amazing quantity is, however, a subject of mere empty wonder, if not accompanied with the reflection, that in order to produce the aggregate amount, the heart is kept up in constant motion: and that, in fact, it is incessantly beating, as it is termed, or throwing out the blood into the arteries, from the first period of our existence to the moment of our death, without any sensation of fatigue, or even without our consciousness, excepting under occasional corporeal or mental agitation.

* Bartholine estimates it at 24, and Professor Charles Bell at 33, pounds.

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THE

FARRIER AND NATURALIST;

OR,

HORSE-MAN'S CHRONICLE.

N°. 27.] AUGUST 1, 1829. [VOL. II.

VETERINARY PROFESSION.

A MEETING took place on the 22nd of July, at the Free Masons' Tavern, by adjournment, and the result shewed still more clearly the correctness of the conclusions already arrived at, by those who have been labouring to rescue the Profession from the thraldom of a domineering few, to increase its utility, and raise it in the scale of public estimation.

The Chairman of the last Meeting was already in the house, when, at a few minutes past six o'clock, the hour named for the meeting, the chair was assumed by a gentleman who has heretofore kept aloof from the Profession, but who had been admitted to a private audience of the two Professors on the previous day. A more patient and forbearing Chairman could not have been selected; he quietly allowed the grossest personalities and incoherent vociferations without an effort on his part to check them. The lungs of those who substituted noise and clamour in the place of reason, being at length tired, a calm ensued, and the knot of obscure individuals who had seized on the proceedings, attempted speech-making, and moving, what they called, resolutions. As far as the meaning of these latter could be collected they were of the most contradictory nature; some applauding the St. Pancras authorities as models of perfection, others unreservedly condemning their conduct, and advising them to a better course: how this advice was to be conveyed was not however even mentioned, and

as to the speeches they defy all record; for the most part they were delivered collectively, several speaking at the same time, and when delivered singly they were contradictory in themselves or of each other.

The character of this meeting of the Coleman and Sewell faction seems to have been anticipated; many of the most influential members of the Profession were not present, others left the meeting in disgust, and those who remained seemed to do so from curiosity to see how far the farce would be carried. To reduce the proceedings to form and give them consistency would indeed have been a task: to give the names of the leaders would be useless, because most of them are unknown unless as aspirants to the favour of Mr. Coleman, and seeking through him a support they are unable to obtain by their own merits. The most violent opponent to either Coleman or Sewell could not have wished to see them so degraded; low indeed must they be fallen when a defence of their proceedings is put into such hands as attempted it at this meeting. It however shews more clearly the necessity of investigation and improvement.

ON AN INJURY OF THE TRACHEA.

(Read at the Veterinary Society.)

ON the 28th of February, 1826, a black mare, aged, belonging to a coach-master at Brixton, was passing alone on the road to her stable, when some person gave her a blow with a whip, and caused her to run on the point of a shaft, which inflicted a severe wound on the front of the neck, about three inches from the point of the sternum, likewise injuring the trachea very much; the mare was bled the same evening, and the next day took a purge; the wound soon suppurated, and, for the first few days, pieces of the straw of the collar, which had been forced in by the shaft, came out of the wound: it was treated as a common one, and healed very well.

On the 19th of March, an abscess, that had formed contiguous to the wound, was opened; soon after the wounds were filled up roaring began to take place, and speedily increased to such a degree, that when the animal was put out of a walk she was nearly suffocated:

this arose from a thickening of the parietes producing stricture of the trachea, at and below the part which sustained the injury. In other respects the wound from the first may be considered as having gone on well; the general health was good.

May 26. The owner being averse to any experiments or expense, the mare was purchased by Mr. Cherry, who operated upon her in the following manner:—A portion of two of the rings of the trachea was cut out, and the whole stricture divided by cutting through the cartilaginous rings to the length of six inches; in the operation several vessels were divided, which bled a good deal; a small quantity of blood ran down the trachea, and caused, in some degree, an impediment to breathing, at which time she held her breath during a remarkably long period; a leaden pipe about an inch in diameter was then put in the opening, through which the mare breathed freely, and the operation being completed she was allowed to get up. Immediately after the operation the labour of breathing was much relieved, and during the day she both eat and drank more than she had done previously, the parts surrounding the incision swelled a good deal externally, but, otherwise, no inconvenience was experienced. In three or four days she was turned out to grass, where she remained for a fortnight; the pipe was frequently cleaned out from the pus and mucus which accumulated, was very fœtid, and dried in it. At this period the difficulty of breathing again came on, when it was found that the stricture had grown up. It was again dilated, another and larger pipe put in, and she was as much relieved as before. The lateral action of the sterno-mastoid muscles was remarkable strong, it being such as to flatten the pipe first used; a very strong pressure was likewise experienced when the hand was introduced, so much so, that the parts closed, unless kept asunder by the hands or other means. When the pipe got out by accident, (which it occasionally did, notwithstanding great caution to prevent it,) and remained out of the trachea for a few hours, the trachea contracted and difficulty of breathing increased in an equal degree; she continued at grass and in this state till July 8th, when it was found that the granulations which had sprung up internally had nearly forced out the pipe, the difficulty of breathing had greatly increased from the narrowing of the passage. The wound and stricture were now dilated for the third time; a leaden pipe one foot long and two inches and a half in diameter was thrust down the trachea to below the point of the sternum, and ease

was immediately procured. After the first operation the mare, for a time, improved in fat and general appearance remarkably fast, but from the obstruction to breathing so frequently taking place from the ejection of the pipe (though every means were taken to prevent it) previous to the last operation, when the trachea was laid open to the length of eight inches, she had become much reduced and was nearly suffocated; but very soon after this third dilatation she eat and drank, and was as comfortable as before she met with the accident.

July 19. The mare was now much reduced, and the pipe being forcibly ejected very frequently, when the parts immediately collapsed, and adhesions between the divided surfaces speedily ensued; and it now having been seen to what extent the operation was likely to succeed, the mare was destroyed.

The trachea was examined and found thickened where the pipe was inserted, and the structure of the cartilage much softened. A preparation of the part was placed on the table of the Society. The lungs were as usual, except that they appeared lighter coloured, and a small quantity of air was extravasated under the pleura.

A very remarkable circumstance is the easy manner in which the introduction of so large a pipe into the trachea was borne, so long as a free passage sufficiently large was kept open; though the orifice was nearly opposite the point of the sternum, breathing went on with as much freedom and as much apparent ease as in the most healthy and perfect state. The lining of the trachea shewed scarcely common irritability; it was only when blood flowed into the lungs that coughing was induced. The relief produced by the operation was immediate, and, for a time, perfect, and final failure arose from the accumulation of pus and mucus in the pipe, (which precluded the possibility of introducing a tube in such a manner as to admit of its remaining on [illegible]ently in the trachea,) the strong disposition in the parts to the nec[illegible]nd the rapid manner in which new substance was formed. injuring t[illegible] these circumstances can be overcome by ingenuity and and the ne[illegible]atment remains to be shewn, they are, however, formidafor the fir[illegible]ments in the way of a successfull termination to extensive been fo[illegible]nings of the trachea.

COMPARATIVE ANATOMY.

Observations on the Structure and Œconomy of the Nose, and peculiarities of the Bones composing the Olfactory Organ in the Herbivorous Mammalia. By H. W. DEWHURST, ESQ. *Surgeon, F. M. W. S. &c. Professor of Human, Veterinary, and Comparative Anatomy.*

WHEN we consider that many of the herbivorous and carnivorous mammalia depend solely on the acuteness of their olfactory organs for their subsistance, we shall not be surprised to find some peculiarities existing in the various genera and species composing these orders; and, to the really industrious investigator in the works of the Divine Architect, abundant sources of interesting matter present themselves to his observation, which cannot but make him look around with wonder and gratitude to the author of his corporeal existence.

The nasal organ, constituting as it does one of the senses by means of which animals enjoy intercourse with the external world, is in fact a beautiful and complicated structure, the functions of which, as already stated, are necessary to our comfort and welfare.

Besides the above important function it answers another purpose, *viz.* to carry off the fluids from the lachrymal apparatus, by means of the nasal duct; and, to defend it from injury, nature has lined it with a delicate mucous membrane, which secretes, in a state of health, a due proportion of mucus; but, as in similar organs, when inflammation takes place, it becomes increased. The nose has two openings, an anterior and posterior. The schneiderian membrane is very extensive, and is reflected over the turbinated bones and processes of the ethmoidal bones; this cavity is bounded anteriorly and laterally by the nasal and maxillary bones, inferiorly by the palatine bones and processes; it is abundantly supplied with blood vessels, the arteries being derived from the external carotid and cerebral trunks, and the nerves being the first pair arising from the cerebrum*.

Having made these preliminary remarks, I shall now proceed to call the reader's attention to a few observations on the structure and

* I shall, in a subsequent paper, make some observations on this pair of nerves, in the various orders of animals.

œconomy of the olfactory organ in the two principal orders of domestic quadrupeds, and first commence with the Herbivora.

On examining this class of quadrupeds, we find an evident similarity in the structure of the olfactory bones, and, speaking in general terms, I may here observe that their form is principally turbinated.

THE HORSE possesses the ossa turbinata; their corresponding processes are very considerable in their diameter, and of great length, nearly reaching from one extremity of the nostrils to the other; and their structure is curious and intricately disposed: externally they are disposed to retain the general configuration of the oblong spiral shell; but are pierced on all sides with numerous perforations, through which the schneiderian membrane, together with the delicate filaments of nerves and blood-vessels, pass freely from one side to the other; they are convoluted, and the cavities are intersected, at distances nearly regular, by unperforated partitions of extraordinary tenacity; serving as well to support the arch of the bones, in order to afford a still further enlarged surface for the extension of this vascular membrane. The superior turbinated bone of this animal is larger and longer than the inferior.

THE HOG.*—This animal in its natural state subsists entirely on vegetable food, and resembles much the vegetable eaters, in the external form and proportionate magnitude of the olfactory bones, which however in the simplicity of their internal structure exhibit a great resemblance to those of the human subject, and are formed of single laminæ, but only a little convoluted, and destitute of perforations or osseous septa.

THE SHEEP, GOAT, AND DEER.—In these animals, the inferior bone exceeds the superior both in length and diameter, the convolutions it contains are double, between which is placed a septum, and if we make a transverse section, we find it exhibits some resemblance to the capital of an Ionic column. In all these creatures, we find numerous perforations through these bones, which are continued through the whole of the convoluted portions, as well as through the septa, with which, like the horse, these animals are furnished.

The number of these foramina is greater in the sheep than the horse;

* The *herbivorous* animals were those best known to the ancients by dissection; they denominate the olfactory bones of this tribe, the *ossa turbinata*, with very peculiar propriety: the term has been applied, by analogy, to the conchæ of the human nose; it is only by abuse of language, that a similarity of office can be denoted by a word significant of configuration only.

in the goat than the sheep; but in a specimen of the ram, in my museum, it is peculiarly elegant; and more so in the deer than in the goat. In the deer, they are so excessively minute, as to vie with the most delicate lace in point of elegance and delicacy of fabric. Over the whole of this osseous net-work, the schneiderian membrane is distributed; from the internal of which, every osseous fibril is supplied with a distinct nervous covering.

[To be continued.]

REVIEW.

HIPPODONOMIA; *or, the True Structure, Laws, and Œconomy of the Horse's Foot: also* PODOPTHORA; *or, a ruinous Defect in the Principle of the Common Shoe detected; and demonstrated by Experiments, &c. &c.* By BRACY CLARK, F.L.S. &c. Second Edition. Underwoods. Limebeer. Part I. 4to. 1827.

IT is with much pleasure that we announce to our readers the republication of that scientific work on the structure of the horse's foot; we have in our first volume already stated our opinions pretty freely respecting Mr. Clark's illustrations, and need not therefore repeat them; we cannot, however, resist quoting the following extract, in which our author has given some valuable observations respecting the comparative elasticity of the feet in different animals, which may not be uninteresting to our readers.

"The feet of quadrupeds, we may remark, in their different races are very differently constructed for meeting the ground, and for supporting their bodies. Some of these, which are extremely light and active, and which appear to live on trees, almost as the birds, rather than on the ground, as the *Squirrel*, have their feet formed of long digitations or fingers only, with long horny claws and curved, in order to the running up the trunks of trees, sticking into the bark, and which also enable them to hold themselves if there is occasion, and to run suspended in a surprising manner to the under-side of the branches; and some of this agile family may be called beasts of the

air, for they can fly from tree to tree, and even descend to the ground by making a parachute of their lax and very extended skins; and even our common squirrel will descend in this way through the air to the ground by the singular measure of a swift rotation of his bushy tail. As the foot, by its length and elasticity, contributes also in these to soften the fall, and render it less felt: and in every animal this part is constructed with a view to the particular soil he treads, and to the particular mode of life he pursues, but in all it is made elastic; for example:

"In the *Camel*, the foot, in order to its being non-resistant, is first divided deeply into two parts, each furnished with a very strong and broad claw: besides this, underneath each hoof is found an elastic pad into which the hoof sinks, and is embedded all round as in a soft stuffed cushion, rising up the sides of the foot, keeps off the effects of the hot and scorching sands of those regions, which nature has more especially doomed him to: this extension of surface also must cause him less to sink into them; the whole apparatus affording the highest degree of elasticity and ease the foot is capable of receiving, especially necessary in those hot countries.

"In the *Dog*, nature, or a kind providence rather, has placed a large triangular pad in the middle of the foot, covered outside with tough horny skin; and another of a similar description, and smaller, is found at the origin or base of each claw; and these appear to be formed within of tough *fibro* or *tendino cartilaginous* materials, and are covered, as we have said, exteriorly with a hard horny skin. This organization affords an elastic bearing for the animal, and breaks the force of concussion upon the ground in passing rapidly over it. This effect also is contributed to, and much augmented by, a division of the bones of the metatarsus into four parallel ranges, giving to all these parts a remarkable flexibility.

"As to the *Cat*, we may remark, that her foot the moment it meets the ground, descending from any height, is seen widely to expand, and that the fingers and the claws spread on all sides to widen the surface of bearing and deaden the shock. We observe also, mats or cushions in the centre of her foot, and the root of the claws, performing the same office as in the dog. They are, however, of a softer nature, but fully sufficient for an animal so obviously light and active. A noble example is the lion's paw.

"In the *Ox* there is not properly any mat or cushion for the foot;

the claws, however, are thinner on the inside; but in this sort of simple cloven foot, which is common to a very large share of the quadruped world, the elastic principle necessary to these parts is chiefly accomplished by a longitudinal division of the podal and juxtapodal bones of the foot as high up as the fetlock joint; and this division gives to these parts all the suppleness of which there is need, and affords an easy yielding to the impression of the weight, and destroys any jar or repercussion to the body. The two claws also on meeting the ground, if it is soft, will separate, receiving the earth between them, and so will diminish the suddenness of the impression, and also widen the bearing surface and render the foot more fixed and firm on the ground. This flexibility, indeed, in some of these animals, exists to such a degree, as in the cows for instance, that the sight is almost disgusting, when the weight of their bodies reposes strongly upon it; but we are reconciled to it when we reflect that this same property, though somewhat unsightly, is particularly well adapted to the general structure and uses of these invaluable creatures, and to the innocent and peaceful habits to which a kind providence has ordained them.

"The *Elephant* possesses in an eminent degree this elasticity of the foot; his immense body is sustained on four columns, placed almost perpendicularly underneath this ponderous weight. Their bases, or inferior extremities, repose upon a vast mat or pad, made of a material apparently between horn and cartilage: the central mass resembles a strong piece of sole leather or raw pelt; and this foot is exteriorly divided into five parts, each terminated by a very strong horny claw or hoof; one of these, and larger, is placed in front, and the other are disposed two on each side. It is not improbable that these claws, when the animal is in quick movement, will aid him by taking a share of the weight, and by being forced strongly against the ground, dig into it, and give perhaps a certain degree of fixedness to his march.

"The *Foot of Man*, on pressing against the ground, extends and dilates in a very visible manner in all directions; and as the upper leather of the shoe is much thinner than the sole, so it readily permits this change of form; and also the hollow which is observable beneath the foot, and which we call the *planta*, or sole, and which represents a kind of vault or arch, sinks, and flattens on receiving the weight, and consequently extends, thus preventing any jamming or condensa-

tion of the parts together, and so preserves to all of them their natural freedom and liberty.

"In respect to *the Horse*, this indispensable property has also an existence in his foot, but in a much inferior degree, and perhaps less so, as I have already observed, than in any other animal. But we shall not be astonished at this, if we reflect that with him is accomplished one of the most difficult problems in mechanics, that is to say, the moving of a large and heavy body with an extraordinary velocity, and for the surmounting this difficulty a remarkable degree of solidity appears to have been imparted to his foot by a hoof of one piece, in order that nothing of the momentum afforded by the osseous and muscular machinery should be lost; and without doubt this solidity it was of the foot of the horse that has occasioned this elastic property to be so long over-looked, and has led these smiths to treat it more as a senseless block of wood without any motion than as a living elastic organ, most elaborately constructed for these extraordinary performances, and whose construction, these circumstances premised, we now resume the consideration of."

This work is highly creditable to Mr. Bracy Clark, and we trust that the time is fast approaching when prejudice will be removed and the merit of this scientific author appreciated in the manner his perseverance in Veterinary Anatomy and Pathology deserves. This edition is publishing in parts, at a moderate price, and we trust will be read by every practitioner who wishes to become acquainted with his opinions respecting this most important organ in the horse. In conclusion, we beg to hint to Mr. Clark the necessity of a little more attention being paid to the correction of the proof sheets, as the present number abounds with grammatical errors.

ON NAILING.

To the Editor of the Farrier and Naturalist.

SIR;

ON perusing a recent number of a Veterinary publication, I was pleased to see a letter from Mr. James Turner, strongly corroborating

my experience and practice in shoeing horses, for the last seven years. About that period Mr. Bracy Clark, whilst I resided in the country, paid me a visit, and so fully convinced me of the natural expansion of the horse's foot, that I adopted his invaluable mode of shoeing for preventing and relieving contraction, *viz.* the "Expansion Shoe;" but after a trial, and having proved its very beneficial effects, I was obliged, from the obstinacy of the smiths, (not at that time possessing a forge of my own, and finding a difficulty in procuring the shoes so well made as they now are,) to have recourse to some more simple plan, and the idea struck me forcibly, that by nailing across the toe and on one side only, I should (if not perfectly) still preserve a great portion of the expansion necessary to the ease and comfort of the feet of the animal; I therefore tried this method, at first on only a few, but finding it succeed admirably, and very much improve their manner of going, I consequently shod all the horses that came under my care upon this plan, (which, to Mr. Turner, appears new,) and during the course of the last seven years have had many opportunities of shoeing colts after the same method, whose feet have continued to grow to a perfect state, and still continue so; numerous old horses suffering from contraction and corns have been greatly relieved, and the natural growth of the horn materially increased.

I am now shoeing most of the horses which come to my forge upon this plan, finding it a system very satisfactory to all those who value the ease and safe going of their horses. In the neighbourhood of Coggeshall, in Essex, the studs of Messrs. Allen, Docwra, Everett, Butcher, and many others, will amply testify to the above statement, their horses uniformly presenting sound, healthy, well-formed, and fully-developed feet. So convinced are these gentlemen, after many years' experience, of the utility of this method, that nothing would induce them to resort to the old mode of fettering and fixing the feet by nailing on both sides.

I feel it my duty here to state, that it is to Mr. Bracy Clark I am indebted for a knowledge of the principles which I have been, and am now, acting upon; and I may truly say it gives me great pleasure to observe, that the fact of the expansion of the foot being absolutely necessary to the ease and natural action of the horse, is daily becoming more generally admitted.

ISAAC BRIGHTWEN.
Veterinary Surgeon.

South Place, Finsbury.

MR. CHARLES CLARK'S REMARKS ON MR. JAMES TURNER'S EXPOSÉ.

MY attention has been attracted to a letter from the pen of Mr. James Turner, in another Veterinary periodical, which he stiles an "Exposé of the Chief Error in the Practice of Horse Shoeing, with an improved Method suggested;" and this "chief error" he states, "to consist in the nailing an unyielding body of iron to both sides or quarters of the foot."

I sincerely congratulate Mr. James Turner on being the first College Veterinarian to acknowledge this doctrine, and the importance, nay, the absolute necessity of a principle, which it has heretofore been the practice of the College Veterinary School, and of many in the profession, to blink at, stifle, or deny. As the advocate of the Expansion System, I rejoice at this accession to the cause, and have no doubt that it will be followed by the avowed approbation of many who have hitherto opposed this plan as futile, unnecessary, or impracticable.

It is now nearly twenty years since my uncle, Mr. B. Clark, demonstrated the injurious effect of the common shoe, in contracting the foot, and causing the early ruin of the horse, by confining the expansive action which is natural to it. This he demonstrated, not only by a new and interesting account of the anatomical structure of the foot, but by taking a series of casts in plaster, for seven years, from the same mare, exhibiting the changes produced by common shoeing from a very perfect foot at five years old, to a miserably contracted one, of all which he has given plates*.

This is not a solitary fact; attentive observation will convince the most sceptical, that contraction is the constant effect of common shoeing upon all perfect formed feet; it can be proved in scores and hundreds of instances, and has never been invalidated. From that period to the present time he has been unremittingly occupied in establishing these facts, and promulgating the necessity and importance

* The First Part of a new edition of this Work is just published by Underwood. Ed.

of shoes to prevent contraction, by not confining the action of the foot, of which labours on his part, the Veterinary world are generally aware. The result of his experience on this subject is the present improved Expansion Shoe, used by me, which is nailed on *both* sides; but has a joint at the toe so simply constructed that it is equally cheap and durable with that in common use. But this perfection of the system was not arrived at till after numerous failures and trials, and many expedients had been resorted to. Amongst other suggestions for this purpose, it was not likely that so simple a plan as that related by Mr. Turner should not have occurred, as a substitute for jointed shoes; it has been practised very extensively, both by Mr. Clark and others, for many years, such practice not being with them the result of an accidental observation of its good effects, but arising from a conviction of the necessity of allowing the action of the foot, and from multiplied proof of its advantages.

I could bring the evidence of numerous persons, particularly from the country, who have been in the constant practice of nailing common shoes round the toe, and on one side only, for years past; but there are sufficient published statements respecting this plan, and from whom it was derived. Among the "Testimonies to the Utility of the Expansion Shoe," printed in 1827, is a letter, p. 12., from Mr. J. Brightwen, of Coggeshall, who states "for the last three years we have shod twenty horses, used in all capacities, somewhat upon the expansion system so much and so justly recommended by Mr. Bracy Clark. The shoe we use is but the common shoe in shape, nailed across the toe and *on one side only*, which not only admits of the natural expansion of the foot, but costs no more than the common shoe. By this system we have been enabled to use many horses which, by the usual mode of shoeing, had become so contracted in their feet as to be useless on the road," &c. Many other gentlemen, in different parts of the country, would give concurring testimony. The successful results of some trials made with this mode of nailing at Paris, about twelve months ago, are given in the *Journal Pratique* for February, by M. Crepin, one of its editors. Those, he says, who cannot readily procure jointed shoes, may employ "A shoe which, instead of having nail-holes as usual in both sides at equal distance from the heels, shall have them only on one side from the place where we always place the first heel nail to the toe, *(la mamelle,)* on the

opposite side. We conceive that with such a shoe there will always be one side or quarter of the foot that is not fixed, and from thence the movements which take place, *in consequence of the elasticity of this part*, are as free as possible; and that one half of the foot can open or close from the other according to its wants, which is impossible with the shoe in common use." He continues, "With the shoe above described we have made a great number of successful trials. I have used these shoes stamped only on one side for horses, lame in consequence of dryness and contraction of the heels; for such as have suffered from pains in their feet, hobbling and going with difficulty; and for such, also, as those who practice Neurotomy would say, are in a state to indicate that operation. Nearly all these experiments were made *under the eye of Mr. Clark, and according to his directions.*" After citing several instances of its beneficial effect, he says, "I have above twenty well attested proofs to offer of the value of this mode of shoeing."

A short extract from this French article was given in the Foreign department of the "Lancet," a few weeks ago.

A writer's personal evidence should always come last. I am in the frequent habit of this mode of nailing, especially with horses suffering from the constraint of the common shoe (which they all are), and whose owners have a prejudice, or have imbibed one from the misrepresentations of some half informed *Colemanitish* Veterinarian, against the Expansion Shoe; and I have the satisfaction of hearing these gentlemen observe, without knowing the cause, that their horses go better and their feet improve under this plan. They in general wear out and last perfectly well, if provided with clips on the outside quarter and inside toe, which are considered by Mr. Clark to be indispensable, though there are feet occasionally met with on which this plan of shoeing cannot be safely practised.

He truly observes that the practice of nailing in this manner to prevent cutting is nearly as old as the hills; if so, the beneficial effects of it must have been perceived by many farriers, and I know those who practise it to a considerable extent, but without understanding the principle of elasticity or expansion of the foot. Mr. Turner does understand the necessity of this principle, and I wish he had avowed from whom he derived it. So that, in my mind, the important part of this gentleman's statements do no consist in their novelty, nor even

in the additional evidence he offers from *some months'* trial of the efficiency of this mode of nailing; but in his unreserved advocacy of Mr. B. Clark's doctrines respecting the foot.

His accidental discovery of the beneficial effects of allowing the natural expansion of this organ is fortunate for my cause, inasmuch as Mr. Turner thinks that, by adopting this principle, "he is now about to subvert the present system of shoeing, and establish this which he has recommended."

This, I believe, is the first opinion on the subject of shoeing that Mr. Turner has publickly espoused. I feel as confident as he can do that we are upon the right ground, and that ere long the public will look with surprise at a man who should deny the necessity of Expansion to the Foot of the Horse.

Veterinary Infirmary,
Stamford Street; July 15th.

ON STOPPING FEET.

To the Editor of the Farrier and Naturalist.

MR. EDITOR;

I AM glad to observe the question "*agitated*" as to *stoppings*, which form such a very important feature in stable management.

For the last fifteen months I have adopted Cherry's Pads, and am satisfied they are the most effectual, as affording the greatest relief to the horse. I keep from twenty to twenty-five pair of posters constantly at work, you must therefore admit my experience is not upon a small scale. Many of my horses are, as a matter of course, groggy; but since the using the Pads, the lameness has in so great a measure decreased, that my lads often remark, "*such a horse has become quite sober, suppose he has turned water drinker; what a groggy old rascal he used to be.*" I do not think a stronger proof of the efficacy of the Pads can be produced.

The jobbing and posting Hercules, some time since, was laughing at the Pads. The other day, observing they were stealing into the establishment, I taxed him with it, and he remarked "*the horse*

was troubled with corns, and perhaps the Pads might afford relief."

Now, Mr. Editor, those who try the experiment will find the above Pads the best stopping yet discovered; and sooner or later the public will admit such to be the fact.

I am, Mr. Editor,

A true well wisher to the

"Farrier and Naturalist,"

Windmill Street. A. B.

ANTIQUITY OF LAWS RESPECTING HORSES.

THE HORSE, in this as in all other countries, has from the earliest periods been a subject of peculiar attention and care of the Legislature. So early as the reign of Athelstan many foreign breeds had been introduced into the kingdom; and the English had become so jealous of their breeds, that the exportation was prohibited by law, unless intended for presents to foreign princes. The variety was further increased in the reign of the Conqueror, and particularly in his time by Roger de Belesme, Earl of Shrewsbury, who introduced into Wales the Spanish stallion. We find also, that the importation was much promoted in the reigns of Edw. II. and Edw. III.; and in the reign of Hen. VII. it was expressly prohibited to convey horses out of the realm, without the king's licence, on pain of forfeiture. In later times, when this kind of property has become more general and valuable, the Legislature has provided not only for its protection as a subject of property, and made it a source of considerable revenue, but has also passed the severest enactments against wanton or malicious injuries to the animal itself, independently of any consideration of loss or damage to the owner.

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THE

FARRIER AND NATURALIST;

OR,

HORSE-MAN'S CHRONICLE.

N°. 28.] AUGUST 15, 1829. [Vol. II.

VETERINARY MEETING, THE COLLEGE AND ITS SUPPORTERS.

WE have received many letters, some with real names and others anonymous, respecting recent transactions in the Profession, and they all tend to shew the necessity for some great and important change. Advocating, as we have uniformly done, measures calculated to advance the Veterinary Profession in importance, utility, and public estimation, it has been necessary to speak strongly respecting the College, its Professor and its Governors, in their public character; still we have no feelings but those of personal respect towards them as gentlemen, and therefore regret to see them handed over to such turbulent and inconsistent advocates as congregated at the Freemasons' Tavern, on the 22d ultimo. These actual members of the "calling," as they designate themselves, profess gratitude;—they resolve, that "feeling grateful, as every honourable Veterinarian does, to those who have given him that information and acquirement which give him a name and rank in society, we take this opportunity of thus making our warmest and best acknowledgments to our liberal patrons and teachers, begging they will not misconstrue, as the voice of the Profession, the sentiments of a few disappointed individuals;" and they resolve further, that the appointment of a separate Examining Committee is not only uncalled for but would be very injurious; yet the appointment of such a Committee was deemed

expedient by their patrons and teachers long ago, an opinion which, after the lapse of two years, they again declare they see no reason to alter.

But the gratitude of these members of the "calling" towards their teachers does not rest here; they are not content with telling their patrons that the adoption of their opinion repeatedly expressed would sever the "calling" from its best friends, they directly accuse their teachers of having admitted students to pass their examination—of having certified them to be competent to practise the Veterinary Art—who had not seen sufficient of the College practice; (nor, indeed, any other;) and further, they tell the public that their patrons have confessed to this negligent exercise of an important duty, and now actually compel students to remain at the College *twelve months* before they be permitted to be examined. Even this amendment does not satisfy these grateful members, and they plainly tell their liberal patrons that even now they do not understand these matters, and that the period of probation ought at least to be doubled.

This is the substance of the resolutions concocted by the professed friends to College pretensions; but, that our readers may judge for themselves, we give them at length.

"1*st*. This Meeting having endeavoured to ascertain the general sense of the Veterinary Profession, and having themselves given the subject mature deliberation, resolve,—first, that the appointment of a separate Examining Committee, contrary to the approbation of the General Meeting of the Governors of the Royal Veterinary College, is not only uncalled for, but would create jealousy and disunion amongst the actual members of the calling, and sever us from our best friends and supporters, without any real practical benefit either to the public or student.

"2*nd*. It having been advanced at the last Meeting, that the title of Veterinary Surgeon, granted by the College, is a reproach, rather than an honourable distinction; this meeting takes this opportunity of disavowing all connection or participation in such sentiments, and cannot sufficiently admire the effrontery of those who use this name for the purpose of getting their livelihood, at the same time they are professing to be ashamed of it.

"3*rd*. Feeling grateful, as every honourable Veterinary Surgeon does, to those who have given him that information and acquirement which gives him a name and rank in society, we take this opportunity

thus publickly of making our warmest and best acknowledgments to our liberal patrons and teachers, begging they will not misconstrue, as the voice of the profession, the sentiments of a few disappointed individuals.

"*4th.* Students having occasionally passed an examination without seeing sufficient of the College practice, and that the late resolution recommended by the Medical Committee of Examiners, and adopted by the Governors, to compel Veterinary Students to remain at the College twelve months before they are admitted to be examined, will be beneficial to the public, Veterinary profession, and students; and this Meeting begs leave most respectfully to recommend to the Governors, that those pupils who have not been previously educated to the medical profession, or who have not served a regular apprenticeship to a Veterinary surgeon, or farrier, shall regularly attend the College practice at least two years before they be admitted to an examination by the Medical Committee."

The most noisy supporter of these Resolutions piqued himself on his want of information and love of brandy; another supporter, little less clamorous, stated that he would roundly contradict the assertion that any one had passed improperly, though he could not deny, when pressed, that instances were not wanting to confirm the statement; and a third supporter stated, that many of the College-made Veterinary surgeons became so, after serving an apprenticeship to some shop-keeper in a country town, and starting for London, they return in six months with a diploma.

It must not be supposed that we complain of these Resolutions; far from it, we consider them as strong testimonies in favour of the cause of reformation we support, though certainly put forward avowedly with a very different intention.

IMPORTANT HORSE CAUSE.

WE copy the report of this important cause from the "Morning Herald," and it well deserves attention. Had the verdict given on the first trial been allowed to stand and become law, it would have placed every seller of a horse with warranty of soundness in peril to

an extent not easy to calculate—namely, the peril of law charges incurred by the folly, obstinacy, or improper motives of another person. Suppose for instance, *A* buys of *B* a horse warranted sound, but which is not so,—an every-day occurrence; in the ordinary course of proceeding *B* receives back the horse on its being returned, repays the purchase-money, and there the matter ends. But, according to the decision at the first trial, (Barker against Boucheret) the horse may be sold to *C*, who, finding him unsound, returns it to *A*, who resists taking back the horse and repaying the purchase money: *C* then proceeds by action at law against *A*, and, without any reasonable chance of success, *A* defends the action; law charges are incurred to a great extent, and *C* obtains a verdict in his favour. While all this law work is going on, *B* knows nothing about it; but no sooner has *C* established his claim against *A*, than *B* is called on to pay the expenses of a law suit which he did not direct, over which he had no control, and might even be entirely ignorant of its existence. The decision on the second trial has, however, put a stop to such manifest injustice.

BOUCHERET *v.* GREATHAM.

Mr. Denham stated that this cause, and the horse which gave rise to it, were already familiar to the jury, and it was not for the first or the second time that its merits had been legally discussed in that county. The wooden horse which was introduced into Troy was famous in the page of history. He anticipated equal renown for the subject of the present action, and it would hereafter be known to fame as the Lincolnshire horse. In 1825, Mr. Boucheret, the plaintiff, a gentleman of fortune, well known to the jury, having occasion for a sporting horse, applied to the defendant, a farmer, who had one to dispose of, and he purchased the horse in question for the sum of 150 guineas. The person whom he sent to view his purchase observed that the off fore leg was bandaged, but, on examination, it proved that nothing was the matter with that part. The horse was brought home, and Mr. Boucheret hunted it through the season, and, though it showed occasional symptoms of delicacy, he had no reason to suspect that it had any radical defect. The horse, to be sure, did not improve as a good horse of five years old would after one season, and, instead of his value being increased, the plaintiff thought well of disposing of him, and he sold him to a Mr. Barker, for 90 guineas,

with a warranty of soundness. Mr. Barker kept the horse for some time, and then wished to return him upon the plaintiff's hands, declaring that he was a radically unsound horse; and on the plaintiff refusing to receive him, Mr. Barker brought his action, and recovered the 90 guineas and his costs. The result of the action, however, proved that not only was the horse unsound at the time when Mr. Boucheret sold him, but that he was unsound at the very time when he purchased him from the defendant. Mr. Boucheret, therefore, brought an action against the defendant, in 1828, to recover the 150 guineas which he had paid, as well as the expenses of the suit which he had maintained with Mr. Barker, and he succeeded in obtaining a verdict. An application was made, strengthened by affidavits, to the Court of King's Bench, to set that verdict aside; and the Court were of opinion that the verdict should not have gone for more than 90 guineas, which the plaintiff claimed; but Mr. Boucheret not being inclined to accept of any thing under the full price he paid, a new issue was ordered, and which the jury was now called upon to try. It was not necessary to tell the jury that if there was fraud in a contract every part of it was void; and it was clear in law and plain justice that every injury arising from that fraud should fall upon the person committing it. That this was a case of gross misrepresentation the evidence would clearly make out, and the plaintiff was entitled to the money which he had in the first instance paid, and to all the charges he was put to in defending the action against Barker. He would prove that the defendant, at the time of the plaintiff's purchase, ordered the off fore leg of the horse to be bandaged, though there was nothing wrong there, in order to divert attention from the unsoundness which existed, in the near leg. He would also prove, that on the morning on which the horse was to be delivered to the plaintiff at the fox-cover, the defendant gave instructions to his servant to loiter on the road, and not to appear until the hounds were about to throw off. He said the plaintiff was too keen a sportsman to brook delay, and that he would mount and gallop off without examining the horse, and that, if he found out any subsequent defect, he would attribute it to an injury received in the field. He would also prove that the defendant said he would *Jew* the plaintiff. These were the grounds on which he maintained that the horse was unsound, and that the plaintiff was entitled to the verdict of the jury. His friend who was opposed to him was a better sportsman than he was. He

would mount his steed, crack his whip, and scour the country to prove the value of the horse; but he cautioned the jury in time. His friend was surrounded with Veterinary books, and there were several numbers of a pamphlet by him which he more than suspected his friend had written and published, under the auspices of the society for diffusing knowledge. But, however, learned he was in these topics, he could not pervert the Court, and the plaintiff relied with confidence for a verdict.

Mr. Hargrave, a veterinary surgeon, proved that he was sent by the plaintiff to the defendant in November 1825, to examine a bay horse. There was a bandage on the off fore leg; but witness, feeling a slight bump in the near leg, told the defendant that he had bandaged the wrong leg. He asked him if he warranted him sound, and the defendant said he did, and he declared that there was nothing wrong with the near leg. The first price asked was 180 guineas. Saw the horse on the 14th of December; he was lame on the tendons of the near leg, which he blistered, and the horse got well. In 1826 he was called in by Mr. Barker, who bought the horse from the plaintiff, to examine a horse, which he found out to be his old acquaintance. It was swelled and inflamed in the very same part of the near fore leg. The lameness was attributable to the lump which he had remarked in the first instance, and he had no doubt but that the horse was unsound at the time.

J. Melton, groom to the plaintiff, proved the payment of the 150 guineas. The horse came home lame after the first day's hunt, and he also was lame on the next occasion. He was a horse of a delicate constitution, and never took his turn fairly with the other horses in the stable. Other horses could take two days to his one. Sold the horse in August 1826, at Horncastle Fair, for 90 guineas. Mr. Boucheret was not a fierce rider. There were many harder riders, and many who were not so much so. Mr. Boucheret weighed eleven stone. He rode the horse as a hunter all the season, and as a hack in the summer; but no fatigue in the latter, as he often did not go two miles a day.

John Pearse lived as groom in 1825 with Mr. Greatham, the defendant. The horse was purchased at Horncastle Fair, and the day after he came home he was led out for exercise, when the defendant said he was quite lame, and that he would return him. He afterwards changed his mind, and said he would try what could be done with

him. There was a hard substance in the back sinew of the near fore leg. Applied mercurial ointment to it. Recollected the horse being sold to Mr. Boucheret. On the morning of delivery defendant told him to take the horse to cover, but to be late, as the plaintiff would mount him the moment he came up, and would not examine him, and any injury which he might afterwards discover could be attributed to an accident in the field. He told his master when he returned, that Mr. Boucheret was very angry with him for being late; to which his master replied, "Never mind, we will *Jew* him if we can." He was discharged by the defendant in consequence of an affair about a young woman. Received no character. Was since employed as a helper in Sir R. Sutton's stables. Found another place, but was discharged from it because the stable of which he had the charge was burnt down, with three horses, after five o'clock in the morning, when he was up. He was not charged with setting fire to the stable, but he was dismissed in consequence of the fire.

The judgment in the case of Barker v. Boucheret was then put in, and the payment of the money admitted.

Mr. Balguy, for the defendant, said it was no small satisfaction that his client found himself once more before a jury of the county. The plaintiff was a gentleman of fortune and of character; but the defendant, though moving in a different sphere in life, was a man honourable and respectable, of independent circumstances, and of a character on which no suspicion rested. He was before the Court, not only in defence of his civil rights, but he was on his delivery from a most serious charge. He was not only charged with a breach of warranty, but with a deep-planned fraud against the plaintiff. The defendant at once brought the case to an issue; he admitted his warranty, and he was prepared to show, that not only he believed the horse was sound at the time, but that he was, in fact, sound and without a fault. The horse was sold in November 1825, and Mr. Boucheret rode him the first day he was delivered. The groom has sworn that the horse came home lame; but against that he had the letter of Mr. Boucheret himself, which admitted it was only the second time he rode him that he returned lame. Mr. Hargrave, the surgeon, said he observed a lump on the horse's knee, but he did not swear to that effect at the last trial; and it would almost seem his memory was refreshed by the necessity of connecting his injuries in Mr. Barker's hands with his appearance in the defendant's stables. He also said

that the leg inflamed, and was subject to continued weakness; but, if that was the case, how severe a reflection was cast on Mr. Boucheret. How could he, under these circumstances, warrant the horse sound to Mr. Barker, and accept 90 guineas for it? Mr. Boucheret was placed in a dilemma by his witnesses, and if they spoke truth he was subject to the same imputation which he was endeavouring to attach to the defendant. But Mr. Boucheret was to be best judged by his letter to Mr. Barker; and he (Mr. Balguy) would gladly rest the issue upon that gentleman's own reasoning. The letter to Mr. Barker was to this effect:—"I am surprised that you should think of returning a horse after keeping him four months. The horse was sound when I sold him, and he was so all the time I had him save a fortnight after I bought him. I worked him during the whole season and the whole summer, and I must have found him lame, if he had not recovered the accident which he met the second time I rode him. I cannot possibly take him back." He offered this letter in contradiction to the evidence of Mr. Hargrave and of the groom. He put Mr. Boucheret in opposition to his own witnesses. By whom was the case of fraud made out? By Pearse, the discharged servant of the defendant, a man who got no regular service, but became a helper to Sir R. Sutton's groom, and who was discharged from another situation because a fire took place at five in the morning, after he was up, in the stable which he had in charge, and where three horses were destroyed. Was this the witness on whom Mr. Boucheret preferred a charge of criminality against the defendant? The case spoke for itself. The jury would take away no man's character on such testimony. He could prove that Mr. Greatham bought the horse a short time before it was sold to the plaintiff for 100 guineas, with a warranty of soundness; and that while he was with him he was hunted, and showed no symptoms of indisposition. What became of him after he got into the possession of the plaintiff, the defendant could not undertake to answer for. It was evident that he had been damaged, or at least the jury who found the verdict against him were of that opinion. That verdict could in no manner affect Mr. Greatham, and he entertained no doubt but that the jury would decide this issue in his favour.

Mr. Reynolds proved having sold the horse, which was the property of Mr. Pate, for 100 guineas, with a warranty of soundness.

Mr. Vernon proved that the horse was hunted by Mr. Greatham, and showed no symptoms of illness while in his hands.

William Knowles, the servant of the defendant, proved the good condition of the horse which the defendant had, and he also proved that no artifice was used with him on his delivery to the plaintiff.

Mr. Denman replied.

The Chief Justice left the Jury to determine by the weight of evidence.

Verdict for the defendant.

ON

THE IMPOLICY OF A PUBLIC TEACHER OBTAINING PATENT RIGHTS.

THE impropriety of patents being sought by a public teacher at a public institution must be evident. A patent is a monopoly depending on secrecy and caution in the obtaining of it. If the invention about to be monopolized has been practised by any other individual than him who seeks for the monopoly of it, previously to the grant of a patent, the protecting effect of such patent is void: therefore secrecy becomes necessary; the teacher must speak with caution, lest some intelligent pupil should catch the idea, and by giving it form and substance before the teacher has obtained his patent, defeat the monopoly intended to become the source of emolument. It is true Mr. Coleman's patents have been harmless, because the subjects were fallacious; there was, in reality, nothing to monopolize: but the principle once admitted as proper, may with equal propriety apply to medical prescriptions as to the fanciful form of a horse-shoe, and thus tend to reduce Veterinary medicine to mere empyricism.

COMPARATIVE ANATOMY.

OBSERVATIONS ON THE OLFACTORY ORGANS.

By H. W. Dewhurst, Esq.

[Continued from page 231.]

The Elephant.—The olfactory bones in this large animal are apparently smaller in proportion than the human. The defect in this

part is abundantly compensated by the extraordinary length of his nostrils, which are continued through the whole extent of his proboscis, a machine splendidly and wonderfully adapted to supply the exigences of this unwieldly animal, by its various powers. Besides the turbinated bones, the processes of the ethmoidal bone afford a very considerable surface for the extension of the schneiderian membrane in all these animals. However, we perceive a very remarkable difference in their structure. In the hog and horse they do not assume their turbinated configuration, but ramify; with this difference, that the branches are much more numerous and minuter in the former, than in the latter. In the deer, goat, and sheep, they resemble the other bones of the nose, both in their convolutions and perforations.

Passing from those parts which are concerned immediately in the function of smelling, to those that are more subsidiary, and thus we find a very considerable variety in the magnitude and number of the sinuses of this class of quadrupeds. Compared with the same part in other animals, the frontal and maxillary sinuses are of some magnitude. In the hog, the former are not so proportionally large as in the goat species and sheep. In the horse, the latter is comparatively spacious.

The maxillary, but not the frontal sinus, is found in the deer. This animal is distinguished by a peculiarity of formation, which may be conducive to the subtilty of the organ of smell. Between the internal angle of the orbit and the ridge of the nose, there is an irregular quadrangular space, over which a powerful membrane is spread, and performs the office of bone, in covering and protecting the cavity beneath. This cavity does not communicate with the nostril by means of a small aperture, as is usual in the sinuses of other animals, but is entirely laid open to it throughout its whole extent, which is portioned out into different cells by osseous laminæ. Similarity of structure and unimpeded connection, leaves but little doubt respecting the functions of this part.

The limits of this paper not allowing me to enter into the description of the olfactory organs in the carnivora, I shall refer it to a future number.

July 12, 1829.

REVIEW.

Illustrations of Natural History, embracing a Series of Engravings, and Descriptive Accounts of the most interesting and popular Genera and Species of the Animal World. Conducted by J. Le Keux. Nos. 1—5. Longman & Co.

WHEN we consider the intense interest with which all classes view the different objects composing the animal kingdom, and the absolute necessity of a knowledge of the nature and habits of the domestic quadruped, to the well-informed Veterinarian and practical Agriculturist, we cannot but say we have perused the numbers now before us, with some degree of pleasure, and the engravings are faithful delineations of the animal they are intended to represent, the descriptions appear to be very accurate, and drawn from the most recent sources of zoological research, in our opinion we consider them as highly entertaining to the popular reader, as well as the scientific naturalist. There is one thing, however, which we wish to hint to Mr. Le Keux, the absolute necessity of the more frequent publication of the succeeding numbers of this beautiful and interesting publication.

ORGANIC AND FUNCTIONAL DISEASE OF THE HEART.

(Read at the Veterinary Society.)

A black gelding, about 12 or 14 years old, has latterly lost flesh very fast, and occasionally has dropped down suddenly, but has always been relieved by bleeding, although indisposition has generally continued three or four days.

The pulsation was extremely irregular and often very indistinct; the jugular vein would frequently fill the same as when a ligature is passed round the neck, and at other times a return current of blood, though with less force, was very perceptible. Having been five years in its owner's possession, he determined on having him destroyed.

The contents of the abdomen exhibited nothing particular; the pleura of the lungs was triflingly thickened, and adhesion to nearly the size of the hand had taken place on the near side, principally to the sixth rib, but partially also to the fifth and seventh; this evidently was of long standing, and was found to arise from a fractured rib. The heart was very large, but exhibited no external appearance of disease: the valves between the auricles and ventricles were thickened, confined in their action, and evidently incapable of performing their functions properly.

The contraction of the right ventricle would return the blood into the auricle, and thus the flow of blood into the auricle from the returning veins would be impeded, and account for the fulness of the jugular veins. The left side was most diseased, by which it may be supposed the return of blood from the lungs to the left side of the heart would be most difficult, and when this difficulty existed to a great degree, the blood, by having been kept back in the lungs, would produce temporary suffocation.

FRED. C. CHERRY.

MR. J. TURNER'S REPLY TO MR. C. CLARK.

MR. JAMES TURNER, in reply to Mr. Charles Clark's remarks, in the "FARRIER and NATURALIST" of the 1st of August, on Mr. Turner's Exposé of the chief error in the present system of Shoeing Horses, published in the last July number of the Veterinarian.

MR. EDITOR;

SIR,—If you will permit the following observations to appear in the next number of your scientific journal, I shall feel much obliged.

Mr. Charles Clark might have spared his congratulations on me, as the first College Veterinarian to have acknowledged the doctrines of his uncle, Mr. Bracy Clark, on the foot of the Horse; and I would recommend him to be moderate in his rejoicings at this supposed accession to their cause, (the honorable distinction which he has been pleased to confer on me in consequence of my last paper on the foot,) lest I should prove so ungrateful as to disclose to the enemy their vulnerable parts, and thereby *weaken* instead of *strengthen* their mighty cause.

I really, Mr. Editor, have not the patience to stay my pen in following Mr. Clark line by line, as would be more becoming, but must begin by adverting to a most extraordinary sentence near the conclusion of his paper, in which however he does condescend to allow that I do understand the necessity of this principle, alluding to the principle of elasticity or expansion of the foot, but with the utmost complacency wishes I had avowed from whom I derived it, under the absurd notion that that is due to his uncle; and winds up by expressing that in his mind the important part of my statements consist in my unreserved advocacy of Mr. B. Clark's doctrines respecting the foot; so complete is the delusion, that I know of nothing so well to compare it to as his own system of Shoeing. But this is Mr. Charles Clark's version of the thing: now be kind enough to hear mine.

Mr. Bracy Clark's universal cry is the nails, the nails, they are ruination, *and yet he continues to use them*, and what is most extraordinary towards the inside heel; but, by the aid of a joint at the fore part of the shoe, he states that they are rendered harmless and do not oppose the natural expansion of the heels. That this doctrine is fallacious has already been made manifest by the ingenious remarks of Mr. Joseph Goodwin, in his very interesting work on the various modes of shoeing practised by different nations; but this gentleman has left a chasm in his Review which I shall attempt to fill, by pointing at one of the greatest errors of this high sounding Tablet Expansion Shoe when applied to practice, *viz.* the too close adaptation of the shoe to the hoof at the heels, occasioned by the nails approaching so near the heels, with the severe *clenching* requisite just at the weakest part of the foot, the *inside quarter*, in order that this *complicated* shoe may be retained in its situation.

Now, Mr. Editor, let it be admitted, for argument sake, that the weight of the animal in quick motion is such as to overcome the restraint of these eight opposing points, and that in the *scuffle*, for I can call it by no other term, between superincumbent weight, force, and resistence, the joint of the shoe does give a little, and concussion is moderated, let us consider the situation of the same hoof in the same shoe, while the animal is in a quiescent state, tied up by the head in his stall 22 hours out of the 24, and we shall find this jointed shoe of Mr. Bracy Clark's to be a *fetter* with a vengeance under the disguise of *liberty*. The weight of a horse alone, unac-

companied with action, is quite unequal to the restraint of the nails, and consequently the joint at the toe of the shoe becomes a nullity, leaving the heels exposed to severe partial pressure, as with the common shoe. Contraction of the foot being principally engendered in the stable, this is the period of danger, although exertion afterwards out of the stable is the exciting cause of lameness; and thus it is that Mr. B. Clark's famous Joint Shoe, after several years trial, has *not* proved a "basis for the repose of the profession," as this gentleman so triumphantly expressed himself.

When the owner of a rare and valuable nag is congratulating himself on the *rest* he affords his pet in the stable, he little thinks that his mistaken kindness consigns his favourite to a canker worm.

I next propose to shew my object in recommending the half nailing system. 1st, It affords the hoof sufficient protection by the shoe; 2dly, it permits all the natural functions of the foot to be duly performed, even in the greatest exertions of the animal; 3dly, which is of paramount importance, *it allows the foot to dilate in the stable*, by the weight of the horse alone, after the manner of an unshod foot; and therefore, Mr. Editor, I shall take upon myself to designate it *The New Unfettered System of Shoeing.*

Freedom from the restraint of nails is not the only benefit resulting from this plan, *there is another of equal importance* which this method affords, *viz.* it leaves a space sufficient for a flattened straw to be drawn between the hoof and the shoe on the *inside* quarter, when the foot is off the ground (but more on this point another day), and which I take to be *perfection* in the art of shoeing. Can the complex Tablet Expansion Shoe compete with this? No, even if all were allowed that its ingenious author himself imagines it to possess. Moreover I venture to predict, that in a very few years the Unfettered System of Shoeing will become the general method in this Metropolis, to the utter annihilation of Bracy Clark's Jointed Shoe. It must carry all before it on account of its simplicity and efficiency combined.

Although Mr. Charles Clark and I are agreed that this practice of shoeing is as old as the hills, yet he complains that my paper contains nothing new, and that he can bring the evidence of numerous persons, who have been in the constant practice of nailing common shoes round the toe and on one side only for many years. I can tell Mr. Clark, that as my ancestors have been farriers for four generations in

succession, and all kept shoeing forges, I can produce by old documents as early records of this practice I think as any man living; but with regard to the *published* statements respecting this plan which he refers to, much explanation is necessary.

Mr. Clark asserts that this is the first opinion on the subject of shoeing that I have publickly espoused. If Mr. C. will take the trouble to refer to my paper on the *navicular disease*, or chronic lameness in the feet of horses, published in the "Veterinarian" for February 1829, he will find, at page 65 of that periodical, I have before publickly espoused this same method of shoeing in the most direct terms, by stating that the shoe *must* be nailed round the toe, and not only the inside heel avoided but the quarter likewise. Now let us see what it will avail Mr. Clark as to his *published* statements of this method of shoeing, in having referred your readers to the French *Journal Pratique* for February last, by M. Crepin, one of its editors, when I prove that I gave it publicity in the beginning of December of the previous year. At the top of my navicular paper, to which I have just referred, there appears (Read at the Veterinary Medical Society Dec. 24th, 1828); but besides the reading on the night here alluded to, it happened that it was publickly read, although out of its turn, some weeks previously, to a very numerous meeting of the same society, in Nassau Street, as can be attested by several of the most eminent veterinarians in the kingdom, whom I am happy to say were present.

Again Mr. Clark observes, "Among the testimonies to the utility of the Expansion Shoe, published in 1827, is a letter, page 12, from Mr. J. Brightwen, at Coggeshill, who states that for several years he has adopted this plan." On making a call on Mr. B. Clark's own bookseller, I found the work in question, with 1828, instead of 1827, printed on the title page, and stitched in the way of an appendix to another of Mr. Clark's works, evidently published in 1827.

I must intrude a little farther on this already too tedious detail, by declaring that whatever comment Mr. Clark may think proper to make on the above reply, I shall not be able to spare any more time for controversy on the subject.

Horse Infirmary, 311, *Regent Street*,
Aug. 11, 1829.

A TREATISE

ON

THE DISEASES AND LAMENESS OF HORSES.

By W. Osmer. London, 1766.

[Continued from page 218.]

WHEN sudden swellings arise in the cavities on each side of the hock, repeated bleeding is necessary; the part is to be bathed frequently with cold vinegar, the salt cataplasm is to be used, and such a bandage with bolsters on each side applied, as will most effectually compress these swellings; so will they disappear, and the horse become sound.

For a lameness proceeding from what is called humours, after bleeding and proper purgation, the cure is to be attempted by such medicines, as will most effectually produce an alteration in the blood and juices; amongst which kind of medicines I have found saltpetre to be very efficacious, when given daily, and continued for a time; which may be done without any interruption of exercise, if there be no other cause to prevent the same.

For a canker in the foot;—powdered verdigrease, vitriol, and bole armoniac, with vinegar added to the same, will generally be found a remedy. If the case be obstinate, a few drops of aqua fortis may be mixed therewith.

Running thrushes will be cured with lint dipped in strong blue vitriol-water thrust lightly into the part; but this discharge, once diverted from its usual channel, some more noble part may perhaps be affected, or blindness ensue. Wherefore, when this is attempted, the horse should be immediately purged two or three times, and go through a long course of the salt petre, or some other cooling salts.

[To be continued.]

Printed by John Hill, Black Horse Court, Fleet Street.

THE

FARRIER AND NATURALIST;

OR,

HORSE-MAN'S CHRONICLE.

N°. 29.] SEPTEMBER 1, 1829. [VOL. II.

THE VETERINARY COLLEGE.

IT has been for some years past frequently stated, and the statements proved by unanswerable facts, that the College education has been defective—that many have received the diploma of a Veterinary Surgeon, without having bestowed the time necessary, or had opportunity to acquire sufficient knowledge really to deserve the appellation —that these diplomas have been granted by gentlemen who do not themselves belong to the profession, who know nothing of its practice, and consequently are unfit to decide on the practical knowledge of others. In short, the principal qualification requisite to become a Veterinary Surgeon seems to be the having paid a fee of twenty guineas to Mr. Coleman. All this must of necessity cause the mere name of Veterinary Surgeon to sink in public estimation; and to prevent its continuing to do so has been the object of some of the best friends to the profession. That there are many highly gifted and able men engaged in Veterinary practice is a fact we are proud to boast of, but it is not the College diploma that has created confidence in their skill and ability—it is their own diligent application to the study and practice of their profession that has produced confidence and established reputation.

At the meeting held on the 22nd of July, a party, calling themselves friends of Mr. Coleman, congregated for the avowed purpose of overturning the measures, that had been moderately yet firmly taken to-

wards removing some of the causes of just complaint; and it might have been supposed that this party would have furnished themselves with some reasons, however specious they might be, for the course they were taking,—but they did no such thing; their arguments, if such term may be used, were all the other way:—they admitted that improper persons obtained diplomas—they admitted there were half-instructed gentlemen who were called fools and laughed at, though furnished with a diploma—they admitted that the country shop-keeper's apprentice, by a sojourn in London of six months, might be metamorphosed into a Veterinary Surgeon; and yet, forsooth, those who wished to put a stop to these abuses were in the wrong!

It occupies Mr. Coleman *ten* months to wade through one course of his lectures; and we are told by his avowed supporters, that in *six* months the shopkeeper's apprentice may obtain from that gentleman and his colleagues a certificate that he is *competent to practise the Veterinary Art*—notwithstanding he may never have entered any stable but the dreary buildings at St. Pancras, and have seen no practice but Mr. Sewell's never-omitted Setons and Mr. Coleman's equally universal Frog Shoe and wet Straw, or any of the other panaceas fashionable for the day.

A TREATISE

ON

THE DISEASES AND LAMENESS OF HORSES.

By W. Osmer. London, 1766.

[Concluded from page 256.]

THE blood spavin is a preternatural expansion of the vessel passing over the hock; now the general method of treating this disorder, is to make a ligature round the vein, above and below the swelling, to prevent future circulation; after which, blistering is usually applied to the swelling. But I think it a more certain cure, to make an incision through the skin, upon the swelled part, then to pass a ligature round the inferior part of the tumified vessel, and to dissect the superior part of it quite out; after which it is to be dressed according to the method that will be directed for wounds in general.

As to ring-bones and bone-spavins, I never yet saw any method of cure, that may be relied on as effectual.

Now the usual method of curing these disorders, is by the application of some medicine of a caustic quality, which being of necessity continued for a time to produce an eschar, destroys the hair, and always leaves behind it a certain blemish.

But the most proper method is as follows;

First, clip the hair from the diseased part—make several punctures on the same through the skin with a sharp pointed instrument—make a longitudinal incision through the skin above the diseased part, about the middle thereof—there introduce a cornet, and dilate the skin with it, as far as the swelling reaches. Make another smaller longitudinal incision through the skin below the swelled part, directly opposite the wound above, in doing which, your probe introduced at top will direct you. At the superior wound a caustic wrapped up in a piece of lint is to be introduced, and there left. The caustic dissolved is carried off by the inferior wound—the whole is directly to be covered with a warm adhesive charge—and this is the whole of the operation. The caustic thus introduced under the skin acts both ways, namely, on the membrane underneath it, and the outer tegument upon it—thus the membrane, outer tegument, and the charge, throw themselves off together, and the diseased or swelled part becomes fair and smooth. The horse should be turned out, or kept in a loose stable, and if the charge comes off before the wound is well, another should be immediately applied. But in spite of this, and all other methods used for these disorders, the horse will very frequently remain full as lame as he was before, although the appearance of the disease is removed—the reason of which is that the pereosteum only is sometimes diseased, at other times the bone itself, and its cellular part. Yet I dare say, there is not a farrier in the kingdom but has an infallible and certain cure for these disorders.

[We have now completed the re-printing of the first part of "A Treatise on the Diseases and Lameness of Horses, by W. Osmer," from a third edition, published in 1766. In this part is comprised the author's valuable remarks on Shoeing and the Physiology of the Foot; and it is evident that the revived doctrine of contraction and navicular injury, lately claimed as a discovery, were well known to him. Indeed we know no author in whose works are comprised so much good sense and sound practical matter.]

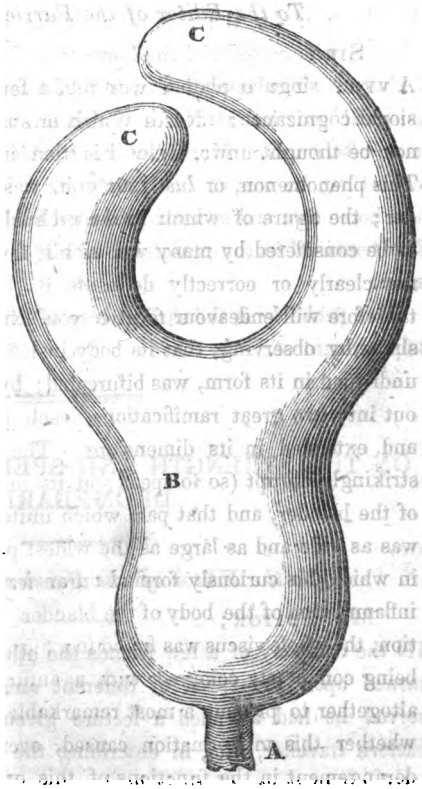
UNUSUAL FORM OF BLADDER.

To the Editor of the Farrier and Naturalist.

SIR;

A VERY singular phenomenon fell, a few days ago, under my professional cognizance; the description or statement of which, I trust, will not be thought unworthy of insertion in your truly valuable pages. This phenomenon, or *lusus naturæ*, was a malformation of the bladder; the figure of which presented such a remarkable appearance as to be considered by many who saw it a very great curiosity. I cannot clearly or correctly delineate its exact formation upon paper, therefore will endeavour to give you some faint idea of its make or shape by observing, that its body instead of being (as it naturally is) undivided in its form, was bifurcated; by which, I mean, it branched out into two great ramifications, each ramification being very large and extended in its dimensions. The sphincter or neck was very strikingly abrupt (so to speak) at its union with the fundus, or body of the bladder, and that part which unites immediately with the neck was as wide and as large as the widest part of the base. The subject in which this curiously formed organ was found died from cystitis, or inflammation of the body of the bladder. Upon *post mortem* examination, the whole viscus was found in a highly vascular and inflamed state, being completely coloured with a suffusion of red blood, making it altogether to present a most remarkable appearance. I do not know whether this malformation caused, even in the smallest degree, any derangement in the functions of this organ previous to the patient's attack, or whether it in any measure occasioned the horse to be ill; this I could not trace by inquiry, not having the subject under my care as medical attendant. It was given to me by the slaughterman, from an idea that it would furnish an additional curiosity to my museum, and afford some light in my future practice. I feel disposed to infer (though I may be incorrect) that the animal suffered not the slightest inconvenience from the peculiar formation of his bladder, nor do I apprehend the organ itself experienced any marked derangement in its functions. However, Sir, permit me to solicit the insertion of these imperfect remarks which I have made upon the case herein-stated, in your truly excellent and useful periodical, hoping they will

not be wholly uninteresting to its numerous readers, but that the case, from its remarkable singularity, may furnish them with fresh sources of wonder and admiration at the exquisite perfections of the great Author of nature.



A Neck of bladder.

B Bladder.

C C Bifurcated portions.

VETERINARIUS.

Huntingdon, July 17, 1829.

CASE OF LITHOTOMY ON THE HORSE FORTY-SIX YEARS AGO.

WE have been favoured by Mr. Randall, of Rotherhithe, with the inspection of a calculus, taken from the bladder of a horse about 46

years ago. It now weighs 5½ ounces, has a rough and uneven surface, from which a portion has been chipped off, and its general outline approaches very nearly to the shape of an egg.

The calculus belongs to Mr. Thomas Bidwell, of Swafield, in Norfolk, and was taken from a horse belonging to his grandfather, which had been under the care of a farrier in the neighbourhood, named Willer, who considered the horse to be labouring under disease of the kidneys. The operation was performed by Dr. Shorting, then in surgical practice at North Walsham, and the horse lived for some time afterwards. Mr. Bidwell is unable to furnish particulars of the operation; he was at that time quite a lad, but can recollect seeing the horse cast and secured in the orchard, and the stone extracted; it has remained in the possession of his family and himself from that time.

This probably is the earliest case of lithotomy on the horse we have any account of.

ON THE STRENGTH AND SPEED OF CAMELS AND DROMEDARIES.

To the Editor of the Farrier and Naturalist.

MR. EDITOR;

IN the company of a few friends the other evening, the conversation turned upon the speed of different animals. One gentleman observed he had attended a lecture given by Mr. Buckingham, the eastern traveller, who, in describing the Camel and Dromedary, related an instance of their having travelled 192 miles, each carrying a man or certain quantity of luggage, in twelve consecutive hours; and that the rate of speed did not vary more than one mile per hour during the whole distance. Such exertion, for twelve hours, appears physically impossible, to say nought of the riders. I do not recollect, if it was admitted, that for a shorter distance greater speed could be enforced, but it is natural to suppose such would be the case.

Those brought to this country present the appearance of dulness, heaviness, and sloth; the whip is applied to make them travel four miles an hour. To such melancholy effects is the constitution subjected by change of climate.

On our expressing doubts as to the distance and time, the gentleman asserted he was positive he was correct: admitting therefore such to be the fact, it is an astounding proof of vigour of body of which few Europeans can have any conception.

I must now, Mr. Editor, frankly confess, friends and self are unbelievers *(not* of the Christian religion), and trust you will contribute your aid to reinstate us in the right road. *Confirmation* from the fountain head is our prayer, which may be obtained, if you will permit it to be made known through the "NATURALIST," and forward a copy to Mr. Buckingham, and he may thus be tempted to communicate, *via* the same channel, the desired information as to the powers of those wonderful animals.

For thus troubling you, the only apologies we can make, are assurances that we exert ourselves in promoting the success of the "FARRIER AND NATURALIST," by tendering, and soliciting our friends to tender, any communications which may come to their knowledge interesting to the profession. Yours, &c.

G. S. W.

Windsor.

QUESTIONS RESPECTING SHOES AND NAILING.

To the Editor of the Farrier and Naturalist.

DEAR SIR;

WISHING to know something about horses, I became a subscriber to your work at the commencement, and have continued it up to the present time, well satisfied with the information; and as my horses' feet have soon been contracted by the common method of shoeing, and work on the hard roads every day, I have eagerly examined what you have had to say on shoeing, and wish to ask you a few questions which I shall feel obliged by your answering. I have a mare, six years old, and intend to use Mr. Clark's shoes for the fore feet, and have the hind feet, common shoe, nailed half-round only; if your answers are favourable:

1. Is Mr. Clark's jointed shoe better than Mr. Brightwen's plan of common shoe nailed only on one side?

2. If Mr. Clark's shoe is on the fore feet, will the hind feet do with Mr. Brightwen's plan?

3. When the nails are only on one side, must they be always on the outside, or will either side do?

4. My blacksmith turns the heel of the shoe up of the hind feet outside, so that the outside heel is cocked up, is this right?

I remain, yours, &c.

A COUNTRY SUBSCRIBER.

Answer to Question 1.—It is stated by Mr. Brightwen, in his letter (page 235), that he had recourse to the mode of nailing there described from finding a difficulty in procuring the jointed shoes so well made as they are now, and from not being able to overcome the obstinacy of the smiths, he then having no forge of his own. He does not describe this partial nailing as an improvement on the jointed shoe, but as a substitute for it, adopted for convenience. Therefore the jointed shoe is better than the partially nailed common shoe.

Answer to Question 2.—It is so rare an occurrence for the hind feet to be injured by shoeing, that the jointed shoe is not applied to them.

Answer to Question 3.—The outside of the foot being rather stronger than the inside, is best suited to receive the nails; besides, by leaving the inside free from nails cutting is less likely to occur.

Answer to Question 4.—It is a common practice to turn up the outside heel only of hind shoes, and no inconvenience seems to result from it, when not done in an extreme degree.

FURTHER QUESTIONS RESPECTING SHOES AND NAILING.

To the Editor of the Farrier and Naturalist.

SIR;

I WAS much pleased to find in your last number (1st Aug.) a method suggested for nailing the horse-shoe only on one side, thus enabling the foot to expand. I have tried Clark's Expansion Shoes, but I believe, from the improper manner in which they were fixed, they did

not succeed with me; this, I believe, was partly a contrivance of the smith's, who wished to disgust me with them; so that I was very frequently losing a shoe, and by having them fixed so frequently, the hoof was so much torn I was obliged to turn the horse out to grass. My object in writing to you, is to beg the favour of your giving as precise directions as you can, as to how far the nails are to extend around the toe, and whether it would not be the best plan to nail the shoe alternately on each side the foot; if not, on which side.

As you promise your readers to give all information interesting to the horseman, I have long hoped to have seen some articles on the management of horses in the stable. If you were to give directions for taking a colt up from grass, breaking him in, and getting him into condition, I think it would be very acceptable to many of your non-professional readers. I am, Sir, yours obediently,

C. B.

[In most cases we conceive it best to nail on the outside part of the hoof, continuing the nails rather beyond the centre of the toe part; but when the state of the hoof renders this inconvenient, the mode of partially fixing the shoe may still in many cases be continued by nailing to the inner side of the hoof.]

COMPARATIVE ANATOMY.

Observations on the Structure of the Olfactory Bones in the Carnivorous Mammalia. By HENRY WILLIAM DEWHURST, ESQ. *Surgeon, F.M.W.S. &c. Professor of Human, Veterinary, and Comparative Anatomy.*

IN my former paper I considered the structure and functions of the olfactory bones in the herbivorous mammalia; I now proceed to call the attention of the zootomical student to the anatomy of these organs in the carnivorous quadrupeds.

With regard to the existence of the nasal sinuses, which are so large in some of the herbivora, I may here observe, that they are either very small, or in many cases altogether wanting. In the feline and canine tribes, the frontal sinus is found, but in the phoca, or seal, it can hardly be said to exist.

Our attention is then naturally directed to the structure of the olfactory bones, the formation of which, in the herbivora, is as curiously constructed, as their functions are important to the welfare of the animal. And we cannot but view with surprise and admiration a fabric greatly differing from the turbinated, much more complicated in its structure, and affording a far greater surface for the distribution and ramification of the olfactory nerves.

In examining this order, I shall consider the seal as the head in this respect, and quote the description given by the late Sir Busick Harwood. In this animal, a bone of very intricate structure occupies nearly the whole of each nostril. When viewed in front, it resembles that section of the brain which has obtained the name of *arbor vitæ*. The principal trunk is attached to the rising arch of the maxillary bone, and directs its course downwards, till it approaches within one-third of its length the *os palati*. Eight or more principal branches arise from this trunk, each of which is divided and subdivided so minutely, that the eye is weary in following them. More than one hundred minute ramifications were counted on one of the eight, by no means the most considerable in size. The whole number was considerably greater.

On viewing the bone in profile, it appears that these ramifications are not merely osseous spiculæ, but the minute edges of bony plates of exquisite tenuity, about one inch in length and one-twentieth in breadth. These laminæ, passing backwards, probably subdividing themselves before their reunion, terminate in a bone which is situated in the posterior part of the nostril, and is of similar structure to the main trunk. By removing the whole of this complex fabric, it will be found that its attachment is by one principal rib, commencing at the insertion of the large trunk into the arch of the maxillary bone, and is continued to the convex surface of the orbit of the eye, where it divides into three or four smaller ones. The extreme ramifications approach very closely to the *septum*, the *os palati*, the *os maxillare*, and the orbit of the eye, but without contact, or other attachment than that of the rib already described.

The Schneiderian membrane, with the olfactory nerves, is closely applied to every lamina of this astonishing assemblage; also to the main trunk, and to the internal surface of the surrounding cavity.

It would almost be next to an impossibility, and, to say the least, a very difficult task, to form an accurate calculation of the superficial

extent of the Schneiderian membrane. According to Sir Busick Harwood, who paid great attention to this subject, it cannot be much less than one hundred and twenty square inches in each nostril. "If we," according to this gentleman, "take 100 as the average number of lamellæ on each branch, the whole number will be 800; and the two surfaces will then be represented by 1600. To this we must add at least 800 for the surface of the remaining portions of the ramified bone and the cavity; in all, about 2400 surfaces of one inch in length, and one-twentieth of an inch in breadth." This statement is certainly far below the truth.

This animal has the peculiar faculty of closing the orifice of the nostril at pleasure. An organ of such exquisite sensibility appears to require an extraordinary power of securing itself from injury, by the voluntary exclusion of noxious particles.

So extremely sensible is the olfactory organ in this animal, that when I was in Greenland, in 1824, I have frequently seen death inflicted on these creatures by a sudden and violent blow struck on the nose. To this there are however exceptions, as many of the adult seals are not mortally wounded in this manner; and then they are destroyed by extensive fractures of the cranium.

The ramifications of the olfactory bones in the cat, although bearing a general resemblance, are specifically different from those of the seal, just described; although in the polecat, weasel, &c. the resemblance is much stronger. When viewed anteriorly, the ramifications are found much less numerous, nor can we trace them with the same distinctness to a central trunk; when viewed in profile, the lamellæ are not straight, as in the last-mentioned animal, but bent, and somewhat of a convoluted figure; they terminate in a posterior bone, and have a similar attachment by a main rib to the maxillary bone.

In the fox and the dog, these bones, in conformity with the configuration of the head, are longer, in proportion to their diameter, than in the cat; the ramifications are more convoluted, and the whole system is gently formed into a spiral. Their attachment is the same in every respect as in the last-mentioned animal. The space allotted to the ramified bones in the cat, dog, and fox, is about half the cavity of the nostril; the remainder is occupied by the ethmoidal processes, which, in the carnivorous tribe, vary not less than in the herbivorous. The seal may be said to possess the rudiments of them, rather than having them perfectly. The magnitude of its eye is such, that a very

small space intervenes between the convex surfaces of the right and left orbit, and in this space the processes may be traced.

In the cat they assume a different form; externally resembling the turbinated bones of the herbivorous quadrupeds; if examined internally, their numerous and intricate convolutions approach very nearly to the ramified state.

In the canine species, for the reason already given, they extend to a great length, with the character of turbination more strongly impressed on them; their convolutions are most perfect near their origin; as they recede from the ethmoidal bone, the ramified conformation becomes more and more conspicuous.

August 8, 1829.

MR. DARVILL ON THE RACE HORSE.

[Continued from page 95.]

I WILL now proceed with my observations on physicking of race-horses that may have been in regular training for two or three seasons, and for the purpose of clearly elucidating this matter, the horses I shall first make choice of, shall be those of pretty strong constitutions; I mean, such horses as are generally selected for country running, and that are in high training at the time their may be occasion to physic them; say, for example, in the month of July, or August, for at this time, their bodies have become much changed from the state of condition in which they are in, compared with that state in which some of them were when physicked in the autumn or spring. The constitutions of such horses have become well braced, from the high feeding and strong exercise they have had; and their intestines have also been so much accustomed to the stimulus of aloes, that it makes it extremely difficult to purge them when it becomes necessary to do so, for the purpose of refreshing them.

It is to be observed, that country-plate horses have to come to post much more frequently than those which are younger, and which are generally kept in reserve by their owners, for the various great stakes which are run for at Newmarket, York, Doncaster, or Epsom. Those horses engaged in country running, may be said, during the summer, to be travelling a sort of circuit. They are contending for

His Majesty's, and the various country and towns plates, which are given at the different racing meetings. As they are generally horses of strong constitutions, they require to be kept in pretty strong work, and that, together with their running and travelling, causes many of them, as the season advances, to become more or less stale in their condition, and also stale and round on their legs, notwithstanding the great care and attention which is paid to them. These horses are more liable to be amiss in this respect, when they are the property of country trainers, than when in the possession of noblemen and gentlemen of the turf, who have their different motives for keeping them; some, as a part of their establishment, and to preserve a good breed of horses in the country, (their ancestors having done so before them); those who are fond of racing, for the pleasure and amusement they afford; and some few others who, after having had a tolerable share of experience, may, with good fortune, get money by them. This last object is pursued by the country trainer, as his circumstances seldom admit of his keeping a race-horse merely for pleasure. This man makes racing his profession; and if, by purchase, he should come into possession of a tolerably good country-plate horse, he calculates the price he may have given for him, and the expense incurred in his training, and for these, the owner becomes anxious to be remunerated. His object is to win with him all he can; he therefore enters his horse at the different meetings he frequents, whenever he thinks there is a chance of his going up to the head and winning; and it is in this way, from repeated running and travelling, that the horse sometimes gets abused, that is, he becomes stale, and below his mark. He appears jaded in himself, and if brought out in this state to post, he will be seen, when running, to go stiff and short in his stride. It requires a jockey to be almost constantly persevering with such a horse; and however severely he may get at him in the running, he cannot succeed in making him run in the same form as when fresh. The manner of refreshing such horses in training as may have become stale from the above causes must vary according to circumstances. When there can be plenty of time allowed for the purpose, the most effectual way of doing it is by laying them by in loose places, giving them rest, with green meat and physic. Any that may be thus treated, which are standing in stalls, will require gentle exercise to keep them in health. Now, to refresh a horse effectually by these means, (green meat, physic, and rest,) which are certainly the best for his constitution, would take a month or six

weeks, which is more time than can be allowed for a country-plate horse to lay by in the summer; as, during such a period, he would miss running perhaps at two or three of the principal meetings; a thing which the trainer wishes to avoid. Therefore, to refresh his horse with as little delay as possible, he must almost solely rely on the use of physic. If it should happen on the circuit which a horse may be travelling, that the meetings follow each other so quick in succession as not to allow of sufficient time to administer physic to him, so as afterwards to recover from its effects, the better way will be for the groom to decline running for a single meeting; and if he makes his mind up to this, the sooner he travels off with his horse the better, to the place where the meeting may be held at which he intends his horse to run. That is the proper place to refresh the horse, and the best loose stable that can be had there should be prepared for him, if not on the ground, as near to it as possible. Now, after the horse arrives at his destination,—whether the groom will give him a gentle sweat, with a view to keep the length in him, and immediately afterwards give him a dose of physic,—or whether the sweat will be dispensed with, and a couple of doses of physic be administered, and the horse afterwards got ready, (which would, in fact, be a brief sort of second preparation,)—must depend entirely on the time allowed, and the horse's work must of course be stopped for a certain period; but this matter will be more fully explained when I am on the subject of training, and travelling country-plate horses.

I shall now proceed to point out the different ways of preparing the bodies of strong constitutioned horses prior to giving them physic. I shall also speak of the effects of the medicine on their constitutions; and by what means such horses become refreshed from its use; and although I may recommend strong physic to be given to some few of them, yet I beg leave to observe, that I am by no means an advocate for giving strong physic generally. Nor do I approve of the practice of giving dose after dose to some lusty horses before they have been put into training, and with only the interval of a week or eight days between each dose; which was much the custom with grooms when I was first in the stables. When craving horses are become stale, from the causes already mentioned, and when sufficient time cannot be allowed to refresh them by long rest, it becomes necessary to attain this point by the use of physic alone; and then it becomes necessary not only to purge such horses, but to purge them briskly, that is, the medicine beginning to operate early in the morning, should, with the

aid of exercise, continue to purge them freely, at intervals, until the shutting up of the stables the last thing at night, when it should show some appearance of setting, and it should be perfectly set on the following morning. Nor must the groom be disappointed, if it can possibly be avoided, as to the time of its operating: his being disappointed in this respect would most likely be a loss of time; I mean, it would prevent his bringing his horse well to post at the meeting he intended.

Now, when a groom is going to physic any given number of his horses, he must, as I have already noticed, regulate the quantity of aloes he intends giving in each dose, according to the strength of the constitutions of different horses; for although they may all be what is generally termed strong craving horses, yet there will be some variation in this respect. It is therefore more difficult to get the medicine to act on some than on others; but, in regard to this matter, the groom must be guided by the observations he may have made on the working and feeding of his horses, and according to the difficulty he anticipates in the purging of one horse more than in the purging of another; so will he make his arrangements in preparing each horse for his physic.

On the day previous to giving them their physic, it is necessary, with a view in some measure to relax their bowels, that they should be kept during the day on mashes, with a small quantity of hay; and at night, they should be sparingly fed with it. Let them have half of their usual quantity: some would be much better without any hay; and such of them as are much inclined to eat their bedding should have their setting muzzles put on them. On the following morning, each horse should have a double-handful of mash given him; and after each has eaten this portion, they should be got ready and taken out to walking exercise, for a couple or three hours. By taking these precautions,—preparing them with a mash or two the evening before, and keeping them over night short of hay—the next morning, while at exercise, they empty themselves, and their bowels become relaxed; and when they return to their stables, their physic should be immediately given them; and the following morning, it is more than probable, the whole of them will be found to purge in due time, with a less quantity of aloes than was generally given to such horses. The groom may add half a drachm or even a drachm of aloes to the quantity to be given to such horse as he is of opinion may be more difficult to purge than the rest; and he may keep him out a little longer than usual at walking exercise, so that he may be more empty when he comes in, and instead of

giving him the whole dose of physic at one time, let the ball be divided;—give one half immediately on his coming in to the stable, and the other half at six o'clock in the evening. This method of giving the physic, with the strength of it a little increased, will be found to answer the purpose of purging almost any horse. The quantity of Barbadoes aloes used in each dose of physic for craving horses, prepared as I have here directed, should average from five to seven drachms. It was usual to give ten drachms to these horses, and the same portion was sometimes given to lusty craving colts; but there is risk in giving this quantity to horses thus prepared. When a groom has not a thorough knowledge of a horse's constitution, it would be advisable for him first to make trial of one or the other of the first-mentioned portion of aloes, in preference to administering either of the two last, to a horse which he may not have physicked before.

[To be continued.]

PRESENT AND FORMER MODES OF USING THE MOXA.

IN the first volume of the "FARRIER AND NATURALIST," page 518, it is stated that the mode of applying the actual cautery through the medium of an intervening substance, claimed as a modern discovery, is in reality an old practice, being described by Gibson, in the Farrier's New Guide. The same author, in treating "of Cauterizing and giving the Fire," states that "the antient method was by burning "flax or cotton under the diseased member, made into a pyramidal "form, that the part might be inured to it by degrees, and so enabled "to bear a necessary augmentation of the flame; and Sir William "Temple had seen such good effects from it, that encouraged him to "write his essay concerning the cure of the gout by *moxa*, which is "only a kind of cotton set on fire in this manner." From this it appears, that instead of being applied *over* the part, as recommended by its modern users, it was formerly applied *under* the part intended to be submitted to its effects. Under one mode it is the application of a heated substance, approaching to the operation of firing—under the other, that it is the application of a current of heated air, or, if brought sufficiently close, an immediate contact with flame.

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VETERINARY COLLEGE.

To the Editor of the Farrier and Horse-man's Chronicle.

SIR;

I SHALL feel obliged for some information respecting the claim of the Veterinary College to the title of Royal. Whether it is so constituted by royal charter, an act of parliament, or endowed by private individuals? We know that it is necessary that establishments like these should have such instruments. Likewise, has Mr. Coleman, or the Subscribers, the power to create a common seal, with permission to break, alter, or amend the same; with also the power of suing and being sued? ACADEMICUS.

Highbury College, Sept. 2, 1829.

[We are not aware of any real claim that the stables at St. Pancras have to the appellation of "*College;*" and its claim to be "Royal," is as profoundly obscure as the proceedings of the gentlemen stiled "Governors," in executing their implied trust. It has no charter; it is not recognised by any act of parliament; it has no endowment beyond casual subscriptions. As to a seal, Messrs. Coleman and Co. have one common enough—the two letters V. C. and should the firm break, alter, or amend the same, we should conceive they have a right to do so like other private traders. ED.]

MR. C. CLARK'S FURTHER REMARKS ON MR. JAMES TURNER'S EXPOSÉ.

To the Editor of the Farrier and Horse-man's Chronicle.

SIR;

I HAVE a few more observations to make on Mr. Turner's important Exposé; and afterwards, if your space will admit them, a remark or two on his singular "Reply" to my first communication. Mr. T. very properly insists on the necessity of attending, in shoeing, to the difference of the outer from the inner quarter of the horse's foot, in its natural state; and reprobates the common practice of destroying the fine flowing bulge of the outside, by fitting the shoe within it and rasping it away, as usually done. In this remark I fully concur, and wish it were more the custom of Veterinarians to attend to the "physiological circumstances" (if I may so express myself) of this organ; they would then find many things equally wrong in common practice, and equally unattended to by them. He speaks of "having been struck with the great inequality of its two sides;" leaving us to infer that the notice of it was due to his own observation, and which may have been the case; but, he also says, "it has been the fashion for Veterinary writers to describe its ground surface as a circle."

Now we know that that *high authority*, Professor Coleman, in his big book, which is now far on its way to the tomb of all the Capulets, speaks of "the circular form of the foot as it comes from the hands of the maker," and gave shoes for "perfect feet" as true as compasses could make them; and even in his lectures, of late years, claimed its circular form as *his* discovery. But all Veterinary writers have not followed his roundabout description. Let Mr. Turner consult the frontispiece of Mr. Bracy Clark's Work on the Foot, 1809, and he will see it for the first time faithfully and beautifully represented, with the flowing bulge he so much admires distinctly defined, and, at page 20, the following explanation of it: "The outside quarter of the foot, referred to in the plate by the letter *c*, it will be readily observed is more bulging, or describing a wider circuit exteriorly than the inner quarter is observed to do. The purposes of nature in this unexpected difference of construction appear to be to widen the basis

of the foot, and increase its surface of bearing on the ground, by which it is rendered more secure and firm, and the bearing also, thus divided over more points, is made easier to the animal without incurring any danger of cutting the opposite leg, as would be the case if such enlargement had taken place on the inside. The horn of this outer quarter is also something stouter than that of the inner, which, together with its greater extent, enables the workman usually to place a nail more in this quarter in fixing on the shoe than in the opposite one." This book has been before the public for 20 years, so there can be no mistake about the novelty or dates; nevertheless Mr. Turner's notice of the fact appears to be new with him, and his views respecting it, so far as expressed, are highly to be commended.

And here I should be glad to stop, if Mr. Turner's rather warm reply to my congratulatory remarks in your last number did not merit some attention. I feel regret at having offended him, and also, considering that I gave him the credit of acting upon principle in maintaining the expansion of the foot, that he should be so unguarded as to deny it, and to repel with such sensitive indignation the idea of having derived his new views on this subject from Mr. Bracy Clark. This doctrine of expansion, as openly advocated by Mr. Turner, and the necessity of a shoe which shall not confine the action of the foot, was unknown, I will venture to say, to his farrier ancestors, though they might have nailed on one side only *to prevent cutting;* nor, as a principle resulting from the construction of the hoof, was it ever noticed by any writer, lecturer, or practitioner, before Mr. Bracy Clark, who has been for 20 years, alone in the face of the whole profession, and through all manner of report, maintaining its necessity. Now, when the truth of his principles has in a manner outlived dispute, and they only wait for the subsidence of prejudice and personal feelings to be generally acknowledged, Mr. Turner appears, and with great complacency offers an *Exposé* of the "chief error in the present system of shoeing;" stating it to "consist in the nailing an unyielding body of iron to both sides or quarters of the foot;" and suggests an "improved method in which there is to be found the necessary defence for the foot without the *natural expansion* of the hoof being impeded or restrained by the ring of iron nailed thereon." This he assumes as an admitted doctrine (which it certainly is) and, moreover, pronounces the "improved method," "the horseman's grand desideratum." Now, first with respect to the principle, which is what I chiefly contend for, the "natural expansion;" how or when, I would

ask, did Mr. Turner come in possession of the knowledge of it, but by and through the means of Mr. Bracy Clark? who, in 1809, published all the material part of his Exposé. He did not derive it from his ancestors; nor from Mr. Coleman, who will not comprehend or admit it to this day, and I suppose never will; nor from the works, lectures or practice, at least, of any other Veterinarian. The accidental case that he relates did not teach him the *principle*, he had been awakened to it before, otherwise fifty such cases might have occurred, and doubtless have occurred in the practice of his ancestors, in which, though the cutting was relieved and the feet improved, they remained ignorant of the reason why these effects were produced; and which was unknown, I again say, until the true construction of the foot and this expansion principle was unfolded. The fact is, that horses (unless deformed) will never cut with shoes that allow of the natural action of the foot, this was first observed by Mr. B. Clark during the course of his experiments in fitting removable shoes. In his work on the foot, above referred to, page 110; he says, "whilst employing these removable shoes, though often indifferently made, with my own hands, this horse never used to cut with them, though they had the appearance of danger in this respect; but on one or two occasions, for longer journeys than usual, he was shod with ordinary shoes, with which he uniformly cut himself, and which led me to suspect that numbness, from restraint of the foot, was an occasional cause of horses cutting." This early expressed opinion he afterwards fully confirmed, and it is mentioned in several places in his later works, and is a thing of every-day notice in my practice. Well formed expansion shoes, properly applied, are an absolute remedy for cutting; for no horse will strike his legs together if he has the free use of his feet to avoid it.

I have shod a thorough-bred stallion, for Mr. H. Hunt, for nearly three years; which, previous to that time, in despite of College shoeing, was such an inveterate cutter behind and before, that Mr. Sewell recommended his *ne plus ultra—nerving;* as a sort of acknowledgment, I suppose, that it was incurable. This horse's feet are nearly one-third larger than when first I shod him, and he has never cut since, but improved in all respects, though in performance of the hardest work on the stones. To return to the one-side nailing, Mr. Turner says, "that this plan should have proved a remedy for the cutting, was no more than I expected, *because it had succeeded in instances out of number.*" He adopted this plan then precisely from

the same motives as his ancestors, and without understanding the principle of its action—the cause why it "succeeded." They did it, not with a view of allowing the foot its natural expansive action, but to remove the inside of the shoe and reduce the foot as much as possible; like them, he orders "all the inner-half of the shoe, that otherwise would have been fullered, to be bevelled off, to prevent the possibility of the iron interfering with the opposite leg:"—a measure of no sort of consequence, if the foot has *liberty*, that indispensable condition to its welfare.

So little are the old knowing-ones at the present day aware of the "principle," (which I am obliged to mention so often,) that they frequently make a shoe just as above directed, straight and *fine* on the inside, and within the hoof, but, by the little addition of a small nail or two at the inside heel, they entirely nullify its operation, and the horse probably strikes as much as before.

Why, then, does Mr. Turner fly back when I charge him with advocating the principles of Mr. B. Clark, and call it "*a complete delusion*" to suppose so? If he has done it unadvisedly, and fears Mr. Coleman will proscribe him for such heresy, I pity him; but if, on the contrary he expected this pretended Exposé to pass unnoticed, it is a mistake, for which he must suffer exposure: for, while there are Veterinary Periodicals open to fair discussion, I will not allow any man to creep in by a side door and claim the merit of enlightening the world on this all-important principle, without making due acknowledgment to the original discoverer. I did "sincerely congratulate" Mr. Turner on this subject, and should have passed over his total omission of Mr. B. Clark's name in his Exposé; but why does he so angrily disavow having acted upon principle, and assert, that by a single accidental case, *he discovered* the *expansion of the foot* and the ruinous effect of the "ring of iron nailed thereon."

Next, with regard to the novelty of this mode of nailing, I apprehend that the credit is due to those who first used it upon principle not by chance. Now the accidental case, above referred to by Mr. Turner, occurred about perhaps a twelvemonth ago, while I can, if necessary, bring the testimonies of persons who have employed it for more than 12 years in order to allow the expansion of the foot, and *in consequence* of Mr. B. Clark's representations of its necessity. Why does he not answer Mr. Brightwen's pointed communication, to the effect of having used it for seven years on 20 horses, and not

cavil about the date of his former letter, which, by the by, is December, 1827, though I find it was not published till a month after. Mr. T. confirms my *belief* that this is his first opinion on the subject of shoeing, by stating that he had espoused it before, during the course of last winter, in a paper on navicular disease. His words, I find, are thus comprised: "Secure the shoe by nailing all round the toe, and avoiding the inside heel, and even the quarter as much as possible." Now further back, in the same paper, page 55, he says, "the accumulation of from four to six weeks growth of hoof is a greater violation of nature's laws than the common shoe or inflexible ring of iron affixed to the foot with nails, which, according to Mr. Bracy Clark, are the only bane." Neither of these passages had escaped me, but I thought them at variance with each other. I shall not occupy much space in criticising the observations he has been pleased to make on the Expansion Shoe, because he does not appear to have tried, perhaps even not seen it, in its improved state. But that they do expand with the foot, and that I am now shoeing a large number of horses with them, with the most remarkable results, are *facts*, I humbly conceive, not to be made *manifestly* "*fallacious*" by the "*ingenious remarks*" of any man. These shoes do not require more "severe clenching" than any others, and they are certainly free from that quality of *springing at the heels*, as smiths say, which Mr. Turner unaccountably "takes to be perfection in the art of shoeing," but which good horsemen reprobate. I must further beg leave to set Mr. Turner right in a mis-quotation, which was first made by a well-known Veterinary Author (Mr. Goodwin); copied, because it was wrong, by all who wished to find fault, and respecting which I have corrected Nimrod and sundry others. He says, "thus it is that Mr. B. Clark's famous Joint Shoe is not a '*basis for the repose of the Profession*,' as this gentleman so triumphantly expressed himself." Will it be believed that no such passage exists in Mr. C.'s works! But, at the close of his book *on the foot*, years before the Expansion Shoe was thought of, he says, "much new matter, which industrious reseach has furnished, has opened views not before perceived, *and laid a new basis for the art*, on which it may be elevated advantageously:" alluding to his discovery of this very principle—the expansion of the foot; by adopting which, Mr. James Turner *himself* is "about," he tells us, "to subvert the present system of shoeing, and establish that which he has recommended." Some would call such perverse quota-

tions abominably tiresome; but, after having distanced my late opponent Mr. Caleb Morgan, who, with uncompromising obstinacy, denied all motion to both foot and shoe, I am rather pleased with Mr. T., because he allows that "the joint of the shoe does give a little," and because he is, as aforesaid, "the first College Veterinarian publickly to acknowledge the doctrines of Mr. Bracy Clark on the foot of the horse." May he, therefore, in spite of his concluding threat, *be able to spare* a little time, occasionally, to support our cause; and, as for the Expansion Shoe and the side nailing, let experience decide between them; but our principles must triumph.

I am, Sir, yours, &c.

CHARLES CLARK.

Veterinary Infirmary, Stamford Street,
August 23, 1829.

EXPERIMENTAL PHYSIOLOGY.

On the Effects created in the System from an Extirpation of the Kidneys. By PROFESSOR MAYER, *of Rome.*

IT having been recently proved, by M. M. Prevost & Dumas, that the removal of the kidneys are not necessarily followed by the cessation of the secretion of the characteristic principles of the urine; that in particular *urea* may be detected, by a careful analysis, existing in the blood; and, consequently, we may presume the urea of the urine is not elaborated by the kidneys from the blood, but is merely separated by them from it. These results are strikingly confirmed by repeated experiments, that have been lately performed and published by Professor Mayer, of Rome, and which appear to have been also performed about the same time as those of the Swiss physiologists. Mayer remarked, that when both kidneys were removed from guinea-pigs, the animals in general perished during the first day, and no very remarkable appearance could be detected after death. But there were some on whom the kidneys had been removed two days and upwards, and in them a great quantity of serum was found to be effused in the chest, abdomen, the testicles, epididymis, vas deferens, and vesiculæ seminales, the liver, substance of the pulmonary organs, the whole of the muscular system, and the blood in the

heart and great vessels exhaled a decided urinous odour. These phenomena, which were remarked in several animals, clearly proved, that not only is the urine separated in the kidneys from the blood, by a species of elective filtration, if we may use the term, but likewise, that, when this outlet is shut up, it may be separated by almost every secreting organ in the body. The experimentalist, Professor Mayer, anticipates the objection, that the urine found throughout the body might have been absorbed from what remained in the bladder at the time of the operation; and replies to it, that the absorption, which takes place in that organ, while its communication outwardly remains open, is far too trifling to account for the presence of so large a quantity of urinous fluid throughout the whole system. The symptoms caused by the extirpation of the kidneys, according to this physiologist, are a gradual diminution of the pulse and breathing, and either death in a few hours without any other particular symptom; or convulsive movements of the abdomen, accompanied with cries, as of pain, increased discharge and more fluid consistence of the fæces, rigors, profuse secretion of tears with smell of urine, and death generally in the course of 30 hours. H. W. D.

ENTANGLEMENT, STRICTURE, AND STRANGULATION OF THE INTESTINES.

A CASE has been published by Mr. W. J. Goodwin, of entanglement, stricture, and strangulation of the intestines of the horse, which lately occurred in the stables of His Majesty. "The mischief consisted in an *entanglement* and *strangulation* of a knuckle of intestine, by a pendulous fatty tumor, which had, by some means or other, fastened itself round different parts of the ileum, so as to form a knot of a description that, at first, seemed to baffle all attempts to untwist it." From this description our readers will at once see that it is a case closely analogous to that which came under the treatment of Mr. Rogers, Veterinary Surgeon at Knightsbridge, and stands recorded at page 205, in the 25th Number of the "FARRIER AND CHRONICLE." A confused lithographic drawing accompanies Mr. Goodwin's case: the nature of the mischief is made much more intelligible by the wood cuts that are given with Mr. Rogers's case, above referred to.

An Essay on the Minute Anatomy and Physiology of the Organs of Vision, in Man and the various Orders of Animals. By HENRY WM. DEWHURST, *Esq., Surgeon, Professor of Human, Veterinary, and Comparative Anatomy, &c.*

A GENERAL DESCRIPTION OF THE EYE IN THE HUMAN SUBJECT.

THE human eye is the most important of the five senses, inasmuch as by the means of vision we are enabled to enjoy, with greater comfort, the blessings produced by our intercourse with the external world.

The various diseases to which these organs are liable will perhaps form some apology, to the sedulous student, for the minuteness of my description, being fully convinced, from experience, that nothing less than a correct knowledge of the *minute* anatomy and physiology of an organ in the healthy condition, will enable the scientific practitioner to treat with judgment the same in its pathological state.

Without any further remarks, I shall proceed at once to the subject of my Essay, and first describe the eye and its membranes generally.

The eyes constitute the organs of vision, and in man, the mammalia, nay, in the higher orders of animals generally, they are two in number *; but, as we descend in the scale of the creation, we shall find their number increased, in order to supply the wants of the animal, examples of which may be seen in many classes of insects.

The immediate agent in the refraction of the rays of light is the eye-ball, and also in collecting them into one point, so as to form an image of the object from which they are reflected. For if we examine an eye anatomically, we shall find it to be composed of a series of perfectly transparent parts, whose office is to execute the various refractions; besides, there is a nervous pulp, denominated the retina, on which the rays of light, thus refracted, make an impression to be conveyed to the sensorium by the optic nerve; it is supported and protected by several membranous opaque coverings, which contain the more important and transparent portions, retaining them in their relative situations. In this point of view the visual organ appears simple, but becomes more complicated if we take into consideration the various other organs connected with it, either for its support, motion, or nutrition. The muscles which move it various directions,

* We not unfrequently meet with *lusæ naturæ* in man and quadrupeds, with but one eye, which like the ancient fable of the Cyclops, is in the centre of the forehead.

the eye-lids which cover and protect it from the injury it might receive from the admission of extraneous substances lodging on the cornea, &c. and the parts which secrete the tears, (lubricating the anterior portion,) and conveying them into the nose. Thus it will be seen presently, that these portions are so intimately connected with the globe of the eye, that a regard to a natural arrangement leads me to include them in the same Essay; and here it may not be improper to inform the student, that I shall adopt generally the arrangement of Mr. Lawrence*, describing first the anatomy of the whole apparatus, and afterwards the physiology of vision, to which I shall subjoin a table of its various maladies.

THE ORBITS.

The eyes are exactly symmetrical, and situated in two bony cavities, denominated *the orbits*†, placed immediately beneath the forehead, and separated from each other by the organ of smell. The figure of the orbits resembles a pyramid lying on its side, possessing four unequal sides, directed obliquely forwards and outwards, from the point to the base. (The *apex* being posteriorly, and the *base* anteriorly.) Their size varies but little in different individuals, and speaking generally, we find it independent of any alteration in the stature of the subject. It far exceeds in dimensions that of the globe, and contains the ocular muscles, blood vessels, fat, &c. &c. The orbits are composed of seven bones, whose situations are as follows:

1. The os frontale; . . . . . *situated anteriorly and superiorly.*
2. —— lachrymale; . . . . . *anteriorly and internally.*
3. —— maxillare superior; . . . . *anteriorly and inferiorly.*
4. —— jugale; . . . . . *anteriorly and externally.*
5. —— sphenoidale; . . . . . *posteriorly and externally.*
6. —— ethmoidale; . . . . . *inferiorly and laterally.*
7. —— palatina‡; . . . . . *posteriorly and inferiorly.*

The orbit is invested with a reflection of the periosteum, as in other parts of the body, but here its name changes, from its situation, *viz.* to *peri-orbita,* which is continuous with the

* *Vide* Dr. Rees' Cyclopædia, vol. xiv., and the Lancet containing Mr. Lawrence's lectures.

† It is in comparatively modern times, that the orbits have been described in their true connection and relations. Besides the few remarks which Winslow has made on the subject, in the "*Mémoires de l'Acad. des Sciences de Paris,* 1721," much information may be derived from the 1st chapter of Camper's *Dissert. Physiol. de quibusdam Oculi Partibus, L. B.* 1746; and from the 7th chapter of Zinns' *Descript. Anat. Oculi Humani.* Goettengen, 4to. 1755.

‡ MS. Notes of the Lectures on Anatomy, Physiology, and Surgery, delivered by Joshua Brookes, Esq. F.R.S. F.L.S. &c. from 1821 to 1826.

periosteum of the bones of the face and dura mater, lining the interior of the cranium *. They possess numerous large foramina, which afford entrance to the different nerves and blood vessels of the eye.

COMPARATIVE ILLUSTRATIONS.

1.—*Mammalia.*

As the animal recedes from man, the anterior part of the face elongates, which commences with the ourang outang †; we find the orbits, instead of assuming a situation in the anterior part of the face, take a lateral direction. This is seen in the various animals by which we are surrounded, for example the heads of a cat, dog, &c. afford illustrations of this fact.

These cavities in the horse, as in man, have a pyramidal aspect; the base, represented by the front, has four sides and four angles; one only of the sides, however, is sufficient in extent to reach the apex, the others being more or less imperfect: a line drawn in the horizontal direction through the axis of this figure, inclines more outwards than forwards, and more forwards than downwards, intersecting another in an horizontal line, projected directly forward, at an angle of about 70°; and one extended laterally, directly outward, at right angles with the former, at about 20°; the inclination downward, however, will in course vary with the erect position of the head ‡.

In the domestic cat, the posterior and external margin of the orbit is a small space, which is filled up with cartilage §.

In the rodentia, as the hare, rabbit, &c. a tuberose process is observed bulging up the floor of the orbit, which is formed by the alveolar processes receiving the dentes molares.

2.—*Birds.*

In birds, the orbits are much wider, but more shallow than those in the former class, and there is a cushion of fat supporting the globe of the eye, at the posterior part of the orbit, which is much thinner ‖; they are also separated from each other by a thin osseous septum.

The situation of the globe of the eye is in the anterior part of the orbit, nearer to the internal than the external side of

* A System of Anatomical Plates and Text, by W. Lizars. Edin. 1826. Part x. p. 2.

† Fyffe's Outlines of Comparative Anatomy, p. 8.

‡ Veterinarian for October, 1828, No. 10, p. 347.

§ *Vide* my paper on the Anatomy of the domestic Cat, in the same journal, page 360.

‖ Fyffe's Outlines of Comparative Anatomy, p. 184.

the cavity, and is more or less prominent in different individuals. The bones composing the orbit being truncated obliquely, the eye projects beyond its anterior edge, on the external side, while it appears more deeply buried towards the nose. It is supported anteriorly by the moveable eye-lids, laterally by its muscles, which, as well as its nerves and blood vessels, are enveloped in soft fat, filling up the rest of the cavity of the orbit, and keeping the eye level with the face. In emaciation attendant on age or disease this fat becomes absorbed, the eye loses its prominent situation and sinks deeper into the orbit; hence, in these cases, the angular and marginal edges of the bony cavity are rendered more evident, and the character of the face undergoes a marked alteration.

AXES OF THE GLOBE AND ORBIT.

The dimensions of the eye varies but little in different subjects; its apparent varieties depending on the larger and smaller openings of the eye-lids. It is smaller in the female than in the male, and proportionally larger in the infant than in the adult*. The figure of the eye represents two portions of distinct spheres, of different diameters, united towards the front. A section of the smaller sphere is transparent, and occupies about the anterior fifth of the globe, projecting from the larger sphere, which is *opaque*. By this disposition, the *axis* of the eye exceeds its transverse diameter in a smaller ratio, of which I shall have occasion to speak more minutely hereafter.

The *axes* of the globe and orbit are not the same, that of the latter is directed obliquely outwards, so that, if prolonged behind the apex of the pyramid, it would meet its fellow within the cranium; the *axes* of the two eyes are parallel, and point distinctly forwards. The strong cylindrical cord, *the optic nerve*, and its firm investments, enters the orbit in the direction of the axis of the latter, and is attached towards the internal side of the posterior surface of the globe†.

The globe, or eye-ball, is composed of concentric membraneous tunics, investing the transparent portions, which are of different densities. Here, I may observe, that none of the published works on this subject are sufficiently minute on this important part of anatomy and physiology; therefore, I shall lay before the reader the classification of two celebrated anatomists, but, at the same time, shall adopt my own, believing it to suit the views of the student better than those I have alluded to.

(To be continued)

* Mr. Lawrence, in Dr. Rees' Cyclopædia, vol. xiv. *Art. Eye.* † Ibid.

CASE OF A GRUB IN THE CEREBELLUM OF A HORSE.

ON the 2nd of July, I was requested to attend a three-year old colt, labouring under the following symptoms.

Loss of voluntary power of the left (near) extremities, therefore unable to stand without support, inclining the head to the same side, an oblique direction of the eyes, no delirum, pulse 60, breathing little interrupted, fœces and urine passed without difficulty, extremities and skin warm, and would take food when raised. No external injury could be detected.

There was little variation in the symptoms until the 11th, when, on endeavouring to raise him, he died.

Treatment.—Repeated general and local bleeding, active purging, setons and blisters to the head and neck.

Post mortem examination, 24 hours after death.—On dividing the head from the neck, at the first joint, three or four ounces of dark coloured serous fluid escaped; on removing the coverings of the brain, three coagula of blood were seen on the right side the cerebellum; upon raising it, another presented itself, out of which crawled a grub, (in size very like those taken from nuts, but much more transparent); considerable extravasation of blood into the membranes beneath it; also an effusion of the same kind of fluid above mentioned, in the whole cavity of the cranium.

The cerebrum was healthy, excepting its vessels being more turgid than usual. The contents of the thorax and abdomen, as I anticipated, I found quite healthy.

It may be well to observe, Mr. Kitsell, Surgeon, of Droitwich, was present at the dissection, and that I have the grub in my possession.

JOHN ROSE, *Veterinary Surgeon.*

RUPTURE OF THE TRACHEA OF A MARE.

AUGUST 5, 1825.—A cart mare, the property of Mr. C. residing 11 miles from this city, was kicked by a colt, upon the windpipe,

about midway between the larynx and bronchial tubes, with such violence as to rupture it. The skin was not at all injured, or even the hair erased, the colt having no shoes on. The mare was suckling a foal, and pregnant also. She was working in the team immediately behind the colt, and he, proving very refractory, (not having been previously accustomed to work,) kicked many times with great violence, and, at length, effected this accident.

The mare shewed symptoms of uneasiness immediately afterward, in consequence of which, the proprietor had her taken out of the team, and bled copiously. In the course of the day, she increased in bulk very considerably, and by the following morning, was become an enormous size. It was then, (on the 6th,) that I first saw her, and after hearing the history of this very extraordinary case, I proceeded to examine the part minutely. I very readily discovered the rent in the windpipe, with my finger; it felt as though two rings had been broken. She did not seem to be in much pain, but was dull and dispirited. Pulse about 60, and not hard. The swelling was entirely emphysematous; it pervaded the whole exterior of the body, extending from the tips of the ears, to the basis of the tail. The legs were very much increased in size, in fine, the cellular membrane connecting the skin to the trunk, was inflated, almost as much as it possibly could have been.

To draw blood under such circumstances, appeared impossible; and fortunately, the quantity taken away the preceeding day, was such, as not to make further venesection an object of very great importance.

I gave submuriate of mercury, in a full dose, and afterwards, a cathartic bolus. I also applied a bandage round the neck, moderately tight, having first placed a compress exactly upon the injured part; these I directed to be kept constantly wet, with an evaporating lotion. She was placed in an airy loose stable, warmly clothed, (the skin feeling rather cool,) and a good deal of friction frequently used. Green food was allowed her in moderate quantity, and water whenever she chose to drink. The bowels soon moved very freely, after which, the emphysema considerably decreased. In about a week, union, by adhesion between the skin and the injured part, took place so as to preclude the possibility of further escape of air into the cellular texture; the bandage was consequently discontinued. Friction was still applied to the skin, in order to remove what remained of the emphysematous ac-

cumulation; and I advised that she should be walked out for an hour every day. Under this treatment, she perfectly recovered, and by the middle of September, was able to work as usual.

GEORGE CORBETT,
Veterinary Surgeon.

PHYSIC RECIPE.

THE most important medicine used in the stable is undoubtedly the purgative; better known among horsemen by the appellation of "Physic." It must therefore be desirable to possess a good formula for its composition, and the following deserves that character:

Barbadoes aloes	3 lb.
Syrup, or treacle.....	6 oz.
Hog's lard	3 oz.
Prepared kali	½ oz.
Soft water	1½ oz.

These articles should be slowly and carefully incorporated by placing a vessel containing them in boiling water, and while the mass is in its softest state 5 oz. of powdered ginger, or aromatic powder, may be mixed with it by stirring. Before it becomes cold it may be conveniently divided into doses of six, eight, and ten drachms each, and these being wrapped in soft paper may be relied on as remaining good for several months. If the ball becomes hard, which it certainly will do in cold weather, it may be softened by the heat of the hand, or, as is the practice with many grooms, by carrying the ball for a sufficient time in the breeches pocket before it is given. An ounce of this compound will contain six drachms of aloes.

At the Veterinary College the common cape aloe is used, and the army is supplied by Mr. Coleman with the same; but those who carefully attend to the effects of physic, and make trial of this cheap inferior kind, will soon be convinced that the best Barbadoes aloes can alone be relied on with safety.

INSECURITY OF FENCES.

GREGORY *v.* SLOWLY.

MR. SERGEANT WILDE stated that this was an action by which the plaintiff sought to recover damages for the loss of a valuable mare, through the fault of the defendant. The plaintiff had purchased the mare in question of the defendant, together with a colt, for the sum of £12. 10*s.* and brought her to a neighbouring fair in order to dispose of her. Having received no offer at the fair worth his attention, he brought back the mare, and placed her for a small consideration with the defendant, to keep and graze her. In the course of a very short time it was discovered that the animal had been enabled, in consequence of the slight materials employed to form one portion of the fence which surrounded the field where she was, to break through, and in attempting to leap a gate she was caught on a spike. She was thereby so dreadfully wounded as to make it incumbent on the owner, from motives of humanity, to put her to death. As this accident could not have happened, if the defendant had used due diligence in securing the mare in the field, so was it reasonable that he should be accountable for the consequence.

The defence was, that the fence was sufficient for all ordinary purposes of security, and that this occurrence, which there was no reasonable time to guard against, was purely the result of accident.

Chief Justice Tindal told the Jury, in his charge, that the defendant was bound to make the fences of his field reasonably secure, so as to prevent the animal from escaping.

The Jury then found for the plaintiff—Damages, £12.

From the Morning Herald.

REFFERENCE TO THE FORMER TRIAL OF BOUCHERET *v.* GREATHAM.

IN giving the important horse cause, Boucheret *v.* Greatham, in Number 28, page 243, we omitted to state that the report of the former trial will be found at page 152, of the first volume of the "FARRIER AND NATURALIST."

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THE

FARRIER AND NATURALIST;

OR,

HORSE-MAN'S CHRONICLE.

N°. 31.] OCTOBER 1, 1829. [VOL. II.

ON VETERINARY REFORM, BY MR. GREEN.

WE extract the following from a sensible well-written letter from Mr. John Green, of Lewisham, on the subject of Veterinary Reform. Names, dates, and circumstances add to its importance. We have no doubt that other matter relative to Mr. Coleman's connection with the army will make its appearance. Indeed, we can assure our readers that such will be the case at no very distant period.

"The next subject that I would bring under your notice, is, the Army Veterinary Appointments. I feel that I may do so, because I am somewhat concerned in looking forward to such an appointment. It shall, however, be very brief, as it will form the subject of a future paper to a higher quarter. I believe it is well known that the recommendation generally rests with Professor Coleman. This being the case, we need not be surprised at seeing the College theatre so filled with pupils: and I believe I am not very far out of the way when I state, that more than half enter with the full expectation of entering a cavalry regiment at the expiration of their term. It is unnecessary for me to state how these hopes must be frustrated. In pursuing my relation, it may appear to border somewhat upon egotism; but it is a duty that I owe to myself as well as to others. That, I trust, I may be excused.—When I entered at the College, my sole object in doing so, was, *con amore*, and in the full expectation, in the course of time,

to receive a veterinary appointment, little suspecting that my having received a medical education would have been brought forward as an effectual bar to the situation, which it now appears to be. When the 11th Dragoons became vacant, I applied to Professor Coleman for the appointment; in answer to which I received a polite letter, stating that there were many gentlemen who had a priority of claim, who must first be recommended. This was all very feasible and just; but what was my surprise some short time after, at seeing a person gazetted to the regiment who was long my junior at the College. Can any thing be urged with propriety in justification of so palpable and direct a violation of equity? *(unless some letters perhaps that this person possessed.)* At a future time I shall, however, go a little further back, and see if priority of claim has always been attended to, and under what circumstances army veterinary appointments have taken place. I fear I shall find scope enough for my pen.

"Again, very lately there was every expectation of a vacancy in a dragoon regiment. And perceiving priority of claim not being attended to, I felt I had as much right to exert my interest as others. I did so, and was introduced to the Lieutenant-colonel. When this gentleman mentioned my name to the Professor, it was at once negatived, as being a medical man, and consequently deficient in practical horse-knowledge. How Mr. Coleman is aware of this I know not, not having had the honour of conversing with him for the last two years, and very little previously. However, a Mr. B. was recommended for the situation. In this case also the gentleman was only my contemporary at the College: evidently proving that no person possessing medical knowledge can ever obtain the high attainments of veterinary qualification.

"In reading the account of the last veterinary meeting, I could not help observing, that this very gentleman, Mr. B. disclaimed any interested motive in espousing the Professor's cause. Memory will be treacherous; consequently it was forgotten all about this regiment. However, the vacancy did not occur; so all remains in *statu quo*. I am perfectly aware there are many gentlemen who have a priority of claim to myself, and are very likely more competent. Let the recommendation, then, take its course as it ought to do; but not by sophistry and disparagement."

ESSAYS ON THE ORIGIN AND NATURAL HISTORY OF DOMESTIC ANIMALS.

By JAMES WILSON, Esq. F.R.S.E., M.W.S. &c.

UNDER the title of domesticated animals, are included all those species of which man has so far modified the natural forms and habits, as to impress upon them a new or altered character for his own behoof. The most important of these belong to the three classes, of quadrupeds, birds, and insects; for though we derive considerable advantage occasionally from the captivity of fishes in tanks and ponds, they cannot be said to have been yet subjected to the influence of an assured domestication. Domestic *quadrupeds* are used for a variety of purposes,—for food and raiment, as beasts of burden, and as accessaries in war, agriculture, and the chase; domestic *birds* are chiefly available as food, though their feathers are also of importance in household economy; domestic *insects* supply us with several valuable materials in commerce, and with a well known and delightful *natural confection*, if I may be allowed the term. Few accessions appear to have been made to the number of domestic animals, from the remotest periods of which we have detailed or authentic records. Of quadrupeds, the following are the chief:—The dog, the horse, the ass, the mule, the ox, the sow, the sheep, the goat, the rabbit, and the cat. Some northern nations use the reindeer and the elk, some southern ones the buffalo, and in eastern and African countries, the camel and the dromedary have been made subservient to man. In certain parts of South America, the last-named animals are represented by some nearly allied species, such as the lama; and, in India the elephant has been reduced to a state of slavery. In regard to this sagacious and gigantic animal, however, it may be observed, that it forms, in one respect, an exception to the principles which apply to other domestic kinds; it is the individual, rather than the species, which has been subdued—for, as the elephant, "disdaining to propagate a race of slaves," does not breed in captivity, fresh captures are necessary, from time to time, for the purposes of peace or war; and there is a consequent renewal of skill and patience required for the subjugation of each individual. Domestic birds consist of the cock, the turkey, the goose, the duck, and the pigeon. In addition to these might be mentioned the peacock, the guinea-fowl, the pheasant, the swan, the Muscovy duck, and a few others, which are usually entertained rather as objects of ornament or

luxury, than for the uses of domestic economy. Of insects, the most valuable to man are the bee, the silk-worm, and the cochineal, all of which are of the highest importance, either in commerce, the arts, or for domestic purposes.

ON THE ORIGIN AND NATURAL HISTORY OF DOMESTIC DOGS.

Under the appellation Dog, now so well known and familiar to our ears, that a definition of its meaning would seem superfluous, and almost absurd to an ordinary observer, are included such a number and variety of animals, that the more the reflecting naturalist inquires into their origin and atributes, the more complex and difficult the subject really becomes. A greater difference of aspect and manners doubtless exists between several *varieties* of the dog, when compared among themselves, than is perceptible between certain other *species* of animals which we acknowledge to be distinct; and if we were therefore guided in our determination and division of species by a reference to habitual instincts and external characters alone, a stronger reason would exist for a specific separation of such varieties from each other, than exists for the separation of the species alluded to.

The real origin of our domestic breed of dogs, whether from a single or complex source, is now entirely unknown as a subject either of history or tradition. It is lost in the usual obscurity of a remote antiquity, and can now only be ascertained (if at all) by the investigations of the naturalist. So infinitely varied is the external aspect of the domestic dog, and so much does it seem to depend, not only on the physical conditions of clime and country under which the animal exists, but on the moral and political state of the particular nation by which it is held in subjection, that, in numerous instances, all traces of resemblance to the original stock, or to any known species of wild animal, have disappeared; and, after the lapse of ages, we are, in fact, at last presented with what may be called artificial creatures, incapable of subsisting without the aid of man, and of which, accordingly, no natural type ever existed in any age or country. They have arisen, in some cases, from the necessities, in others, from the caprices of the human race, which, in this respect, may be said to have fulfilled the threat of Caliban, and "peopled the isle with monsters." It is clear, from what we know of the harmonious laws which regulate the animal economy, that no such creature as a pug-dog could ever have existed in a state of nature.

[To be continued.]

ZOOLOGY.—*The Gardens and Menagerie of the Zoological Society delineated; being Descriptions and Figures in illustration of the Natural History of Living Animals in the Society's Collection.* Nos. I. and II. Hailes. 1829.

WE scarcely know which to admire most, the accurate and scientific descriptions by Mr. Bennett, the splendid engravings of the subjects represented, or the exquisite typography of Whittingham; they are admirable, and highly deserving the attention of all lovers of zoological science, which we are happy to perceive is gradually spreading its rays among other branches of polite education. The establishment of the Zoological Society aids this considerably, especially when under the superintendence of such a number of scientific naturalists as the Institution already ranks among its members. The want of lectures on natural history, so ably commenced in 1827 by Mr. Brookes and Mr. Vigors, but now discontinued, are in some measure counterbalanced by the present publication, which, as the title expresses, contains short but scientific descriptions of the inhabitants of their gardens and menagerie. Our limits not permitting more than one extract, we select the account of that beautiful quadruped,

THE HARE-INDIAN DOG.

Canis Familiaris. Var *Lagopus.*

"The Mackenzie River, or, as Dr. Richardson has preferred naming it, the Hare-Indian Dog, is of small size and slender make. Its muzzle is narrow, elongated, and pointed; its ears broad at the base, pointed at the tip, and perfectly erect; its legs rather long and delicate; and its tail thick, bushy, and slightly curved upwards, but not by any means with the decided curl of the Esquimaux. Its body is covered with long straight hairs, the ground-colour of which is white, marked with large irregular patches of greyish black intermingled with various shades of brown. The ears are covered on the outside with short brown hair, which becomes blackish towards the margin and at the base; that of the inside is longer and white. On the muzzle the hair is white and very short, as also on the legs, but becomes thicker and somewhat longer on the feet, and is continued to the very extremities of the toes."

"Dr. Richardson suspects that this variety of the dog was perhaps formerly generally spread over the northern part of America;

but being only fitted for the chase, it has, since the introduction of guns, gradually given way to the mongrel race sprung from the Esquimaux, Newfoundland, and this very breed, with the occasional intermixture of European kinds. It seems at present to be peculiar to the Hare-Indians and other tribes frequenting the banks of the Mackenzie River and Great Bear Lake, in the neighbourhood of which our enterprising countrymen, Capt. Sir John Franklin and Dr. Richardson, wintered with their party, previously to setting forth on their late hazardous but eminently successful expedition to explore the northern coasts of the American continent. A pair of these graceful and elegant animals were brought away by the travellers on their return, and presented to the Society soon after their arrival in England, where the third was whelped. These, we believe, are the only individuals of the race that have ever been seen in Europe. Their air of frank and unsuspecting confidence is combined with an unusual share of gentleness and good temper. They seem perfectly at their ease, and soon become familiar with strangers. In their native country they are never known to bark, and this peculiarity is still retained by the elder dogs; but the younger one, which was born in this country, has learned to imitate the language of *its fellows*. They appear to be extremely valuable to the Indians by whom they are bred, who subsist almost entirely on the produce of the chase. 'The Hare-Indian dog,' says Dr. Richardson, 'has neither courage nor strength to fit it for pulling down any of the larger animals; but its broad feet and light make enable it to run over the snow without sinking, if the slightest crust is formed on it, and thus easily to overtake and tease the Moose or Rein-Deer, and keep them at bay until the hunters come up.'

A Treatise on the Teeth of the Horse, shewing its Age by the changes the Teeth undergo, from a Foal up to Twenty-three Years Old; especially after the Eighth Year. With coloured Plates, and a Table. Sherwood, Gilbert, and Piper.

A USEFUL little book under the above title has lately been published. It is a translation of a treatise by the younger Girard, edited by his father, who, in the preface, states that "The Treatise on the Age of the Horse was published in the 'Recueil de Médecine Vétérinaire,' for

January, February, and March, 1824. The copies which were taken separately at the time of the first impression, had a rapid sale, and had been all sold at the period of the fatal event (October, 1825) that deprived me of an only son, on whom I had rested my fondest hopes, and who had already greatly distinguished himself as an Anatomical Professor and Teacher. I have been strongly solicited to reprint that production, at the same time to make such additions and alterations to it as might appear necessary to me. All solicitations had been vain, if the idea of honoring the memory of him who ought not to have preceded me to the tomb had not determined me on undertaking this labor."

Further on, the Editor, speaking for himself, says, "Having been intrusted in 1806, by the late M. Tenon of the Institute, to make researches of the wear of the teeth in the larger domestic herbivorous animals, I conceived the idea of a work on the different alterations that these parts undergo. M. Tenon approved highly of this project, and marked out to me the course I should pursue to attain my object with more certainty; and at the same time communicated to me numerous remarks that he had made on the diseases of the teeth, and on their false wear. From this period I occupied myself in collecting all the anatomical specimens that presented any peculiarities relative to the subject that I purposed to treat of. In some years my collection became numerous and important: it embraced all the domestic quadrupeds; the most interesting preparations of these were those relating to the study of dentition. Nearly eight hundred pairs of ends of jaws, mounted on small pieces of board, (according to a new method) belonged to the horse tribe. Amongst the rare and curious specimens, I shall mention first three or four horses' heads, in which different molar teeth were transformed into hard black bodies, without any determinate organization;—second, the head of a mare, in which the upper molar teeth on the right side did not wear, except on the inner side, and their external surfaces were of a prodigious length.—Third, another head of a mare, whose upper incisor teeth came further forward than those of the lower jaw, which had perforated the palatine surface of the small super-maxillary bones.—Fourth, a considerable number of jaws of horses and dogs, having supernumerary teeth, &c. &c.

"The occupation of the School of Alfort by foreign troops, in April 1814, caused the dispersion of this collection that had cost me so

much labor and care: this circumstance did not a little contribute to make me abandon my original project, which I could not otherwise pursue than by re-establishing the specimens that were destroyed or altered: embarrassments of different kinds did not allow me to undertake such re-establishment; but it became the task of the son not to allow the fruit of the labors of the father to be lost."

In another part of the preface M. Girard observes, that "The age is, of all knowledge of the horse's exterior, the part to which amateurs of the horse more particularly apply themselves, whether the animal be for pleasure, for labor, or as an article of commerce; it is also one of those points upon which opinions do not always agree, and which give rise to several disputes, when they usually have recourse to a veterinarian. In fact, a pupil, when he quits the school, is not only called upon to treat and cure diseases, but is also consulted on the choice and purchase of these animals. Medical and surgical knowledge is not then sufficient for him, it is also necessary that he should be able to distinguish all the exterior signs that characterise beauty and goodness, or that prejudice the solidity and duration of his services: he should be acquainted with all the shades capable of marking the annual periods of the life of the individual: he should especially know how to appreciate the different anomalies that occur, and to form the necessary approximations; and finally be able to draw correct conclusions as to the number of years the animal has lived. The want of positive and correct ideas on these important points, may expose him to disagreeable contradictions, to injure his reputation, and even to lose it altogether in the public opinion. By dint of experience, habit, and practice about horses, many men acquire, without any preliminary study, a particular tact, that enables them to judge promptly and correctly to the very bottom of the subject. Some even arrive at a power of correctly distinguishing the age up to eight years old. This knowledge is in truth but practical and empirical, but it is sufficient to expose the ignorance of the veterinarian who has formed an erroneous opinion, either from a want of a sufficient quantum of instruction, or who, from his experience being limited, is unable to apply the principles that he has been taught."

Upon the whole this Treatise is a valuable addition to recorded veterinary knowledge, and we recommend its perusal to those who are desirous of being well informed on the subject of this particular branch of horse-knowledge.

An Essay on the Minute Anatomy and Physiology of the Organs of Vision, in Man and the various Orders of Animals. By HENRY WM. DEWHURST, *Esq. Surgeon, Professor of Human, Veterinary, and Comparative Anatomy, &c.*

(Continued from page 284.)

Mr. CHARLES BELL*, *the Professor of Physiology in the* UNIVERSITY OF LONDON, divides the coats of the eye into three classes, *viz.*

1. The anterior and external coats, the tunicæ conjunctiva et albuginea.
2. The sclerotica, choroides, and retina.
3. The transparent tunics.

Mr. TRAVERS† briefly describes the eye-ball to consist of the following parts:

1. The vitreous humour } *United by their common tunic.*
2. The crystalline humour }
3. The aqueous humour.
4. The retina
5. The choroides, *with its appendages, the annulus and the processus ciliares.*
6. The iris.
7. The sclerotica.
8. The cornea.

"The humours," observes Mr. Travers, "give shape to the eye-ball, and support its tunics. The crystalline lens is set in the vitreous humour, and washed in front by the aqueous.

"The retina is the membranous expansion of the optic nerve, on which the images of the eye are painted. The choroid is the bed of the vessels of the eye, and the dark screen which condenses and confines the rays of light in their passage to the retina. Its appendages are auxiliaries to this purpose, and to other parts of the œconomy of vision. The iris is the coloured membrane, in which an aperture, termed the pupil, is formed. The sclerotica is the external opaque investiture of the choroid. The cornea is the anterior transparent membrane, which first converges the rays of light."

COMPARATIVE ILLUSTRATIONS.

1.—*Mammalia.*

The eyes in the mammalia are composed of the same coats

* *Vide* Anatomy of the Human Body, vol. iii. p. 27.
† Synopsis of the Diseases of the Eye, p. 4.

and humours as in the human subject. The comparative anatomy of the organs of vision in this class, relates to varieties in each particular part, with a description of a few appendages of the eye that do not exist in man.

There is some diversity in the external figure of the eye-ball in different mammalia. Agreeable to a general principle already laid down, it is is more globular, or the anterior part is more gibbous, in proportion to the tenuity of the medium, through which the animal beholds objects. We, therefore, find, the eyes, of the *aquatic* mammalia, are more flat upon the anterior side, in which circumstance they approach, in configuration, the eyes of fishes.

As already stated, the eyes in this class are usually placed at the sides of the head; and it is only in the quadrumana, that they are directed forwards as much, and sometimes more, than in man. The size and shape of the eye are very various; but, contrary to the class *aves*, its size is small relatively to the head, and still more so when compared with the brain. In certain species, however, that have a resemblance to birds, even in their mode of life; for instance, in several of the *Rodentia, Makis*, &c. it is distinguished by its remarkable size; on the contrary in animals that burrow, as *moles, shrews*, &c., and also proportionally in the very large animals, as *whales, elephants*, &c. it is extraordinary small *. In many animals of the inferior classes, the eye is concealed by the common integuments, as the *Mus typhlus;* or, lastly, is wholly wanting, as in *mole of Libanus*, for which we have the authority of SEETZEN †, a fact otherwise unexampled in the four higher classes of animals. In some species, the cornea is still more convex anteriorly, (being, as I have already observed, somewhat flattened anteriorly in the cetacea,) but as far as Professor CARUS ‡ has observed, is most so in the little eye of the mole §, where it appears almost like a second globe. According to TIEDEMANN ‖, the eye of the marmot is larger transversely than vertically; which is also the case, though in a less degree, in the Ruminantia ¶.

* In the common Greenland whale, 40 feet in length, the eyes were no larger than a middling sized orange, forming an interesting contrast with the *phoca greenlandica*, or common seal, in whom these organs are very large in proportion to the size of its body, being about the same dimensions.

† ZACH's *Monatliche Correspondenz*. b. xiv. p. 163.

‡ Introd. to Comp. Anatomy. Trans. by R. J. Gore. vol. i. p. 334.

§ The eye of the mole is so extremely minute, and so much shut in by the hair on the eye-lids, that it does not appear to be capable of seeing any object distinctly: indeed the eyes of the *mole* are so much concealed, that they are supposed, by the common people, to be wanting.

‖ Beyträge der Wetterauischen Gesellschaft, f. d. Zoologie. b. 1. h. 2.

¶ See the Admeasurements of the Eye, to be subsequently described.

2.—*Birds.*

The peculiarities in the structure of the eyes of birds, are chiefly intended to facilitate the perception of objects through a rare medium, and accommodate vision to different distances. In this class, we are struck with the remarkable size of the eye, in relation, not merely to the brain *, but to the whole head; a circumstance in which the eyes of birds, particularly of the rapacious kinds, presents an analogy to that of insects, the organ being in the same manner found peculiarly large in certain rapacious insects, as the *Libellulæ*, &c.

3.—*Reptilia.*

Reptiles, like all vertebrated animals, have two moveable eyes occupying the orbits, and possessing, in their structure, the same essential parts as in man. Their structure has not been much investigated †, which is much to be regretted, as in these animals the eyes are very splendid, and form an interesting object of inquiry. They occupy the sides of the head, except in the crocodile, where they are placed above, between the cranium and the jaw. Their shape in usually rather spherical, in frogs, salamanders, serpents, and crocodiles, the cornea alone being somewhat flattened, though less so than in fishes. The size of the eye, in proportion to the brain, is still pretty considerable. Its position is still completely lateral in incomplete orbits, which I have already described. In the frog, the eye even projects into the cavity of the mouth, and Professor CARUS informs us, that the animal has the power of concealing the eye, by the action of a peculiar muscle, which depresses it and forces it downwards into the mouth. In the Proteus *anguinus*, they are covered by the integuments, and thus concealed until the latter are removed: this animal is, therefore, like the zemni or mus typhlus among mammalia, and consequently blind ‡; CARUS observes, that he has ascertained, by personal inspection the sensibility of the living animal to light is very considerable §. All other reptiles have the sense of sight, and in some these organs are extremely large.

4.—*Fishes.*

The eyes of fishes are usually situated on the sides of the

* A fact mentioned by Dr. Wm. Harvey, and after him by Kieser, in Himly's *Bibliothek.* b. ii. St. 3. s. 97.

† There is some useful information on this subject, by Petit, in the Mem. Acad. des Sciences, 1737, and an account of the Tortoises by Caldani.

‡ Rees Cyclopædia. Art. Reptilia. Vol. xxix.

§ Introd. to Comp. Anat. Vol. i. p. 321.

head, in which cases the animal only beholds objects with one eye at a time; some remarkable exceptions exist, however, with respect to the position of this class, they are directed backwards or upwards as in the *uranoscopus* *. All the genus *pleuronectes* have both eyes placed on one side of head, which, from the position the fish observes, is always the uppermost. In the *callionymus* and the *ray* genus, the eyes have an oblique aspect. Generally the eyes of fishes are of considerable size, except in the worm-shaped fishes, as the *eel*, *lamprey*, *gastrobranchus*, &c. The shape of the eye is almost always posteriorly globular, and flattened anteriorly, this is the case in fishes with small eyes, especially, accordingly to CUVIER, in the blenning, *viviparus*, and also, according to ROSENTHAL†, in several of the cartilaginous fishes but particularly the sturgeon. Some fishes have the cornea gibbous, and the eye of the same figure that it possesses in those animals that inhabit the air; the *gadus* lotus, is an example of this shaped eye.

5.—*Mollusca.*

The cephalopodous mollusca have two eyes, situated at the sides of the head, under the tentaculated anus. Most of the order *gusteropoda* ‡ have also two eyes, but very small, and placed either on a level with the head, or on some of the fleshy and moveable tentacula. In some they are situated at their base, in others at the middle or at point, thus being combined in a wonderful manner with the sense of touch. The *Clio*, *Scyllæa*, and *Lemæa*, according to CUVIER, form the only exceptions. Scarcely any traces of these organs are found in the acephala §. The cephalopodous mollusca, particularly the calmor, have very large eyes; on the contrary, in such of the gastropoda, as possess eyes, they are scarcely visible.

6.—*Articulata.*

As regards vermes in these larvæ, as we may call them, of the higher orders, the organs of vision exist rather in the state of rudiment, rather of perfect developement. The only traces of them are little knobs or projecting papillæ on the skin of the head; of which there are from two to eight in several of the *Hirudines*, *Nereides*, and *Naiades*, whilst, on the contrary, they are altogether in the intestinal worms, amphitrite, &c.

* SYN. The Stargazer.

† See his Anatomy of the Eye in Fishes, in Reil's *Archiv.* b. x. s. 395.

‡ The first appearance of vision in this class is observed in this order.

§ In the Genus Pterotrochæa, there are some black spots near the mouth, probably these are the rudiments of eyes.

It is impossible to discover any peculiar internal structure in these eyes, which, in order to distinguish them from the more complicated kind found in the superior orders of this class, are often called *simple**.

It is more complicated in the crustacea, and we find in crabs two eyes placed at the sides of the head, set in short bony cylinders, not dissimilar to the organs of hearing. In the monoculous *polyphemus*, besides, two compound eyes, the form of which is here like a kidney, there are also two conical *stemmata*†.

The number of eyes varies considerably, some are simple only, as in spiders, scorpions, and scolopendræ, the number of these ocelli being from six to eight or more, in others, there are three small *simple* eyes ‡ placed between two *compound* of a larger size, as in the Orthoptera, Hemoptera, Hymenoptera, Neuroptera, and Diptera; and also among Aptera, the Genera Lepismata and Limulus. Lastly, in several of the Aptera, the *woodlouse* (oniseus *asellus)* and many of the winged insects, as in the whole families of butterflies and some moths we find only *compound* eyes §. Caterpillars have usually six *stemmata* on each side of the head, and Reaumur ‖ has endeavoured to prove them employed to receive impressions of sight ¶.

Des Serres states that the *simple* eyes of insects consist of a smooth cornea, a thin and bright choroid, and a nerve with a bright layer on its extremity, the use of which he supposes are to increase the quantity of light falling upon it **.

(To be continued.)

* Syn. Stemmata *or* ocelli.

† See André's description in the *Phil. Trans.* Vol. lxxii. p. 2. Tab. 16.

‡ Spix (Cephalogenesis, p. 57.) imagines that these three middle *stemmata* are olfactory organs; and that others, in spiders for instance, are organs of hearing, this conclusion he deduces from their position only.

§ Many insects are altogether without eyes. Such, according to Rudolphi, (Physiologie ii. 154.) is the case in all the species of the celeopterous genus *clavigor*, in the genus *branla*, parasitic in bees, &c. and in the hemophrodites of certain species of ants. Marcel de Serres, too, quoted by him, states, that "un assez grand nombre de Larves à metamorphose complets n'ont point d'yeux du tout." (*Memoires sur les yeux composé et les yeux lisses*. Montpellier, 1813.)

‖ Mémoires pour servir à l'Histoires des Insectes, t. 1. p. 127.

¶ Blumenbach has suggested that the polyhedral eyes are employed in seeing distant objects, and the simple ones for those near the animal. This idea is in some degree confirmed by the fact, that butterflies, in their winged state, have large compound eyes, while as caterpillars, they have only small myopic eyes; on the other hand, the mole-cricket, which is truly subterraneous, possesses eyes of both kinds. *Vergl. Anatomie.* 2 *Augs.* 1815. *p.* 425.

** Carus Introd. Vol. 1. p. 88.

REMARKS ON SHOEING.

To the Editor of the Farrier and Horse-man's Chronicle.

MR. EDITOR;

THE horse and the horseman are under great obligations to you for calling the attention of the public to the system of shoeing, which must ever be considered as the most important branch of Veterinary Science.

Mr. Clark's jointed shoe, and Mr. Turner's system of nailing the one side only, may be productive of good under certain circumstances.

For some years I have made the shoe in two separate pieces, equally divided, and nailed in the usual way, by which the expansion of the foot is not, in the slightest degree, obstructed, and believe it has tended to preserve the feet of my horses. The experiment, however, may be made without expense or injury to the horse.

The truth is, Mr. Editor, paradoxical as it may appear, as long as we continue to drive and ride at the rate we do, *our good horses will be unsound, and our bad ones sound;* as in the steam engine, the over-charging the boiler is destructive of the machinery; in the horse, over-corning the body is destructive of the feet.

I am, Mr. Editor,

Your humble Servant,

Kingston. A. W.

[The mode of shoeing, adopted and recommended by A. W., was made the subject of a Patent, a few years ago, by a gentleman very sanguine in his expectations of its being generally adopted. Finding a difficulty in fixing the two parts of the shoe separately, he recommended that the shoe should be forged entire, and fitted to the foot in the ordinary manner: that then, either with a file or hack-saw, the shoe should be cut nearly through on its upper or foot surface, leaving a small portion at the anterior and inferior angle of the shoe at the toe uncut. This part of the shoe being in general the part first and most worn, the shoe soon became separated into two parts, but it had previously, in some degree, got seated to the foot, and the chance

of displacement was somewhat diminished. There are some few feet in which this mode may succeed, but it never had many advocates, and these soon dropped off. Ed.]

RUPTURE OF THE DIAPHRAGM.

MR. T. S. PRICE, of Rochester, has published a case of a rupture in the diaphragm of "a noble chested bay cart horse, very free in his work at all times, and the day never too long for him; the abdominal viscera were perfectly healthy; the anterior surface of the diaphragm presented one mass of inflammation; the lungs were perfectly collapsed, but otherwise healthy." Previous to death there existed a "difficulty of respiration never witnessed in any animal to such an extent before," by Mr. Price, who presumes that this difficulty of respiration was caused by "the air passing into the abdominal cavity through the aperture in the diaphragm, in the act of inspiration." How the air arrived at the aperture, with the pleura of the lungs entire, and the substance of that viscus healthy, though collapsed, is a problem with which this gentleman may *possibly* favour the public with a solution, and unless he does so we must say of such anatomy, physiology, and pathology, though it may be derived even from the Royal Veterinary College,—*fudge*.

WORMS IN THE STOMACH OF A DOG.

To the Editor of the Farrier and Horse-man's Chronicle.

Sir;

AS worms are not generally found in the stomach, I send you the following case, should you think it worth your insertion, of their presence there, and the effects they appeared to produce.

Edw. F. Cherry.

On the 16th of September, a small terrier puppy was shewn to me, who, for the three previous days, had been suffering from severe

pain. When I saw him he was laying down, but at intervals, of about two minutes, he got up, ran round whining, and frequently biting his chain and kennel.

Concluding these symptoms arose from irritation of the stomach and bowels, with a view of relieving them, I administered a tea-spoon full of common salt, which, in less than five minutes, produced violent vomiting, and a worm eight inches long, but quite dead, was seen to come from his mouth, and on examining the ejecta of the stomach many more of a smaller size were found; these worms resembled the lumbrici commonly found in the intestines. The dog soon appeared relieved, and by the evening of the next day was completely recovered, and has continued free from complaint to the present time.

Clapham, Sept. 24, 1829.

SUB-SEWELL'S REMONSTRANCE

WITH

Messieurs les Editeurs de "Recuiel de Médecine Vétérinaire."

MESSIEURS! il n'y'a pas long temps
Que vous m'appellâtes *Swell* *:
Lorsque vous saviez tout le temps
Que mon nom étoit *Sewell.*

Et maintenant votre Directeur,
(Qui est un homme bien méchant!)
Dit que je suis Professeur
Mais m'appelle *Suppléant* † !

* Parmi les collaborateurs au Recueil, on trouve "Swell" Professeur-adjoint a l'Ecole Vétérinaire de Londres.

† Reflexions de M. Girard sur l'operation de la lithotomie, par W. Sewell, *Professeur Suppléant* au Collége Vétérinaire de Londres.—*Vide Recueil, No.* 65. *Tome IV.*

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THE

FARRIER AND NATURALIST;

OR,

HORSE-MAN'S CHRONICLE.

N°. 32.] OCTOBER 15, 1829. [VOL. II.

MR. COLEMAN, HIS PUPILS, AND GRATUITOUS INSTRUCTION.

ANOTHER season of Mr. Coleman's Lectures is about to commence, and we may expect to hear the usual appeal to the gratitude of his pupils, for the gratuitous instruction they are said to receive from the medical friends of that gentleman. But let us see how the matter really stands. Besides the five guinea fee for the privilege of appearing before gentlemen to be examined on the *practice* of an art that these gentlemen do not themselves understand, and the secret sums paid for the secret drivellings of Mr. &c. Sewell, a fee of twenty guineas is paid by each pupil to Mr. Coleman, and he gives to some of them one of his visiting cards, with the name of the pupil and the name of some medical teacher written in juxta position on the back of it.

Now, take the proportion of Veterinary students that can in this way obtain admission to these medical teachers, and allow its full proportional value according to the fees those gentlemen receive from their regular pupils, and let this be paid for out of the amount heretofore taken by Mr. Coleman, it will then be seen that still a much larger fee remains to Mr. Coleman than is taken by any medical teacher in London. As to expense, he incurs none; any that may be occasioned by his giving lectures is paid for from other sources than the fees he receives from the pupils—and any thing extra the pupils receive, they pay for themselves. Away then with Mr. Coleman's second-hand

calls for gratitude. That the pupil should be respectful, attentive, nay, grateful to his teacher, is proper, is necessary; but do not let us hear any more of gratuitous instruction when it is in reality paid for by the pupil, if not to the teacher who actually gives it, at least to Mr. Coleman, and if it is not paid for by Mr. Coleman, it is from him that gratitude for pecuniary favour is due.

ESSAYS ON THE ORIGIN AND NATURAL HISTORY OF DOMESTIC ANIMALS.

By JAMES WILSON, Esq. F.R.S.E., M.W.S. &c.

[Continued from page 292.]

AMONG no race of animals has the long and continuous dominion of mankind effected so great and such signal changes, both of form and manners, as among the infinite varieties of the dog. Many of these varieties, though originally produced by what may be termed accidents, are now permanent sub-species, if I may use the term, each of which is signalized by some peculiarity of physical or instinctive character, and differs from a mere accidental variety in the power which it possesses of re-producing individuals exactly similar to itself. The infinite value of the dog as a domestic animal, having also induced great attention to be paid to the different breeds, with a view to rendering them more extensively and more permanently useful, several of the most striking varieties have hence, for many ages, been encouraged and preserved in purity, and have thus become impressed with characters not only distinctive, but of so uniform and permanent a nature, as to exhibit, in some instances, the aspect of an entire difference in kind. Allowing, however, the utmost latitude to the influence of such extraneous or accidental causes, it is impossible, while comparing together certain of the extreme cases, to doubt that the origin of the dog-tribe, considered in its generality, has been rather complex than simple.

The principal error into which most of the writers of the last century fell, was indeed that of attempting to trace all the known varieties to a single species or type, as, for example, in Buffon's case, to the shepherd's dog. Hence followed the numerous contradictions and

inaccuracies which pervade their reasonings on the subject, and the necessity which they imposed on themselves of maintaining that the dog was an animal of northern or barely temperate climate, which lost its hair, voice, and most of its instinctive tendencies, when exposed to the influence of a warmer region. In regard to the loss of hair, they generalized incautiously from that variety called the Turkish dog, originally from Barbary, and which, though more likely to originate in a warm than in a cold climate, was in fact at first purely accidental, though afterwards continued through the prevalence of a depraved taste. In much warmer and more equatorial countries than those alluded to, the existing tribes of dogs are found well covered with hair, though the proportion of the woolly part of the coat becomes, as in other animals, less as we approach the Line. We also know, that in America and New Holland, before the discovery of those countries by Europeans, there existed both wild and domesticated dogs, the former of which were evidently indigenous, and, in all probability, the origin of the latter. "It was in the countries we had just passed through," observes Humboldt, "between the Meta, the Arauca, and the Apure, that at the time of the first expeditions to the Oroonoka, for instance, that of Alonzo de Herera in 1535, mute dogs were found, called by the natives Marios and Auries. This fact is curious in many points of view. We cannot doubt that the dog, whatever Father Gili may assert, is indigenous to South America. The different Indian languages furnish words to designate this animal, which are scarcely derived from any European tongue. To this day the word Auri, mentioned 300 years ago by Herera, is found in the Maypure tongue. The dogs we saw at the Oroonoka, may perhaps have descended from those that the Spaniards carried to the coast of the Caraccas; but it is not less certain that there existed a race of dogs, before the conquest of Peru, in New Grenada and in Guyana, resembling our shepherds' dogs."—*Personal Narrative*, vol. v. part 2.

The dogs of New Guinea and of Waigiou, placed under the Equator itself, whether roaming wild in the forests, or in a half reclaimed state, are, in proportion to their size, as active and energetic as any of the tribe. In regard to the loss of voice, which has been looked upon as a proof of deterioration under a tropical climate, it may be remarked, in the first place, that the fact itself has not been proved to be of universal occurrence. According to Humboldt, the Alco of

the natives of Peru, and, in general, all the dogs which he observed in the wildest parts of South America, barked frequently. The early Spanish historians certainly speak of mute dogs *(perros mudos,)* but there is no reason to regard these as characteristic of, or peculiar to, a warm climate. For, in the second place, Sir Charles Giesecke, who resided six years in Greenland, has recorded (and we know it from other authorities,) that the Esquimaux dogs, which pass their lives in the open air, or bury themselves beneath the snow, rather howl like wolves than bark. They sit down in a circle, and one of them beginning to howl, the rest follow in the same tone, under the guidance of a "leader of the band." The same defect, if so it must be called, exists among almost all the varieties of the northern parts of Asia and America. The propensity to bark appears, in fact, to be much more connected with the degree of civilization to which their masters of the human race have attained, than with the degrees of heat or cold natural to the climate under which they themselves are placed; for we find that the dogs of all savage, solitary, or uncivilized tribes, are remarkable for their taciturnity, though they speedily acquire the faculty of barking, when transported to the more varied and noisy scenes of a thickly peopled country.

When we consider the extraordinary variety of external forms and instinctive habits which this great tribe of animals exhibits, and making every allowance for the influence of a diversified climate, an unnatural regimen, and an altered mode of life, I still think it impossible to refer the different kinds of dogs to one and the same origin. I would rather adopt the opinion, that the characteristic kinds, or great leading varieties of each country or continent, have either directly descended from, or been crossed and remodelled by a union with, such of the different wild animals (of the same natural genus) as we still find to occur in such country or continent. For example, although we may admit, with Guldenstaedt, that the Kalmuc and some other eastern dogs may have derived their origin from the jackall, the same cannot be said of those of New Holland, or of North or South America, where the jackall does not exist; and several of our own northern varieties, as I shall afterwards endeavour to prove, are evidently descended so much more immediately from one or more species of wolf, as to render the ancestral aid of the jackall, at least in the cases alluded to, altogether superfluous.

[To be continued.]

An Essay on the Minute Anatomy and Physiology of the Organs of Vision, in Man and the various Orders of Animals.

(Continued from page 301.)

THE arrangement I shall adopt, and which I submit, with deference to the profession, as superior to the classification of other anatomists as more simple, consists—1*st*. The Anatomy of the Membranes; 2*ndly*. The Anatomy of the Humours; 3*rdly*. The Appendages; 4*thly*. Admeasurement of the various parts of the Eye; 5*thly*. The Muscles, Bloodvessels, and Nerves; and, *lastly*, The Physiology of the Organs themselves, with a table of the diseases to which they are liable.

THE COATS OF THE EYE.

1.—*The Tunica Conjunctiva**.

This is the most external coat, enveloping the visual organ. At the line formed by the eye-lashes the skin becomes changed in its appearance and structure, and is continued from it, becoming converted into a mucous membrane, and from its office, receives the name of *Conjunctiva*. Which, after investing the posterior surface of the *tarsi*, is reflected over the anterior part of the eyeball. Tracing it from the edge of the upper lid, we find it perforated by the orifices of the meibomian glands, dipping into the canal of which the punctum lachrymalia is the opening; and spreads over the lid a short way beyond the convex edge of the tarsus. Abandoning it, we find it reflecting itself over the globe, two-thirds of which it covers, below it is again reflected, to be extended over the lower lid to the ciliary margin.

From this disposition, the conjunctiva presents two surfaces, one connected with the parts it covers, and the other exposed. The latter is smooth, and constantly moistened by secreted fluids. The former is united to the eye-lids and globe by delicate cellular tissue. On the eye-lids it adheres more closely to the tarsi, more loosely to the fibrous membrane; to the orbicularis oculi below, and to the tendon of the levator above. In quitting the eye-lids, to invest the globe, it forms a loose circular fold, corresponding to the fat in the orbit, which extending further in the upper lid, is lodged during its elevation, in a small triangular space left for it, in the fat behind the margin of the orbit. By this

* Syn. Tunica Adnata.

means, transverse folds exist in this coat, similar to those in the skin, and are seen when the upper lid is raised. On the globe of the eye it adheres loosely to the sclerotic coat, giving it a smooth and glistening aspect. Some anatomists assert that it passes over the cornea, I believe Mr. GUTHRIE maintains this opinion; but, with deference to this gentleman and my contemporaries, I adhere to the opinion expressed by my venerable, worthy, and illustrious teacher, JOSHUA BROOKES, who distinctly stated that the conjunctiva *does not pass over the cornea*, but is set in it in the same manner as a watch glass is set in its case: and I may inform the reader, that in adopting this opinion I do so from the fact, that I have never been able to trace any union of the conjunctiva with the cornea. In its course it forms the valvula semilunaris *, which is in the shape of a crescent, the cornua of which are turned towards the puncta lachrymalia, and assists the caruncula in conducting the tears to the puncta. This fold appears much larger when the eye is turned towards the nose, and disappears when it is turned towards the temple. The conjunctiva may be placed amongst the mucous membranes, from its general character and structure †; however, it has no villous surface, neither are its fluids of much consistence: in some particular inflammations of this membrane, Mr. Lawrence informs us that it becomes thick and yellow ‡. From the preceding description, it will be perceived that I have considered it under the single name of conjunctiva, and though it is obviously a single and continuous membrane, yet its organization differs very considerably in many parts, and that portion lining the eye-lids. Some anatomist have called it *conjunctiva palpebrarum*, and that which covers the globe *conjunctiva oculi*. The former contains numerous red vessels, visible in its natural state, and causes it to assume a general redness when injected. The latter has but few blood-vessels, which are *seriferous*, and constitutes in popular language the *white of the eye* §. But we find this portion of the eye affording a beautiful illustration of the dilatation of the seriferous vessels *in inflammation*, for no sooner is the organ attached, than these arteries dilate and admit the red particles of the blood, and it becomes what is vulgarly termed *blood-shot*. This circumstance also illustrates another anatomical fact, *viz.* the inosculation of the arteries, which is here seen very beautiful when it advances to any extent.

* SYN. Plica Semilunaris. Troisième paupière.
† Mr. Lawrence, in Dr. Rees's Cyclopedia. *Art. Eye.*
‡ Ibid. § Ibid.

COMPARATIVE ILLUSTRATIONS.

1. In the class mammalia, the conjunctiva resembles the same tunic in the human subject, varying only a little in colour where it passes over the tunica sclerotica*; but in the large quadrupeds is less adherent to the eye-ball than in man. Mr. Pierce Smith not only professes to trace it over the conjunctiva, but the expansion of the straight muscles over the cornea.

2. The valvula semilunaris is larger in the ape and other quadrupeds than in man; it is still larger in birds; in both of which it is called the *membrana nictitans, vel palpebræ tertia*†: this I shall describe more particularly in a future part of this Essay.

3. Mr. LAWRENCE‡ adduces the following fact as an illustration to the opinion that the *tunica conjunctiva* covers the cornea, (and which I repeat that I do not believe it takes place in the higher orders of animals §) that such of the amphibia as shed their *epidermis* at certain seasons, this membrane comes off from the anterior part of the eye with the rest of the cuticle; this may be observed, he says, in skinning an eel, and in the *Zemni* rat, or *mus typhlus* of PALLAS, which is covered with fine hairs. It is very sensible, and irritated by apparently slight causes.

2 & 3.—*The Tunicæ Sclerotica*‖ *et Albuginea.*

I have placed these two coats together, as the description I shall give will do better than making it two distinct articles, more especially as one of them *does not exist*, but has received its name by the ancient anatomists, as also by some of the present day, who are well known by holding responsible situations as public teachers in this metropolis.

The Tunica Sclerotica¶, as really existing, I shall first describe; it is so called from its hardness; its boundary extends from the entrance of the optic nerve, to its termination at the margin of the cornea; thus we find it covering about four-fifths of the globe, and truncated anteriorly for the reception of the cornea. Its external surface is covered *pos-*

* Fyffe's Compendium of Anatomy, Vol. IV. p. 60.

† Ibid. Vol. III. p. 49. Carus's Introd. Comp. Anat.

‡ Mr. Lawrence in Rees' Cyclopedia, and his Lectures reported in the Lancet.

§ See Comparative Illustrations of the Appendages of the Eye:—Description of the Eye-lids.

‖ SYN. Cornea Opaca.

¶ SYN. Dura, seu sclerotica, Die feste haut Vesalius. Ruysch, &c. &c.

teriorly, and in the middle, by the muscles of the eye and surrounding fat; *anteriorly* by the tunica conjunctiva. The internal surface is connected to the external surface of the tunica choroides, by a beautiful but delicate cellular substance, blood vessels, and nerves; it is usually tinged of a dusky colour, which it derives from the pigmentum secreted by that membrane; it must be the effect of transudation, since it is not to be perceived in the recent eye. This surface is pierced by small foraminulæ, situated about the entrance of the optic nerve, and also near the insertion of the cornea, by which small arteries, veins, and nerves pass through in their passage to the choroid coat; these foraminulæ are less numerous towards the middle, and afford passage to small veins and delicate nerves which run through the sclerotica obliquely for two or three lines, and lie in superficial furrows of its internal surface, on their way to the ciliary circle and iris. The sclerotica presents, anteriorly, an aperture rather circular, of which the transverse is rather larger than the perpendicular diameter. The internal edge is bevelled off, and the outer passes over the opposite sloping edge of the cornea, which is set into the sclerotica (as I have already stated) like a watch glass in its case. We find a small round opening on its inside, more however in appearance like a circular spot, which is pierced by numerous small foramina, and is placed nearly in the centre of the posterior and thickest portion of the tunic, and transmitting the medullary portion of the optic nerve. It grows gradually smaller from its commencement, from the external part to its termination on the internal surface of the sclerotica. The nerve diminishes in its diameter in the same proportion throughout its course.

The sclerotica is of a whitish colour, and is nearly a line in thickness at the posterior part of the globe, but becomes considerably thinner at its anterior; its thinnest part is near the insertion of the recti muscles, which is somewhat beyond its middle, but next to the cornea it becomes slightly thicker. It is firm and dense, composed of several strata of fibres running parallel to, and decussating each other in every direction, so as to form a complete fibrous membrane not separable into layers, at least not in the adult, even after very long maceration. In the fœtus it can be divided into two laminæ, throughout its whole extent, the uniting medium not being very firm. Here the external lamina is evidently derived from the fine membrane immediately investing the nerve. The dispute among anatomists, whether the firm sheath of the optic nerve, derived from the dura mater, expands as it reaches the bulb and constitutes the sclerotica, is a point of little moment, but which remains to be decided. The sheath

and sclerotica are evidently united most intimately, if the membrane is not continuous. ZINN describes the external lamina of the sheath of the optic nerve as collecting before it arrives at the sclerotica into numerous dense, shining, firm fibres, which are inserted into the posterior, thick, and prominent edge of that tunic, where it is pierced by the medullary part of the nerve. The inner layer is thicker than the external, and passes deeper between the nerve and sclerotica, on the inner surface of which it gradually disappears. The difference between the sheath of the optic nerve and sclerotica is a marked increase of thickness in the former, by its white and dense colour, composed of fibres interlacing each other, the sheath of the nerve being thin and of looser texture.

The brilliant white colour of that portion of the sclerotica covered by the conjunctiva has been attributed to a peculiar membrane, to which the name of Tunica Albuginea has been given; and it has been supposed that this coat was formed by the union of the tendons which terminate in front of the four *recti* muscles, but are not extended to the cornea (*i. e.* the *cornea opaca*): they are not broad enough to unite at their edges, and are always distinct from each other, and the intervals between them are of equal brightness with the parts covered by the tendons. Notwithstanding, as I have already stated at the commencement of this article, that there are some eminent men of the present day who *pretend* to demonstrate this coat, and describe it in their works, yet I positively state *that no such tunic exists*. I have never been able to demonstrate it, and the fact seems simply to be this, that the sclerotic coat shines through the transparent conjunctiva with a degree of splendour, which appears to be the only true cause of the brilliancy we perceive; and for some reason, which I cannot divine, it has been considered a distinct coat.

The sclerotic coat (and principally the anterior portion) is supplied by vessels derived from the ciliary arteries; they are but few in number, but here we can observe no traces of nerves. The sclerotic coat is elastic. Its principal use is to defend the delicate parts; it has also the power of giving figure to the eye, affording insertion to its muscles, and supporting the bloodvessels and nerves. It is comparatively thin and feeble in the fœtus, but of no decided colour; and from its semi-transparency the colour of the choroid coat can be distinguished through it. It is more particularly behind that the sclerotica has a blueish tint from this cause; it is less evident anteriorly, the membrane being rendered more opaque by the tendons of the different muscles.

(To be continued.)

ZOOLOGY.—DESCRIPTION OF THE DISTOMA HEPATICUM, OR LIVER FLUKE WORM.

By William Rhind, Esq. Surgeon, Edinburgh.

THESE worms are found in the gall-bladder, and Dr. Bremser supposes also in the human liver. They are likewise found in sheep, horses, oxen, &c. They are in length from one to four lines, and one-half to one line in breadth, shaped somewhat like the point of a lancet, obtuse at their two extremities. The anterior opening is directed obliquely inwards. The neck is rounded, and of a dark brown colour; the posterior opening of the belly is slightly prominent. A little lower on the belly are seen spots of an opaque dingy white, and a packet of tubes, or vessels, of a brownish colour, probably the oviducts, the vessels of which run along both sides, most likely forming the alimentary tubes. M. Otto thought he observed in these animals a nervous system. Dr. Pallas mentions, that he found these worms situated in the hepatic duct of a very fine female subject; whom he had dissected in the Anatomical Amphitheatre at Berlin.

MONSTROSITY.—CURIOUS SINGULARITY IN THE FOOT OF A HORSE.

By M. Geoffrey St. Hiliare.

THIS distinguished individual recently presented to the *Academie des Sciences* a memoir on a particular species of monstrosity observed in some horses, whose foot is divided into several toes, instead of consisting of a single set of phalanges inclosed in a horny hoof. This variety he has denominated *chiropodes*. Many specimens of this deformity, for so it must be denominated, exist; a very beautiful one is in the collection of M. Bredin, Director of the Veterinary School at Lyons. These toes, which are multiple only on the feet of the anterior extremity, and are in number three in the right, and four in the left; one of the toes in each foot is imperfect, being provided with a single phalangeal bone, and its hoof is slender and elongated. Another polydactylous horse-foot forms a portion of the Anatomical Museum of the Veterinary School of Alfort. Two toes only are seen in this foot; the outer, which is of ordinary size, was alone employed in

progressive motion; and the inner, which is only half the thickness and rather short, did not touch the ground. Suetonius, Pliny, and Plutarch inform us, that there was produced in the stables of Julius Cæsar, a horse whose fore feet were divided into a number of toes, and that the haruspices announced that this promised its master the *empire of the world.* It was probably some mal-conformation, similar to the cases above-mentioned.

"There are, therefore," continues M. Geoffrey St. Hiliare, "cases in which the facts of monstrosity, or deformity, enter into the rule followed by the remainder of the family or genus to which the animal appertains; for we perceive it to constitute a general arrangement among the mammifera, that each foot be terminated by a certain number of toes. To this, however, the horse genus constitutes only a solitary exception. We find him possessed but of one perfect toe; and before he was determined to have two other imperfect toes beneath the skin, it was considered necessary to call in the inferences of science and anatomical observations. This has been done, and appears to confer an entire existence upon these two toes, or upon one of them, that the action of monstrosity, considered in this article, has been employed. This variety of the horse, therefore, must of course renounce the character of his species, to resume those of the other animals of his class, the multidigital forms of the mammifera*."

INJURY TO THE HEAD.

ON the 28th of July last, I was sent for to a cart mare belonging to Mr. Marshall, of Morden, that was severely injured about the head. She was one of four bringing a load of dung from London, and the waggoner being asleep, the boy who was driving began to descend Morden Hill without skiding the wheel; the weight soon overpowered the shaft horse, and away went horses and waggon. How they were stopped could not be clearly made out; but the horse above-mentioned had been down, and it was supposed that one of the wheels had come in contact with her head. I found the skin over the right temporal bone severely lacerated, the bone splintered, extensively denuded, and pain evinced on attempting to open wide the mouth, but the mare fed freely. The eyelid was much swelled, the eye nearly concealed, but

* Ann. des Sciences Naturelles.

on separating the swoln parts, the eye did not appear to be injured. No portion of bone was loose enough to be removed. Blood had been taken by the owner's direction. A dressing of simple ointment was applied to the lacerated and bruised parts, and fomentation with warm water directed to that side of the head: the food to be sloppy mashes of bran, and the mare to be kept as quiet as was compatible with frequent fomentation. Although the mare fed freely after the accident, a slight difficulty in doing so was soon manifest, and this difficulty progressively increased. Very soon the natural wring of the jaws and grinding of the teeth was lost, and the motion was a sort of champ. In this way she could take cut and soft food, but was quite unable to eat hay. From the first it was suspected that the mischief extended to the joint formed by the glenoid cavity of the temporal bone and the condyle of the lower jaw; and the symptoms just enumerated confirmed the suspicion. The discharge from the wounded parts was very considerable, but of an unfavourable character, and the splintered portions of bone did not separate from the sound parts. The dressing with simple ointment was continued, and contiguous to the most indolent parts of the wound a mild blister was applied. At no period did the unfavourable symptoms yield, though sometimes there was a distant prospect of their doing so. The capsular ligament of the joint, where injury was suspected, at length gave way, and the unfavourable symptoms were more aggravated. The mare was much exhausted, and any food she would take was allowed to her from an early period after the accident. A degree of stupor came on about the twentieth day; and, when the mare was down, she was got up with great difficulty. All these unfavourable symptoms continued to increase rapidly, and the mare died very much emaciated, on the thirtieth day after the infliction of the injury.

FRED. C. CHERRY.

Clapham, October, 1829.

ON THE EFFECT OF IODINE IN THE DOG.

To the Editor of the Farrier and Horse-man's Chronicle.

SIR;

HAVING lately made a discovery (new to me at least) which may not prove uninteresting, and certainly not unimportant, to the dog-man;

should you deem it worthy a niche in your esteemed Journal, its early insertion will oblige,

Sir,

Yours,

Winchester, Sept. 29, 1829. E. H. a Constant Reader.

At the commencement of last shooting season, I found my finest dog seized with the incipient appearances of bronchocele; and having been for some time desirous of treating a case of this kind in rather a novel manner, I immediately resolved to try the full effect of iodine on the canine system, and proceeded to give small doses (about a drachm made into six pills, and two given in the day) of the burnt sponge, and afterwards I gave the tincture of iodine in like proportion. Finding the swelling certainly less tense, encouraged me to make trial of the remedy locally, which I did in the following manner: I made an ointment with a drachm of hydriodate of potassa, an ounce of hog's lard, and half an ounce of strong mercurial ointment, and rubbed in twice a day with it, paying attention likewise to the bowels, the regular action of which I accelerated by small doses of castor oil. Under this treatment I succeeded in dispersing the swelling in seven days, without the least injury to the constitution of the dog, or the least salivation. Although this case succeeded so admirably, I would not recommend its trial on a small or bad-constitutioned dog, as it certainly cannot be called a lenient plan of treatment, which decidedly should be made trial of in the incipient stage of this troublesome schirrous swelling.

It is with much pleasure that I continue to reap information and amusement from your excellent periodical, and should you consider that my poor exertions would be acceptable, my pen will be ever at your service. After I see this case inserted, I shall forward you another on hydriodic acid, as a useful addition to the Veterinary Pharmacopeia.

[We shall be much obliged by further communications from E. H. which will always receive favourable consideration.

With respect to the use of iodine, we must refer to p. 472 of the 1st vol. of the "FARRIER AND NATURALIST," where it will be seen that, in cases similar to the above, we recommended this medicine to be carefully tried. ED.]

CRIB-BITING HORSES.

MR. YARE, of Gray's Inn Road, it appears, has adopted a mode of treatment by which he cures the propensity to this troublesome habit. It embraces some mechanical contrivances of an ingenious yet simple nature, and seems to be well deserving of the support he is seeking. The following is an extract from a statement he has put forth on the subject:

"In consequence of having received repeated proposals from gentlemen and Veterinary Practitioners in several parts of the country, as well as from Mons. Nabat, Régissure de Haras Royale, (the stud of the King of France,) wishing me to communicate my mode of treating crib-biting Horses, in which I have been singularly successful; and having thoroughly reduced the treatment to a system, I am induced to offer to the Veterinary profession, and the public, the full advantages of this valuable discovery.

"In thus laying open my plans, I am impelled equally by a wish to silence the cry that has been raised against me of quackery and empiricism, and also to obtain a fair recompense for the expense, time, and labor, which I have, for several years past, bestowed upon the subject. During my experience in the general management of horses, I have unremittingly pursued a course of observation on such as have been addicted to the above pernicious habit, and at length succeeded in discovering the *proximate cause* of the evil, and a method of cure which depends upon its removal, and concurring management.

"My attention has habitually been directed to the correction of all kind of vice and bad habits in horses, and I think it will be admitted that this is one of the worst, and in many cases most injurious to the health of the animal. Nor, though cruel, disgusting, and revolting means have often been and are still resorted to, has any general effectual remedy ever been found for this vicious habit.

"The plan of treatment I have to disclose is of the most humane and kind description; as no pain or constraint whatever is used or inflicted, and in all cases the rapid and general improvement in the condition of the horse speedily shows its beneficial effects."

Mr. Yare proposes to give to each subscriber of three sovereigns a printed copy of an Essay entitled "Hippoboethos," or "The Method

of Treating and Curing Crib-biting Horses," containing a full disclosure of the mode of treatment now practised by him, accompanied by accurate engravings and copious explanations of the apparatus required for horses of every description, and in all situations.

Subscriptions are received by the publisher of the Sporting Magazine, Warwick Square, who will hold the same until the delivery of the work; the subscription will be closed the first week in December, and the work delivered immediately after.

LARYNGITIS IN THE DOG.

THE following case not being one of common occurrence will, we have no doubt, be acceptable to many of our readers:—

In the month of March, 1824, I was called on to attend a large guard-dog, belonging to Mr. Hamman, of Clapham. The dog had been ill several days, and a man in the neighbourhood, said to have some knowledge in these matters, was sent for to see him; he did so, pronounced him mad, advised him to be killed, and shewed himself very anxious about what was to be done with the carcase, that he might have the skin, which was a very fine one. This hasty decision and greediness to obtain the dog's skin roused the sympathy and suspicion of the cook, with whom the dog was a favourite; she pleaded against execution being had under such circumstances, and urged that I should be consulted regarding the poor animal that she was fond of, and who was fond of her.

I found the dog with his mouth wide open, and a considerable quantity of frothy saliva about it. There was no difficulty in seeing the back part of the mouth and fauces, which exhibited strong symptoms of violent inflammation. The muscles connected with the lower jaw had lost their power; the mouth was easily closed by a stick or the hand put under the chin, but so soon as this support was withdrawn the jaw again dropped, and the mouth remained wide open without the dog having power to close it. When food or slop was put into his mouth and the mouth closed he could swallow, but not otherwise; he was dull and manifested uneasiness, the breathing was hurried and the pulse quick, but he was sensible, and danger from biting was quite out of the question.

I at once decided on treating him by depletion, and accordingly

bled freely from the jugular vein, giving at the same time apperient medicine, and keeping up the action of the bowels by frequently repeating it. The food was principally oatmeal gruel given warm, and the dog was enabled to take it by his friend the cook, and her assistant the coachman, both of whom were assiduous and expert nurses, closing the mouth sufficiently to allow of his swallowing what was taken into it. With this treatment amendment was soon manifest, and in fifteen days from its commencement medicine was no longer necessary. The muscles of the lower jaw gradually recovered their tone, and the dog was alive and healthy not long ago.

FRED. C. CHERRY.

Clapham, Oct. 1829.

DIURETIC BALLS.

THE medicine most useful in the stable, next to physic, may very fairly be considered that of a diuretic kind. It is not intended to give a treatise on the uses and abuses of this medicine, though the subject well deserves it; but to present to our readers a convenient formula that may be prepared without difficulty, leaving its use to the judgment of our stable friends. For this purpose, take

Venice Turpentine	3 lbs.
Yellow Resin	4 lbs.
Juniper Berries	1 lb.

These may be incorporated by melting over a slow fire the resin and turpentine, and then stirring in the juniper berries coarsely powdered. Or, the resin finely powdered may be mixed with the juniper berries, also in powder, and both may then be incorporated by hand with the turpentine. It is sometimes necessary to vary the proportions of the resin and turpentine; if the mass is too soft, resin may be added, and if too hard, the proportion of turpentine may be increased. About an ounce, or an ounce and a quarter of this mass may be given as a medium dose. It is most convenient to divide the mass at the time of making into different sized doses, putting each dose into soft paper. The ball should be made moderately soft, before giving it, by the warmth of the hand, if necessary.

Printed by John Hill, Black Horse Court, Fleet Street.

THE

FARRIER AND NATURALIST;

OR,

HORSE-MAN'S CHRONICLE.

N°. 33.] NOVEMBER 1, 1829. [VOL. II.

THE VETERINARY COLLEGE, MISCALLED A NATIONAL INSTITUTION.

MR. CHARLES CLARK has published a letter regarding the St. Pancras stables of Messrs. Coleman and Co. being called a National Institution, and the absurdity of a Veterinary practitioner priding himself upon being called a member of the Veterinary College; and he asks for some information regarding these absurdities. Although no new facts that have not already appeared in this journal are brought to light respecting the famed Institution, yet Mr. Clark treats the matter in a spirited and pointed manner, calculated to assist in dispelling the St. Pancras mists, and to benefit the cause of Veterinary reformation.

This has brought forth an attempt at a reply, from a writer who sets out by stating that he is not in a situation to enable him to give the information sought for! He however treats those who will take the trouble to read it, with several pages of twaddle, written with true jesuitical craft, leaving the subject precisely in the state in which he took it up; ballancing animadversion and adulation so equally, that he may claim to hold with either party, yet at the same time spinning his sophistical web of so flimsy a texture, that neither party can trust, and both must discard him. We re-print Mr. Clark's letter, but we cannot encumber our pages with the mis-called reply to it.

" MR. C. CLARK ON THE VETERINARY COLLEGE.

" To the Editors of the ' Veterinarian.'

" GENTLEMEN,

I HAVE lately published a pamphlet (a copy of which I handed to you) entitled, ' An Exposure of Abuses at that Institution called the Royal Veterinary College ;' and having therein asserted, after full investigation, that the term *college* is erroneously applied, the place having no endowments, charter, sanction, privileges, or particular rights whatever, you would much oblige me, and perhaps others of your readers, by informing us on what grounds (supposing you to be in possession of superior information) you have so repeatedly styled it a *national institution.* I have stated also that the stabling and building at St. Pancras, commonly known under the name of a college, is belonging to a few private gentlemen, who club together to get their work done cheap, and under the management of two or three individuals, whose illiberal and injurious acts towards the Veterinary profession are at present sanctioned by names of high authority; and that the imperfect school which there exists, is only to be regarded as a private establishment. Although bearing the title of *Royal Veterinary College,* its managers are neither responsible to the King or his government, or to the profession of which it bears the name; for in respect to those practitioners who have paid Mr. Coleman (who is called a professor) twenty guineas for the privilege of going there and hearing his imperfect theories, they have no voice in its administration, no rights or privileges in consequence, and no membership whatever. They assume the title of Veterinary Surgeon, and absurdly style themselves *members of the college,* though possessing neither vote, interest, nor power, and being even excluded, by a special law, from becoming subscribers to the establishment from which they sprung. They are dishonourably distinguished, proscribed, shut out from a privilege open to the horse-stealer or the knacker, and only denied to the Veterinary Surgeon. They are besides informed by the same men who have thus insulted them, that four or five medical gentlemen are more competent to decide on their professional qualifications than the experienced and well-educated practitioners of their ow body.

" On reconsidering these singular facts, I am at a loss to conceive

how a Veterinarian *can* call himself a member of the college; as well might a surgeon educated at Mr. Carpue's Anatomical School assert a right to interfere in the conduct of that gentleman's household. Neither is it clear upon what grounds one practitioner more than another should lay exclusive claim to the title of Veterinary Surgeon, since Mr. Coleman and his medical friends have no legal power to confer it; and, I believe, it is generally known that a knowledge of our profession may be as well, or rather better, acquired under other teachers, and in other stables than those at St. Pancras. But to return to my object in addressing you. It was to enquire who were implied by the terms '*members*,' and 'persons who were not members,' so often alluded to in the leading article of your last number; and also your reasons for calling the shop of Messrs. Colemen and Sewell a national institution. The King's nominal patronage, or gifts of money from Parliament, do not make it such; both have been conferred on private societies and individuals; and it is no more public property than the Theatre Royal Covent Garden.

"As names misapplied or misunderstood often lead to error, it is highly important, whether our opinions coincide or not, that your meantng should be clearly defined; and I accordingly request the favour of a short explanation, previously to offering any further remarks on this subject.

"I am, gentlemen, yours, &c.

"CHARLES CLARK."

"*Veterinary Infirmary, Stamford Street,*
"*Sept.* 10, 1829.

ON THE STRUCTURE AND DEVELOPEMENT OF THE SPINAL CORD IN THE FŒTUS.

By JOHN LIZARS, Esq. F. R. S. E. *Professor of Anatomy and Surgery, Edinburgh.*

THE fœtal developement of the spinal cord throws more light on its organization than all the dissections of anatomists. When the head and trunk of a fœtus are examined, between the fifth and sixth week, a canal or tube is found, containing a whitish and almost diaphanous fluid, the canal forming a rounded pouch in the head. At the seventh

week, the spinal cord, bent like the spinal column, is very large and thick, compared to the size of the embryo, and particularly to that of the brain. It possesses the same thickness throughout its whole extent, has a pulpy white appearance, of the consistence of the white of an egg, and is marked on its posterior or dorsal aspect by a longitudinal groove, into which the pia mater penetrates. The margins of this groove are very thin, and if separated by a flat needle, and held aside, the inner canal is continuous with the fourth ventricle, extending to the end of the cord, like that in the horse and many other quadrupeds. The anterior or sternal surface of cord, consists of two strings or cords, separated by a slight longitudinal furrow. At the upper or atlantad extremity, the cord, after bending forwards, forms on each side a considerable projection, corresponding to the tubercle in the nape of the fœtus; and above, or coronad to this projection, the canal is dilated, where it is continuous with the fourth ventricle. The substance of the cord and brain, when examined at this period of life with a suitable magnifier, appears to possess no fibrous structure, but to consist of extremely minute globules. At eleven weeks, the spinal cord extends along the back to the region of the sacrum, where it terminates in a point without a caudiform expansion; it appears a little thicker only at the origin of the nerves of the pectoral and pelvic members, but its bulk is much augmented at the upper or atlantad extremity, where it is continuous with the brain. The two sides of the spinal cord give origin to the spinal nerves, the bulk of which is very considerable. The medulla oblongata is perceptibly thicker and broader, and inclines forwards, but the pyramidal and olivary eminences are not yet visible; its margins, or the restiform bodies, separate to form the fourth ventricle, while below and before they are continuous with the crura cerebri, the annular protuberance not yet being formed. At the fourth month, the pyramidal bodies appear in the form of two oblong eminences, but the lateral surfaces are plain and uniform, there being no appearance of the corpora olivaria. Fibrous or linear portions can now be detached from the surface of the cord, along its whole length, but none transversely. Each half of the cord, at the medulla oblongata, divides into three bundles; the posterior or restiform body, the middle or that which subsequently forms the corpus olivare, and the anterior or pyramidal body, and which, with the middle bundle, is subsequently continued into the crus cerebri. The annular protuberance is now for the first time apparent, formed by medullary bands descending from the cerebellum.

At the fifth month, the spinal cord terminates at the sacrum in a delicate filament, and the nerves arise distinctly by anterior and posterior roots. If a small blow-pipe be inserted into the calamus scriptorius with its point downwards, the whole canal may be distended with air. Some of the fibres of the pyramidal bodies cross each other, and are continued forwards above, or corono-iniad to the annular protuberance, to form the crura cerebri.

At the sixth month, the pyramidal bundles may be seen to cross at their inner edge, and proceed forwards to traverse the annular protuberance, with the transverse fibres of which they are covered and partly intermixed, terminating in the crura cerebri. The olivary bodies, though broad, are still flat, and without the proper olive-shaped eminences; their component fibres do not mutually cross, but proceed forwards through the annular protuberance, and are there applied to the upper and outer part of the corpora pyramidalia, contributing with them to form the crura cerebri. From these bundles also fibres penetrate into the walls of the common mass of the corpora quadrigemina, some uniting with the corresponding ones of the opposite sides, others going forwards to the thalami.

At the seventh month, the spinal cord terminates in a point extending to the last lumber vertebra, and in bulky nervous threads corresponding with the caudiform expansion. The capacity of the canal is diminished, and its walls are covered with a thin layer of unfibrous or cineritious substance, which adheres in patches to the folds of the pia mater destined to clothe the canal. Each of the olivary bundles now support an olivary oval-shaped body, consisting of non-fibrous or cineritious pulp deposited on the surface of the cerebral fibres, which proceed forwards to the common mass of the corpora quadrigemina.

At the eighth month, the canal of the spinal cord still exists, although much contracted by a soft vascular matter deposited on its inner wall.

At the ninth month, the spinal cord extends near the third lumbar vertebra, where it forms a considerable caudiform expansion; its dorsal portion is a little larger in its transverse diameter, as well as in those portions which gives origin to the brachial and crural nerves. The pia mater, extremely vascular, penetrates by the anterior and posterior fissures, the latter of which, or the canal, is now small and narrow, and its wall supports a thick bed of a soft reddish substance, the cineritious matter, throughout which is distributed a multiplicity of

vascular ramifications produced by the pia mater, and which substance is most abundant at the origins of the nerves.

OBSERVATIONS ON THE MECHANISM OF THE VERTEBRÆ OF BIRDS.

By HENRY EARLE, Esq. F.R.S. &c.

THE contrivance by which the spine of animals is rendered susceptible of varied motion, is by means of a strong chain of bones (the vertebræ) locked together by means of processes which prevent dislocation: a chain stretching from the head to the extremity of the tail. Every body must have remarked that, in birds, the mechanism of the cervical vertebræ and the spinal canal is so contrived as to permit a great extent of motion without the medullary column receiving pressure: this motion is greater than in quadrupeds, and arises from the bones of the neck being more numerous, and consequently having more articulations, the number varying from 9 to 29; while among the mammalia, they are uniformly seven, except in the three-toed sloth. The short necked mole having the same as the long necked giraffe, the neck of the latter is about four feet long. These are facts as interesting as they are curious.

An Essay on the Minute Anatomy and Physiology of the Organs of Vision, in Man and the various Orders of Animals.

(Continued from page 301.)

COMPARATIVE ILLUSTRATIONS.

Mammalia.

THE sclerotic coat, in most of the animals of this class, corresponds in texture with that of man, and, as in the human eye, is thinner at the anterior than at the posterior part. In the *seal* it is thick and firm, but its middle so thin and flexible as to influence what are termed the *internal changes* of the eye. In a *whale* of ordinary size, where the eye is enveloped in an immense quantity of fat, and is not larger than a middling sized orange, the sclerotic is fully an

inch thick at its back part, but thinner and more yielding anteriorly, which may in some measure answer the same purpose with the flexibility in the middle of the sclerotica in the *seal**.

Birds.

In birds, the sclerotic coat forms little more than a hemisphere in this class; and to its anterior flat is attached the cornea, making a section of a smaller globe. In consequence of the flatness of the anterior part of the eye it is prevented from being injured when the animal is scrambling among bushes or taking a rapid flight through the air.

The anterior part of the sclerotic divides into two laminæ, between which there are numerous osseous plates which overlap each other, and form a ring, commonly flat, but sometimes convex, and at other times, as in the *owl*, concave†.

Reptiles.

I may here observe that in some of the amphibiæ the same kind of osseous laminated structure is found‡: examples are found in the turtle, the chameleon, and many species of lizards §. DAUDIN has found this structure in the common iguana, and the great tupinambis of Africa.

Fishes.

This membrane is generally found in this class of a cartilaginous structure, semi-transparent, and lined with a delicate membrane, which is commonly of a black colour ‖.

4 & 5.—TUNICÆ CHOROIDES ET RUYSCHIANA.

Similar to the tunics last described, the third coat of the eye, *viz.* the tunica choroides ¶, has been said by most anatomists to be divided in the human subject into two laminæ, one the true *choroides*, and the other the *tunica ruyschiana***, which, like the *albuginea*, is a tunic that only existed in the fanciful imagination of its reputed discover (RUYSCH), and not in the eye itself. The choroides forms the vascular coat of the eye, and lies immediately under the tunica sclerotica, between it and

* Fyffe's Outlines of Comparative Anatomy, p. 61.
† Ibid. p. 136. Carus Introd. to Comp. Anat.
‡ Cuvier's Lectures on Comparative Anatomy, translated by Mr. Ross and Dr. Macartney. 1802.
§ Fyffe's Outlines, p. 236.
‖ Ibid. p. 277. Morgagni Epist. Anx. vi. 40. Cuvier, p. 388.
¶ SYN. Gefass-haut; more correctly *Tunica Choroides*. Mr. Lawrence in Dr. Rees' Cyclopædia. *Art. Eye.*
** SYN. Tunica Vasculori Oculi.

the retina. It extends from the entrance of the optic nerve to the circumference of the cornea. Its external surface is connected to the sclerotic by a fine cellular tissue, and also by numerous blood-vessels passing between these membranes, as well as the delicate ciliary nerves. This tissue is more abundant in the fœtus than in the adult, and more particularly surrounds the larger vessels and nerves. It is more abundant near the cornea, and forms the basis of the orbiculus ciliaris. Its internal surface is closely connected to the retina, a small round hole is discovered at the posterior part through which the medullary fibres of the optic nerve pass. The choroid coat terminates anteriorly by a wide aperture, nearly at the point of union between the cornea and sclerotica. Just before it terminates, it is folded into the ciliary processes, and forming on its external surface, by its altered structure and appearance, the *orbiculus ciliaris*, the anterior edge of which is intimately connected with the iris.

The choroid coat is delicate, thin, and easily torn. Its colour is that of a reddish brown on each surface on the outside; this colour appears inherent in the structure of this membrane, and does not depend on a colouring substance externally to its tissue. In the recent *eye* the finger is not stained by wiping it, nor does it tinge water by maceration. Internally, its colour is more decided, and depends entirely on the mucous secretion denominated by anatomists the *pigmentum nigrum*, which is asserted by some authors "to be included in a fine cellular tissue," where it approaches the margin of the choroides, and which secretion assumes (as its name implies) a blackish tint. Near the entrance of the optic nerve the pigmentum is much thinner, and the structure of the choroides is seen through it. Although I shall have occasion to revert to this subject again, yet I may here state that it appears to be a secretion of the vessels of this membrane, particularly on its internal surface. JOHN HUNTER defined it "*as a substance approaching to the nature and appearance of the membrane lining the choroid coat* *, *and somewhat resembling the* rete mucosum, *which lies under the cuticle of the human body; there is also some of the same kind of substance diffused through the cellular membrane which unites the choroid with the sclerotic coat*†." When this secretion has been washed away by maceration the internal surface of this tunic exhibits a vileous appearance.

[To be continued.]

* From this quotation it appears that this eminent man, like his cotemporaries, believed the existence of the ruyschian membrane.

† Rees' Cyclopedia. *Art. Eye.*

LIST OF GOVERNORS OF VETERINARY COLLEGE.

NOTWITHSTANDING it has been our lot to have occasion to animadvert on the Governors of the Veterinary College in their public character, we disclaim all feelings but those of respect for them in every other capacity; and in now publishing a list of their names we are actuated by no motives of a private nature; though we loudly and perseveringly complain of their acts as Governors of the Veterinary College.

Duke of Northumberland	I. H. Browne, Esq.
G. H. Sumner, Esq.	F. I. Browne, Esq.
T. Pitt, Esq. F.A.S.	George Fuller, Esq.
W. Sheldon, Esq.	J. Berens, Esq.
J. Angerstein, Esq.	J. Hindman, Esq.
G. Cooke, Esq.	J. T. Hope, Esq.
Colonel Nugent	John Hornby, Esq.
Granville Penn, Esq. F.A.S.	Colonel Bosanquet
Lieut-Gen. Sir Moore Disney	Richard Jennings, Esq.
Henry Charrington, Esq.	Richard Richards, Esq.

ON ONE-SIDED NAILING.

To the Editor of the Farrier and Naturalist.

SIR;

APPREHENSIVE lest any of your raders should be disappointed in their trials of the mode of side-nailing, which has recently been discussed in your pages, I take the liberty of pointing out a circumstance essentially necessary to its success, and which, it appears, has not been sufficiently dwelt upon; I allude to the necessity of clips. When Mr. B. Clark first adopted this plan, he found by experience that the shoes were sometimes liable to get loose with only one small clip at the toe, or no clip at all, as was commonly the case; and subsequently was led to have recourse to *two* small clips placed on each side of the toe of the shoe, which effectually secured it from displacement by driving backwards. As this little addition to the common shoe is of the last importance to the success of the side-nailing system,

I trust you will afford every advantage to your readers who may be induced to try it, by giving this hint insertion in your next number.

I am, Sir,

Yours, &c.

CHARLES CLARK.

Veterinary Infirmary, Stamford Street,
Oct. 20, 1829.

MR. DARVILL ON THE RACE HORSE.

[Continued from page 272.]

THERE is another method practised by training grooms in the purging of their horses, with a view not only to get the medicine to operate on horses difficult to purge, but also with a view to lighten them of their superfluous flesh; and as it was one by which they almost invariably succeeded, I have no doubt that many occasionally adhere to this old practice, when they find horses putting up flesh so very rapidly as some of them will do, notwithstanding the strong work which is generally given them.

A groom, finding it difficult, by the means generally adopted, to keep such a horse in proper form, to come a long length at a racing pace, gives him a dose of physic on the morning he sweats, in order to lighten him of his flesh as well as to take the staleness out of him which the work has occasioned.

It is customary over night, or very early in the morning, to set this sort of horse for his sweat, and in the morning he is clothed up, and goes over the sweating ground, for the length and at the pace the groom directs. The horse, after being pulled up, is brought in and turned round in the stall, and the customary portion of clothing is then thrown on him, which occasions the horse to discharge most profusely through the pores of his skin for ten minutes, or a quarter of an hour. He is afterwards scraped, dressed, and clothed up, by which time his respiration and pulse have become tranquil. His physic is now given him, and he is then sent out to take the usual gallop, which it is customary for horses to take after sweating. This gallop, I shall by and by endeavour to prove, may, in some instances, be advantageously dispensed with. The horse, after taking his gallop, is brought into the stable, is well dressed, comfortably clothed, and

treated as is usual on such occasions; but from the length of time he has been set, and from the profuse manner in which he has been sweated, he is very anxious for his food and water, both of which are given him as directed by the groom; but as he is generally inclined to take more freely of the latter than the former, it promotes the operation of the medicine; and a light dose of physic, of six or seven drachms, given to a horse thus prepared, seldom or ever fails in purging him freely the following morning, when he may be walked out, and treated as circumstances may require. Now, although this method of physicking horses may appear to many of my readers as rather resorting to strong measures to get the medicine to act, yet, if the physic is not given too strong, no danger is to be apprehended. But notwithstanding this, there is an objection to this mode of physicking a horse; for by producing two such formidable evacuations, immediately following each other, I have known them carried to such an extent as now and then materially to affect the constitution. It is true, the groom has obtained his point. By setting, sweating, and physicking, he has brought the horse very light; but from such treatment, (more particularly should the physic have been given a little too strong,) a horse becomes too much debilitated; and were not such horses hearty feeders, they would be a long time recovering their former strength: I should therefore recommend grooms not to have recourse to this mode of physicking horses oftener than they can possibly avoid.

[To be continued.]

ESSAYS ON THE ORIGIN AND NATURAL HISTORY OF DOMESTIC ANIMALS.

By JAMES WILSON, Esq. F.R.S.E., M.W.S. &c.

[Continued from page 308.]

I BELIEVE that Pallas was among the first to give currency to the idea that the dog was entirely a factitious animal; that is to say, produced by the diversified alliances of several natural species. Both the shepherd's dog and the wolf dog, in his opinion, derive their origin from the jackall, while the mastiff is more nearly allied to the hyæna, and the smaller tribes of terriers, &c. to the fox. His ideas, though in some respects rather fanciful, merit the attention of the inquirer. Two kinds of objection may, I think, be stated both to his views and

to those of Guldenstaedt, a positive and a negative kind. My positive objection applies most forcibly to the hyæna, which is in fact not a canine animal, but belongs to a distinct and well-defined genus, characterised by having five toes on each foot, and five molar teeth on each side of both jaws; whereas canine animals, such as dogs, wolves, and jackalls are furnished with five toes to the anterior feet, but with only four to the hinder extremities, and they are moreover provided with six molar teeth on each side of the upper jaw, and with seven on each side of the under. In the hyæna, it may be observed that the general proportions are very different, the fore-legs being longer than the hinder ones, which has the effect of raising the shoulders and anterior portion of the body; whereas in the wolf, jackall, and domestic dog, the hind legs are longer than the fore ones, a rule which probably obtains in all swift-footed animals. My positive objection to the relationship of the fox is not so strong as it is to the hyæna, and regards, chiefly, 1*st*. The shape of the pupil, which is what naturalists call nocturnal, that is, narrow or perpendicularly oblong when subjected to the influence of strong light; whereas in dogs and the other canine species, under similar circumstances it decreases in size, but retains its circular form; and, 2*dly*. The line formed by the horizontal edge or margin of the upper incisive teeth, which assumes a somewhat different form and direction than in the other species referred to.

The habitual character of the fox is, however, very different from that of the dog, wolf, or jackall. It is a wary, silent, nocturnal animal, of solitary habits, never congregating or hunting its prey in packs, but preferring a gradual and unperceived approach, and the exercise of an insidious cunning, to the more open warfare declared by its congeners. This distinction is of greater importance than may at first appear; for I consider the social or gregarious sentiment in animals as the true basis of a thorough domestication. A solitary species may be tamed so far as the individual is concerned, but if the social instinct is wanting, its descendents will be only half reclaimed, and the process must be again resorted to.

All our most valuable domestic animals, such as the horse, cow, goat, sheep, &c. are naturally gregarious, and their love of society which I call the social instinct when once properly directed towards himself by the skill of man renders them for ever both attached and subservient to the human race. This effect is produced by secondary causes; but the original and preordained capabilities of gregarious ani-

mals may surely be counted among the numerous instances of a divine and providential beneficence, and not the less valuable to man, that they require the exercise of his own ingenuity and wisdom to bring them to bear upon his welfare and that of his fellow beings. But to proceed: my negative objection to the sufficiency of the theories proposed by Pallas and Guldenstaedt, is founded on their slight consideration, if not total exclusion, of the wolf as the probable parent of a numerous and important tribe of our domestic dogs. This animal appears to me of all others the most entitled to our attention in reference to the point at issue. Many well known varieties of the dog exhibit so wolfish an aspect that their descent from that species, at a more or less remote period, can be scarcely a matter of doubt; and we shall incline the more to this opinion when we consider that the jackall is not a northern animal, that the wolf decidedly is so, and that the remotest tribes of the human race inhabiting the highest northern latitudes have never been found unaccompanied by a domesticated breed of dogs bearing a greater resemblance to the wolf than to the jackall.

(To be continued.)

MR. CHARLES CLARK AND HIS COMMENTATORS.

To the Editor of the Farrier and Horse-man's Chronicle.

SIR;

I HAVE read Mr. Charles Clark's letter of September 10th, in the Veterinarian, and am greatly pleased to see so spirited an advocate on the side of truth and justice; and I have also read the editors' reply to Mr. Clark, being not a little amused with the ludicrous pomposity of Messrs. Percivall and Youatt, who, it seems, from their own statement, have deposed the whole train of governors, professors, and subscribers to the St. Pancras shop, and have taken it under their own especial protection, declaring that it SHALL come to this, and SHALL NOT come to that, notwithstanding they confess to having no superior information on the subject; I wish them well through their labour. Their own ideas are, doubtless, beautifully luminous; though certainly they are rather turbid as they stand on record. They say, "the impression made by the late discussions is permanent:" I hope it is. And they add, "making the Veterinary College, in truth, a national institution, is not far distant;" to designate it so, now, is therefore

an admitted falsehood; and this is what Mr. Clark contends for. To call it the shop of Messrs. Coleman and Sewell excites in Messrs. Percivall and Youatt great indignation, and they deny that it is so. Since, then, it is neither a national institution nor the private shop of Colsman and Co. I ask whose shop it really is? or what it is? Whatever it is, or to whoever it belongs, it is admitted to be full of corruptions, and more than hinted at as being subservient to private interest. The "Governors," the poor "misled" (indeed! misled by whom?) governors, who blush to be seen as such; who figure only in secret conclave; and the mass of complicated misrule with which they have allowed their names to be blended, is to be supported in its "existence" and in its "interest" by the editors of the "Veterinarian;" by Mr. W. Youatt the quack medicine vender of Nassau Street, and his colleague Mr. W. Percivall, aided by a united band containing most of the names held in estimation by their brethren. If any gentlemen follow this destination of their names, I cannot congratulate them on their choice of leaders; because I admire consistency, and do not think that truth can be proclaimed too boldly. Important changes must be at hand.

I am, Mr. Editor,

Yours, as you support the cause you have espoused,

CRITO.

OBSERVATIONS ON THE ORGANIZATION AND FUNCTIONS OF THE SPLEEN.

By DR. SCHULTZE, *of Frieburg, and* M. STRAUZ, *of Paris.*

WHEN we consider the obscurity of the functions of the spleen, and that it has perplexed the ablest anatomists and physiologists for a period of 2,000 years, from the days of Hippocrates down to the present time, we cannot but hail with pleasure any attempts made to illustrate the use of this large and vascular organ, which, in all probability, answers important purposes in the animal economy.

Dr. Schultze, of Frieburg, has made a series of valuable experiments relative to the functions of the spleen, with respect to the extirpation of this organ. We present a brief extract from his paper on this subject *.

* Read before the Meeting of the German Naturalists, at Berlin, on September 19, 1823.

The blood of the splenic veins Dr. Schultze found as coagulable as other venous blood, with the exception that, a short time previous to the experiment being performed, a considerable quantity of fluid had been injected into the stomach. The extirpation of the spleen, which Dr. Schultze has frequently performed, never proved fatal; and, in fact, was hardly ever succeeded by any very important derangement of the organic functions, even for several years after the operation *. The functions of digestion and nutrition were carried on as formerly, but the secretion of bile was diminished in a very slight degree. The chyle of animals, on which the operation had been performed a considerable time previously, was found to coagulate and to become red, in the same manner as that taken from healthy animals. This seems to be inconsistent with Mr. Hewson's opinion as to the function of the spleen; and the theory of Sir Everard Home is refuted from the circumstance that the animals drank as much water after as prior to the operation. The growth of young animals was not at all checked by it; and young cats and dogs very speedily regained their weight, which they had lost previously by the removal of the spleen. Next to the secretion of bile, Dr. Schultze observed a constant but very curious effect produced on the genefative organs; which, although they were not completely suspended, were in a very great degree weakened by its removal: dogs and cats, from which the spleen had been extracted soon after birth, always produced fewer young ones than others. Dr. Schultze confirmed the very ancient and general opinion, that extirpation of the spleen is always followed by an increased faculty in running; this was the case on numerous dogs † which were the subject of his experiments.

Some very important results, as regards the structure of the spleen, have been made by M. Strauz, of Paris, who has made this organ, found

* Mr. Brookes, for three or four years, had a dog on whom the spleen had been extirpated by Sir Astley Cooper. Mr. Dewhurst performed the same operation on three cats, two of whom lived above a year, and the third only a few days; it creating, in all probability, too great a shock for the nervous system.

† Dr. Schultze performed this operation twenty-seven times, on dogs, cats, hares, and rabbits, and only one died in consequence, *viz.* a dog whose par vagum had been six weeks previously divided near the stomach.

This organ has been extirpated in the human subject, at first by Adrien Zaccharella in the 17th century, and afterwards by Ferrerius in 1711. Daniel Crueger relates an example of this kind in the *Ephem. Naturæ Curios.* and M. Leuhoesseck another case in his Physiology.—*Archives Générale.* (*Hecker's Annalen.*)

in the elephant, the subject of microscopical investigation. He was unable to detect any appearances which are similar to the fibrous or vascular tissue. Some of the filaments in the substance of the viscus were about half a line in diameter, and were open; but instead of finding a canal within them, as he imagined was the case, he observed that they contained a pulpy matter similar to that which is observed in nerves. Hence he was led to this conclusion, that the spleen was nothing more than a very large plexus dependant upon the ganglionic system of nerves. In this hypothesis M. J. Arthaud coincides; and this latter gentleman draws the following inferences as the results of his own experiments:

1*st*. In the vertebrated animals, the existence of the spleen is connected with the nervous system.

2*nd*. The spleen is not to be discovered until after the second month of pregnancy, at which period the ganglionic system of nerves becomes apparent.

3*rd*. It presents similar alterations to those which are made upon the nervous system by variation of age, by the degradation of the inferior animals, and by various preternatural formations.

4*th*. In true acephalous cases, the disappearance of the spleen is a constant occurrence.

5*th*. Those substances which especially stimulate the nervous system act powerfully upon the spleen, which is always tumefied by their influence.

6*th*. The tissue of the spleen preserves in pure distilled water the density which it had acquired by previous immersion in a mixture composed of seven parts of water and one of nitric acid; while the vessels entering into the composition of this organ are softened, and become putrid.

7*th*. Numerous facts lead us to the conclusion that an alteration takes place in the spleen, in that class of intermittent fevers which the most eminent practitioners have denominated nervous diseases.

8*th*. M. Arthaud imagines that he can shew, by experiment and by facts, from the aid of comparative anatomy, that the spleen is nothing more than an electric apparatus, by the agency of which the blood undergoes a particular modification. He promises, shortly, to enter more fully into this perplexing subject, and also to offer some original observations upon the functions of the nervous system.

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FARRIER AND NATURALIST;

OR,

HORSE-MAN'S CHRONICLE.

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VETERINARY EDUCATION.

To the Editor of the Farrier and Naturalist.

SIR;

AS I perceive by the advertisements in the Times, that Mr. Coleman re-commences, on the 16th of November, his "*Lectures on Anatomy, Physiology, and Pathology, with the Diseases of Domestic Animals;*" permit me, Sir, to remind him of the Course of Veterinary Education intended by the eminent founders of the Royal Veterinary College, but now almost entirely neglected and rendered obsolete by the conduct of those persons, whose only aim is to benefit themselves, and not to improve the profession.

1*st.* Course—The Study of Zootomy. *Not taught.*

2*nd.* Course—The Study of the Exterior of the Horse. *Not taught.*

3*rd.* A Course of Surgical Operations. *Not taught, unless paid for extra.*

4*th.* A Course on Pharmacy. *Not taught.*

5*th.* A Course on Botany. *Not taught.*

6*th.* A Course on Shoeing and Pathology. *The former not taught.*

7*th.* Clinical Observations in the Stables.

8th. A Course on Epizootic Diseases. *Not known.*
9th. A Course on Comparative Anatomy. *Not known.*

As there is yet time and opportunity for the appointment of persons capable of teaching these important requisites in the Veterinary profession, I sincerely hope that Professors Coleman and Sewell will, for the sake of their own characters, see the propriety of introducing these branches of Veterinary Science; the result will be apparent, and then it will be seen, by this course of instruction, that linen-drapers' shopmen, &c. will not be made *Veterinary Surgeons* in five or six months, as it will require at least two years for the obtaining of something like a knowledge of a valuable and useful profession.

I have now a word, Sir, with Mr. Charles Clark: your readers are aware that his uncle himself, and Mr. Coleman are both *theorists*, and both attempt to prove the correctness of their assertions. Now, if they teach their doctrines from a conscientious opinion of their correctness, I conceive neither party is liable to ridicule, and I cannot but regret that Mr. Clark should condemn as ridiculous the Professor's theories, when in all probability his uncle's may be incorrect; and I consider, therefore, every person who endeavours to elucidate functions aparently obscure, entitled to the thanks of his contemporaries, instead of suffering their contempt and ridicule.

The favour of your inserting this note in an early number of your valuable Journal, will oblige,

Your constant reader,

AN IMPARTIAL OBSERVER.

Hampstead, Oct. 27, 1829.

[Our correspondent is probably not aware that ridicule was first attempted to be cast by Mr. Coleman upon Mr. Clark. Now, however highly gifted Mr. Coleman may be, we do think what he calls his "Principles" a fit subject for ridicule. Mr. Coleman admits his own ignorance of horses when he was made Professor of the Veterinary College, yet in less than four years from that time he sends forth a book in which it is modestly pretended to describe a mode of shoeing, "found *by experience* to be capable of preserving the form, structure, and economy of the *hoof*" (we must suppose he means foot) "unimpaired." But then it must be remembered that he had lately set up shoeing forges of his own. As to the former part of the *Impartial*

Observer's letter, we insert it because the subject cannot be too often mentioned; but it has already been much more fully treated of at page 146, of the first volume of the "FARRIER AND NATURALIST." ED.]

ON THE SITUATION OF TESTICLES IN THE FOAL.

To the Editor of the Farrier and Naturalist.

SIR;

I AM pleased to see Mr. Brettargh's letter, which I have lately read in the "Veterinarian," because it has drawn attention to a very important mis-statement in Mr. Percivall's book; indeed it has often struck me as something strange, that this erroneous detail respecting the situation of the testicles in the foal, which Mr. Percivall says "*are, we full well know, within the cavity of the abdomen,*" has not been noticed before; for, when I read that gentleman's book, I was obliged to come to the conclusion that he had not in reality ever performed the operation of castration, although he undertook to give directions about it. Any one taking "*a rope ninety feet long and two inches in diameter,*" to cast a yearling colt, and following Mr. P.'s instructions, would make but bungling work of it.

I am, Mr. Editor,
Your obedient servant,

Oct. 15, 1829. A YORKSHIRE CUTTER.

ON THE STUDY OF THE VETERINARY ART.

To the Editor of the Farrier and Naturalist.

MR. EDITOR;

WHEN a young man enters a profession it is not his last query to enquire into its respectability, or the facility with which a perfect knowledge of its principles and practice are to be obtained.

The study of the Veterinary Art has not, like its sister science, made such rapid progress towards perfection; nor has there been

any improvement either in its morbid demonstration or actual anatomy: but, on the contrary, we hear of nothing new, but of operations performed (for the most part) on unscientific principles, by *erudite college surgeons*, whose "*summum bonum*" is vile lucre. If it were possible to excuse a man's ignorance in anatomy, the unfortunate surgeon who, by public prejudice, is deprived from dissecting the bodies of his own race, would claim our first attention; but, when we see a man ignorant of the Anatomy of the Horse and yet operating upon that useful animal, or administering medicines without knowing upon what grounds he is proceeding, we are disgusted by such consummate ignorance, and exclaim,

"Honour to him to whom honour is due;
"Impudent ignorance, no honour to you."

This picture, Mr. Editor, is no less severe than true; but how a man is to reap information and shine in his profession without either Demonstrator, Pharmacopœia, or Dissector's Manual, I am at a loss to divine; nor is it possible that the Veterinary Science can reach that pinnacle of which it is so truly deserving, without the aid and co-operation of some of its most zealous members in forming an Anatomical School, to lay a firm foundation of this useful and pleasing science.

I am a young man, Mr. Editor, have received a most liberal education, I am well acquainted with "all that forms the Medical Practitioner," but am most anxious to be intimately acquainted with the Anatomical Structure of the Horse, and solicit your assistance and advice in the plan of study I should adopt, to become (what I wish to be) a "Good Veterinary Surgeon."

I am, Sir, yours,

E. H. a Constant Reader.

Winchester, Oct. 28, 1829.

P.S. I am much obliged by the kind manner in which you faithfully inserted my Case of Bronchocele; I will take another opportunity of forwarding my Cases of Hydriodic Acid, and other interesting Cases of Practice.

[We should recommend our intelligent correspondent to avail himself of every opportunity for dissection; and, by thus opening the book of nature, seek information that will not lead him astray.

Knowledge, as to the practical treatment of disease, is best acquired by a sojourn with practical men, and of these there are many of high reputation in various parts of the country. Not that we would recommend the pinning of faith on the sleeve of any one, however high may be his character, but by attending to the practice of a few able men for a few months to each, an educated man, with a moderate share of application and reflection, may form opinions of his own, and lay the foundation for really making a "Good Veterinary Surgeon." ED.]

RETROSPECTIVE AND PROSPECTIVE REMARKS, BY "A TEMPLAR."

To the Editor of the Farrier and Naturalist.

SIR;

I HAVE occasionally bought your publication, as I do most others on the interesting subject of horses, and this day made up my set to the present number, principally with a view to reading throughout Osmer's judicious Remarks on Shoeing, &c. as also to consult what would be said, by your correspondent, Mr. Cherry, "On Broken Knees," commenced in No. 15, "to be continued;" a promise he appears not to have redeemed. In that Number the gout has thrown down the horse, and there he lies, without a pun; my horse also (for I have but one) was thrown down lately by the boy, and as I would patch him up a bit for sale, I feel disappointed at not finding a continuation of remarks that augured so well of the remainder. Will he give it to us, do you think?

By the way, don't you think the subject of the Pancras teachers exhausted? Cannot you hit them harder in smaller compass? for they deserve it all; if, as is avowed, they be impostor teachers, pretending to superior knowledge, but in fact a pair of imbeciles: will you say, on cover or otherwise, where we can read Mr. Coleman and Mr. Sewell's writings on the horse, since the former's "Treatise on *the Foot*," which I have, two volumes? The neurotomy and glanders of the latter is what I should like to be referred to, and have been turning over the Medical Journals for a long

time back, without success. Did Sewell publish his German Tour in any magazine, as Nimrod has done? for I cannot find it separately any where.

In No. 13, page 12, you give an article "On the Usefulness of the Horse," and another "On Falconry," continued I see, taken from the Gent's Recreation, a great favourite of mine; but I think you would do better to give us cases in practice, &c. &c. like your cotemporary, "The Veterinarian." That is a good article in No. 25, on the Strangullion, as they call it in Nottinghamshire. Why do not you give us the vulgar names as well as the learned ones? The cut, figure 3, is very intelligible, and better than your cotemporary's lithographic representation.

Apropos, I observe your cotemporary casts a reflection on two gentlemen who presided at the Free Masons' Tavern, which they do not deserve, I should think; at least this I know of one of them, Mr. Fenwick, that he does not lack capacity or skill, as they alleged. See "Veterinarian," No. 21, page 377, line 9.

Yours,

October 21, 1829. A TEMPLAR.

[We do not think the subject of the Pancras teachers and their establishment by any means exhausted; we should however be glad to dispose of it in the summary manner our correspondent seems to wish, for it is both troublesome and painful to have so much to say in the way of animadversion; but not having herculean power, we must proceed with this modern augean stable in the best manner we are able: still we can promise that our notices shall be short, as to their pith our readers must judge for themselves, and we hope they will do so candidly; if any of our views are erroneous, we shall at all times be glad to be set right. To check boasting pretenders, wherever they may spring up, and to elicit truth, is our object.

Mr. Coleman has not published any work since his two quartos on the Foot and Shoeing, except occasional puffs respecting his patent nostrums. The first of these quartos, on shoeing, is merely gleanings from the older writers on the same subject; the advertisement prefixed to the book is adroitly written, and is in keeping with the book—the latter assuming the merit of discoveries in shoeing that were not made, and the former inviting the public to

send their horses to be shod at forges opened for Mr. Coleman's own advantage. In short, this work deserves to be, and now is in reality viewed as merely a masterly puff of Coleman's shoeing, and Coleman's forges. The object of the second quarto is not so evident, since it followed close upon a much better work on the same subject by Mr. Freeman, got up in a style, and ornamented in a manner that has been imitated by Mr. Coleman.

Sewell did not publish his German Tour; but after a long interval he printed and circulated a few copies of what he termed a "Report" to the Governors, and this will be found in the first volume of the "FARRIER AND NATURALIST," at page 504, with a short notice of it by Mr. Cherry, from whom it was received. The facetious hero of our immortal bard is made to say that "the better part of valor is discretion." Sewell certainly cannot be called facetious, but he gravely adopts the maxim, and valorously wraps round him his cloak of office, and remains silent—it must be added—because we believe he really has nothing to communicate.

We quite agree with "*A Templar*" in his opinion respecting Mr. Fenwick, whose conduct in the chair, on the occasion alluded to, entitles him to the gratitude of every sincere friend to the profession. ED.]

REMARKS ON THE STRUCTURE AND FUNCTIONS OF THE OLFACTORY OR FIRST PAIR OF NERVES.

By the late SIR BUSICK HARWOOD, *Professor of Anatomy to the University of Cambridge.*

THE olfactory or first pair of cerebral nerves, in the human subject, take their origin from the *corpora striata* *, and directing their course towards the cribriform process of the ethmoidal bone are there suddenly divided into many branches, extremely difficult of examination, on account of their delicate and pulpy texture †. In

* Authors differ somewhat on this head, from the great difficulty, or rather impossibility, of determining the precise point of the brain at which they have their origin.

† Monro's Observations on the Structure and Functions of the Nervous System.

this divided condition they pass through the numerous perforations which give a name to the part, and are then distributed on the organs of smell.

In some quadrupeds these nerves are hollow till they approach the sieve-like process, where the cavity is completely closed. This circumstance escaped the observation of the ancient anatomists, who mistook them for ducts of communication between the brain and the nostrils *, and believed that similar passages in the human subject performed the similar office of emunctories to the brain †. The greater accuracy of modern science has detected the original error. Monro very properly denominates them the ventricles of the olfactory nerves, and describes their communication with those of the brain, of which indeed they appear to be nothing more than appendages.

In all quadrupeds, as well as in man, the olfactory nerves begin to ramify within the cavity of the skull, and the numerous branches make their exit through corresponding foramina in the ethmoidal bone. In birds and fishes, on the contrary, they pass undivided through the bone by two apertures only, and their separation commences on the outside of the cranium. Their relative magnitude is much greater in the carnivorous quadrupeds than in the vegetable eaters; the difference is observable even before they quit the encephalon ‡. The superior acuteness of this sense in the former is a fact well established, and must, in part, be attributed to this cause. In the graminiverous birds these nerves are extremely small; and, as the natural food of the tribe has but little odour, we find them easily deceived by any thing that bears resemblance to it. Birds of prey, on the other hand, are allured by the scent of carrion, and from this circumstance alone we might safely infer that their olfactory nerves were proportionally large—dissection proves them to be so.

The fishes are all animal eaters, and the great size of these nerves is a striking part of their anatomy: the element which they

* The anatomy of the ancients was principally derived from the dissection of other animals, and applied to man by analogy alone. Hippocrates once boasted he had seen a human skeleton.

† Intus igitur foras per narium meatus excrementa (sc. cerebri) efferuntur. Galen, lib. viii.

‡ Derham's Physico-Theology, p. 140, note 6.

inhabit, as well as the nature of their prey, renders extreme acuteness of this organ essential to their existence.

If the structure of the olfactory nerves were exactly similar in animals, that is, if the single and individual fibres, composing the fasciculus, were of the same sensibility; if, besides, they were distributed on the *olfactory membrane* at certain regulated and invariable distances, it would follow that the space occupied, and consequently the acuteness of the organ, would vary in a duplicate ratio of the diameter of the nerve. But we must not rely upon any conclusion drawn from such uncertain principles. The nerves themselves are evidently dissimilar in their structure; and we cannot trace them to their ultimate and minute ramifications. Consequently we have no right to come to a conclusion that their sensible extremities are arranged on the membrane in a fixed and invariable order.

However, until some superior method can be discovered, we must rest contented to estimate the acuteness of the sense by the superficial extent of the olfactory membrane. With these precautions the anatomist can easily investigate the organ of smell in the various classes of animal existence.

THE ANATOMY OF HORN, HOOF, AND CUTICLE.

By HERBERT MAYO, Esq. F. R. S. *Lecturer on Anatomy.*

THE horn of the rhinoceros is described by Dr. Macartney as "made up of a number of fibres resembling strong hairs consolidated together, and rendered smooth upon the surface, except around the base, where the external fibres being broken off, present the appearance of a brush;" but it is not, I believe, generally supposed that the horn of the common ox is formed in a similar manner. My friend, Mr. Bremer, communicated this observation to me, which he had ascertained by various methods. If a longitudinal section be made of an adult horn, it is found to be solid near its point, but afterwards to inclose a conical cavity, which is widest at the base of the horn. From the closed extremity of this cavity, the substance of the horn becomes gradually, though not

uniformly thinner, until, at the base, it blends insensibly with the cuticle. Of the substances contained in this cavity, the external is a delicate membrane, which varies in colour with the different shades of the horn, and clothes a tough prolongation of the cutis vera: the latter is supported on a central bony process. On examining the outer surfaces of the horn, of which a variegated specimen should have been selected, the middle of the solid part has the appearance of being composed of fibres, extending nearly vertically from the tip of the bony process, or rather of the membrane covering it, to the tip of the horn. The lateral part again appears to be composed of fibres arising every where from the lateral surface of the secreting membrane, and running forwards at a very acute angle. Every fibre does not indeed appear to be throughout of the same colour; so that the general clouding of the horn does not prove the structure to be what is here described; but, on observing the surfaces resulting from many sections, it is difficult not to adopt this supposition. Further, it is easy, where some violence has been used in rending away portions of fresh horn imperfectly separated by the saw, to raise long fibres in directions consistent with the preceding account; but what is most to the purpose, is, that if the horn be steeped in the liquor potassæ for twenty-four hours, and the outer surface has become gelatinous, the next part, being only softened by the alkaline solution, peels readily into fibres, which have the direction above described. The hoofs of animals are described as fibrous; but I have found this structure to vary materially from the simply fibrous structure of horn. The several parts of the hoof, in the horse and ass, *viz.* the frog, the sole, and the crust, are all formed alike, though they differ in solidity. The frog and the sole seem composed of blackish fibres nearly vertical to the vascular surface from which they grow; but the crust, the firmest part of them all, seems to be composed of alternate white and black fibres, which rise from the coronary ligament, and descend at an acute angle to enclose the former parts, cohering with the lateral and vascular surface of the foot by means of peculiar processes termed elastic laminæ. If a section be made through a hoof, the dark colour and hard consistence of the different parts is found to begin abruptly at a well-defined line; above this a narrow whitish layer is found, bounded by a fine black line, the former about one-tenth of an

inch in depth. If the surface of this section be minutely examined, especially with a magnifying glass, it may be seen that the cutaneous surface terminates, or that the horny material begins, at the thin black line I have described. This line is again continually interrupted: long and delicate vascular processes pass through the interruptions into the stratum of softer white matter, the texture of which resemble the opaque substance in a feather. If a transverse line be taken of this white substance, it seems to be perforated by innumerable foramina, which transmit vascular processes from the cutis vera. These vascular processes are continued downward, and pass into the firm substance of the crust, and into that of the sole and frog, reaching apparently half the depth at least of these several substances, and I am inclined to think very nearly to their under surface. On making an horizontal section of the crust, it is seen that the only white matter in it is a thin cylinder, which immediately surrounds each vascular process. Thus the substance of the hoof is rather a tubular than a fibrous mass. The elastic laminæ are of horny matter, which grow from the under part of the coronary ligament, being continuous with the internal surface of the crust.

[To be continued.]

MR. DARVILL ON THE RACE HORSE.

[Continued from page 330.]

HAVING thus spoken of the necessity there is of giving physic to craving strong horses, I shall now proceed to point out the advantages obtained from the effects it produces on the constitutions of such horses.

A horse of the above description may have a dose of physic given him a short period before he runs; it may be given in place of his sweat. If it appears that he has become stale, from the work he has been doing, only observe to let him have the brushing gallop, usual on the morning previous to his sweat; and if the time be judiciously chosen by the groom who trains him, the horse will derive great benefit from the operation of it; for, from the stimulating effects of

the physic in promoting the various secretions of the stomach, intestines, and the different glands of the body and from its also increasing, by the aid of exercise, the peristaltic motion of the bowels, the whole mass of those fluids become so rapidly removed by evacuation, as to cause very considerable absorption to take place throughout the whole system. From this circumstance, some little debility will, of course, arise; but, as the horse is of a strong constitution, and is invariably a good feeder, he soons recovers from the weakness resulting from the operation of the medicine. His general habit of body, as well as his legs, will have become much cooled and refreshed; indeed, it will be perceived very shortly after the physic has begun to work, that the horse's legs have become clean, cool, and in shape; and, to a certain extent, he is, both inside and out, lightened of his flesh. In those two instances, the physic will, with the exception of two points—length and wind,—have produced the same advantages as a sweat would have done; and if the horse is afterwards allowed a sufficient time to be at walking exercise, merely for him to recover his appetite, he soon becomes invigorated. The change produced on the horse's constitution from the effects of the medicine, will have improved him in a most extraordinary way. This will in a very short time, be perceptible in his fresh and hearty appearance when at exercise. If the groom do but regulate the horse's work properly, during the interval of time between the setting of the physic and the day the horse has to run, there is no doubt but that he will come to post in good form.

Having offered such observations on the preparing of strong horses for their physic, and having also made such precautionary remarks as to the quantity of aloes to be administered to such horses, as I hope may, in future, prevent grooms from falling into errors, I shall now proceed to give directions on the physicking of horses of a more delicate constitution. I allude to such of them as have more speed, are more lengthy, and are lighter in their carcasses. They generally run short distances, require less work in training, and are therefore much sooner got ready to run than craving horses. Consequently, these light horses are not so liable to become stale, either in their condition, or on their legs, and to a certain extent, many such horses would be much better without physic. This being the case, it is necessary that I should make some distinction between those which may at times require physic, and those which may not require it; and this distinction I

shall make, by dividing them into three classes. The class of which I intend now to treat may be called the second class. I should term them (to use the language of the groom) light hearted horses. This term is applied to such of them as are generally hearty and playsome when out at exercise; and, as far as regards their constitutions, they are horses which may be considered to be in the medium between the very craving horse and the light one. This middle class of horses certainly require to have physic given them, but they do not require it so strong, nor so repeatedly, as the first class of horses do, which have been the principal subject of consideration in this chapter. This second class of horses may be prepared for their physic much the same as horses in common use, by giving them two or three mashes the day previous, and at night keeping them short of hay.

The quantity of aloes necessary to produce the desired effect of purging these horses, will certainly never require to be increased beyond five or six drachms. The same directions may be followed for their treatment during the time that their physic is working off, as is recommended for such horses in the preceding chapter.

[To be continued.]

ESSAYS ON THE ORIGIN AND NATURAL HISTORY OF DOMESTIC ANIMALS.

By JAMES WILSON, Esq. F.R.S.E., M.W.S. &c.

[Continued from page 333.]

ALL the principal facts in the natural history of the wolf accord with those of the dog. The rutting season commences at the same time, and continues for an equal period in each, and both carry their young for nine weeks. I am aware that Gilibert and others have stated the period of gestation in the wolf to extend to three months and a half; but Frederic Cuvier has lately had ocular proof that it does not exceed that of its congeners. The jackall is a puny and insignificant creature compared with many of its alleged descendants, but the wolf is the most powerful and ferocious of European carnivorous animals. It varies considerably in size and strength, according to the climate of the country in which it occurs. In Lithuania it usually measures five

feet in length from the muzzle to the insertion of the tail, and in more northern forests it attains to a still greater size. In Spain and Italy, on the contrary, it seldom exceeds three feet in length, from which we may conclude, that the wolf is properly a northern animal, attaining its most perfect condition under a rigorous climate. The animals described by Buffon as large and savage wolves, inhabiting Senegal, were more probably hyænas; for all practical naturalists are now agreed, that the wolf decreases in size as it advances in a southern direction.

Both the colour and the coat of this species vary according to the climate. In high northern latitudes it becomes white in winter, and a black variety occurs in Spain and elsewhere. This natural variation of the colour of the wolf is a fact of considerable importance in relation to the present inquiry; for the tendency to become white at one extremity of the series or range of colour, and black at the other, combined with what may be called the central or representative hue of the animal, which is brown, gives in fact three elementary colours of the whole tribe of dogs, and thus so far accounts for the variety of markings which distinguish the domestic breeds.

In a state of domestication, the wolf is capable of assuming and retaining all the docility and gentleness of the dog. The younger Cuvier has more than once rendered young wolves so tame and docile, that but for their insuperable love of live poultry they might have been allowed to wander where they chose. They associated freely and fondly with common dogs, and what is singular, they speedily acquired from them the habit of barking. In general, however, and when left free to manifest their natural instincts, dogs shew a great aversion to the wolf, and the latter, according to Hearne, frequently slays and devours the train dogs of the Esquimaux. This fact of an apparently contradictory nature, is in truth in proper accordance with what we know takes place among other wild and tame animals of the same species. A tame rook has been observed to fall a sacrifice to the spite of a party of marauders of his own race, from a rookery adjoining his domicile; and a strongly marked jealousy, if not positive enmity, seems to exist between the unsubdued individuals of most other species, and such as have been reduced to a state of servitude or domestication. It may be supposed to result, not unnaturally, from that perception of "similitude in dissimilitude" which, according to circumstances, leads alike to the extremes of love or hatred. I

therefore do not conceive that an argument of any value against the identity of the dog and wolf, can be drawn from their alleged hostility to each other.

The productive union of these animals, though doubted by the earlier naturalists, and denied as possible by Buffon, has not only been proved by repeated experiments, but was ascertained and demonstrated by the great French naturalist himself, as narrated in a supplementary part of his work. The result of these observations is so generally known, that I deem it unnecessary to mention them here at greater length than suffices for the cumulative proof in favour of the opinion which I am at present endeavouring to illustrate.

Buffon brought up together a young she wolf and a shepherd's dog of nearly the same age. They gambolled perpetually during the first year, and seemed much attached. In the course of the second year, they frequently quarrelled about their food, and at length became exceedingly ferocious and ungovernable in their tempers towards each other. About the end of the third year, a protracted and fatal combat took place, in which the wolf was killed. The dog also required to be slain, as he had acquired such destructive habits as to spring with fury not only on all other dogs and poultry, but even on men.

The error in this case I conceive to have been, that these animals were kept in solitude, or at least too much withdrawn from the ameliorating influence of human society. A carnivorous animal ought either to be continually subjected to such influence, or left free to the exercise of its natural instincts, such as the pursuit and capture of other unreclaimed species. When this is not the case, that fierceness of temper which is both natural and necessary to all predaceous animals, being neither permanently subdued by domestication, nor occasionally allayed by vigorous and successful exertion produces either the ferocity of madness, which ends in speedy death, or that cankered and restless feeling from which such extreme emaciation usually ensues as likewise ere long to end in death.

[To be continued.]

ON TREATING DISEASE.

To the Editor of the Farrier and Naturalist.

SIR;

I HAVE lately had an opportunity of witnessing the effects of college principles and college practice, in the instance of one of Mr. Coleman's tyro veterinary surgeons, who has been letting them loose on the horses of a neighbour of mine, who having lost several, and having several others in great danger from "college science," sought further assistance. These horses had been copiously bled, had been balled three times a day, and were pretty well flayed,—pouches being formed on the breast, the belly, and the ribs, capable of, and actually containing to the amount of a double handful of tow in each, and a great quantity of the most stinking matter. This was producing great pain and irritation, still it was allowed to remain though the skin was about to slough away, and has since done so in pieces the size of the hand. There seemed to be really no necessity for this harsh and violent treatment; and some horses that have been since attacked in a similar manner, though the illness has in these been rather more severe, have been treated by the practitioner last employed, and who seemed to know his business, in quite a different manner; they have been bled and rowelled it is true, but then it has been in a moderate manner, yet still to the extent that was requisite, as best shewn by the rapid manner in which these horses have recovered; while many of those first taken ill, and pouched somewhat like the kangaroo, have rallied very slowly, and been a long time in getting strength enough to return to work. I have no doubt that "college science" (for the young man knows nothing of horses but what he picked up there) has cost my neighbour a hundred pounds, and might have ended in the loss of half his stock of horses, if he had not very wisely turned it out of his stables. I do not mention any names for reasons that must be obvious.

I am, Mr. Editor,

Yours, &c.

Nov. 10, 1829. A LOOKER-ON.

Printed by John Hill, Black Horse Court, Fleet Street.

THE

FARRIER AND NATURALIST;

OR,

HORSE-MAN'S CHRONICLE.

N°. 35.] DECEMBER 1, 1829. [VOL. II.

ILLUSTRATIONS OF THE HORSE'S FOOT.

To the Editor of the Farrier and Naturalist.

SIR;

I AM not aware if you, and the principal portion of the members of the Veterinary profession, are acquainted with the fact that an ingenious artist of the name of Millar, residing near Red Lion Square, has constructed a series of the most splendid wax models, representing different views of the structure of the horse's foot, made from the preparations and dissections executed for this purpose by Mr. Coleman; now, whatever opinions may be entertained of that gentleman's theory of the physiology of this beautiful and interesting piece of divine mechanism, yet I conceive anatomists and the profession are highly indebted to the gentleman who has made these useful casts. In human anatomy, wax models of the organs of sense, &c. executed by the Florentines, have long been resorted to by the Lecturers of this Metropolis; but I believe this is the first attempt to apply the art to Veterinary anatomy. The artist did me the favour to lend me a set for my inspection, when he informed me, that in addition to a series he was preparing for sale, he also intended to represent the several stages of navicular disease, from Mr. Turner's morbid specimens; and he is now preparing models of the horse's brain, from dissections I have made at his request.

I have to apologize for these remarks, but I should not be doing justice to my own feelings did I not express my approbation of the talents of a young and deserving artist, who long has enjoyed the confidence of the heads of the medical profession, in executing *fac similies* of pathological parts. The insertion of this will oblige

Your obedient servant,

Nov. 17, 1829. H. W. DEWHURST.

TROTTING.

THE following account of a trotting match, which took place some time since, at Amwell, in Berks, may be interesting to some of our readers:

	MIN.	SEC.
The horse trotted three miles in ..	13	30
Ditto	11	10
Ditto	11	8
Ditto	11	12
Ditto	12	16
Ditto one mile	3	50
	63	6

The mare trotted three miles in ..	12	29
Ditto	12	30
Ditto	11	39
Ditto	12	20
Ditto	13	2
Ditto one mile	4	2
	66	2

The horse broke into a gallop in the second mile, otherwise the sixteen miles could have been done within the hour; the mare was beaten in the fourteenth mile. The match took place over three miles of ground, each carrying feather weight*.

* Edinburgh Journal of Science, vol. i. 1826. p. 196.

MR. DARVILL ON THE RACE HORSE.

[Continued from page 349.]

I NOW proceed to the third class. These are horses to which various terms are applied by grooms, to express the delicacy of their constitutions, dispositions, or tempers. Some of them are termed "light and weedy," meaning that they are lengthy and light in their carcasses. Some of them are termed "nervous;" others, "irritable;" and some again are called "flighty." These terms are certainly very applicable to many of this class of horses. But it is to be supposed, that our breed of race horses has been much improved within these last twenty years, as to strength of constitution, or at least, that this ought to have been the case, therefore there may not be quite so many of these delicate horses in training now as formerly; yet as there may be a few of them now and then put in training, it is necessary that I should make a few remarks on the physicking of such horses. As they are invariably very delicate horses, they are seldom or ever engaged to run but in short races, consequently they require but little work in training, and as there is not much waste or spare to come off them, they are generally better without either sweating or physicking. Grooms were formerly very much inclined to physic all descriptions of horses placed under their care; and I myself was much addicted to this practice when a groom. If grooms are still inclined to purge horses of this description, I should advise its being done by giving the horse small portions of aloes—say a drachm morning and evening. A delicate horse will seldom take more than three or four drachms at most, before his bowels will have become affected. The medicine should then be discontinued. There will be no necessity for giving mashes to a horse, by way of preparing him previously to administering small balls of aloes; and during the period of his taking them, he may go to exercise every day. This will assist the action of the medicine, which may, in that case, be given in a less quantity. This is an advantage, for the less medicine such horses take, the better, provided they are in health. When any groom is desirous of giving a second or third course of these balls, he should observe, that the same time should be allowed to the horse to recover from a course of them, as from

a moderate dose of physic. But I cannot refrain from again remarking, that such horses, unless labouring under disease, would be far better without being purged. I have here noticed the classing of horses, only with regard to their constitutions, and how physic may be expected to operate on each horse, according to the quantity of aloes given. The classification of horses in their work will depend on the age, shape, and make of each horse, individually; for it is the structure of animals which principally constitutes their physical powers, and it is from the different points, such as the length, the depth, and breadth of certain parts of a race horse, that a training groom is guided in his opinion, with regard to the speed or stoutness of the different horses he is beginning to train, and which particular points in race horses, I can better describe when I am on the subject of training.

[We here conclude our extracts from Mr. Darvill's book, on the subject of physic; and, although it may perhaps have appeared rather prolix to some of our readers, we hope that the subject has been an acceptable one to others. In many instances our author's meaning might certainly have been quite as clearly expressed in fewer words; still we have thought it better to *let him* speak for himself, than to attempt to give his meaning in language of our own. ED.]

THE ANATOMY OF HORN, HOOF, AND CUTICLE.

[Continued from page 347.]

EACH elastic lamina is received between, and, in the recent state, adheres to two vascular laminæ, which are processes from the cutis vera covering the foot laterally. The elastic laminæ are carried down with the growth of the crust; the vascular laminæ, at their termination, are apparently prolonged for a short space in slender villi, and secrete a horny material, which fills up their interstices; so eventually a solid layer is formed, connecting the extremity of the crust to the horny sole. The sides of the elastic laminæ are finely fluted. The human cuticle, except in the palms of the hands and soles of the feet, is apparently membraniform: the cuticle of the elephant

even has a similar appearance; yet the structure which this substance assumes where it occurs of greater thickness, brings it rather to the nature of horn and hoof, with which it imperceptibly blends. The cuticle of the gizzard of an ostrich resembles the former. Thickened cuticle from the palm of the hand, hardened in albumen and weak spirit, I have found tear in a manner not inconsistent with the supposition that its structure is similar; and, in the magnificent treasures of the Hunterian Museum, Mr. Clift recently pointed out to me the specimen of an exceedingly thick human cuticle, where the appearance more strikingly corresponds with that in the ostrich's gizzard. An instance of the formation of cuticle in a similar manner to that of hoof, I may mention; that of a soft substance, continuous at the back part of the frog, descends around the crust of the horse's hoof for the purpose of protecting its outer surface when newly formed. Now this substance blends with the cuticle, it is very similar in appearance to the cuticle, yet, for some extent, distinctly receives vascular processes like the hoof itself. In the Hunterian Museum, again, there are specimens of the cuticle of the porpoise, and of the narwhale, the structure of which is at first apparently fibrous; on minute inspection, it clearly contains vascular processes, like those existing in the horse's hoof. In the human cuticle in the Hunterian Museum, there is an outer layer less distinctly fibrous; and in the skin of the porpoise and narwhale there is an outer layer seemingly membraniform. It is to be presumed that this alteration in the texture of the part is a spontaneous change favoured by the action of pressure and of the media with which it is in contact antecedently to its separation. The human nail resembles in appearance a thin slice of horn, and in a similar way tears more readily transversely than longitudinally; yet it is probable, though I cannot say that I have seen any thing like this, that it is composed of longitudinal fibres. In other points nails resemble hoof very closely. Its internal surface has elastic laminæ, which are received between vascular laminæ of the skin; and if a longitudinal section be made of the end of a finger, it may be seen that the nail has early acquired its full thickness, apparently where its colour changes; and again, that its tender substance, when newly formed, is protected by a distinct cuticular growth secreted from that fold of skin which overlaps its root. Where this cuticular growth is not artificially

removed, it rises with the nail, and sometimes may be peeled from its convex surface in as many as three distinct layers.

ON BROKEN KNEES, BY MR. CHERRY.

[Continued from page 39.]

HAVING commenced the subject of broken knees, and mentioned some of the causes that lead to this very common accident, I left off with a horse having tumbled down and the interrogation of "what then ensues?"

In proportion to the rate at which the horse is going, will in general be the degree of injury: severe laceration being in most cases occasioned by the acquired momentum carrying the horse forward with the knees scraping the road, or rather the road scraping the knees, until a portion of skin, tendon, and ligament is actually cut away.

Now whenever this mischief extends to laying open the knee joint, if the horse is one of only moderate value, the best practitioner that can be employed is the knacker; for although life may often be saved, it is with the result of a stiff and contracted limb: nor is even this partial recovery obtained but after considerable expense in keep and treatment, often much beyond what the horse is worth when he is said to be cured.

With valuable high bred mares or stallions, the case is otherwise; though reduced to the state of a stiff limb their value in the breeding stud is but little diminished. However, race horses in training, and hunters getting into condition, are not exposed to the concussions of hard roads, and the scraping of a surface of broken flints or granite. With these kind of horses, severely cut knees are therefore less common than they are among the various kind of roadsters.

It often happens that knees are merely bruised without there being any solution of continuity; from this state they commonly get well of themselves; the swelling subsides, pain gradually goes off, and the limb regains its wonted freedom. By occasionally bathing the swollen parts with tepid water, or any of the usual cooling lotions, the return to a healthy state takes place more

quickly. Patience, even in this minor state of injury, is requisite; for if the horse is used while the limb is yet stiffened by swelling, it is moved with difficulty, and another tumble down commonly ensues; the result of which is, most likely, much more serious in its consequences. If the horse is full of flesh, and the swelling is considerable, physic may be given with advantage.

Now the swelling occasioned by a mere bruise, and which as above shewn is only temporary when left entirely to itself, may be made permanent, to a certain extent, by a repetition of injury while the parts are yet swelled, or by a blister or other stimulating application being used while there is already existing a considerably increased degree of action in the part; even strong exercise, without the injury being repeated, has a tendency to produce this state, which is called a capped or bumpy knee, and is often of more consequence than even one blemished by loss of hair. The ligaments become thickened, or there is adhesion to tendon, or perhaps a slight degree of exostosis: now, all or any of these tend to produce a diminished pliability of the joint, though frequently to so limited an extent as not to be perceptible. Bruises of any kind, though the horse has never been down, will produce this state, and its existence is more readily ascertained by a side view, when, instead of the natural flatness of the knee, a cap or bump is perceptible.

All wounds of the knee from tumbling down, must of necessity be contused wounds; they are not like a clean cut, where the separated parts being brought together and kept so for a short time, firmly unite; but they are wounds with a loss of substance which has to be supplied by new granulations: when the quantity of substance lost is but small, it is soon supplied; and if the new formed parts are not bruised while yet tender, all goes on well. There is generally a little prominence at first, but this soon is reduced to a level with the surrounding skin; the surrounding hair grows and covers it, and a mark is hardly or not at all perceptible. If, however, the new formed parts are bruised or irritated, though this may sometimes happen merely from the horse laying down, then the granulations go on increasing, often until they form a considerably projecting substance.

The common cry in modern times is, keep down inflammation, but here the state commonly called inflammation is that by which

a cure is mainly effected; and it is worth while to be a little more particular on the manner in which this is brought about.

To admit of parts uniting that have been violently separated, they must be kept in apposition: therefore swelling takes place; this makes the limb stiff; it is kept straight; pain makes the animal disinclined to move it, and the injured parts are comparatively at rest. How wrong, then, must it be to force the horse into motion, as is often seen to be the case.

Again, there is a great loss of substance, either from the parts being scraped away, or from being bruised, killed, and afterwards sloughing away. This loss is to be replaced, and how is it done? Why, by more blood being sent to the part; by its circulating quicker: this occasions heat, as well as swelling, and it is called inflammation, which many, who are ignorant of the laws of animal life, try to subdue; they bleed, they purge, and try to cool the part as much as possible; that is, they try to diminish the quantity of blood circulating in it, or, in other words, to diminish the quantity of that fluid from which growth to supply the substance lost can alone de derived.

The cure of broken knees is in reality a work of time; the injured parts regenerate slowly; nature will not allow her own efforts to be wantonly infringed on, and very often the best treatment consists in looking on and doing nothing.

[To be continued.]

REVIEW.

The Natural History of Insects. Vol. 1. Murray. 1829.

THIS is one of the most agreeable volumes on the science of Entomology that has come under our notice, and when we consider that from peculiar circumstances, many persons are precluded the study of this science, they cannot but hail this volume with delight; more especially our country readers, who are interested in the cultivation and propagation of the bee, for example, whether as a source of amusement or of profit. This work is abundantly illustrated with wood engravings, which enable the

reader to comprehend the author's remarks more fully. It is decidedly a compilation from the works of Reamur and Huber, but we must confess that the author could not have consulted better authorities on a subject which scarcely interests the multitude; and when we consider the labour and experience of those eminent naturalists, in this department af zoology, they are very deservedly worth greater publicity than has hitherto been given them. If we are to consider this as a specimen of the zoological works that are to constitute the Family Library, we have only to observe, that no library is perfect without them; for, in the volume before us, we have the Sciences of Anatomy, Physiology, and Natural History so blended together and devoid of technical terms, as to be fitted to the *dullest* comprehension, and affording food for reflection to the learned. But we think we have said enough; let our readers, more especially those in the country, read the work and judge for themselves.

TERMINATION OF MR. SEWELL'S CASE OF LITHOTOMY ON THE HORSE.

[WE copy the following letter from the "Lancet," of November 21st, and hope Mr. Assistant, &c. &c. Sewell will not be angry at our having forborne to mention him of late. We will always endeavour to do him justice when brought under our notice, and though we cannot say we shall be *happy* to insert such cases as his famous ones of lithotomy and amputation, still we should be very sorry to see him pine from neglect. Mr. Randall's case will be found in No. 29, at p. 261, of the "FARRIER AND CHRONICLE."]

To the Editor of the Lancet.

SIR;

THE perusal of an old and successful case of lithotomy on the horse, communicated by Mr. Randall, in No. 313 of the "Lancet," has led me to inquire into the result of a highly-wrought case of the same nature, that was performed by Mr. Assistant Sewell at the Veterinary College, as I am one of those person who deem the

sequel of an operation by far the most important part of it; not that the facts of this latter case, as given in No. 292 of the "Lancet," imparted anything *very* remarkable; though, such as they were, the case was thought, by the grave operator, to be of sufficient novelty and interest to make a long and imposing paper, read at the *College* of *Physicians*, of all places, in March last.

I have waited for some time to see if the fatal sequel would be recorded in the same manner as the operation, but hitherto all has been silent. It appears that the horse in question was never again fit for work, and was obliged to be destroyed in about two months after leaving the College, in consequence of inability to retain the urine in the bladder. The parts divided in the operation appeared to be healed, but the constant dribbling away of the urine, rendered it impossible to make any use of the animal. The preparation of the parts is now, I understand, safely deposited, but without any accompanying history of the case, in the museum of the College, alongside Mr. Sewell's preparation of the penis that was amputated a few months past, in consequence of that member being in a state of paralysis from superpurgation while under this worthy assistant's care.

I am, Sir,

Your obliged humble Servant,

London, Nov. 6. N. B.

EXPERIMENTS WITH PRUSSIC ACID.

To the Editor of the Farrier and Naturalist.

SIR;

MY object in sending the following results of experiments made with prussic acid on the brute creation, is with the hope that a more able and experienced naturalist than I, or one possessed of more *vous* in the distribution of the nerves throughout the animal system, will, through the medium of your valuable periodical, explain why this virulent poison does not affect the *erinaceus europæus* with its sudden and instantaneous fatality, as well as others of the same class: that it does not, I shall proceed to show by the following experiments.

Having procured a hedgehog *(erinaceus europæus)* for the purpose of examining the muscle that contracts it in a globular form, I poured into its mouth, as the best way of destroying it, thirty minims of Scheele's prussic acid, and left it in the basket it was brought in, being at the time called away; but on returning, in about two hours, I was astonished to find the animal quite as lively as before the administration of the poison, fearful, very conscious to annoyance, and enjoying its full contractile power. It then occurred to me that some of the acid must have been spilt in its exhibition, which induced me to give forty minims more of the same acid. In an hour and a half it was dead, although the heart's action was kept up for ten minutes after respiration had ceased, which had been laborious only for thirty-four seconds previous to actual death. This induced me to make further experiments, always with the same results, with one exception however only, in which, after the same dose, the animal was dead in fifty minutes, and appeared moribund in ten minutes after the administration of the acid. I made *post mortem* examinations of the several animals, and found the usual morbid appearances present that result from death by this poison, *viz.* a vascular appearance of the stomach, the vessels of the brain very turgid, a general smell of the acid throughout the system. I have in my possession a divided skull of the hedgehog; it is (truly) small in proportion to the animal; the sphenoid bone contains but four perceptible foramina; the cribriform plate of the ethmoid is perforated, as its name infers, throughout its whole surface. The processus mamillaris does not seem to extend so forward as in other animals, and the ethmoid bone does not present that conical appearance, but is divided by a ridge, concave, and perforated on each side by a regular line of foramina; in other respects it differs not much from others of the class mammalia of the same size. I shall not conclude without noticing a few other experiments on other animals, and making a few remarks. Sixty minims of Scheele's acid was given to a dog about the fox size; it was made immediately unconscious, and staggered forward about two yards, and howling piteously, expired in thirty-five seconds. Half an ounce of acid was intended to have been given to a large dog, but in his struggles to get free, ʒiss. perhaps of it was spilt. This dog, on account of his physical powers, withstood the effect of the acid for one

minute, but was immediately afterwards paralytic; he fell in ninety seconds, but life was not extinct for four minutes. Twenty drops of Scheele's acid was given to a dog of about the same size as the first, who in two minutes threw it from his stomach, and the air gave him back his full powers in twenty minutes. Forty minims more were then administered, and death took place in twenty minutes. In all the above cases the brilliancy of the retina negatives the theory of death being caused by suffocation. I gave a cat two drops of acid; death ensued in a minute and a half. I rubbed the cornea of a dormouse with a very minute quantity of acid; death ensued in a very few seconds. I have seen a horse rendered unconscious by rubbing the acid on the cornea, and killed by half an ounce. On referring to Blumenbach's Manual, we find that the proportion of brain to the body in the horse is as $\frac{1}{400}$; in the hedgehog is as $\frac{1}{168}$; in the cat, the average is about as $\frac{1}{94}$; the size of the dog's head differs too much to form an accurate calculation. Thus we find that the horse, whose brain is least in proportion to his bulk, is killed by the least quantity of prussic acid; that the hedgehog, whose brain bears twice the proportion to his whole bulk as that of the horse, requires 240 times the quantity of prussic acid, and at least 30 times the space of time, to be destroyed. The cat, with a greater proportion of brain than the hedgehog by nearly one half, is affected nearly equally with the horse. Thus those with the greatest and least proportion of brain are affected nearly equally with prussic acid, while that one having an intermediate quantity of brain (the hedgehog) requires 240 times more prussic acid, and 30 times the space of time, to be destroyed. Hence the effect of prussic acid on animals is not as the proportional mass of brain to the volume of the whole body. Query, Is it proportional to the quantity of nerves distributed in the alimentary canal?

I remain, Sir,

Yours,

E. H. a Constant Reader.

Winchester, Nov. 21, 1829.

ESSAYS ON THE ORIGIN AND NATURAL HISTORY OF DOMESTIC ANIMALS.

By JAMES WILSON, Esq. F.R.S.E., M.W.S., &c.

[Continued from page 351.]

BUFFON tried similar experiments with young dogs and the cubs of foxes, but without any success as to the production of a mixed breed; and although some of our mongrel terriers manifest very strongly the external aspect of the fox, I believe that no productive intercourse has ever been ascertained to take place between these species. I have already stated my reasons for presuming *a priori*, from the difference of form and habits, that such would be the case.

Notwithstanding the fruitless nature of Buffon's first experiment, ample conformation, both by accident and design, has been since afforded of the intimate alliance of the wolf and dog. Buffon himself, in the supplementary part of his work gives the history of a mixed progeny down to the fourth generation, some of which continued, after this long descent, to exhibit as strong a resemblance to the wolf as to the dog. One of these especially, a female, never barked, but expressed her feelings by a wolfish howl. Her ears were erect, and her tail long and pendant.

But the most remarkable fact illustrative of the near relationship, if not of the actual identity of the dog and wolf, was ascertained by our arctic voyagers. In the supplement to the appendix to Captain Parry's first voyage, we find the following observations: "Those naturalists who believe that no animal in a perfectly natural and wild state, will connect itself with one of a different species, will consider the long agitated question of the specific identity of the wolf and dog, as determined, by a circumstance of frequent occurrence at Melville Island. In December and January, which are the months in which wolves are in season, a female paid almost daily visits to the neighbourhood of the ships, and remained till she was joined by a setter dog belonging to one of the officers. They were usually together for two or three hours; and as they did not go far away, unless an endeavour was made to approach

them, repeated and decided evidence was obtained of the purpose for which they were thus associated. As they became more familiar, the absences of the dog were of longer continuance, until at length he did not return, having probably fallen a sacrifice in an encounter with a male wolf. The female however continued to visit the ships as before, and enticed a second dog in the same manner, which after several meetings returned so severely bitten, as to be disabled for many days." p. 185.

The fact mentioned in the above quoted passage goes far to remove the only remaining objection to the experiments of Buffon, namely, that they were made upon animals existing under constrained and artificial circumstances, and therefore could scarcely be regarded as indicating the natural inclination of the animals themselves. But here no such objection holds good. We witness the voluntary cohabiting of two creatures brought up under entirely different circumstances: the one with as much of wildness as the wildest region of the earth could induce upon an originally savage nature,—the other so altered in its form and aspect by the immemorial subjection of itself and its ancestors to the dominion of man, as to have lost almost all outward semblance to the stock from whence it sprung, and yet notwithstanding this disparity of manners and condition, they mutually recognise and acknowledge each other, and the immediate representative of the natural and unaltered species, "like the wild envoy of a barbarous clan," seeks and obtains the affection of the enslaved descendant. Unless all our preconceived notions regarding the legitimate distinctions of species are radically false, this proves the identity of the wolf and dog.

I formerly mentioned a few particulars in order to shew that young wolves are capable, under judicious management, of being trained up and domesticated like common dogs; I may also, as a counterpart, briefly allude to the change of character which has been observed in the latter, when forced to shift for themselves, in other words, the re-assumption of the wolfish character by the domestic dog. In America, and in several countries of the ancient continent, there exists troops of wild dogs of a domestic breed which have regained their liberty. All these dogs live in numerous predatory bands and under the influence of a regular system of tactics, precisely the same as that to which we see the wolves and

jackalls naturally subjected in North America and the old world. And I may here add that this existence of wild dogs of the domestic breed, living in a fierce and unreclaimed state in the forests and plains of many different countries, demonstrates that no physical or artificial changes on the earth's surface, produced by the agency of man, could have extinguished the original source, when their descendants, after regaining their liberty, are thus able to breed and prosper in a state of nature. This observation, I think, strikes at the root of a theory, or rather hypothesis, maintained by some naturalists, who, unable in any way to disincumber the subject, give it the slip by asserting that we must now for ever seek in vain for the original type of our domestic races, in consequence of its extinction, either by universal servitude or actual extermination.

Now it would certainly be surprising if the original source of the plurality of our domestic dogs had ceased to exist in an independant state, when we see all the wild species of our other domestic animals still flourishing in their original situations, notwithstanding their more confined limits, the smaller number of their young, and their comparatively defenceless nature. We find, for example, the *agagrus* or wild goat in Sardinia, and the *mouflon* or wild sheep in Corsica; and these troops of wild dogs which we know to exist in the midst of European colonies, in spite of the continued efforts to destroy them, prove that in the infancy and early progress of human society, a naturally wild species could neither be entirely subdued nor utterly exterminated. There is, in fact, no evidence whatever from history, tradition, or any of the phenomena of nature, of the extinction of any wild animal of the dog kind, and as the ancient writers mention all the actual species of that tribe in the countries where they still exist, it may much more reasonably be concluded that one or more of these wild species are the actual source of our various domestic breeds, than that the source itself has been entirely extirpated.

From the earliest periods of which we have any detailed records, down to the more authenticated histories of modern times, there has never been any indication given of the existence in Asia Minor of more than four wild animals of the dog tribe, *viz.* the hyæna, the wolf, the fox, and the jackall. In regard to the first of these species, I have already mentioned that it is not now regarded

by naturalists as belonging to the genus *canis*. The fox, I have also observed, is distinguished by some strongly marked characters of form and manners. The wolf and the jackall, therefore, are alone entitled to particular consideration. The claims of the wolf have, I trust, been satisfactorily exhibited; but, as I formerly hinted, the multiplicity of form, of size, and of locality, in our domestic races, indicates a complicated origin; and it cannot be denied that many of the southern dogs present so marked and peculiar a character, that their descent from the jackall is obvious. Pallas informs us that the dogs of the Kalmucks scarcely differ in any thing from that species; and Gueldenstaedt, in the 20th volume of the Petersburg Transactions, has dwelt at length, though I think, too exclusively, on this branch of the genealogical tree. It is, however, deserving of an attentive consideration.

The jackall, (*canis aureus*, Lin.) familiarly called the "lion's provider," inhabits most of the warm and temperate countries of Asia; and occurs in many parts of Africa, from Barbary to the Cape of Good Hope. Its general colour is tawny brown on the upper parts, and yellowish white below. Its ears are erect, somewhat resembling those of the fox, but shorter and less pointed. Its body is rather compressed, about 2½ feet in length, and from 18 to 20 inches in height, the hinder extremities being somewhat raised. The hair is long upon the back and tail; the tail is rather short, and tipped with black.

[To be continued.]

SPEED OF THE EAGLE.

AN eagle can fly in a minute 6,013 English feet. A hawk, belonging to Henry II. king of France, flew away from Fontainbleau, and was caught twenty-four hours after at the island of Malta. In that time, therefore, this bird had travelled 1000 English miles, which make about 22 miles per hour, or 3,690 feet per minute.

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THE

FARRIER AND NATURALIST;

OR,

HORSE-MAN'S CHRONICLE.

N°. 36.] DECEMBER 15, 1829. [Vol. II,

ON THE EFFECTS OF TEMPERATURE ON THE SKIN OF HORSES IN DIFFERENT STATES,

AND

ON THE VENTILATION OF STABLES.

[*A part of this Essay appeared in the first volume, at page 425; as however it is very short we reprint it here, that the whole may appear together.*]

THE breathing of a pure atmosphere is essential to the preservation of health in all animals.

With regard to horses, it may be remarked that, so long as the means which nature has abundantly provided for resisting the effects of heat and cold are not destroyed, great and sudden changes of temperature may take place without producing any injury.

But when these repelling powers are removed, the skin is powerfully acted upon by apparently slight causes; and, through the medium of the skin, the health of the horse is frequently deranged to a considerable extent.

Among the means for repelling the effects of temperature, considerably varied, the greasy scurf produced by the skin may be placed as the principal. The skin is continually producing this scurf; and as it approaches the surface of the coat, it becomes more dry and is shaken off in the form of dust: the quantity

retained depends on the length and state of the horse's coat or hair.

These will differ in degree in different horses, but all have coats in a great measure proportioned in length to the degree of cold and wet to which the horse is exposed at the time of the coat being produced; and therefore horses that stand in stables have their new coat generally short and fine in proportion to the warmth of the stable.

This fineness of coat is only preserved by avoiding long exposure to cold. Brightness is given to it by the currycomb, the brush, and the rubber; but these means, while they produce a bright, sleek, glossy coat, which, combined with other circumstances, indicate condition, necessarily render the horse so treated, obnoxious to a degree of cold that he might otherwise be exposed to with impunity. A due regulation of these means, according to circumstances, constitute skill in stable management.

From what has been said, it appears that nature has made ample provision for guarding against the effect of sudden changes of temperature; how wrong then must it be to deprive the horse of this equable protection without providing a countervailing one; yet we daily see it done, and hear surprise expressed when the natural consequences ensue. Formerly stables were kept too hot; fresh air was rigourously excluded, and, in producing a fineness of coat, the horse was compelled to breath so foul an atmosphere, that disease was often induced, and death sometimes followed. Of late years however the fashion, in this respect, has materially changed; and now, with many people, cold stables are prescribed as a cure for every complaint. This doctrine has been promulgated from the Veterinary College, and is certainly acted upon at that establishment; but the number of deaths that there take place among a few horses, and the miserable appearance of most of the patients in those stables, notwithstanding due allowance is made for the effect of disease and pain, must shew that horses whose coats are clean, who are well dressed and free from the protecting scurf-like matter, as many are when sent to that establishment, cannot bear the change without suffering materially.

Barrack Stables have for many years been ventilated, as it is called, in accordance with the suggestions of the principal Veterinary Surgeon to the Cavalry, but, in reality, have been reduced to

the condition of open sheds: loop holes have been cut in the walls; holes have been cut in the doors; windows have been unglazed, and in this state they have been ordered to remain both winter and summer; in mild close weather when air circulates slowly, and in cold blowing weather when it rushes through every crevice the same uniform degree of openness is to be kept up. To equalize the temperature of these stables is quite impossible; no means exist to admit of its being done, and, during the variable weather of spring and autumn, while the horses' coats are yet short, in a cold day they may be seen to suffer severely. The use of currycomb and brush has gradually been diminished; that is, the natural means, for equalizing temperature, has been gradually allowed to remain in larger quantity, and it is not unreasonable to suppose that this change, in the degree of dressing horses' coats, has been brought about by experience demonstrating that, with polished hair and a clean skin, horses cannot bear even the exposure of a troop stable. Look to officers' stables and there we find cleaner horses with finer coats; not less healthy, and better looking, but then most generally some of the attempts at exposing horses to all weathers, are counteracted by plugging up the holes with straw, and something like uniformity of temperature is produced.

However, the doctrine of exposure to cold, under any circumstances, being not injurious to health, has taken deep root among those who have eyes, yet see not; it is one of the fallacies of the modern school, and the object of these remarks is to shew, that when we deprive a horse of a natural protection against extremes of cold as well as heat, it becomes necessary to supply the want, that this loss occasions, by other means; to shew that stables may be too cold as well as too hot; and to enforce attention to the obvious fact that, when the means for guarding against change of temperature are destroyed, the means for equalizing temperature should be provided; that stables which are lofty, as, for instance, twelve, fourteen, or even sixteen feet high, are the most healthy, and require less attention in regard to the quantity of air to be admitted; that when the space in which horses have to breathe is more confined, so in proportion must be the means for admitting air according to the weather, and for readily adjusting the size of the apertures through which it passes. It is not unusual for many

changes to take place in the course of a day; the means for regulating the admission of fresh air must therefore be easy to use, or the intention will be defeated. The regulating apertures must be within reach of the hand, the foot, a stick, or some other mode by which they may be easily used.

A full supply of pure air to breath is the object; and to bring this about two sets of apertures are necessary; one set for instance in the upper part for the escape of the heated air, and another set not far from the floor to admit atmospheric air; these latter openings should be so situated that the air on entering is not directed in a current on a horse, but diffused as much as possible.

A great outcry has been raised by College theory against horses standing on straw during the day, but how injury is sustained by their doing so has never been shewn, and the actual comfort in appearance, and in reality resulting to the horse from standing on an elastic bed instead of slipping about on smooth stones must be apparent to every one. That cleanliness is necessary cannot be disputed for a moment, and that this is quite as easily obtained with comfortable straw beds as with bare stones is certain; indeed considering that the interstices get soaked with urine and feculent matter, from which exhalation goes on uninterruptedly, there is often more noxious effluvia floating in the atmosphere of a stable, with its stinking exhaling surface exposed and in full operation, than when it is covered with straw.

FRED. C. CHERRY.

Clapham, Dec. 1829.

ON BROKEN KNEES, BY MR. CHERRY.

[Continued from page 360.]

IT commonly happens that, when a horse tumbles down and breaks his knees, a great deal of commisseration and attention is at first lavished upon him. Now, the greater part of this is worse than useless—it does harm: the regret and attention diminish together,

and are perhaps worn out by the time they might be usefully exercised; the owner considers his horse spoiled; it is a loss, and there is an end of it.

It has been already shewn that swelling of the limb, by the stiffness it occasions, and the disinclination to motion that soreness produces, are auxiliary to a cure: these however may take place in an inordinate degree, and, to keep them within bounds, frequent fomentation with warm water is by far the best treatment that can be pursued.

Whenever sloughing of the bruised parts goes on tardily, and the surface of the wound but slowly assumes a healthy appearance, the granulating process will be materially promoted by dressings moderately stimulant; and of these the common digestive ointment is the best.

It often happens that some of the small tendons which pass over the surface of the knee are wounded, and the sheath in which they slide being laid open, an unhealthy discharge goes on; in which case the milder caustics may be used, as for instance, the sulphates of zinc and copper, either in solution or in powder. These will however often fail, when the actual cautery may be gently applied to that part of the surface which requires it.

At other times a thin, sanious, unhealthy discharge will take place from the whole surface of the wound; this also may be stopped by sulphate of zinc in solution, by lunar caustic, or any medicament similar in effect, when healthy pus will soon form a scab and become a natural and most effectual shield to the wound.

In proportion as there is a greater or less surface of skin destroyed, so will the filling up be more or less tardy; for the farther the new growth of skin advances from the sound part the more weak will it be, and consequently slower in growth. The state of the knee must now be carefully watched, almost daily; it will be found that the wound, so far from being circular, has its edges extremely irregular, the skin at some points being much farther advanced than at others: while in some places it will be still growing with comparative vigour, in others it will be thin and indolent; to these the actual cautery should be applied; the common square-ended firing iron is very convenient for the purpose, carefully passing the edge of it over the edge of the wound close to the indolent

part of the skin, not following any given line but merely applying it to those spots where requisite.

Now the actual cautery, applied in the manner here directed, has a two-fold beneficial effect: it mechanically removes a portion of the edge of the wound, and leaves it less prominent than the surrounding skin; and, at the same time, stimulates the skin to new action, and produces a fresh growth. The degree of blemish very materially depends upon the care now bestowed. The firing must not be rash and indiscriminate, but the part requiring it, often so small as to admit merely of the corner of the iron, must be picked out; and this treatment must be assiduously, yet cautiously, pursued. The eschar formed by the hot iron will separate spontaneously, or its separation may be promoted by a very minute quantity of digestive ointment. The indiscriminate use of ointment of any kind to the whole surface of the knee, at this period, rather tends to induce a growth of rough and curly hair.

It frequently happens that the joint may not be opened at the time of the accident, but the capsular ligaments being severely bruised, the living principle is destroyed; in a few days the dead matter sloughs away, and the full extent of injury and an open joint is then apparent. In severe injuries a hasty opinion is therefore often an erroneous one; having washed the knee clean, and carefully removed any grit or other extraneous substance lodged in the wound, it is much better to wait the result, than to seek to ascertain it a few days earlier, by officiously groping with the finger or a probe, at the risk of doing mischief beyond that occasioned by the accident; minute examination at this period can have but little influence on rational treatment.

When however the joint is open, and a cure is attempted, the best treatment is to restrain motion in the limb as much as possible; and it is often advisable to employ a sling, when the horse suffers much from not laying down. When, however, this becomes necessary, the sling should be used for occasional support only, leaving the horse at other times to be supported by his legs; in this way rest may be obtained without the mischief that results from permanent compression of the viscera. A plaister of linseed powder made into paste may be applied over the wound, and kept there by a bandage extending both above and below the knee, to

be renewed twice in the twenty-four hours. Under this management the joint will sometimes close, and at other times anchylosis will take place without any other kind of treatment. On the other hand, life will often sink under the irritation that attends an open joint; and the occurrence of lock-jaw is not unfrequent. Soothing the limb by bathing it with warm water, and keeping the bowels open with sloppy bran mashes, will be of service. The constitutional irritation that so generally takes place soon after the injury has been inflicted will sometimes subside, leaving the wounded joint in an indolent state. When this is found to be the case the hypochondrium may be stimulated by injecting spirit of wine, or even a weak solution of corrosive sublimate. In this way life will frequently be saved, but it must never be expected otherwise than with an anchylosed joint, and of course a stiff limb.

The numerous cases that occur, where the value of a horse is most materially diminished merely from a scar on the knee,—merely from a blemish that is only skin deep,—induced me, some years ago, to direct my attention to the devising of means whereby the appearance of a broken knee might be got rid of, where the injury done extended to appearance only.

Cutting round the edge, and dissecting out the blemished portion of skin, has been tried, and has failed; because there would still be a large cicatrix left on the wound filling up: and when the edges of the skin have been brought together by suture, no better success has followed; because the skin, being on the stretch, the sutures have given way, either from the swelling which always takes place, or from the ordinary flexion of the knee in walking, or still more especially, in laying down. Indeed these means have rather increased the evil than diminished it.

It is well known, that a long and narrow wound will cicatrise much quicker and more perfectly than a circular wound; it therefore occurred to me, that this kind of wound might be produced by dissecting out a portion of skin that should be included between two curvilinear incisions, both commencing at a point some distance above the blemish, and extending to a point some distance below it; this would leave a wound in the shape of an elongated elipsis, the edges of which being brought together would form nearly a straight line. By making two other incisions equi-

distant, one on each side, and corresponding in length with the two first made incisions, the effect of tension of the skin, on the sutures used to bring together the two edges formed in the first instance, would be taken off.

I accordingly proceeded to try the experiment, and took from the knee of an ass an eliptical portion of skin, about four inches in length and about one inch in breadth, across the broadest part of it, leaving a gaping wound of corresponding dimensions. Having made the lateral incisions, the edges of the gaping wound were brought together, and held nearly in contact, by sutures. There then were two wounds to fill up, but each was of only half the extent of the former, and there were four healthy edges from whence granulation would go on, instead of two. As to the linear wound in the centre, it might be expected to partly unite by the first intention, which it did, and partly to fill up by granulating. The wounds granulated in the most favourable manner; the sutures were taken out in due time, and very soon the knee had the appearance of three straight lines, similar to those produced by the firing iron. These scars continued gradually to diminish, and in the course of a twelvemonth, when I showed the subject of experiment to my friends, Goodwin and John Percivall, we could only discover the lines by carefully separating the hair and seeking for them.

Although the experiment succeeded most completely, still the subject on which it was tried was but an ass; and, if it would not succeed with a horse, it was of no value. I therefore purchased, in Smithfield, a mare with a cicatrix on the knee, of about an inch and a half in diameter. I proceeded in the same manner as with the ass; but, the portion of skin to be removed being larger, it became necessary to have the incisions larger in a proportionate degree, and they were accordingly from seven to nine inches in length. The cicatrix to be removed, besides being rather large, adhered to the subjacent parts, and there was likewise ecchymosis, apparently from a recent bruise, which was not perceptible until the part was cut into.

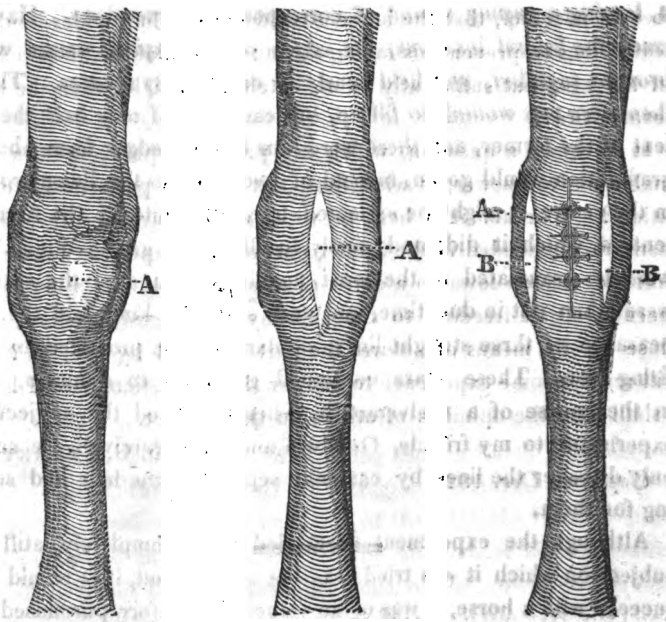
The nature of the operation I have described will probably be rendered more clear by the following diagrams:

In FIG. 1. A, may be considered as indicating a scar or blemish.

In Fig. 2. A, represents the wound after the eliptical portion of the skin has been dissected away.

In Fig. 3. A, represents the eliptical wound closed by sutures, and B, B, the state of the wounds made by the lateral incisions.

Fig. 1. Fig. 2. Fig. 3.



The inflammation that ensued ran high, and the wounds in a few days assumed an unhealthy aspect; still union was perfect at the extremities of the line of approximation produced by the sutures, to the extent of at least an inch. It was one object to ascertain how far nature, unassisted, would overcome the infliction of these wounds, and therefore the mare was left entirely to herself. For a time the swelling of the limb prevented her laying down, but being in a low state of debility, she on the eleventh day after the operation went down, partly of her own accord and partly by falling. There was not much mischief done at this time, and union remained firm to a considerable extent, but in trying to get up she plunged and threw herself about, till the knee coming in contact with the

ground, it was bruised and torn very much, and the prospect of a successful result being now at an end, the mare was destroyed.

Here then was ultimate failure, but much is to be learned from it. It does not appear to me, that the operation should ever be undertaken if adhesion between the skin and subjacent parts has taken place, or the cellular tissue has lost any of its elasticity, or where the cicatrix exceeds an inch in diameter; and it seems essential to prevent mischief, that the horse should have a sling under him, so adjusted as to prevent his laying down; not so tight as to take him off his legs, but sufficiently so to catch his weight when the legs become tired.

It becomes a question, which my present experience does not enable me to answer, at what time is it best to perform this operation? Whether it is best to wait, until nature and the treatment recommended in the former part of this paper have done all that they will do towards a cure; or at once, while the injury is yet recent, to give freedom to the skin by the lateral incisions, and close up by means of sutures the part wounded by the fall? It will require some experience to answer these questions, and I hope I shall have the opinions of others on this subject.

FRED. C. CHERRY.

Clapham, Dec. 1829.

ESSAYS ON THE ORIGIN AND NATURAL HISTORY OF DOMESTIC ANIMALS.

By JAMES WILSON, Esq. F.R.S.E., M.W.S., &c.

[Continued from page 368.]

THE history of this animal becomes interesting and important, when we consider it as one of the probable sources from which several races of our domestic dogs have been derived. Anatomists have discovered a singular identity between the jackall and the dog in many important parts of their organization. It is not my province to enter into these details, but I may state generally, that an attentive comparison scarcely exhibits any sensible difference between the internal structure of the jackall and that of the

shepherd's dog. The jackall has always abounded in Asia Minor, where all the theogonies of the west have placed the cradle of the human race; and it is in these same countries that goats and sheep still occur in their original state. The reduction of the dog to a state of servitude, if not anterior to, must have been at least coeval with, the submission of these last-named animals, and the species, to have been accessible to the first families of mankind, must have inhabited the same countries. Now, as the jackall not only agrees with the dog in structure, but also in its habits and mode of life, it has hence been regarded as the true wild dog, and as the source of most of our domesticated kinds. This is the opinion maintained by Pallas and Gueldenstaedt; the former of whom asserts that the Kalmuck dogs are in truth neither more nor less than jackalls. I willingly coincide in the sentiments of these eminent men, under the reservation before-mentioned, in favour of the great northern dogs and certain other varieties, which I have endeavoured to show, claim a more immediate alliance with the wolf. It would, for example, be difficult to prove the descent from the jackall of those dogs which existed in both the Americas, and especially in the Antilles, prior to the arrival of Columbus: and as there are at least three wild species of the dog kind in South America, *viz.* the red wolf, the grey wolf of Paraguay, and the wood-dog of Cayenne, besides the antartic dog of the Malouin Islands, it has been regarded as more logical, in the absence of direct physical proof, to admit that the domestic dogs of the country have been derived rather from the indigenous wild species, than from those of the ancient continent; especially when we consider, on the one hand, how limited most wild animals are in their voluntary migrations; and, on the other, how improbable it is that any of these foreign peoples had obtained their domestic species by means of a prior intercourse with the ancient world. It is by no means likely that the dogs mentioned by Pietro Martyre and Oviedo, as living with the inhabitants of the Little Antilles, and the Caraibs of Terra Firma, where derived from species foreign to America. As the Spanish authors referred to, both of whom where contemporaneous with, and witnesses to, the discovery and conquest of America, describe these dogs as being of various colours and kinds of coats, we may infer that they had been, even then for a long period reduced to servitude. They were all mute, that is to say they never

barked; but that faculty I have already shewn to be neither natural nor innate, but rather acquired by habit, as domestic dogs run wild, have no other cry than a sharp or prolonged howl, and the silent species of barbarous nations speedily acquire, under altered circumstances, the bark of our own domestic kinds.

To conclude my brief history of the jackall, I may observe that there are two races or kinds of this animal, *1st*. The better known species, called the Indian Jackall; and, *2dly*. That from Senegal, described by M. F. Cuvier under the name of *Canis Anthus*. These animals, though specifically distinct, have bred together in the garden of plants. This is a fact of considerable importance, as shewing the facility with which a mixed breed from the jackall might be obtained; and as it was previously known that the wolf manifested the same inclination towards different varieties of the dog, we have thus obtained a more extended knowledge of a feature in the character of the canine race, which throws considerable light upon our inquiries. When we see that both the wolf and the jackall breed with other species, and that all our domesticated dogs breed with each other, although some are scarcely distinguishable from the wolf, and others seem identical with the jackall, we can scarcely doubt that all such domesticated varieties have in fact arisen primarily from these two animals,—the southern from the jackall, the northern from the wolf; and that the intermediate varieties have sprung from an intermixture of the jackall dogs on the one hand and the wolf dogs on the other, afterwards crossed and commingled in many conceivable ways, both by accident and design, that domestication and the altered habits of life which ensue from it, have been strongly influential in moulding the form and character of the dog-tribe, is evident from this, that the dogs of wild and secluded nations, whose domestic animals may be supposed to exist most nearly in a state of nature, are all more strongly allied, either to the wolf or the jackall, than those which partake the fortunes of civilized men, who dwell in large cities or thickly peopled countries. And this approximation to the aspect of the wild animal in the one case, and departure from it in the other, is in fact the truest index to the primitive types which it is possible to obtain.

I shall conclude this first branch of the inquiry by observing, that the great migratory movements of different tribes of mankind

would naturally produce crosses between the various domestic breeds, or between these and the allied species of different kinds which still continued in a state of liberty; from which diversified unions, aided by the influence of climate, food, habit of life, and education, would result those numerous varieties which the skill of man, in later ages has contrived to render permanent for his own advantage, by a careful attention to the method of breeding. Thus from two or three original sources, or distinct kinds, have been derived about ten times the number of mixed races, many of which, and chiefly those which lead the most artificial or refined lives, have lost all traces of resemblance to the stock from which they sprung.

An Essay on the Minute Anatomy and Physiology of the Organs of Vision, in Man and the various Orders of Animals.

(Continued from page 328.)

ON minutely examining the choroid coat, we find it to be formed by a numerous assemblage of arterial and venous vessels, united by a fine cellular tissue into the form of a membrane; and on the external surface we perceive the ciliary nerves lying externally to the vessels, running forwards on the convex surface. Besides these nerves, there are the ciliary arteries and the venæ vorticosæ *. This disposition of its vessels gave rise to an opinion that the choroid coat was composed of two laminæ; *i.e.* that the external was formed by the veins, and the internal by the arteries. RUYSCH (the celebrated discoverer of the art of making anatomical preparations) was the first anatomist who made this division; and the internal laminæ was called *tunica ruyschiana* by his son, in honour of his father †. Mr. CHARLES BELL is of opinion that it exists; and observes that from its being organized, we are warranted in allowing this division, as well as those of the intestines, into three tunics ‡. MORGAGNI and ALBINUS § were of a similar opinion; and the former goes so far as to assert, in the most

* SYN. Vortices Vasculosi. *Steno.*
† Ruysch. Epist. Annotat. i. xiii.
‡ Anatomy of the Human Body, vol. iii. p. 84.
§ Albini Annot. Acad. lib. vii. cap. iv.

positive terms, that FRANCISCUS SYLVIUS, and GUENELLONIUS, had demonstrated the double lamina of the choroid coat before the time of RUYSCH*. It may perhaps appear rather bold in me to deny the existence of two membranes of the eye, *viz.* the albuginea and the ruyschiana, after the assertions of the eminent anatomists I have quoted; yet, with deference to them, *I do reject the idea of the choroid being a double membrane;* and am of opinion that most minute anatomists of the present day agree with me in considering it as *one vascular membrane.* After long maceration it becomes transparent, and then its structure is evident when held between the eye and the light; it appearing like a net-work of vessels decussating in every direction †, and not separable from each other. Parts of it have been found ossified ‡.

I may mention, in support of my own opinion, that Baron HALLER denied the existence of the *ruyschian membrane,* but he curiously retains the name, in order to denote the black surface caused by the pigmentum nigrum §.

THE LIGAMENTUM CILIARE ‖.

About the distance of a line from the cornea the external surface of the choroid coat begins to be enveloped in a grey, soft, pulpy tissue, of moderate thickness, representing a circular belt, to which different names have been attached. It is usually called *orbiculus ciliaris,* or the *ciliary circle.* ZINN denominates it the *annulus cellulosus,* or *frenula membranata.* SOEMMERRING ¶, from its structure, made up

> "*Nervis ciliaribus, vasisque his intermixtis sanguiferis,*"

describes it under the term of *annulus gangliformis.* RUYSCH creates great confusion by his use of terms: he calls this the *ligamentum ciliare* **, (which I adopt as the most expressive), which he makes synonymous with the corona ciliaris; and the lines seen on the posterior surface of the iris the *processus ciliaris musculus,* or rather he means by this name the straight

* Morgagni Epist. Annot. xvii. 3.

† The author of the article *Eye,* in the Encyclopædia Britannica, is of my opinion as regards the human eye; but states that he has been able to demonstrate its existence (*i.e.* the double laminæ) in sheep and other quadrupeds; this accords with my own observation.

‡ Mr. Lawrence in Rees' Cyclopædia.

§ Fyffe's Compendium of Anatomy, vol. ii. p. 57.

‖ Called *corona ciliaris,* by Professor Bell.

¶ Icones oculi humani.

** Epist. Annot. xvii. II.

fibres of the iris *. DUVERNEY, RUYSCH, and WINSLOW †, following the example set them by FALLOPIUS, calls the *corona ciliaris* also *ligamentum ciliare*. But the word *ciliary ligament* is used by others in a wide and different sense; *viz.* for the circular root of the ciliary body and iris. What Professor BELL calls the *halo signatus* ‡, HOVIUS calls the *ligamentum ciliare*. In Baron HALLER's fifth figure of the eye this circular root of the ciliary processes is called *orbiculus ciliaris*. MAITRE-JEAN, HALLER, and others, call the whole body, a corona ciliary circle; M. FERREIN, *l'anneau de la choroide*; and M. LIEUTAUT named the ciliary processes *rayons ciliares*, and the root of the corona ciliaris and iris, *plexus ciliaris* §.

After this catalogue of names, all tending to signify the same part, I shall commence my description of the Ligamentum Ciliare: it is more than a line in breadth, its anterior part is thicker and closer in its structure than the posterior; it adheres with some little firmness to the tunica sclerotica, at the groove observed in the latter, close to its inner connexion with the margin of the cornea. It may be easily separated by the finger, but is strong enough to resist the impulse of air driven between the choroid and sclerotic coats by the blowpipe. FONTANA has described a triangular canal as running along the circle of this spongy substance, intermediate to its connexion with the sclerotica ‖, partly formed by the groove at the edges of the cornea and sclerotica; and filled by an aqueous fluid. The ciliary ligament is united more closely with the choroid, and can scarcely be separated without injuring the latter. It is always found of a whitish or grey colour, very distinct therefore from the dark coloured choroid, and not so broad as the ciliary processes within. It receives in its

* Ruysch uses this expression: "*Ligamentum ciliare neutiquam esse considerandum tanquam musculum ad pupillæ et humoris crystallini motum destinatum, totumque hoc negocium perfici a processu a ciliare ut et a circulo musculari posterius in confinio pupillæ sito.*" Thes. Anat. ii. 15. See also the explanation of fig. IV. of this Thesaurus, where we have "*Iris enim est facies exterior, processus lig. ciliares facies interior.*" Charles Bell.

† Winslow's Exposition of the Anatomy of the Human Body, translated by Dr. Douglas.

‡ By this term Mr. Bell implies the impressions left by the ciliary processes on the surface of the vitreous humour. Haller calls them "*Striæ retinæ subjectæ ligamento ciliari.*" (Fascii vii. Icon. Oculi.) Dr. Monro (Secundus) erroneously calls them the "*ciliary processes of the retina,*" and Winslow uses the term "*sulci ciliares;*" a more correct term, in my opinion, than any other. Zinn calls them, after Professor Camper, "*corona ciliaris,*" and accurately describes them.

§ Mem. de l'Acad des Sciences.

‖ This has been noticed by Sœmmerring, but more particularly by Murray.

substance the ciliary arteries and nerves in great abundance, in their passage to the iris. The ciliary ligament marks the line of distinction between the choroid and iris.

THE IRIS.

The iris was for a long time described as a direct continuation of the external lamina of the choroid coat, and the ciliary processes from the internal. The simplicity of this membrane has necessarily destroyed that opinion; and on minute examination it appears that the iris is a distinct membrane, both in its structure and functions, separated from the choroid by the ligamentum ciliare, in the anterior margin of the substance of which it seems to be encased; the external edge of this circle projecting forwards beyond that of the iris, as may be seen when the cornea and sclerotic coat is removed.

(To be continued.)

ON NEUROTOMY, AND THE CASES TO WHICH THE OPERATION IS APPLICABLE.

By RICHARD ROGERS, *Veterinary Surgeon, Knightsbridge.*

[Read at the Veterinary Society.]

THE operation of Neurotomy, or the division and excision of a portion of nerve, is an operation of considerable importance to the veterinary practitioner, inasmuch as great credit or discredit may result from its application; it therefore becomes highly necessary that we should ascertain the cases in which the operation may be productive of good effect, so that by a judicious selection we may rescue a valuable remedy from the disrepute that its injudicious application has undeservedly brought upon it.

The conditions proper for its employment appear to me to be the following:

1*st*. In Chronic Disease of the Coffin Joint.

2*ndly*. In long standing Contraction of the Foot.

3*rdly*. In Exostosis—as ringbone, ossified cartilage, ossific deposits in the neighbourhood of the fetlock joints, or partial anchylosis below the fetlock joint.

In the chronic stages of these diseases, it is rare indeed that any

good effect is produced by any other means than by the operation of Neurotomy, at least for a permanency; more particularly in coffin joint disease, where the diseased joint is brought frequently into action, even if the animal is kept from work: so that irritation and inflammation is kept up for a considerable time, although under the most judicious treatment.

In chronic exostosis, the bone mechanically preventing the free motion of the parts, creates irritation and lameness, by pressing upon the surrounding soft parts.

In coffin joint lameness, I have divided and excised portions of the metacarpal, metatarsal, and posterior pastern branches, and with the best effect.

In one instance, although there was a return of sensation, there was no return of lameness; proving that, by removing sensation, the parts were brought more fully into action, and thereby a permanent beneficial effect was produced.

In a case of contraction existing in the foot of a cart gelding, the operation of the division on each side, above the fetlock joint, removed the lameness; but at the expiration of two years and a half, sensation returned, the lameness recurred, and the animal, being aged and worn out, was destroyed.

In contraction of the foot, by removing or diminishing sensation, the parts are brought to perform their functions with more freedom, and the lameness is removed; and, in most cases, the general health and condition of the animal is improved. It has also been stated, on good authority, that the prolific quality has been restored, both to stallions and mares labouring under painful diseases of the feet, by the performance of this operation.

In exostosis, by the performance of this operation, the pain is removed, the parts acquire increased motion, and the animal becomes useful for slow work.

It has also been stated, that the operation is useful in cases of quittor and canker, with the intention of diminishing irritation, so as to cause the animal to throw a sufficient degree of pressure upon the diseased parts; this might be objected to from a supposition that the secretive process would be suspended or diminished; but, as far as my obversations extend, such is not the fact, as I have had opportunities of observing that the operations of secretion, absorption, inflammation, and suppuration, are in no

way affected by the operation of Neurotomy, as performed on the metacarpal nerves and its branches.

It is well known, that a fatal state of irritation and inflammation is frequently produced by accidental wounds of the foot; and it has occurred to me, that such irritation might be removed by a division of the nerve, either on one side or both, according to the situation of the wound; by which means a great deal of suffering would be saved to the animal, and the danger of irritation and fever be diminished.

I have also been given to understand, that in cases of tetanus, arising from wounds in the foot, the nerves have been successfully divided.

It may be proper to observe, that after the operation of Neurotomy, we are to guard against accidental injuries by resorting to the application of the leather sole, and the employment of a clever farrier, to attach the shoe to the foot; for I have no doubt that, in many instances, the foot has been wounded by the carelessness, or want of skill in the farrier. The foot has been wounded, suppuration has followed, and a separation of the hoof from the sensitive foot has taken place; and the veterinary surgeon has had the discredit of the case, and the operation has been cried down as one of danger and inutility.

GLANDERS AND FARCY IN HORSES.

IT is now more than five years since the Governors of the Veterinary College requested Mr. &c. &c. Sewell to accept one hundred pounds from the funds of the college, for his having undertaken experiments for the cure of glanders, and Mr. Coleman having given his sub. a good character, they also at the same time added one hundred pounds a year to his salary.

Now this stimulus did so far excite the activity of Sewell, that he actually advertised a book he intended to publish on the subject of glanders; for experiments in which disease he had been specially paid; but to this day the book has not made its appearance.

These experiments were supposed to be made at the Veterinary College, the managers of which still profess that "the grand object of the institution has been, and is, to form a school of veterinary science, in which the anatomical structure of quadrupeds of all kinds, the diseases to which they are subject, *and the remedies proper to be applied, might be investigated and regularly taught*;" and a resolution is on record, which directs the publication of any particular information which may be derived by the professor in the course of his professional duty.

From this report of the professor, reasonable people might expect some account of Mr. Sewell's proceedings, however desirous he might himself be of obscurity and concealment; but when the college books had been in vain searched for the professor's reports of information derived in the course of his professional duty, and such information was asked for at one of the annual meetings, the question was met with a look of surprise, followed by admitting that the resolution had remained a dead letter. Excuse was, however, attempted upon the score of some nice distinction as to the professor being merely desired to submit his information at the *next* meeting; even this was not done, and why that particular period was the one only, when the objects of the institution would be benefited by the publication of information, was not stated. The fact therefore stands, that Sewell, in 1819, for his alleged zeal and assiduity, and the supposed additions he had made to veterinary science, received three hundred pounds, and an addition to his salary of fifty pounds per annum; and, in 1824, for something he had done respecting glanders, a further sum of one hundred pounds; and, as stated, for his active and unceasing zeal, another addition to his salary of one hundred pounds per annum. Notwithstanding these large sums have been so liberally given, not a sentence of information has been published by this Mr. Sewell, or his colleague Mr. Coleman.

We are led to this subject by a prospectus, which has just appeared, of a book on glanders and farcy, by Mr. Vines, "the professor's assistant at the Veterinary College," and from what we have seen of Mr. Vines's talent for observation and perseverance, we shall be much disappointed, if the work does not really contain important information.

The prospectus is to the following effect:

"GLANDERS AND FARCY IN HORSES.

"In the press, and will speedily be published, by subscription, a complete treatise on the above diseases, by Richard Vines, Veterinary Surgeon, the Professor's Assistant at the Royal Veterinary College.

"This work will contain a copious description of glanders, which has hitherto been so imperfectly treated of, including the varied manner of its appearances, both when following other diseases, as strangles, common colds, inflammation of the lungs, &c. or when occuring independent of such maladies.

"Farcy, and its succeeding to inflammatory diseases, as grease, injuries of parts, &c. and its nature, independent of, and in conjunction with glanders, with its degrees of virulence and susceptibility of cure at separate stages, will be clearly laid down.

"The proximate and exciting causes, the healthy and morbid appearances of parts, the alterations in the discharges which take place from ulcers in the nostrils and skin, and the changes in structure at different stages of these diseases during life, as well as *post mortem* investigations, will be carefully and correctly illustrated by *coloured engravings*, together with such an accurate description as to enable the reader to judge in most instances of the probability of cure.

"The current opinions, prevailing errors, &c. now existing among practitioners, authors, and lecturers, will be candidly considered and commented on.

"The method of treatment and cure which will be recomended, is economical and effectual, admitting of rational explanation, the remedy can be easily administered, and its astonishing success, in a large majority of cases, has induced the author to offer the result of his experience to his professional brethren and the public.

"The peculiarly favourable situation which the author has held for some years, aided by private investigation, has afforded him such remarkable opportunities as to fully justify the publication of his views respecting this important and highly destructive malady.

"The work will form one octavo volume; with engravings ex-

ecuted in the most expressive style. Subscription, *ten shillings and sixpence.*

"Communications, *post paid*, containing subscriptions or names, to be addressed to Mr. Long, Veterinary Instrument Maker, No. 217, High Holborn, or Mr. R. Vines, Royal Veterinary College, and by whom only they are received.

"*Dec.* 6, 1829."

Here, then, is a plain statement of the information Mr. Vines has it in his power to give: he boldy brings himself before the public, and therefore we hope he will do so with advantage to himself, as well as to the art he is by his labour promoting, and, as it appears, without college money or college support.

Whenever interest is at variance with duty, it requires but little knowledge of human nature to say which will preponderate, to place them in opposition is, therefore, bad in principle: yet, at the Veterinary College, something like it may be found. We do not say, that Mr. Coleman is actuated by sordid motives, but still it is a circumstance that might by possibility happen: see then how little interest he can have in promoting the successful treatment of glanders as compared with the present mode of cure by a pistol bullet. All the veterinary surgeons in the army are from Mr. Coleman's school, and the cavalry horses are all supplied by him with medicines for a given sum; so that profit is in proportion to the small quantity of medicine consumed. How then is it reasonable to expect that Mr. Coleman should zealously advocate a course that is to be pursued at his expense? For whatever medicine would be given to cavalry horses in this disease, would be given at his expense. In protracted treatment this might be considerable, while, on the other hand, a ball from a pistol costs the contractor for medicines nothing.

CASES OF WORMS IN THE BRONCHIA OF A PIG, AND IN THE STOMACH OF A HORSE.

[WE are indebted to Mr. Rogers, Veterinary Surgeon, Knights-

bridge, for communicating to us the two following cases; and he has been kind enough to forward for our inspection a number of the worms. Those taken from the pig belong to the class filaria, or thread worm, and are a good specimen. Those taken from the horse have the usual characters of the tænia, or tape worm.

A case of worms in the stomach of a dog, will be found related at page 303, of the present volume. ED.]

WORMS IN THE BRONCHIA OF A PIG.

I WAS consulted in the autumn of 1828 by a friend, respecting the diseased state of two pigs, affected with what is commonly called the husk. The symptoms were, frequent, difficult, and long-continued cough; partial loss of appetite; and daily loss of flesh. They were bled, had sulphur given in their food, and were liberally littered with clean straw; but in the course of a few days one of them died, and upon dissection worms were found in the bronchia, floating in a large quantity of muco-purulent fluid. Every other part of the animal appeared healthy, the lungs having a natural appearance. The other pig survived the attack some time; his condition improved; but I had no opportunity of ascertaining the state of the bronchia, when he was killed.

WORMS IN THE STOMACH OF A HORSE.

UPON examining the viscera of an aged and worn out cart horse, at Winckley's slaughter house, near Blackfriars Road, about six months' since, I found a large quantity of tænia in the stomach and small intestines; they were from one inch to two and a half inches long, and of the usual width of those existing in the human subject and dog: the horse was very much emaciated, arising from phthisis pulmonalis and poor keep. The worms were numerous in the stomach and duodenum principally; there were a few in the other small intestines, but none in the large intestines. There was quite sufficient cause for death, from the state of the lungs.

MOOSE DEER OF CANADA, AND OTHER PARTS OF NORTH AMERICA.

THIS beast (the *Orignac* of the French) is larger than a middle-sized ox, and high in proportion; in form, it much resembles the European stag or red deer. This is the largest of the deer kind yet known; its horns, however, which are broad, palmated, and six feet wide, are not equal in extent to the fossil deer-horns dug up in Ireland, &c. which frequently measure ten feet and upwards, and are consequently a different species from the Moose Deer: these latter have usually three fawns at a time; the flesh is not dry, but moist and luscious. This creature is slow of foot, and usually harbours in thick and extensive swamps. The Indians are peculiarly fond of their tongues, smoked and dried.

The following is the French account of the Orignac or Original, in M. De Mont's Description of Canada, anno 1604:

"The Orignac is the tallest creature except the camel, being higher than the horse; its hair a grey dun, near as long as one's finger; his head very long, with fine teeth; he carries his horns like a stag, which have palms as broad as a plank three feet wide, garnished with sprigs or antlers, growing upwards all along the outward side; his feet like a stag's, but flatter; the flesh short and delicate; he feeds in meadows, and on the tender tops of trees."

The Moose Deer's horn seems to agree very nearly with those of the Elk of Sweden, Poland, Russia, &c. &c.

ADDRESS.

IN concluding the Second Volume of this Work, we return our best thanks for the support we have received, which far exceeds our expectations.

It has however been suggested to us, that the leading title of "FARRIER," is inappropriate to our Work; that the term "*Farrier*" is merely applicable to the worker in iron, and fixer of the shoe to the horse's foot: and cannot include the wide scope of Veterinary subjects that it is our aim to embrace. The title, thus fairly objected to, will therefore, in the first number of the forthcoming volume, be dropped, and that of "HIPPIATRIST" will be substituted for it.

For the information of any of our readers who may not particularly have made the Greek language their study, we give them the roots of the above title, which is simply derived from ιππος, *equus*, or a *horse;* and ιατρος, *medicus*, or a *physician;* and is the simple yet expressive name of one of the best and most ancient works on this subject.

In changing the name of our Work we trust it will not be supposed that the principles of independence on which we have heretofore acted, will be swerved from. Firm in the cause of truth, the career we have commenced will be steadily pursued, and from the handsome offers we have lately received of support, by communications on the subject of horse-knowledge, we hope our claim to patronage will be increased. It will be our endeavour to deserve the good opinion and support of every real friend to the Veterinary Art and lover of the Horse.

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END OF VOL. II.

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