The modern system of farriery, comprehending the present entire improved mode of practice, containing all the most valuable and approved remedies, accurately proportioned, and properly adapted to every disease the horse is incident ; including rules for the management of the healthy horse, as feeding, stabling, grooming, and conditioning / by George Skeavington.

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GEO.E SKEAVINGTON, M.R.V.C.

Geo.e Skeavington

The MODERN SYSTEM OF FARRIERY, as Practiced AT THE PRESENT TIME AT THE ROYAL VETERINARY COLLEGE, and from Twenty years Practice of the Author

GEO.E SKEAVINGTON, M.R.V.C.

THE HORSE FEEDER.

LONDON
PUBLISHED BY W. EMANS, CLOTH FAIR.

THE

MODERN SYSTEM OF FARRIERY,

COMPREHENDING THE

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AS FEEDING, STABLING, GROOMING, AND CONDITIONING.

BY

GEORGE SKEAVINGTON, VETERINARY SURGEON, M.R.V.C.,

AND

LATE VETERINARY SURGEON IN THE BENGAL HORSE ARTILLERY.

LONDON:

PUBLISHED BY WILLIAM EMANS, 31, CLOTH FAIR,

AND SOLD BY ALL BOOKSELLERS IN THE UNITED KINGDOM.

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PREFACE.

It is most certain, there is in no one period of history where the Horse has been ranked so high in general estimation, or rendered of such intrinsic worth, by a display of his various powers, as in the present age of experiment and refinement.

To this cause may, undoubtedly, be attributed the very great attention paid for some years past to the breed of the distinct and separate classes for the turf, field, road, or draught; and, as their value has, in a very short space of time, absolutely doubled their former worth, we ought to be proportionally anxious for their preservation, whether for sport, convenience, or emolument.

Well aware of the arduous task of attempting to eradicate habitual prejudices, or the improbability of reconciling attachments of long standing, still we trust that the *Modern Farrier* will be found a book of reference, which the private gentleman, the farmer, the traveller, and all who have interest in the Horse, may find valuable. For, to dispel the gloom of ignorance from the brow of obstinacy, would be a task of *Herculean* labour; the object of this work being to guide persons from the gross ignorance, which but too generally pervades what are called *common Farriers, or shoeing smiths*, who are a set of gentry that have always an extensive quantity of ignorance to display, as well as a great number of *infallible receipts* which have been handed down to them from their fore-fathers, and is in fact considered a kind of extremely valuable property by these "*kill or cure*" practitioners: however, very fortunately for the poor horse, from the indefatigable exertions and scientific knowledge of Professor Colman and Assistant Professor Sewell, of the Royal Veterinary College, London, and the number of veterinary surgeons that emanates from that establishment yearly, we hope in a great measure ere long to see the empiric in veterinary medicine totally unknown.

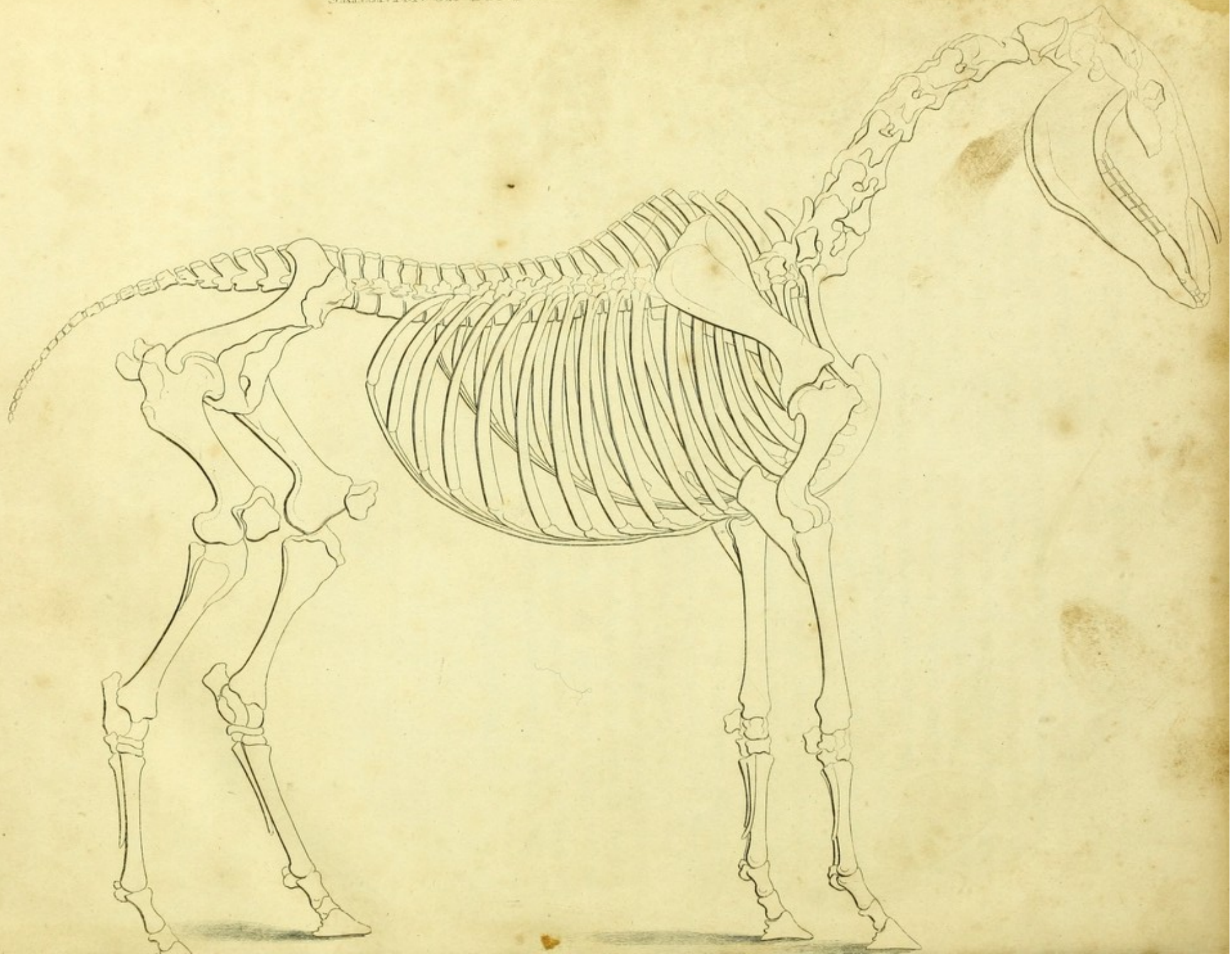
This publication being undertaken to render plain and familiar, a subject that has been treated on by some of the most learned veteri-

narians of the present day; still, the great ability displayed by Mr. Blane, Mr. Clark, Mr. Percival, and others, though works of great science, are more adapted to the veterinary student, than to all persons connected with the Horse.

The prescriptions we have given will be found applicable to all the disorders to which they are attached, without a long list of articles, which nine times out of ten operate one against the other, therefore doing more harm than good.

In classing the diseases of the Horse, we have somewhat differed from most writers, but it has been done, to be plain and quicker understood; which is the object we have aimed at. As this is a book of practice, of nearly twenty years experience, we have inserted nothing but from real knowledge.

SKELETON OR BONY STRUCTURE OF THE HORSE.



THE

MODERN SYSTEM OF FARRIERY.

PART I.

INTRODUCTION.

The very great discoveries made in the present century, have certainly extended to every art and science that could be materially improved by intense study and application; and, to none more than the administration of medicine, and its effects upon the human body, by some of the most learned men in every part of Europe; and, from the rapid and universally acknowledged improvements in this system, the most admirable advantages have been obtained, and incredible cures performed.

In an age of such general refinements, the ancient mode of practice is not only exploded, but its origin and advocates nearly buried in oblivion. The voluminous herbals in the libraries of the botanical votaries, have been, in the late years of improvement in medical science, such as to render of little use or respect any prescription of ancient date, when put in competition with the rational and improved system of modern improvements.

Farriery, as well as human surgery, has now been obliged to yield and acquiesce in the change; for what was not willing to be acknowledged, time, truth, and experience have fully confirmed, the very great danger to which some of the finest Horses in the world were exposed, by the ignorance and obstinacy of those to whose care they were intrusted—even every stable boy had his remedy for almost every disease: but the education that is now to be obtained at the Royal Veterinary College of London, has introduced something like a rational system of rectification and improvement in farriery, to rescue from the danger of perpetual experiments and torture, the noblest and most valuable quadruped in the creation.

It has been hitherto customary, in the introductory part of works on the present subject, to enlarge upon the shape, make, figure, and qualifications of the Horse for the turf, field, road, &c. but, as we have given our opinion at some extent on this subject in the "*Horseman's Monitor*," it is needless to repeat it here; therefore, we shall confine ourselves to the diseases of the Horse, for which our work is intended.

Much mulitfarious matter has constantly

been introduced relative to the age of the Horse by his mouth; where, after all the observations on the subject, it becomes an acknowledged fact by every writer, each sign is doubtful, and liable to deception, and the various arts and designs of the dealers, who, by engraving and burning artificial marks in some teeth, and totally extracting others, render the Horse of any seeming age, most applicable to their purpose.

And these faults cannot be easily discovered but by grooms or judges, who are in the constant habit and practice of making such remarks and observations; nor is there any matter relative to a Horse, requiring a nicer judgment, than to ascertain to a certainty the age by his teeth *only*, having absolutely seen two men of abilities and experience, on the opposite sides of a horse's mouth, at the same time declare him of different ages; when, by exchanging sides, each changed his opinion, and the horse proved by the common rule, to be coming a year older on one side than the other.

But, as the age of the horse is so distinctly abstracted from, and unconnected with, the description of disease which becomes more immediately the subject of discussion; I shall leave the former to the subtle decision of the stable disputants, to whose province it may be said to belong, and whom it more materially concerns.

THE HISTORY OF FARRIERY.

The art and profession of the Farrier, which have comprehended, from the earliest event to the present period, the Medical and Surgical Care of the Horse, as well as that of manufacturing and fitting him with shoes.

These men, as labourers of iron, were originally termed "ferriers," or "farriers, from the Latin word *ferrum*, iron; and their craft "ferriery; which word has since, either by a very usual corruption or improvement of language, been changed to "farriery." This term remains yet in general use, to its fullest extent, and not inaptly; since, notwithstanding the laudable attempts of many enlightened men, at various periods, our blacksmiths form a very large majority of horse surgeons and physicians. Nor is such defect peculiar to this country, but it prevails in an equal degree throughout Europe; even in Italy and France —countries which preceded us many centuries in Veterinary science, and from which indeed we have derived its elements.

On the establishment of a College, about forty years since, for the instruction of pupils in animal medicine and surgery, under a French professor (Saintbel), we imported also from France the term *veterinary*, and the veterinary art has since been substituted for farriery by practitioners of liberal education. The supposed derivation of the term veterinary is from the participle *vectum*, of the Latin verb *veho*, to carry; *quasi*, vecterinary, thence applied to the care of animals which carry, or beasts of burden. The change to veterinary was easy, and in course; and if, according to the opinions of some, we ought to revert to the radical orthography, and write *ferriery* instead of *farriery:* a parity of reasoning, and desire of close adherence to the root, would induce us to retain the c, and pronounce the word vecterinary. It is easy to conceive what revolutions in language such attempts would occasion if generally put in practice; but by no means easy to discover the utility of a capricious and partial adoption of such changes in particular words.

The term veterinary was originally used by the Latins (vegetius), and has a more extensive import than our farriery, which relates to the Horse solely; whereas the former comprehends the care, both in health and in a state of disease, *of all those animals domesticated for the laborious* service or the food of man. In a history of general science, those branches may, however, be properly considered together.

From the manifest great consequences of the services of the domestic animals to man, in a state of civilization, they have, from a very remote period of antiquity, been the object of his study and attention, both as to their ordinary management, and that which was requisite for them in a state of disease; for the latter a peculiar system was formed, including a materia medica and general mode of treatment, considerably distinct from those in use with human patients.

Of the authors of this system, whether Greek or Roman, nothing worth notice has been handed down beyond an occasional citation of names, to be found in *Collumella*, the Roman writer, who lived in the reign of Tiberius, and treating at large on the general management of cattle; and in *Vegitius Renatus*, who lived two centuries afterwards, and wrote more professedly on animal diseases. Both these authors have treated their subjects in elegant and classical Latin; and the latter most particularly has urged, in very eloquent and forcible language, the necessity of a liberal cultivation of the veterinary art, as well on the score of profit as of humanity.

It ought to be remembered, however, that neither of these authors had the benefit of any professional acquaintance with medicine or surgery, obscure and imperfect as were those sciences in their days; and that no ancient treatise on the diseases of animals, written by a professional man, has descended to posterity. Nor is this in the smallest degree to be regretted; since we not only find, in the authors above-mentioned, a sufficient field for the satisfaction of our curiosity, but also the most ample proofs of the irrationality of ancient principles and practice, and their total inapplicability to modern occasions. On Veterinary Anatomy and Physiology, no attempts at discovery or improvement are to be traced in those writers—a singular defect, considering the progress which had been made in Egypt and Greece, in both human and comparative anatomy. Celsus is the only physician of eminence among the ancients who is reported to have written on Veterinary Medicine, a part of his works which has not survived; nor is it probable that the loss we have thereby suffered is very considerable. Xenophon is the oldest writer on record; but his treatise is confined to the training and the management of the horse for war and the chase. With respect to the fragments of ancient Greek and Latin Veterinary writers, collected and published by Ruellius, Chief Marshal or Farrier, to Francis I. King of France, they appear to have been generally the works of military men, or other lovers of the Horse; perhaps none of them were of the medical education. We learn from the works of one of them (Theomnestus), which is confirmed also by others, that the ancients had a knowledge of the disease called the "glanders" in Horses and other cattle, which was de nominated, in those days, "the moist malady.'

The chief merit of the ancient Veterinary writers consists in their dietetec rules and domestic management. They were in the

habit of purging their animals; but, in other respects, their medical prescriptions appear to us an inconsistent and often discordant jumble of numerous articles, devoid either of rational aim or probable efficacy. In the operations of surgery, particularly in phlebotomy, and, indeed, in various methods of manual treatment and control of their animals, the ancients were far more skilful: and what they have left on the symptoms, is of no consequence in the present advanced state of science, still it serves to demonstrate that they had not been inattentive observers of animal diseases, however inferior they might be in their mothods of cure. These ancient writers are yet to be esteemed superior, not only in learning and eloquence, but in professional utility, to the majority of their pupils of the fifteenth, sixteenth, and seventeenth centuries.

On the revival of learning in Europe, at the above periods, the works of the ancient Veterinary writers were eagerly sought after, and translated in Italy and France. At the same dawn of opening light and enthusiasm for the resuscitation and enlargement of the bounds of useful science, the anatomy and physiology of the human body became the grand objects of pursuit in the Italian schools. Veterinary anatomy followed in course; and the descriptive labours of Ruini and others, on the body of the Horse, have not only served for a groundwork to all the schools of Europe since, but succeeding discoveries and improvements, notwithstanding the vast advantage of a general diffusion of light, have not been hitherto sufficiently considerable to detract, in any eminent degree, from the well-earned fame of those early and original anatomists.

Veterinary medicine was now generally cultivated, and, in some instances, under regular medical professors. Every branch of the equine economy, whether relative to harness and trappings, equitation and military menage, or riding the Horse, the methodical treatment of the *hoof*, with the invention of various forms of iron shoes, and their scientific adaptation, were pursued with general assiduity and success. In this latter department, Cæsar Fiaschi distinguished himself, and either invented or recommended the welted shoe, proposing a substitute for calkins and forknails, which, it appears, were then in use, as well as the *lunette*, or a short half-moon shoe, which, some few years ago, the learned Professor Coleman was a great advocate for.

The new Veterinary science having diffused itself over a great part of the Continent, could scarcely fail of occasional communications with this country, where the care of diseased animals had been committed immemorially to leeches and farriers, persons generally belonging to the most illiterate class of society. It is probable, that such communications became frequent during the reigns of the first Tudors; for we learn from Blundeville, who wrote in the time of Elizabeth, that French and German farriers were not only employed by the Queen, but, in general, by the nobility and gentry of the country. Yet, our improvements in this country, in consequence of foreign aid, with regard to the medical and surgical branches at least, were by no means great, extending our view from the period of which we now speak, to the earlier part of the eighteenth century.

No medical name appears during that long interval upon our Veterinary list, nor any one of the smallest scientific pretension; we mean as far as respects the medical, anatomical, or surgical branches; that of Snape excepted,

who was farrier to Charles II., and whose family, it appears by his book, had served the crown in that capacity upwards of two hundred years. Snape's anatomy of the Horse proves him to have been a well-informed farrier. His anatomical system, arrangements, and nomenclature, were, of course, drawn from the Italian school; but he dissected, and his descriptions were confirmed by his own observations. His numerous plates are bold, accurate, and handsomely executed.

Whether or not he published the book of cures which he promised, we are uninformed; but he was, doubtless, far better qualified for that task than those of his profession upon whom that branch of the Veterinary art unfortunately devolved. Stephens, Martin, Clifford, Morgan, were very early writers among the leeches and farriers. The book of Mascal, farrier to James I. is most laughably illiterate; and we cannot help wondering with a late author how such a book could possibly pass through numerous editions in a learned age, and which even possessed learned and rational books on the same subject. The above list may be concluded with De Gray, and the celebrated Gervase Markham, a cotemporary of Blundeville, who continued to publish until after the Restoration, and whose works were stuffed with every absurd, barbarous, and abominable juggling trick, as well as with every useful invention which had issued from the brains of either ancients or moderns. As a specimen of the medical part of the horse-leech craft of Markham, he prescribes human ordure in certain cases for the Horse, both externally and internally. Yet this man's works had a most rapid and universal sale, and continued in repute until the days of Gibson, and even long afterwards, among the country leeches and farriers. It must be allowed that Markham's book contained the fullest detail of the practice of the farrier, with a delineation of his instruments, not materially different from those of the present day.

Blundeville wrote sensibly and respectably on the general subject of the Horse, according to the continental, the then fashionable practice. Baret, in the succeeding reign, that of James I., wrote a learned treatise, entitled, "An Hipponomie, or the Vineyard of Horsemanship," in which he ably, and from obvious great experience, discusses all the relative branches, including the principles and practice of racing, and of that system of equitation peculiar to, and so generally prevalent in this country. The huge folio of the Duke of Newcastle gives us the regular management of the Horse from the continental schools, with an account of the different races of the animal; in which his Grace was a connoisseur of high celebrity.

Throughout, the same internal Veterinary science in France seems to have remained almost exclusively in the hands of the marshals or farriers, amongst whom Solloysel was the most celebrated writer of the seventeenth century; his works were afterwards abridged and translated into English by Sir William Hope.

Until the reign of George I. the medical care of Horses and other domestic animals was confined entirely to the class of farriers, leeches, and cow doctors. Considering the superior value of animals in this country, the former neglect of them would appear astonishing, did it not subsist at this moment in so considerable a degree; and that from causes easily ascertainable, but with difficulty to be surmounted.

The medical system of the farriers, as de-

livered in their books, formed a strange medley of ancient metaphysical notions, blended with deductions from the vague and uncertain experience of illiterate men. Much of it seemed the result of mere ignorance and caprice, no little of pure distraction.

For example, in a case of *farcy*, Dr. Gray orders the medicine to be administered to the *ears* of the Horse, and stretched up therein. In case of *lameness*, *a turf* was to be cut and secreted; and, in proportion as the turf decayed and wasted, so would the *lameness!* Various of their operations, in which no shadow of reason or possible utility seems discernible, were pursued with measures of horrible barbarity: for example, in Markham, the cure by the fire, or knife, for the falling of the *crest!* These men seem to have exhausted their wits in the discovery of ingenious and knowing feats of cruelty; and it is a phrase with Markham, "Other torments there are."

The art of shoeing the Horse had retrograded from the original practice of the Italian farriers, which, however imperfect, yet formed a sufficient outline for a rational system. It had become the universal practice to *pare away the frog* and soles of the Horse's foot; and, by way of making amends for such loss of substance, to substitute a shoe of massive iron, so long as to project beyond the heels. It must, however, be acknowledged, that a far more rational practice obtained amongst those who had the superintendance of that peculiar species of Horses appropriated to the business of the turf, not only with respect to shoeing, but every other branch of management; and, as the foreign and racing species has been the grand source of improvement for our British saddle and coach breeds, so the jockey system of equitation, and general treatment of the Horse, allowing its progressively amending defects, has ever possessed a characteristic and acknowledged superiority in this country.

Such was the state of farriery and Veterinary practice in the early part of the eighteenth century, when the former, or Horse medicine and surgery, attracted the attention of William Gibson who had acted in Queen Anne's wars as an army surgeon, and appears by his writings to have been a man of much practical knowledge and sound judgment.

He was the first professional man who attempted to improve Veterinary science, which he effected in a plain and popular way; grounded on the analogy between the human and brute physiology, of course between the human and animal medicine.

The appearance of Gibson's book on farriery, forms an era in Veterinary annals; and his system in fundamentals has ever been, and is at this moment, the basis of our superior Veterinary practice. He lived to publish a new edition of his chief work, about the middle of the eighteenth century.

Dr. Bracken, a physician of Lancaster, a vulgar, desultory, captious, and petulant writer, yet a profound and enlightened reasoner, and of great ability in his profession, in a few years followed the laudable example of Gibson, and turned his attention to Veterinary medicine. He was an excellent practical judge of the animal on which he treated; and his work on farriery is a standard with respect to the jockey, or peculiar English system—a branch which had been left untouched by Gibson.

Bartlet, a surgeon in Bow-street, Covent-garden, was a most respectable, intelligent, and useful compiler from Gibson and Bracken, whose labours he circumscribed and improved. He also first introduced the new, but hypothe-

tical and impracticable, system of short shoeing, which had then lately been promulgated in France by La Fosse, a farrier of considerable science, and a great practical Veterinary anatomist. Bartlet candidly gave the rules of La Fosse for shoeing Horses, without pretending to any great practical knowledge of the subject; and these rules, speculative as they were, had yet the beneficial effect of operating a considerable improvement on English practice.

Fortunately, the affair was soon after taken in hand by William Osmer, a surgeon and a sportsman, who had great practical knowledge of the Horse, and particularly of the race-horse; that species which, while it improves every other, requires the greatest attention, and in an especial manner with regard to shoeing and the treatment of the feet. Osmer commenced Veterinary surgeon, and published an excellent and practical, although whimsically written book, on horse-shoeing, in which he reduced the speculative rules of La Fosse to the standard of his own and of English experience. His book has not probably been hitherto excelled in point of utility; and being written in a plain and popular way, is adapted to the capacities of shoeing-smiths.

The Earl of Pembroke also wrote a short and excellent treatise on the same subject, *Practical horse-shoeing*, and care of the feet, and on the education of the military Horse.

Berenger, about the same time, published a respectable work on the grand manage.

Mr. Clarke, the king's farrier for Scotland, has two valuable treatises on shoeing, and on the prevention of the diseases of Horses.

The eighteenth century was abundantly fruitful in Veterinary pursuits and publications. France took the lead; but a zeal for the improvement of this branch of science also pervaded in Germany, and the northern states; and colleges were established in various countries, wherein the science has been since regularly cultivated. Baron Haller collated the various continental writers on black cattle and sheep: another catalogue of them may also be found in the Giournal di Literati of Italy. Since these collections, the number of Veterinary writers has been immense on the continent, not improbably for a reason already assigned. Few, or none of them, have been translated into our language, excepting detached parts of the works of the eminent French writers La Fosse and Bourgelat. Our late professor Saintbel was a disciple of these celebrated Veterinarians. But the continental Veterinary system is not altogether calculated for the practice of this country. One great proof of which presents itself in the failure of the celebrated method of shoeing by La Fosse. The French have improved the anatomical and surgical branches of the Veterinary art, rather than the medical; the English have made the greatest improvements in the latter: it is not improbably a parallel case with respect to human medicine.

We now come to the establishment of a Veterinary college at St. Pancras, London, in 1792, for the treatment of the diseases of all *domestic animals*. But it is to be lamented, that the light of Veterinary science has hitherto shined but dimly and imperfectly on domestic animals in general, excepting the Horse. A great number of Veterinary publications have issued from the press within this last period: from the two professors Saintbel and Coleman, Mr. Bracy Clark, Messrs. White, Boardman, Blane, Mr. W. Percival, besides a number of others of a minor consideration.

Mr. Taplin, a surgeon, who preferred the Veterinary surgery to the human, also sent into the world two octavo volumes on the diseases of the Horse, and which, about the year 1800, had a great run amongst horse-masters in general, but the style in which he writes is any thing but pleasing; still he proves himself a good judge of the Horse.

STABLE MANAGEMENT.

Previous to the treatment of diseases, it cannot be inapplicable to point out such things as are strictly necessary, and absolutely conducive to the preservation of the health of the Horse, though perhaps not at all times attended to; consequently, no subject is more entitled to our attention. I have further considered, that if gentlemen are not even under the necessity of looking after their own Horses, many would like to have every information of the stable department, thereby, being enabled to form some judgment of the competency of their grooms; for it is not the good fortune of every gentleman to have a professed groom, and many undertake an employment of this kind, that scarcely know how to do any thing about a stable; and while gentlemen do not inform themselves of the necessary duties and business of the stable, they are likely to be greatly imposed on, or injured, through the ignorance, indolence, or artfulness of pretended grooms: for, little as may be thought of the merits of looking after a Horse, I have remarked, that not more than one in ten, upon the average, of stable-men employed in livery-stables and dealers' yards, know how to simply clean or dress a Horse, though this is the first or principal thing required of them, and nearly all they have to do, after they have followed the employ for years, and appeared to be industrious, pains-taking men, who did not spare their labours; so that there is evidently more art attached to this profession, than at first occurs to our imagination.

There are certain natural qualifications and properties, which should be preferred and sought after, if they can possibly be found in the person that has the care and management of valuable Horses; he should be *sober, mild, and patient*, in his temper, so that he is not easily provoked; for I have seen material injury done by passionate persons incautiously striking Horses in a most violent and malicious manner, with whatever might be in their way; sometimes the corners of the curry-comb, the broom-stick, twitch-staff, stable-fork; and I once knew a groom in his passion, on the occasion of stopping the Horse's feet, for which he had a small trowel, actually drove it into the Horse's side between two of his ribs. The person who looks after Horses should be an industrious one, and not sparing of his labour at any hour or season; for Horses require much labour to make them fresh and comfortable; and if a groom is sparing of his labour the Horse will soon shew it, as there is very little harder work done than grooming a Horse properly; and though an indolent groom may escape censure or complaints of persons not very particular or discerning, yet those who are judges cannot be imposed on, the appearance and condition will discover itself, and cannot escape their notice: for when a person knows that every thing is allowed to keep his Horses in proper condition, and also *knows when his Horses are in that condition they ought to be*, he will never be satisfied to see them otherwise.

There is no good groom that has not a pride in his Horses, to see them and every thing in

his department, in the first style of condition and cleanliness; and this ambition is the grand stimulus to cleanliness and industry, for he labours to outdo his competitors. With these natural qualifications there are practicable acquirements, which, with attention and observation, and an apt capacity, may be easily attained.

CONDITION OF THE HORSE.

The grand and principal aim of a groom is to put his Horses in what is called condition: let us, therefore, consider what is condition. The word condition is variously applied to the Horse, though widely different from what is here implied: for instance, we say, a Horse is in *condition for sale;* that implies he is in flesh, his legs clean and fresh, his coat decently fine, and perfectly sound; *a Horse may be all this, but not in condition for work.* Another Horse is said to be in good working condition; such might be said of a post-horse, that is bare of flesh, his joints enlarged, and his legs puffed with windgalls, yet this Horse is capable of doing much work; and his being worked more than was requisite to keep him in condition, *has put him out of condition.*

Condition, therefore, without an expletive, implies that perfect state of body and limbs, in which the whole system is the most vigorous, and capable of great exertion, if required; and this cannot be obtained or kept, without strictly adhering to three things, viz, proper food, proper grooming, and proper exercise; neither of these must be omitted, or injudiciously administered; for, like medicine, properly administered, it does good, but is capable of doing much injury, if profusely taken or misapplied. Wine, in moderation, cheers the spirits and invigorates the body of man, but taken to excess, debilitates and weakens the constitution.

FEEDING OF HORSES.

The food of the Horse, only consisting of hay, a little clover, oats, and, on some occasions, a few beans, and his drink only water, may be thought of such simple and inoffensive qualities, *that only withholding* THEM *from the Horse* would do him injury; but quality and quantity, proportioned to his habit of body or constitution, must be attended to. If the quality is bad, it will make him foul, and will not afford the nutriment that clean wholesome food yields: if you feed too plentifully for the work or exercise the Horse has, you will make him what is termed too fleshy and gross, and, probably, what is termed in *horse language*, fly to pieces; that is, he will become languid and dull, from the circulation of the blood being retarded, his stomach overcharged, and want of digestion, in all probability *fever ensues, the grease*, and subjects him to breakings out in the legs and those places most remote from the heart, where a free circulation of the blood is prevented. Again, if you disproportion your feed, by giving him too much hay, this will cause him to drink freely, and make him run to belly; blowing him out with this description of food which affords the least nutriment; a Horse thus fed cannot endure much labour, and his wind becomes distressed.

Hay is the natural food for the Horse, but not sufficiently strengthening for Horses to work upon now-a-days; therefore, a Horse to be kept in condition, must be fed sparingly of hay, and that of the very best quality.

To ascertain the quantity of hay a Horse should have, depends much on his size, his constitution, the nature of his work, &c., &c.

Hence, if a Horse is put to fast work, his food should be of that quality that affords the most nutriment, and that lays in the smallest compass, and requires the least water to digest it; consequently, the Horse's wind will be the least distressed. If his work be hard, that is, continued for several hours, but not at any extraordinary speed, he may have more abundantly of hay, and even beans with his oats. Chaff, if sweet and good, is proper for some Horses, such as have thin light carcases, and do not work hard. Those Horses that eat their corn greedily without masticating it, and it comes away with their dung, a handful or two of good sweet clover chaff with such Horses will be infinitely serviceable, as they will be obliged to chew or masticate the oats with the chaff before they can swallow it. But though chaff is filling, it must BE *sparingly* given to Horses required to be in condition, as it fills them up, and makes them inclined to drink, by which they will appear plump and fair to the eye, *but not in condition for work.* It is most proper for slow draught Horses.

To convey some idea of the quantity of hay that may be necessary for a saddle Horse, I shall say from eight to sixteen pounds per day according to size, constitution, &c., &c.; so that, if we take the medium, about twelve pounds will be found generally sufficient; but large carriage Horses will require more, we may say, from sixteen to twenty pounds per day. Having mentioned an indefinite quantity, judgment according to circumstances must direct the remainder. If your Horses get lank and more hollow in the flank and quarters than you like, you must increase their allowance; but, on the contrary, you must not, for the sake of having your Horses fat and plump, supply them with too much hay and water. A Horse when fat is less fit for work than when lean and poor, provided that poverty was not occasioned by starvation, for a Horse may be lean and poor by his work exceeding his keep; or, if a Horse is stinted to an allowance that would keep him in tolerable condition with only a little walking exercise, and then put to work without an increase of food, he will of course become thin; but if you have not taken so much out of him as to exhaust his strength, as well as his flesh, he will become nothing the worse for it; increase his food, and he will be better for work than before.

A Horse that is full of flesh, though it may be in consequence of good and wholesome food, with good looking after and regular exercise, is, nevertheless, not in that condition that is most desirable; for his flesh in this state is an incumbrance, and were you to put him to an excessive day's work, before you had gradually reduced him, it might occasion some inflammatory disease.

Good oats is the most nutritious food for saddle Horses, if given in proper quantities; this must, in some measure, be proportioned to the work or exercise the Horse has to contend with. You may keep a Horse in condition with three quarters of oats per day, provided his work is no more than exercise; but if your work be much, you must increase his food proportionably, and according to his constitution; some Horses being much heartier feeders than others. If the Horse be kept to constant hard work, you are in no danger of over-feeding him, if you were to give him as much as he could eat; but high feed, without work, would, as I have observed, make him gross and unfit for work.

Beans are excellent and stimulating food for Horses, that is, hard working Horses, but not

by any means proper for light working Horses, nor for Horses that are required to go at speed, as they require more water to digest them, consequently, they swell in the stomach; and I have known cases where the stomach has been ruptured by feeding too heartily of beans, and then the Horse put into immediate work: they also exceedingly, in some constitutions, distress the Horse's wind, especially if the Horse be required to go fast; they may be allowed to Horses that travel at a moderate rate, such as draught Horses, without that extreme caution required with others. They are good feed for coach or omnibus Horses, if given in small quantities and with caution, and due attention to the constitution of the Horse.

Water is usually given twice a day; some, however, give it three times; but this plan of watering will not do for travelling Horses, but may do very well for draught Horses.

Soft water is esteemed preferable to hard spring water; hence rivers and running streams are better than water pumped from a fine spring: where such are not handy, springs that supply ponds, where the water gets impregnated and softened by a loomy or chalky soil, will be better than hard spring water. The quantity in this must be directed by circumstances, size of the Horse, constitution, &c. Some Horses will not drink immoderately, and may be left to their discretion; while others, if you let them, will swill, and render themselves incapable of work, causing immoderate perspiration, and distress of wind. Such must be restrained to a moderate quantity, that they may be fit for work if they are instantly wanted. When the work is done for the day, water may be allowed in reason; but some Horses will always be required to be allowanced, or they would drink greedily, and make their bellies what is called wash bellied: it is not a bad sign, nor should a Horse be rejected on account of a large belly; it is a sign of a good constitution, and a good feeder, and nothing is more easy, with proper feeding and exercise, to bring it into proper shape.

Half a stable-pail of water is generally sufficient for the morning; in the evening the Horse may drink more plentifully, if his belly does not appear to increase or get too large, which must be particularly attended to; for by that you are to regulate his allowance of hay and water.

GROOM'S DUTY.

The foregoing remarks, relative to feeding may suffice for the present; I shall make some further observations, as it may occur in the daily employment in the stable, and shall proceed to notice things in that routine, which is daily to be pursued. Stable hours should be kept with strict regularity; all animals appear to have a knowledge of time; and it may be observed, in many instances, they observe the periods as correctly as we, who have recourse to time-pieces; witness the dog, who, if he is accustomed to receive any thing from your plate at meals, never fails to attend at the dinner-hour, though in the intervening time he will be roving a great distance; the poultry that scratch and seek for insects and worms round adjacent places, will, at the accustomed hour assemble at the door they are fed at, and appear to know the time with great exactness: pigs and cows in like manner: no wonder that the Horse, which, I may aver is not less sensible than any of these, should know his stated hours; and if he is not attended to, particularly to feed and water at the accus-

tomed time, will be watching and fretting with much anxiety, and oftentimes will call and ask for his food, in such manner, as those accustomed to Horses cannot fail to understand. Regular and stated hours should be punctually attended to, with as little variation, as the season or circumstances may require; five o'clock in summer; but as the days shorten a later hour is admissible, unless Horses are to be ready at an early hour for hunting, or otherwise; in such cases, two hours at least before they are wanted, the stable should be visited: if you do not allow yourself sufficient time, things cannot be done as they should.

The first thing to be done on going to stable, after casting your eye round to see if any Horses are loose, cast, or the like, is to rack and feed. The judgment in racking is to give the Horse but little at a time, that he may eat it with an appetite, first clearing out his rack, &c. &c. If a Horse leaves hay that is good and sweet, some cause must be assigned for it, and it must be examined into; sometimes cats will foul the hay, and Horses are very nice in their food, when not kept scanty. If the Horse appears to be in health, and the hay has not been blown on by other horses, but is fresh and sweet, I should judge he is too plentifully fed, and leaving hay for the sake of oats—this should be guarded against; therefore, if you give hay that is good and clean in moderation, I would recommend to shorten his allowance of oats, to bring his stomach to the small quantity of hay that I recommended to be given. His morning's racking should be one quarter of his daily allowance, which, on the average, is about three pounds for his breakfast; for abundant feeding in the morning is not good; a Horse cannot work pleasant to himself when over-full, and therefore feed sparingly in the morning; and if you want some exertion from him, do not suppose that a full belly will make him perform the better, it is the food that he has digested, and from which he has obtained that nutriment and its consequent stimulus that is to support him in his work, and not what you cram into him at the time you want him for great exertion: a good Horse, in proper condition, will not flag in twelve hours, if you require that much of him; and I have rode a Horse many times for twelve hours, and on a moderate computation, suppose he has carried me a hundred miles, without (as it is termed) drawing bit; but this is not to be expected from every Horse, none but thorough good Horses, in proper condition, can undergo such extraordinary exertions.

But to return. The quantity of hay that is given should be well shaken, to clear it from dust and seeds, and if it is very dry, as it sometimes will be, sprinkling it with water will be more agreeable to the Horse, and he will eat it with better appetite.

I have known many Horses, when they perceive or think they are going out with the hounds, or have seen the rider come into the stable with his *scarlet coat on, and his white cords*, refuse to eat their hay or oats: this arises from an impatient and pleasing anxiety of mind, the animating prospect of the chase, of which most horses are fond, but some uncommonly so; but whether they disregard their food from this pleasing anxiety, as children will, when the prospect of pleasure is arrived, or whether they refuse their food, knowing they will be better able to gallop with an empty stomach, I will not pretend to determine; but certain it is, the Horses that have come within my knowledge, never performed

the worse for it; and, I likewise noticed they were not off their feed when the day was over; therefore, a Horse refusing his food under such circumstances, I do not esteem a bad prognostic. But it is very common for a Horse to be off his food after any great exertion, and this is by no means a pleasant circumstance, especially to a *true horse-man.*

After having racked with hay, you next feed, as it is termed, that is serving the oats. I proceed in the routine that is to be daily observed; for, were I to treat of things out of this regular order, young hands might be studying what they should do, and what ought to be done first, and it is no uncommon thing to see *some*, that have been in the stable employment for a length of time, not know what thing to do first, and occasion themselves trouble and loss of time, by going wrong about things. Now, in serving the oats, whatever is deemed a sufficient allowance for the Horse, for the day, whether it may be three quarterns or a peck, one-fourth of the quantity should now be given: as sweet and clean food is most agreeable to the Horse, as well as beneficial, carefully sift the corn from dust, blow away the chaff, and pick out any thing you perceive is unfit or unpleasant, which will sometimes be found among them, frequently rat's dung and cat's dung, then clear the manger with a whisp of hay or straw, and throwing in the oats, spread them with your hand, to prevent the Horse from taking too greedy a mouthful at a time, whereby he would be induced to swallow them without chewing.

While the Horses are eating this first feed of corn, which you will recollect is to be given immediately on your entering the stable in the morning, prepare your saddles and exercising bridles ready to take them out; which being all ready and placed on for exercise, give your Horses a few go downs of water; then, if it be an establishment of some considerable extent, give orders to the stable boy to make fair the stable during your absence, in the following manner: (if it should be a single Horse stable, this process may not be required so minutely); first, throw all the dung off the litter, clear out behind, then turn up the driest and best of the litter under the manger, the wet and muck you turn out behind; this being removed to the dung-heap, sweep clear out, then, taking a bucket of water, wash the stall out well; after the water is run and swept away, take your bedding that has been put under the manger, and place behind the the horse's stall against the wall; by doing so you remove all the disagreeable smell that may probably arise from the bedding being allowed to remain under the manger, and in all probability prevent your horse from being affected with diseases of the eyes, glanders, inflamed lungs, &c. &c.; this being done, take a little of the litter and shake in the stall, for most Horses stale on first coming into the stable from exercise, and this will induce them to do so freely; thus, you have your stable free from any effluvia from the dung and urine.

DIRECTIONS FOR DRESSING HORSES.

The stable being made clean, next commence cleaning your Horses; this is a work that requires more knowledge and judgment than at first appears. The curry-comb is the first thing applied, and great attention should be paid to its being applicable to the Horse, some Horses require much of the curry-comb, others, none; this depends on the state the

Horse is in, time of year, &c. Horses that have their coats long and full of dust, such as are just taken up from grass, or those just come out of person's hands, that either do not know, or do not take the pains to keep a Horse's coat clean and fine, will require the free use of the curry-comb; and the teeth and sharpness of the comb should be proportioned to the thickness, length, and foulness of the coat; while Horses that have been kept in stable and properly groomed, have their coats fine, thin, soft, and clean, requiring no other use of the curry-comb than merely to clean the brush, or occasionally to rub off any dung the Horse may have laid on; the teeth of such a comb should be remarkably even and dull not to scratch him.

These things being attended to, after stripping the cloaths off, you should then use the curry-comb, always beginning on the near side at the hind quarters, and using it in proportion to the length and foulness of the coat; that is, if the coat is fast on, long, full of dust, and very filthy, you may use it freely to loosen the coat, or the sweat that is dried and fastened on the skin and roots of the hair, appearing like a white and saltish dust; but, though I say you may use it freely for this purpose, you are not to expect you are to get it all out at once; it must be a work of time, and to attempt, by using the curry-comb too much, you would set the coat on end, open the pores of the skin, and the Horse would in consequence be very liable to take cold, which would obstruct that imperceptible perspiration which in a healthy state is always going on, but if prevented, an ichorsus discharge is frequently set up, which will dry into small scabs, the coat will then stare, and put on a rusetty appearance; therefore, when I said, use the comb freely, I mean comparatively to what you do with Horses whose coats are fine and clean, such as the race-horse, or the hunter, when got into proper condition. Another thing to be observed is, that if it be at the season the Horse is changing his coat, at which the hair will come off freely with the curry-comb, I would not advise too free a use of the comb for the purpose of removing the coat, but let it have its time to come off; for with good feed you will obtain this end quicker than by scratching the Horse's skin with the comb. Providence has wisely so ordered things, that the Horse's coat, if exposed to cold, shall grow long, and if you keep him warm, his coat will be the shorter.

Proceeding then to curry on the hind quarter, for the purpose of unmatting the hair and loosening the dust, you descend down the quarters, particularly remembering to rub off all dried dung, and taking care not to injure or scratch the Horse's legs. Remember, you are not to use the curry-comb below the Horse's hock, unless any dung may be there; here you must handle the comb very light, and with grey or white Horses these stains are very troublesome to remove; but if you take a wet sponge, and well moisten the hair where the stain is, then take a knob of common *stone blue* (such as used by washer-women), put this in a piece of flannel, and rub well on the stains; by this means you will be able to remove all stains: when this is dry, it must be well brushed off.

But to return. After having curried the Horse's hind quarter, proceed on to the back, loins, flank, belly, shoulders, arms, chest, and neck, omitting no part the comb can be conveniently applied to; but tender places, or those thin of hair, need not be touched, the

head also need not be touched. Horses are not ticklish when they are full of the dust occasioned by the natural and imperceptible perspiration of the body, but as they get clean, and their coats short and fine, they are exceedingly ticklish, and you must be careful to stand in a secure place. After having curried the near side, proceed in like manner to curry the off side; but with this difference, it will be necessary to use your left hand, which after a while you will find most handy and convenient This done, you next proceed to whisp off the dust you have raised by the curry-comb, and to rub and whisp well those places which were not proper for the comb to touch. For this purpose, you make a whisp of some half-worn straw, but a hay-band is better, which prepare for the purpose by half untwisting it; loosening it thus, you double it to about a foot in length, loosely twisting it together that it may not scatter too fast, till you have it as thick as you can grasp: if it be dry and harsh, sprinkle it with water; this will make it work pleasanter, and the dust you intend to remove will adhere to it, and not fly about so much.

You begin to whisp the Horse at his head, taking the whisp in the left hand for the near side of the horse, and resting the right hand on the most convenient part of the Horse to steady yourself, while you apply the whisp; you change its situation, beginning first at the top of the neck, down to the shoulders, the under part of the neck, the chest, particularly between the fore legs, down the arms, knees, and the sinews and fetlocks, and well rub out the dirt from the heels, where you could not get your curry-comb; proceed on in the order of his carcase, on the back, sides, belly, croup, and so on to his hind legs, which clean as carefully as the fore ones; you then whisp his off side in the same manner, only changing the whisp from the left to the right hand.

You now proceed to brush your Horse over, after having first cleaned your brush well with the curry-comb, begin at the croup or rump, and well brush the Horse's body backwards and forwards, the brush being in the left hand; for the near side, work your way up in all parts as before, and finish at the top of the neck; then in leaving it, brush the Horse the straight way of the hair, and finish at the near fetlock and heel behind: the same operation must be gone through on the off side, changing the brush to the right hand. Now, many stable-men attend most to those places that are most conspicuous to the eye, such as the fall of the neck, the shoulders, and hind quarters; these places shine the most, and they do not fail to point out these to you, and say how well they look, which may satisfy some persons, but a judge will not be deceived by external appearances, he expects the parts not immediately in view to be equally attended to.

After the brushing, which causes much of the dust to be floating about, and a part of it will again settle on the Horse, you should have a linen cloth to wipe him over with, the linen cloth being much easier washed than any other article; with this you wipe him all over, beginning, as with the whisp or brush, at the head, and so proceeding to every part; which, being done, you put on his cloaths before you finish with his head, mane, tail, and legs, that the Horse may not chill or take cold while you are about them.

I would have it understood, I am only treating on the method to be pursued in the

hackney stable, and not in the racing and hunting stable, though there is very little difference in treating the hunter and the hack, except it be in a greater addition of clothing and more dressing, the days he may be laying at rest.

The cloth being properly on without wrinkles, but perfectly smooth, and that especially under the roller, loosen the Horse's head, take off his stall-collar, and turn him round in the stall, to give his head and ears a complete rubbing and brushing, which was not so practicable with the stall-collar on. You now brush his head over in every part, particularly at the root of the ears, and under the throat; then after, with your dusting cloth, rub and wipe him well; then pull his ears through your hands, observing they are clean and soft, and moderately cool; then comb out his mane and foretop, then with a sponge or water-brush, wet the top or roots of the mane, and pass a small cloth for that purpose over it: this cloth being passed from the near side at the top of the mane, and pulled over to the off side, will make the mane lay smooth.

You next put on his stall collar, and comb out his tail, wipe away any dirt or filth that may be remaining under the tail with a wet sponge, and after with your cloth. The Horse's feet are next to be examined, and the dung and litter picked clean out, and if necessary must be washed. And, lastly, the legs are to be rubbed with a clean loose whisp of straw in each hand; for which purpose, you should go down on both knees, pass the whisp down the legs and tendons, then finish with passing your hands down in like manner, to feel that they are smooth, and no particles of the straw or thistles, which might be among it, adhere or stick in the hair. These rubbings will increase the circulation, and, consequently, will promote the absorption of any fluid that may be detained in those parts, which too frequently occasion swelled legs; and, if neglected, the heels may crack, and produce grease, which, with a little extra trouble, may at all times be prevented.

The morning's business of the stable being thus completed, the Horse will require nothing until noon.

Before I proceed further, I shall show the reasons for feeding the hackney; for I would not have it understood, that this is the manner to feed for extraordinary cases, or hunters. A hackney should be always ready to perform ordinary work, with ease to himself, and comfort to his rider.

I account it moderate exercise for a good hackney, to go thirty or forty miles an end, without drawing bit, at the rate of from eight to ten miles an hour; this I call ordinary work: but to gallop twenty miles, or trot sixteen in an hour, I call extraordinary work, which requires a Horse to go through a regular mode of training.

But to return. At noon, give him the like quantity of hay as in the morning, and his feed of corn: set the stable fair, that is, put his litter to rights and remove the dung. This is all that is necessary till watering time, which is about four o'clock, at which time, you strip the horse, and brush him well over.

I have had lads that could hardly be persuaded of the necessity of this, alleging that they had cleaned them perfectly well in the morning; that the Horse had not been out of the stable, and that the clothing prevented dust from settling on hem; therefore, they could not conceive the necessity of it; and many others may be of the same opinion: but

the imperceptible perspiration, which is always going on, occasions a scruf, which the Horse is much relieved by having it removed; besides, stripping the cloths off, and brushing him over, greatly refreshes the Horse, and puts the blood into a freer circulation. Wipe your Horse down as before, finishing with rubbing his legs, which must never be omitted, combing the mane and tail, &c., then watering. If there is not a probability of the Horse going out, let him have a greater quantity of water than in the morning, and if he be not a greedy Horse for water, he will not drink more than will do him good; but, if you perceive his belly gets too large, and he appears washy, you must allowance him. Set your stable fair, and you have done until the final doing up for the night.

At about eight o'clock go to your stable, and finish for the night. You must now give him his remaining allowance of hay, being double what you gave in the morning, and his remaining feed of corn. You give more abundantly at night, because it will be in so forward a state of digestion in the morning, as not to occupy so much room, which, when working, would press upon the lungs, and, consequently, distress the wind; this will be a guide how you should vary it upon particular occasions, so as to have your Horse in good heart and spirits, but empty, when wanted for expeditious purposes.

The last thing, is making up the beds, and setting all fair. Now, in making up the beds, you contrive to lay all the worst of the litter in the middle or bottom, where the Horse is most likely to spoil it; in throwing down the litter you placed behind the Horse in the morning, reserve the cleanest and driest part to top the bed with, making the bed up high on each side, and fullest towards the hind quarters, that it may be soft and pleasant to the Horse, which ever side he may lay on, as they will sometimes turn frequently in the course of the night: throw out all dung, and sweep clean; see that all the stall-collars are secure, loose cloths taken off, and every thing set fair, which finishes the routine of the stable.

EXERCISE.

Exercise is so essentially necessary and beneficial to the Horse, that all the feeding and grooming would be of little use, if work or exercise be omitted. It is admitted, that great numbers of Horses are killed or spoiled with being over-worked; and, it is a doubt with me, if as many are not spoiled in London for want of work. There are several persons in London who keep Horses, but who are so occupied with business, that they cannot ride them out oftener than once in a week, and many that I know, don't ride them once in a month; their Horses stand at livery, and they order them to be exercised. Men employed in livery-stables have seldom le s than six or eight, and I have known some to have ten livery-horses to look after: these men, if they rub off the dung, and occasionally give them a brush over, *omit exercise*, not finding time for it. Gentlemen do not like to see or know boys are permitted to ride their horses; and without they keep grooms of their own, their Horses will go short of exercise.

Consider, then, those Horses that are confined in a livery-stable from week's end to week's end, and many stables confined and filthy; if they are sometimes moved about which they *call exercise*, it is on a ride, perhaps, fifty or sixty yards long, made up of

litter and dung, with a smoking dung-hill at some part of it, so that the Horse literally breathes only air strongly impregnated with the evaporation of dung. I think, frequently, it is surprising they are so well as they are. The disorders it brings on them are principally *cough*, not improperly called *a stable cough*, also weakness in the legs, so that they frequently make a drop, as it is termed; various humorial diseases, such as *swelled legs*, *grease*, *farcy*, and, in all probability, inflamed lungs and glanders. At their best, when they look plump and well to the eye, they are faint, and what is termed foggy, and unable to perform more than would be *common exercise* for Horses in condition.

Since, therefore, exercise and air are so beneficial, let us consider in what manner exercise should be given, this is to be regulated according to circumstances. Where Horses work two or three days in the week, the resting days require no more than airing exercise, for every Horse should have at least two days in the week, such work or exercise that will give him a good sweating; this throws out through the pores of the skin, what might lodge in the system and create diseases; it likewise frees the Horse of the scurf, adhering to the skin, and occasions the coat to look fine; those days, therefore, that the Horse is not wanted for work, he must be exercised for the fresh air, which is bracing and strengthening to his limbs, refreshes the body, and creates appetite; and the early part of the day is preferable for this, but in wet weather you must embrace the best opportunity you can.

If but one Horse be kept by a gentleman, order his groom, as soon as the stable has been cleaned out in the morning, which is while the Horse is eating his first feed, brush him over, and put on his exercising saddle and bridle; in cold weather, if you only intend walking him, you may keep the cloth or sheet on him under the saddle; in warm weather I do not recommend it, for, though a Horse's coat may be something the finer by being kept warm, yet he is certainly the more liable to take cold when he is necessarily deprived of it. The most open and airy places should be taken for exercise, and this is the most favourable opportunity to improve a Horse's walk, for when he has only walking exercise, you should at least walk him two hours, which will be sufficient; and by *aiming to extend his walk*, you may greatly improve it; thus, you exercise the Horse and improve him at the same time. At your return thoroughly clean him, give him his feed, &c. If you had convenience, or opportunity, while you were out, you might give him his water. If a Horse is hearty, and inclined to flesh, I would rather recommend the like exercise in the afternoon, where persons have time and convenience, than to shorten his feed for that purpose, it would be much better for the Horse; but every one cannot allow the time to be so taken up, for it would be nearly equal to training, and may not be thought necessary; it is more than the generality of Horses require, and many inferior-bred Horses, who look well to the eye, cannot for a continuance stand the ordinary work that a Horse has in training; such is the amazing difference of Horses: if you enquire of training grooms, concerning some high bred colt or other, why he is not *brought out*, they will answer "he would not stand his training;" though, I think, in a great many cases, training is screwed up to too tight a pitch in the present day.

Should the Horse's work be so moderate as not to occasion a sweat, I think it beneficial, about twice a week, to give exercise strong enough to sweat him; this may be done in the pace he is mostly *rode in*, that he may be practised and improved in it; if he be admired for his trot, it would be wrong to gallop him, which might unsettle him in his esteemed pace, therefore, trot him out for the space of two miles to bring him to a comfortable sweat, and walk him back; thus, you extend his limbs, supple his muscles, and strengthen his ligaments and tendons; for we know not our strength, unless we are put to it; inactivity debilitates, and over exertion may sprain and weaken, but moderate exertion is good both for man and beast.

Sweating of Horses occasions considerable labour to clean, and indolent grooms, and those who have several Horses to look after, avoid this part of their business as much as possible: some would persuade you, there was no necessity for it, but reason and experience teach us otherwise.

When a Horse comes in from work or exercise, if in a sweat, or wet and dirty with sloppy roads and rain, they should not be left until made completely dry, clean, and comfortable: some Horses, in good condition, will rub dry and clean in a short time, but others, with long and curly coats, and some from constitution or ill condition are a long time getting dry; hence, of late years, clipping has been introduced; but this I am decidedly opposed to, as it is to be prevented altogether by good grooming; besides, clipt Horses are apt so frequently to take cold, if hunters, especially of a slack day. I have known an industrious groom to work at a Horse for four hours, and not leave him until perfectly dry, while others will cover them with a cloth, and leave them to dry, before they will clean them*. Much depends on the habit the Horse has been used to, *constitution*, *condition*, &c., whether the Horse will take injury from being left in his wet and dirt; but those Horses that have been properly groomed, having all care taken of them to keep their coats fine, and on all occasions made dry and comfortable, would be liable to take cold, which might be the forerunner of other diseases, if neglected at these times.

PHYSICKING AND BLEEDING.

Some persons are fond of physicking or bleeding their Horses, when there is no apparent cause or reason for it. Grooms, in general, take upon themselves to bleed and physic at their own discretion; it is therefore necessary to assign some reason, and to shew when, and for what purpose, such methods are to be pursued. It is best to pursue such methods as to preclude the necessity of either; for, with proper feeding, exercising, and grooming, there will seldom be occasion for physic, but sloth or idleness is the parent of disease; and thus it happens with Horses, when they are well fed, and have little or no work (Horses not being intended to stand in a stall, and fatten like a bullock), the blood-vessels get filled, and overcharged, and a partial stagna-

* My old friend, Jeremiah Hawkins, Esq., of the Haw, in Gloucestershire, and, I believe, the oldest member of the Berkeley Hunt, has a brown Horse, which he has ridden to my Lord Seagrave's hounds about twenty-six years, and always keeps him turned out winter and summer; and on coming home, after ever so hard a day's sport, the old fellow, after he has had a feed of corn, is immediately turned out. I think, if I remember right, he is called Old George.

tion takes place, so that the economy of the whole system becomes obstructed, and cannot perform their several functions; *the stomach* cannot digest its contents, *the lungs* become oppressed, and have not that free expansion they require; consequently, if timely relief be not given, a catalogue of disorders must ensue, for nature always strives to unburthen herself in some way or other. When any symptoms of approaching illness or disorder appears, which may discover itself in various ways, such as refusing his food, languor or dullness, heaviness of the eyes, heat in the mouth, swelling of the legs, itchings, breakings out in various parts, &c., it then will, in general, be proper to bleed, as a check, and also to lessen the irritability of the system, which will arrest the advancing malady; in these cases bleed according to size, constitution, and nature of the Horse's foreboding attack. If a Horse be very fat, you must not take the quantity from him as if in good working condition; for his fat, in the first place, debilitates him, and then taking blood in large quantities still increases the debile state. I have frequently known fat Horses fall, in consequence of five or six quarts of blood being taken from them at a time, the idea impressed having been, that because he was fat, he could lose so much more blood. If, on showing any of the preceding named symptoms, and he happens to be over-loaded with fat, be exceedingly cautious of bleeding, as to abstracting too great a quantity; but with Horses in condition for work, you may take five or six quarts without the least fear. In bleeding, sometimes, after pinning up the orifice, you may perceive the Horse shake himself; you then may be assured you have gained your object, as when this occurs, it is a favourable omen that you have reduced that inflammatory action that was going on in the system.

But if you compare symptoms and circumstances together, to account for, if possible, the cause of complaint; if the Horse has been well kept, consequently full of flesh, and little or no work; for I do not call walking a Horse about to stretch his limbs (which lazy grooms will do, and are afraid of sweating them, because of the trouble of cleaning them), sufficient to keep a Horse in health; you may reasonably conclude, the blood-vessels are prevented from performing their natural functions, and evacuations must relieve them. In this case, I prefer a course of alteratives to violently physicking Horses; it being less dangerous, and more compatible with the opinion of my late respected friend, John Abernethy, who used to observe, "*I do not like bullying any man's guts into good order.*"

It may so happen, that a Horse over-fed and too little worked, may not discover any symptoms until after a day's riding, and work as some would call it, and from that circumstance, you might at first not attribute it to the want of exercise; but in this you deceive yourself, for disease, or the seeds of disease, might have been lurking in the Horse, and could not develope themselves until the Horse was put to unusual exertion, which might cause the discovery sooner than otherwise it would.

If the Horse has been in regular work or exercise, young and tender constitutions will sicken at unusual exertion, which is termed, *taking too much out of him;* in this case, the loss of a little blood, with two or three days rest, will restore him. But, sometimes taking too much blood, and, at the same time, when the Horse is very hot, suffering him to cool too

fast, will, in all probability, instead of decreasing, increase any inflammatory disposition the system may be susceptible of; but if you notice at the first, that the Horse does not dung, or empty himself freely, as Horses generally do when in health, this will draw your attention to the Horse, and he must have speedy relief, to prevent disease coming on in a more dangerous form *.

ON THE MANAGEMENT OF HUNTERS.

After what has been said in the preceding article, there remains to be noticed the method to get your hunters into condition, and the care and management of them through the season. Hunters are usually turned into good grass after the season is over, though a great deal has been said by "Nimrod" against such a practice; still I have seen its good effects as often as stabling them; and, perhaps, it is a good thing that we should not all be of the same opinion, and, for this reason, we cannot always tell how to draw the line; one man may have convenience to stable his hunters all the summer, and ten others not; consequently, an additional expence would be incurred, and pounds, shillings, and pence, is a material object of the present day, and with those who it would be the least suspected. But as this treatise on the management of hunters is for the use of hunting men in general, I shall go upon general principles, which I know to be correct, and the manner in which I have treated my own Horses.

Grass, it is well known, be it of ever so good in quality, is not a substantial food, it is cooling and opening; and though it makes a Horse fleshy, it, nevertheless, is not that description of flesh as the Horse could work on: if you were to attempt to gallop him to that excess, as you are necessitated when hunting, you would find the Horse faint and weak, the fat that had accumulated in the cellular membranous cavities, which intersect the muscle all over the body, would evaporate in the form of a white lathering sweat; and, if checked, might produce inflammation of the lungs, and the Horse become a subject for the knackers; therefore, the first thing to be done to alter this state of the system in the best and most expeditious manner, is to bleed and physic, but that with caution, always paying great attention to the constitution of the Horse.

No person has a greater aversion to bleeding and physicking than myself. I have been always in the habit of treating my own Horses much after the same manner that I would myself; which was, never to take medicine unless I perceived an absolute necessity for it; for I have made a remark, that all medical men that I have been intimate with (and I have known a great many), have prescribed medicine to their patients for the most trifling complaints, but took none themselves, unless they were extremely ill, and thought there was some danger.

Judging I must be right in following their example, I, therefore, never take medicine myself, or administer it to my Horses, unless I am fully persuaded there is a real necessity for it: however, to return to our subject.

In the case of Horses being taken up from grass, the warmth of the stable is very apt to make them have an inclination to itch, and,

* We beg to inform our readers, that when we come to treat of diseases to which the Horse is liable, we shall not forget to instruct them how to act in the above cases.

consequently, rub themselves a great deal. When Horses are so inclined, bleeding is highly necessary: but we will first proceed to shoeing the Horse, and then give our instructions how to proceed in their due course.

The first thing, therefore, to be done, is to get the Horse shod, for Horses usually have their shoes taken off when turned out to grass, and, if not, they generally become loose before they are taken up; then bleed, according to the size of the Horse, from two to four quarts of blood will be sufficient, and let him stand quiet, with his head tied up to the rack, without food of any kind for three or four hours. While he is full of grass, he will not drink much water, but after living on dry food, he will drink plentifully if you let him. There is no necessity for your stinting him in water until he has taken his physic.

His coat will be exceedingly foul, and full of nits, therefore, he will require some good dressings; the opening his coat, and taking the dirt out, will require him to be clothed: buckle a cloth on with a good broad roller, pretty tight, to assist in reducing the size of his belly; and if he has been in the stable three or four days, and emptied the grass out of him, you may give him his first dose of physic; preparatory to which, the day on which he takes his medicine, keep him on cold bran mashes; then, at night, say an hour before you last visit the stable, give him his medicine*. Having done this, either tie him up close, or put on a muzzle, so that he be kept without food all night; this will, on giving him a little exercise in the morning, occasion his medicine to operate much quicker than any other way. Immediately on returning to stable, give the Horse a handful of the best hay you have (first having offered him some chilled water to drink), and a bran mash slightly warmed; for, from the sickness occasioned by the medicine, Horses are sometimes with difficulty to be persuaded to eat any thing warm during the operation of physic; but in such cases, I have invariably horned down about two quarts of gruel at intervals, which has restored the tone of the stomach in a short time. This treatment, and good hay, is the only food necessary till his physic is set, as it is termed, that is, done working; were you to give more substantial food, it might lessen the effect or operation of the physic, or be thrown out whole and undigested; consequently, it is best not to give any.

I would here caution the gentleman or the groom, to be certain that the quality of the drugs, of which the medicine is composed, are genuine and good. I do not know a more serious evil, than the compounding of medicines with *bad and cheap* drugs; and I have experienced this evil very considerably when in the country; for, when I have sent a prescription to be made up, whether it has been from the ignorance of the quality of the drugs, they might have had imposed upon themselves, or whether from avarice, thinking a cheap or spurious article might do for a Horse, I will not pretend to say; but physic, prepared with bad materials, not only deceives and disappoints you, but may do infinite mischief, even tho loss of the Horse, be it ever so valuable; therefore, I recommend you to

* My motive for giving medicine at night is this; some Horses having weakly constitutions, the medicine is apt to gripe them, which, on the following day, will be perceptible, and with this advantage, it will occur in the day time, when every Horse may have good attention from any quarter you think proper.

procure your physic of persons who are respectable, and that prepare great quantities. It is most likely, from their using large quantities, that it is not prepared with stale drugs, and also from experience, they are good judges of the quality: but, giving a Horse-prescription to an apothecary, or a country druggist, it is likely to be made up of drugs that have been years in his shop, and, perhaps, originally, not of the best quality.

By the continued use of one person's physic, you will become acquainted with its strength and quality, and may, with confidence, if you think necessary, for either small, young, or weakly Horses, diminish the dose, suitable to the constitution you wish give it to.

Every groom should be expert and handy in giving a ball; for there is an art in giving a Horse a ball, which a looker-on cannot easily discover; and, it being a material thing to give it well, I shall point out such particulars as may assist the young practitioner.

The generality of things may be done with deliberation, but the giving a ball must be done expert and quick; if not, it becomes disagreeable to the Horse, and difficult to the operator. A balling-iron is frequently used by those who are not expert at it, and it may be best for those who are not in the habit of giving balls; but those who are accustomed to give balls, will do it as well, and sooner, without.

First, you should be certain you are tall enough to reach, should the Horse raise his head before you make the attempt; if so, you must stand on something to raise you. Let the person who stands on the near side, and holds the Horse's mouth open, put the ball partly into your waistcoat pocket, so much remaining out, that you easily take hold of it when you have drawn the Horse's tongue out. Stand before the Horse, and take the farthest hold of the tongue with your left hand, drawing as much out of the mouth as it will admit, and in such manner, that you are able to press it against his grinders, which effectually prevents him from shutting his mouth, folding your right hand in as small a compass as you can, hold the ball at the extreme end with the three first fingers, and put it over the root of the tongue, thrusting it as far as you can; withdraw your hand, and let go the tongue, and bridle the nose in a little, to prevent his coughing it up: you must wait patiently until you see it pass down, and be very attentive, for you cannot be too certain of having seen him swallow it. If he hesitates to swallow it, elevate his head a little, and again bridle in the nose, and that will occasion him to swallow; for some Horses will, if you are not mindful, hold the ball at the top of the throat, till you loosen the head, and then cough it up again; or it may be lodged at the extremity of the grinders, you will perceive him chewing it, and at last put it out of his mouth. I have seen awkward persons spoil several balls, before they could put one fairly down: if you are not expert, the Horse will make the more resistance.

Water may be given, as much as he will drink; warm water will occasion the physic to operate the sooner, if he will drink it; but, as before stated, give gruel, if he refuse the tepid water; and after a few hours, give water that has been standing in the stable some hours, the raw chill will then be taken off, and will not hurt him. If the physic be prepared without *calomel*, or other mercurials, which is not proper medicine for conditioning of Horses, on such occasions cold water should never be

given. If all things go on well, and as much to your wish as possible, you must not strip his cloth off, nor dress him till his physic has done working, which generally will be about the third day. While his physic is operating, you must not take him out, though, if you have convenience, you may put him in a loose box, which will afford him exercise quite sufficient until his physic is set: be careful in keeping his hocks, legs, and thighs clean, for at times, the discharge is very irritating.

When the physic has so operated, as to keep the body open for about twenty-four hours, giving him copious and loose stools, you may forbear using means of promoting further operation; let him stand until his dung is set, you may then give him his corn, strip, and dress him well; the next day take him out, and give him gentle exercise.

About the sixth or seventh day from the time he took his first dose, you may administer the second, ordering the Horse as directed before, and again letting the same time elapse between: you may then give the third dose, which, in general, is sufficient to thoroughly cleanse the Horse from that faint or foul condition which green food naturally occasions; and then you will, by proper diet and exercise, get him into wind and condition for hunting: but before I proceed with that part, I shall make some further remarks on physic.

I have noticed the manner of ordering a Horse in physic, under the circumstances of the physic properly operating and going on right; but from various causes, it may so happen that physic does not take a proper, or the expected effect. If physic does not operate in the space of thirty-six hours, some reasons should be assigned for it. Now, it may proceed from the quality of the physic, it not being good, or it might arise from the ball not being completely administered; for when a ball is not adeptly given, and the Horse gets part of it in his teeth, he may only swallow a part, which you perceiving to pass, may be therewith satisfied, and the residue may be dropped in his litter, and never after be discovered; or it may proceed from the habit or constitution of the Horse, not being easily moved, so that he may require a stronger dose; and some Horses will keep physic longer in them before it operates than others.

Whatever the reason may be, I should not be in haste to administer another dose, until I had used the ordinary expedients, and waited to observe the effects.

When physic does not operate in the space of thirty-six hours, keep the Horse warm, for that will assist the operation, and administer about a quart of gruel, into which put about a pint of mild ale; warm and horn it down; then, in a quarter of an hour afterwards, let him be moved about at a brisk walk, or gentle trot, but not sufficient to heat the Horse, or in anywise make him sweat. At night, give him a moderately warm mash, into which put about a handful of ground malt; and if it does not operate the next morning, I should then be inclined to doubt whether he had really taken the physic, unless the Horse had appeared sick, which you will perceive by his being heavy and dull, and refusing his hay; on the other hand, a soft evacuation only, and that may be in consequence of the warm gruel or mash you might have given him. But if he throws out a copious thin stool, having been sick with it, you may conclude, he had all of his physic, or, at least, the greater part; yet, if his body is not kept open four and twenty hours, having several copious evacuations, I

consider his physic not to be sufficiently strong, and should increase my next dose accordingly; for, in general, the first dose of physic operates the most; I, therefore, increase the second dose a little, if I think necessary, and, particularly if I do not exactly know the constitution of the Horse, it being safer to under-do than over-do it; and by the second dose I can pretty well judge what his constitution will bear, and, of course, proportion the dose accordingly.

On the other hand, it sometimes happens, that physic is too powerful, owing to various causes, sometimes the constitution or habit of the Horse's body; it may, at the time of administering physic, be weaker than at other times; and sometimes the drugs may be of a deleterious nature, or a mixture of all the odments the shop can produce, melted together, which is exceedingly injurious: in these cases, you will observe the Horse only partially purge, accompanied by a kind of involuntary discharge, and running down his hind quarters underneath, and all down his hocks and legs in a continual wet and slimy condition: you must mind and keep the Horse still, and take great care he does not at this period take cold, wiping him as dry and clean as you possibly can. The evacuations being of a very sharp and acrimonious nature, if you find the purging does not abate in its due course of time, proper remedies must be given, or the bowels may become so much irritated, that superpurgation may be the consequence. The best thing you can give him is rice gruel, which is made in the following manner:—take a large tea-cup-full of rice, put it in a good sized saucepan, and boil until the rice is perfectly soft, with two quarts of water. If the whole of the water be absorbed by the rice, put in two quarts more, and when this boils, take it off the fire, and strain it through a piece of tamis, squeezing the rice as much as you can. When this is done, break up your rice as fine as possible, and put it back into the gruel; when at a proper heat, give the Horse about half, and in about an hour the remainder. You must desist from giving him bran mashes, but give him dry and strengthening food, if he will eat; if the first quantity of rice gruel does not have the desired effect, repeat it. You may improve this gruel by dissolving an ounce of gum arabic, and give with it, which will tend to remove the irritability, and, at the same time, strengthen the stomach, if impaired by the excessive operation of the purging medicine. When the purging has been thus excessive, I should let a clear week elapse from the time the dung was set, before I gave another dose, to let the stomach and intestines recover their lost tone, occasionally giving the dissolved gum-arabic in his water, which will greatly assist that purpose. You must, consequently, be mindful that your next dose must be less in quantity.

Horses having gone through their physic, you proceed, by proper exercise and diet, to get them into wind and condition for hunting. Your physicking now has taken between three and four weeks, to get the Horses cleansed from their soft foggy food, and now, about the same space of time is allowable to get the flesh firm, the coat clean, the limbs strengthened by exercise, and the wind improved by suitable management of diet and exercise for that purpose.

As you have been at so much pains to cleanse the body of soft and foggy food, you must now be careful that nothing but clean wholesome food shall be given the Horse.

For this purpose, you must be provided with a rack-rein and muzzle, which must be alternately used, when the one is taken off, the other should be put on: for instance, you put on the muzzle when you wish or expect the Horse to lay down; consequently, you put it on at leaving the stable at night; this is to prevent him eating his litter, which some Horses will do even when it is very foul: and when fresh litter is given, many Horses will prefer it to their hay: and though clean straw is not injurious to Horses that are not required to gallop much, yet hunters and racers are not permitted to eat it, because it oppresses the wind. The rack-rein is an iron chain, fixed at the head of the stall, which passes through a ring sewed in front of the nose-band of the stall-collar; it is fastened in the same manner as a dog's chain to the ring in the collar, and, when dressing the Horse, you can, after passing it through the collar, fasten him as short as you think proper; but, at other times, the chain must be long enough to permit the Horse to feed out of his rack, or out of his manger, though not to let his head reach down to his litter.

The first thing to be done in tne morning, on coming to stable, is to take off the muzzle and put on the rack-rein, then throw into the manger about a quart, or a little better, of oats, according to the constitution of the Horse, for some are puny feeders, and must be treated in such manner as will best invite, or occasion them to eat; while others, on the other hand, will eat all you set before them, and must be stinted to a proper allowance. The oats, for these occasions, should be the best that can be procured; dry old oats, short and plump, clean from all kind of seeds, which are frequently to be found, particularly amongst foreign oats, perfectly sweet, and free from dust, and white and clear: sift them well, and blow the husks, chaff, or any light oats away, and be sure to keep the manger very clean. When the Horse has eaten his oats, and during which time you will just clear his dung from behind him, but be careful you do not disturb his wet litter, so as to occasion the vapour or stench to arise, you may strip off his cloths, rub the dung, if any, off his hind quarters, hocks, &c., and giving him a light brush over, put on his exercising cloth and saddle; then turn him round, brush his head and ears, put on his bridle, and take him out for exercise. The stripping and brushing I look upon to be as refreshing to the Horse as your washing, when you get out of bed in the morning. While the Horses are out at exercise, a person should be left at home to clear away all the wet dung, immediately setting doors and windows open, in order to get the stable sweet against their return, all the stalls set fair, and the stable cleanly swept.

For exercise, choice should be made of the driest and most open piece of turf, sod, or heath, that is in the neighbourhood, and, likewise where there is some gradual ascents, if of half a mile or a mile in length the better, to give the Horse some gentle breathings, in order to bring him into wind. You should walk them the first half hour, letting them empty themselves, yawn, stretch their necks, and enjoy the sweet refreshing morning air, which is invigorating, bracing, and strengthening both to man and beast. So manage your walks, as to bring your Horse about this time to a convenient place to give him a gentle gallop; begin slow and gradually, increase your pace till you finish at a half or three-quarters speed; proportion the length of your

gallop according to the strength or condition of the Horse; if he is faint, so as to *sweat soon*, *stop in time*, and walk him, that he may recover his breath, and cool himself; for you must not put him in a thorough sweat; but on those days which you appoint for that purpose, which should be about twice a week, till he commences hunting, and then he will not require any sweating in exercise. In this manner, alternately walk and gallop, so as not to sweat the Horse till you find it time to return, which you should so manage as to keep the Horse out about two hours; and after the conclusion of the last gallop, the Horse having recovered his breath, and is cool, you should contrive to have water at hand to let him drink, and then have half an hour's walk home. If the water should chill him, and make his coat stare, a gentle gallop to warm him will be proper, *but not to sweat him.*

Horses are most fond of staleing on litter, as it does not then splash them; and if the wet litter was spread in a convenient place, without the stable (some yards are thus purposely strewed), the Horses standing a minute or two before they are put in the stable, or during the time the groom dismounts, will stale, by which means you keep your stable clean and healthy. When put in the stable, a bit of hay should be given, that has been well shaken from dust and seeds. The quality of hay for hunters should be the choicest that can be procured, grown on a rich meadow, and cut before it gets too ripe; for hay, when it stands too long before it is cut, may answer the farmer's purpose by seeding his ground, and wanting less making; but to be good for a Horse, and especially the hunter, it should be cut when young, before it seeds, and with the sap in; then, if it is well made, and got in, in the dry, it will, fourteen months after, cut out as green as a leek, and the flowers retain their beauty nearly as when growing, and hay will never be better than when twelve or fourteen months old: but such hay as the above is not always to be procured; yet hay off good meadows, that has not been heated too much in the stack, may be purchased more frequently; and, indeed, I have heard some experienced followers of the chase say, that they admired it a little brown; but, I think, if it be twelve months old, having a fragrant sweet smell, it cannot be too green. New hay must not, on any account, be given, there is a faintness in new hay that would be as detrimental as giving him grass; that is to say, if you mean to keep your Horse in good hunting condition.

Having put your Horse to the rack-rein with a bit of hay before him, go on your knees and whisp his legs, for the legs are always to be the first and last things attended to, and particularly after physic; then strip his clothing *half off*, that is, to about the middle of the back, then give the fore quarters a good thorough dressing. This being done, get your dry clothing, and place on the parts cleaned, slip off your exercising cloths, and dress well his hind quarters: this being done, remove your clothing from his fore quarters, and brush him well over, agreeably to the manner I have before directed; after which, give his feed of oats, being double the quantity, or nearly so, to what you gave before going out; then having whisped his legs as the last thing, shake up his litter, set the stable fair, if he has cleaned the rack of the hay (for I always recommend to give but little at a time, that he may eat it with better appetite), you may now give a bit

more, if you think it necessary, *but never give more than he will clear with a good appetite.*

According to the time that you should come to stable at this part of the year, which, we will say, is five o'clock, it will now be time for you to breakfast, and you may leave the hunters on the rack-rein, while you have your breakfast, and they finish their hay.

On your return to stable, observe that all have cleared their racks, and if they have had sufficient time, and the racks not clear, take it away, loosen the rack-reins, put on the muzzles, and leave them for three hours quiet, that they may lay down if they are so disposed: it is a desirable thing, for Horses to rest their legs at all convenient opportunities.

This will bring you to what is termed middle day, or it may be one o'clock, for, as the days, at this time of year, are getting shorter, you must be at stable as punctual as the clock, so that you may contrive to be at home from exercise before dark. You should proceed now, in like manner, as in the morning, putting on the rack-rein, giving him a mouthful of hay, and a feed of oats in moderation; for you are not to fill him or encumber him with food, particularly hay, when you are going to take him out. While the Horse is feeding, clear the dung from behind him, as in the morning; then strip and brush him over previous to putting on his exercising cloth and saddle, and take him out, as in the morning. If you are situated in a country that affords a variety of suitable places for exercise, vary your places as often as convenient, it will be the more agreeable to both Horse and man: keep off the gravel road, chusing to go on the turf as much as you can. Having been out about two hours, in which time you have given the Horse two gentle breathings, let him have water and return.

The stable, as before, in your absence, should be cleared of all wet litter, and aired and refreshed against your return. After giving the Horse the opportunity to stale, bring him into the stable, and repeat the rubbing of legs, and thorough dressing, having given him a mouthful of hay to amuse him. After his dressing, give him his feed of oats, and give him a bit more hay, if he has cleared the rack of what he had at coming in. This will bring you to about five o'clock in the afternoon, at which time you may leave him on the rack-rein to eat his hay; and between seven and eight return to finish up for the night. If you gave him a sufficiency at leaving stable at five o'clock, he will need no more, the Horse having had three hours to feed of hay: if he is a slow feeder, he ought to have cleared his rack by this time, and those that have not, I should take it from them; for the Horse will not have any appetite for hay that is glutted with it; and as it is always standing by him, you should be always mindful not to give too much, so as to occasion him to leave any. You have now to feed with oats for the last feed; see that all their cloths are put on right, not atwist, but smooth, and without a wrinkle about them; that every Horse finishes his corn, not leaving any, then loosen the rack-rein, put on the muzzle, and make up a good bed: having plenty of dry litter, and a large stall to lay his legs out at full length, leave him for the night.

This is the daily duty of the hunting stable, without any material difference, except on the days appropriated for sweating, which must be, at least, two days in the week, till

the hunting commences; at which time, if the Horse be hunted twice in the week, there will be no occasion for sweating exercise.

I do not recommend hunters to be kept over warm with cloths, they are frequently exposed to cold and wet, and the more tender they are kept, the more likely they are to take cold; therefore, hoods and fillet cloths may be dispensed with; but I think it highly necessary that each Horse should have two cloths, one for exercise, which will occasionally come home wet and dirty, the other cloth being reserved for the stable. Your cloths should be occasionally scoured, and your exercising cloth as often as it gets damp by rain, sweat, or dirt, and then carefully dried.

On the days you give your Horses sweating exercise, which may be on Tuesdays and Saturdays, or any other days equally distant, contrive to give his sweats as contiguous to home as you can, particularly if the air should be thin and piercing, for the purpose of getting home to scrape and rub him dry; for, when a Horse is in a thorough sweat, and a chilling air penetrating under a wet cloth, is almost sure to occasion cold, cough, &c., therefore, the stable or rubbing-house being at hand will be convenient, and prevent such a circumstance taking place.

After having walked the Horse for about an hour, bring him to the place you intend to gallop him, and begin very moderately, gradually increasing your speed, till you get him to half or three-quarters speed, if he is hard to sweat; continue him at that rate, until he is in a proper sweat, which will be sooner or later, according to his condition; if he be fleshy and foggy, he will sweat soon, and his wind will be distressed; in this case you must gallop the slower, not to distress the wind, but bring him to sweat, which will waste the superabundant fatty matter contained in the cellular membrane, and bring him in wind as such fat diminishes. If you find the Horse in good wind, and hard to sweat, his condition is improving, and you may give him stronger gallops without injury. The meaning and intention of these sweats are, to those that are in wind to keep them so; and to those that are not in wind, by strong exercise, to get into that desirable condition, to reduce all grossness arising from too much fat, and get the carcase up; it likewise cleanses the coat, making it sleek and soft; for the imperceptible perspiration continually going on, adheres so closely to the roots of the hair or coat, that it is not easily got out; but these profuse sweatings bring it away, and you will perceive the coat to be much finer, when well dressed after a good sweating.

The condition of the Horse is to be discovered and judged of by his sweating; if he sweats soon, and puts on the appearance of soap lather, he is then what is called foggy, and must have strong exercise to bring it away; if he requires strong exercise to bring him to a sweat, and the sweat be clear like water, and dries soon, he is then in good condition, and fit for immediate work; but if he sweats profusely with little exertion, and the sweat thin, though like water, and is a long while drying, it shews a weak faint habit of body; indeed, we may call it bad constitution, and will not bear much work, especially as hunters. Some Horses sweat more profusely than others; this is not always to be regarded as weakness, if it proceeds from strong exercise, and soon dries. Constitutions differ in Horses, as much as in men.

The Horse having had his sweating gallop, should be brought into the stable, and immediately scraped and rubbed dry, with all possible dispatch, and a clean dry cloth put on him, not the one he was sweated in; which should be got clean and dry against it is wanted again. If he had no water while out, now give him some after he is perfectly cool and comfortable, and should the weather be very cold, the chill should be taken off, but not made warm; water that has stood several hours in a warm stable, is sufficiently chilled, and may be given him, or you may, after rubbing him, walk him about, and give him water, and gallop him gently to warm it, but not to heat him, then bring him home.

A Horse treated in the manner I have directed, will, in three or four weeks, after having been through his physic, be fit for hunting, if proper regard is paid to his feeding. His food I have directed to be of the best and cleanest quality, and the quantity must be regulated according to circumstances; such as size, constitution, &c. &c. Now the Horse's daily exercise will be, on the average, not less than twenty miles a day with this exercise, the quantity he eats will not hunt him, if he does not get too fat; for the Horse, for hunting, must have plenty of good feed in him, but must not be burthened with flesh; if he feeds heartily, he must have strong exercise to keep his flesh down; if inclinable to run to belly and be fat, he must be stinted proportionably, or occasionally take alterative medicine; but when he comes to hunt three times a week, there will be no occasion to stint him, he will never be burthened with flesh with such exercise.

The Horse being got into condition, and the hunting commenced, you are relieved from that part which regards the sweating; and instead of giving exercise, to keep the Horse's flesh down, and keep him in wind, your exercise is now for the purpose of walking off stiffness, occasioned by over exertion, bracing the system that has been relaxed by excessive exercise, and creating appetite; hard running, and long distances, continued for many hours, will consequently affect a Horse more or less, particularly at the beginning of the season, before they are accustomed to it, so that their appetites will fail as well as their limbs be stiff; and your attention is now to recover the Horse from that debility occasioned by over fatigue.

Young Horses, and those not seasoned to hunting, though in condition, are mostly affected by severe days, and such must not be expected to hunt more than one day in the week; for it will take nearly that time for them to recover from a hard run, either with fox or stag; but seasoned hunters will stand their work twice, and in many cases three times a week; though that, for a continuance, I think too much for any Horse to stand, unless it is with harriers only, where there is seldom much hard running.

Now to order your Horses when they hunt you feed and dress much after the same manner as before directed, only when you know of going out in the morning, *rather shorten your allowance of hay* in the evening, and *increase his corn*, but not to gorge him. He should always have a good bed to invite him to lay down, and stretch his legs; but you must keep his muzzle on, for though many do not constantly use the muzzle; yet, if it be used at all, it is most proper at this time. In the morning put your Horse on the rack-rein, but do not give him any hay. This

is what I have recommended to be your constant practice; for if you make it a rule not to give him hay until he comes home from exercise, the Horse will not pine or look for it. If you are going a considerable distance to meet hounds, or to covert twelve or more miles distance, you may give the Horse a moderate feed of oats, but if you are going to turn out a deer, or expect to find near at hand, let the Horse go out perfectly empty, and on no account give him any water; if I just washed his mouth, it should be from a bottle, from which I should be certain he could not drink more than a pint; let him be thoroughly cleaned, and his legs well rubbed, and his saddle on, moderately girthed, at least an hour before going out, this will cause him to empty himself; for if you observe, most Horses when the saddle is put on, relieve themselves by dunging if they can: a quarter of an hour before wanted, put on his bridle, and have him ready, buckling him to the stall-reins, let him stand till wanted, with a cloth thrown over the saddle.

When Horses come home from hunting, it necessarily follows that all expedition should be used to get them clean, and make them comfortable; if there has been hard running, and the Horse come home leg-weary and tired, cleaning will be more refreshing than feeding, and therefore must be first attended to, not but the Horse may have a bit of choice hay put into his rack to amuse him, if he will eat while he is dressing; but when it has been a long day, and hard riding, many Horses will be off their feed, particularly young and unseasoned Horses; this, as a matter of course, is to be expected, though it is most to be desired that the Horse should feed, which shews a fit constitution for extraordinary labour: when you have a Horse of the above description, never leave home without putting in your pocket a ball, composed as follows:

Sulphate of iron	-	2 drams.
Ginger	- - -	1 do.
Gentian	- - -	1 do.

To be formed into a ball with soft soap*; this ball will act as a tonic, and invigorate the system. Now, on the hounds being drawn off, and the day's hunt finished, if you find your Horse weak, or at all inclined to flag, dismount, and immediately give him the ball; you will find by so doing your Horse will recover his strength, and carry you home pleasantly, even if you have a dozen miles to go; it will also promote his appetite. After a thorough cleaning, in which you must be particular to rub his head and ears well, and get him dry in every part, making him as clean as when he went out in the morning; you should carefully examine him all over, to see if he has received any injuries from stakes, stumps, boughs, brambles, thorns, rails, flints, &c.; likewise that he has not been galled with the saddle, girths, or breast-plate, if he wore one. When the Horse has been refreshed with a good cleaning, he will be more inclined to feed than before; but if he will not, make yourself easy, for his appetite will return, as his weariness wears off.

On returning home from hunting, it is usual to let the Horse drink (for he is sure to be

* Though soft-soap and the mineral tonic will not unite in a chemical point of view, and may occasion some remarks from the knights of the pestle; but I beg to inform them, if they did unite, it would destroy the power of the sulphate, consequently, rendering it of no service at all; for as medicines unite, so their power is reduced. This is easily explained: if you drink a glass of neat brandy, mark the difference in diluting it with water.

thirsty) at some convenient pond. The Horse should not be suffered to drink too much at a time, which his extreme thirst might induce him to do, but letting him have about ten go-downs, ride on to another convenient place, and let him have the like quantity, and thus by degrees, let him quench his violent thirst before he comes home, which will be better than letting him drink a vast quantity of cold water at once. Should you not have had an opportunity of giving the Horse water in your course home, he must have water with the chill off; and what is even better than this, will be a bucket of chilled water, into which put about a handful of oatmeal, but not warm, and when his thirst has been partly quenched, he probably will eat.

The legs, from excessive labour will, of course, be weary, and often inclined to heat and inflammation, particularly if the Horse has been rode among brambles, thorns, or furze, the greatest attention must be paid to them. *Hot water* should always be ready against Horses come in from hunting, for the purpose of washing their legs; for nothing is more grateful and refreshing to our feet and legs, when they burn with heat and weariness, than soaking them well in hot water; it opens the pores of the skin, and draws the heat and inflammation away, and will be found as equally salutary to the Horse as to ourselves. Let the water be hot, but not to scald, or endanger bringing the hairs off; bathe the legs well with the hot water, having two pieces of woollen cloth, one to remain in the water, whilst you are applying the other to the horse's leg, so that by alternately changing them, you keep the leg constantly warm. Apply these well round the fetlock joints and pasterns, and as the heat passes off, renew your cloth with the one in the hot water; do this for at least three quarters of an hour, after which wipe them as dry as you can, by the application of a dry sponge; then carefully search with your hands if any brambles or thorns are lodged in the skin; for your feeling will discover what your eye cannot perceive, and the skin being relaxed by the warm bathing, they will be the more easily discovered. and be got out with less difficulty. Whatever you discover of this kind, must be picked out with care, so as not to enlarge the apertures they have made, nor break nor leave any part of them in; for what is left in must occasion inflammation, till nature has expelled it, which she will do by discharging, at first, an ichor from the apertures, and consequently forming a wound; so that much greater care is necessary in extracting these foreign bodies than is first thought of; for it frequently produces a blemish from the scab or scratch occasioned thereby, that the value of the Horse is greatly deteriorated in consequence; but if carefully taken out in the first instance, much pain, heat, and blemishes will be prevented.

In some instances I have known thorns to penetrate so deep as to break within the skin, and if such are not discovered, which I must say is a great difficulty to do, an abscess will form; if such should be the case, immediately on discovering it, take

Linseed meal - - 4 oz.
Turpentine common 1 do.

Mix well together with scalding water, and apply warm to the part affected, in the shape of poultice: this, in all probability, will occasion

the extraction of the offending particle; after which you must dress as a common wound, with

Tincture of myrrh and aloes,

three or four times a day.

I once knew a case of the above kind, having occurred with a Horse (and a valuable one too), belonging to a friend of mine, who lived about twelve miles distant from me, and he not thinking it of the consequence it was, sent for the village farrier, who opened the tumor on the top or upper part, the consequence was there was little or no discharge, and introduced a piece of tow saturated with butter of antimony; consequently a wound of an amazing extent was produced. I was then sent for, and with a few days' poulticing, with cooling medicine, I was able to set up the healing process, as above described; but the Horse had always a blemish, but being a well known good hunter, it did not take so much off his value as at first I should have imagined. Had the stupid fellow punctured below, instead of above the abscess, it would have relieved itself, and prevented the blemish, and of course, the disagreeable eye-sore.

I mention the above, to shew the necessity of carefully examining for thorns, and should a similar disaster happen, take a *middling-sized abscess lancet*, and open the abscess at the bottom; by this means the accumulated pus will discharge itself; then treat as before instructed; by which means you assist nature, which is the grand object in all cases. Apply a bandage round the part, which will keep the lips of the wound together, and promote the healing process.

Having carefully searched, and extracted brambles or thorns, whisp and wipe the legs perfectly dry, so that when he is thus refreshed and had his water, if he will not feed, it is most likely for the best; for extraordinary exertion, more than he has been seasoned to, occasions an inward or sympathetic fever, and until rest, free circulation of air, and a little cooling medicine, the appetite will not return; in such a case as the above, give

Aloes, Barbadoes - -	1 dram.
Ginger - - - - -	2 do.

form into a ball, with half an ounce of common soap, and give to the Horse if his appetite has not returned by the morning after the chase. Some persons make themselves very uneasy on this account, and wish to administer something; many are for giving a warm mash, which of all things the Horse will not eat; others are for giving a cordial ball, or something comfortable in the shape of a warm drink, all of which is no use whatever. I recommend patience until the morrow, and if it should be deemed necessary, repeat the medicine; for if nothing of a dangerous tendency exhibits itself, such as inflammation of the lungs, &c., make him up therefore a good bed, and leave him to rest.

In the morning, I make no doubt you will perceive the Horse will feed a little: you must then proceed as before directed, and take the Horse out to exercise; after which, take

Linseed meal - -	2 oz.
Glauber salts - -	2 do.
Warm water - -	3 pints.

Give this drink the moment he comes in from exercise, and you will find in the course of two days your Horse fit for work again, giving him sufficient exercise to take off that stiffness which naturally occurs from extraordinary exertion; the fresh air will also

greatly contribute to recover his lost appetite.

Though I term this walking exercise, I do not mean you are not to exceed a walk the whole time you are out; that, perhaps, if the weather was very thin and cold, might increase the stiffness; but I call that walking exercise, which puts the blood in free circulation, without overheating it; you may, therefore, give the Horse a gentle gallop for a short distance, but not to cause him to break out in a sweat, particularly after giving water: gallop by way of warming it. Choose the airiest place for exercise, such as open downs, or high and dry grounds; and at your return to stable, your Horses, if they were not very sick indeed, will find their appetite.

Horses that become weary and sicken at a day's hunt, which may be the case with good Horses at the commencement of the season, or young Horses, till they get properly seasoned to their work, will require some days to recover, before they are fit to hunt again. A week's respite may be necessary with some; others will recover in half the time. The sooner the Horse comes to his appetite, the sooner he will be fit for labour, provided you have not been nursing him with *warm mashes and comfortable drinks as they are termed*, which has a tendency to relax and open the body, and should only be given when the Horse is in reality ill; but loss of appetite from over-fatigue only requires rest to recover it; therefore, avoid all the stable nostrums, which we are sorry too many of them abound with.

With regard to heat, or inflammation from the saddle or girths, washing the parts with goulard, is equal, or I may say, the best thing you can use; and to the legs, if hot and swollen with fatigue, is the best repellent and cooler, and should be always kept ready at hand for such occasions. To prepare it, get a quart bottle, and take

Extract of lead - - 4 drams.
Water sufficient to fill the bottle.

The stable should never be without this lotion; it is cheap, efficacious, and ought always to be at hand.

Washing the legs which may have received scratches, &c. in hunting with the goulard lotion, will heal them quicker than any other application.

The feet are likewise to be attended to at all times; at the Horse's return home, all road-dirt, or gravel, should be carefully picked out; and particularly notice that gravel is not lodged under the shoe at the heels and quarters, as by such lodgment of gravel, *corn* may be produced, with all its natural consequences of tenderness and lameness. When you wash the legs with warm water to cool and refresh them, it will also at the same time relieve the feet, which of course must have undergone a considerable quantity of labour; water is beneficial to the feet; we find the feet less injured by travelling on wet roads than on dry ones; and the hoof at grass being continually wet with the dew and moist ground, is in a better state than when kept in the stable; the casual wet you meet with in exercise on the roads, or the moisture of the turf or grass you exercise on, will contribute to preserve the foot from the injury which continually standing in a hot and dry stable occasions. I have not the least doubt that one half of the pleasure Horses kept in London, incur lameness, and are ruined by standing so much in the stable.

ON SHOEING.

Shoeing, like all other appendages to the Horse, has received considerable improvements within the last half century. Indeed, the great improvement made in shoeing since the establishment of the Royal Veterinary College, precludes the necessity almost of my giving an opinion at all, and the able works of Professor Coleman, Mr. Bracy Clark, and Mr. Goodwin, goes to shew every thing necessary on the subject; but, probably, we might be thought neglectful, if we did not give our opinion; we will do it as concisely as we can; for it would be impossible almost to give instructions in shoeing, for the ignorance and obstinacy of the old practitioners in farriery, were difficult to overcome; but, at length they have in some measure yielded to the superiority of study and science. The anatomy of the Horse's foot is now clearly understood, and without such knowledge, no man can shoe a Horse properly; hence the cause of so much lameness occasioned by shoeing; the benefit derived from this knowledge cannot but rejoice those who recollect the numbers of valuable Horses that were crippled and spoiled by ignorance and error of shoeing. The post-horses, stagers, and hackney-coach-horses, were comprised principally of crippled Horses, or such as were termed groggy in the feet; these poor animals would stand with their feet forward, or as it is called *pointing*, in the greatest anguish, shifting from foot to foot alternately, to gain a little ease, and their very countenances expressive of extreme pain; now, comparatively, few such are to be seen. With care, the foot may be preserved to the last; whereas, formerly, a young fresh Horse from the breeder, in the space of two years, his feet getting gradually worse, became unfit and unsafe for any gentleman's riding, and in his very prime was cast off to hard labour, rendered more intolerable by increasing pain.

But, though the improved system is now almost become general, that every person employed in shoeing Horses, knows how it ought to be done; nevertheless, there should be an exactness and care, which some men will not observe; and, with all your instructions, these men fancy they know better than all the veterinary surgeons in the world; and, in spite of all your endeavours to teach them, they will have their own way at last. It may be necessary to apprize the man who forges the shoe, if the Horse is apt to interfere, which is called cutting; and, likewise, if he over-reaches with his hind-foot, striking it against his fore-shoe; which is extremely unpleasant; these things may be greatly assisted, or totally prevented, by making, and placing the shoe accordingly. The interfering is remedied by leaving the inner heel as high as you can, and paring the outer heel in moderation, the inner heel of the shoe is made thicker than the outer; this raising of the inner heel throws the fetlock joints outwards, or wider apart; which, with that part of the toe that is liable to interfere, being pared close, and the shoe no wise projecting, will prevent the interference, or what is called cutting.

The hind-shoe, striking against the fore, which some Horses are apt to do, is prevented by shortening the heel of the hind-shoes, so that the hind-foot moves in unison with the fore-foot; for this striking arises, principally, with heavy forehanded Horses, that cannot get their fore-feet so quick out of the way of the hind; and, consequently, that unpleasant

noise, which arises from Horses which strike, and which, at times, is almost beyond bearing.

When Horses, newly shod or removed, go unpleasant or unsafe, which before went safe and well, which is frequently the case, it is reasonable to suppose the shoes are not put on properly. I have seen Horses, on being removed from the farrier's shop, go as if crippled every step, and, to all appearance, they with difficulty were kept up to prevent them from falling. The shoes, to all appearance, seem well put on, and, to the eye, the nails appeared driven in properly, so as not to touch on the sensible part of the foot; but this arises from the shoe not having an equal bearing; that is to say, not equal at the heels as at the toe: but I have no objection to the shoe bearing on the outer heel, *but not by any means on the heel and quarters inside;* for if this be the case, you will assuredly produce corn, contraction of the hoof, thrush, &c., &c. I think these cases are most likely to happen where you caution the shoeing smith not to put the shoe hot to the foot; for though I do not approve of the shoe being so hot, as to sear the foot, to fit the shoe, yet the application of the shoe, moderately hot, to shew where the shoe bears, and where it does not, that the rasp may take down some places till the bearing becomes equal: this is a less evil than putting the shoe on at hazard, where there is not equal bearing on the outer side and toe. The driving the clonches down over much, may cause pain and uneasiness, but it is not likely to pinch when the shoe sits solid, as when it does; for this reason, in shoeing Horses, I always advise but *two nails to be driven* in the inside, and *those two next the toe:* by this means, you do not *draw or warp* the shoe; for, you must recollect, the shoe not being elastic, and it being nailed to an elastic body, something must give way, and the elastic body sooner than the non-elastic: and, further, this occasions the shoe frequently to break, and, what is most singular, the breakage almost always takes place at the quarters where the most elasticity exists; clearly proving that there is not so much fault in the iron, as the confinement by the shoe of the elastic part of the hoof: but this you cannot persuade the old shoeing smiths to believe; and it has not been until of late years, when regular educated veterinary surgeons kept shoeing forges, that all these errors have been exploded, though not to the benefit of the surgeon, so much as the Horse; for it is rarely that any profit is obtained from a shoeing forge, though it is an adage amongst veterinary surgeons, "If you get a Horse's foot, you get his whole body:" this I have, in numbers of instances, proved; but one, in particular, I cannot help relating. I was called in to see a cart-horse, belonging to a gentleman at Kennington, that was affected with inflammation of the lungs: the Horse was exceedingly ill, held down his head, appeared sleepy, and, indeed, put on all the symptoms of the disease he was labouring under. The farrier was sent for who had been attending to him for the previous three days. On consulting with Mr. Farrier, relative to the disease, he could not be persuaded but the disease lay in the Horse's head, on which he had placed an immense bran poultice; and so much was the owner of the Horse persuaded by this man, that my services were declined, and, as a matter of course, the Horse died on the morrow. Another case I will mention, which was, a Horse I was sent for to in Lambeth; the shoeing smith here had

usurped the veterinary surgeon's office; the Horse was lame, with inflammation of the near foot before; and this scientific blacksmith had been rubbing hot oils of some kind or other in the Horse's shoulder; but on my pointing out the seat of lameness, the owner preferred the *smith* to carry into execution my prescription in preference to me. I merely mention these cases, to shew why a veterinary surgeon should keep a smith's shop, not, as I before said, for real profit in itself, but what it may lead to. But going back to the Horse, leaving the smith's shop alone.

When such an occurrence of extreme lameness, and, of course, consequent uneasiness, happen immediately after shoeing, the shoes should be immediately taken off, to ascertain how the shoe was fitted on, though it frequently occurs, that drawing out the two back nails of the inner quarter will instantly give relief; and though the farrier may insist that nothing was amiss (for we are none of us willing to acknowledge an error that cannot be brought home to us), yet, he may be careful to remedy the cause, whatever it may be, whether it may be from the shoe being too tight, or a nail struck so far in as to occasion unequal bearing. Not that you are to expect Horses with bad feet will go as pleasant in new shoes as old ones: those Horses with thin flat feet, cannot be supposed to go so well as a Horse with a strong foot, consequently, a different shoe is required. A shoe to suit soft thin feet ought to be well chambered out, as it is called, with a broad web, and only bearing on the edge of the crust: but Horses having such feet, I should recommend the bar shoe, for the old system of paring and cutting out the bars, by which means the foot will become contracted; and until the shoe is in some measure settled to the foot, the Horse will go tender and unpleasant.

The substance and weight should be proportioned to the work or employ of the Horse: never load the foot with more iron than is necessary to preserve it. If the Horse's foot is light, let his shoe be light also; and if he work principally on the road, his shoes should be somewhat stouter.

Shoeing Horses, like most other things, from the modern improvements made in the art, and those in accordance with the true anatomy of the foot, I should much rather leave the shoeing in the hands of some respectable veterinary surgeon, than consult books on the subject; therefore, in consequence, we have refrained giving plates of shoes, which none but experienced men can determine the application and utility of.

ON TURNING OUT TO GRASS, OR STRAW YARD.

When Horses have been hard worked, turning out becomes a natural consequence, to refresh their limbs: they are occasionally turned out when not wanted for present use. The hunter, when the season is over, is turned into good grass, to cool the system, and to prevent too great an incumberance on the master's pocket; also, to refresh his limbs, which, if he has been regularly hunted the season through, must stand in need of it; but if only occasionally, and he was wanted after for the road, there is no necessity for it. I have known Horses to be kept in a stable a dozen years without eating any green food, yet have continued in health and condition: there are some constitutions that will not thrive and look well in the stable for any continuance, but get tucked up, suffering from indigestion

(hide bound), and their coats looking dead and russetty. These are a kind of Horse I would not keep; though Horses affected with *worms* will put on similar appearances: therefore, if a high-prized Horse, which of course makes him valuable, I should try a course of medicine before I parted with him: this frequently, with good grooming, will renovate a Horse, putting on the above appearances: if you should not be inclined to go to the expence, they will have a tolerable appearance, after a month or six weeks grass, which acts, and has the same effect as physic. Now, this is the best time to dispose of such a Horse, for they frequently return to their first state when kept in the stable, with only having moderate work. I would not have it understood that grass is improper for Horses; on the contrary, it is very good, where they can be spared; and pleasure Horses, that are only moderately used, may be kept at grass, and worked occasionally, all the summer, giving them corn when they work. It is for appearance and ability to do extraordinary work, if required, that condition is in such request. The Horse that runs at grass, and is worked all the summer, is soon got into condition for hunting in the winter; for his occasional working prevents him getting over-fat and gross with the grass; and, without physicking when you take him up, give him dry food with some good sweating exercise, and he will soon be in wind and condition for hunting.

Turning out in winter to a straw yard, is a custom with those who keep a Horse for pleasure in the summer, and have no occasion for him in the winter: they will tell you how beneficial it is for the Horse, cooling to the body, and bracing to the limbs; but these arguments do not meet with my concurrence. Whatever may suit a man's taste or convenience, he will be sure to find some pretext or excuse for it, and like an old acquaintance of mine, who is fond of a *dram*, is never at a loss for a pretext to take one, *if he is hot, it is to prevent taking cold; if he should happen to be cold, it is to warm him; and if neither, he is sure to be troubled with the wind.* So with those who do not like the expence of keeping a Horse in the stable in winter, when they can seldom ride, they would persuade themselves, it was beneficial to the Horse to be famished with cold and hunger for five or six months. To keep Horses in stable, I admit, is very expensive; and in large towns, without work, and where exercise is not convenient to be given, is injurious to the Horse; but not near so hurtful as to be nearly famished, as I have seen some taken up from a straw-yard, and had scarcely recovered an appearance fit for a gentleman to be seen on their back. Before the season arrived for their turning out again, how much the constitution must be weakened and debilitated, I shall leave my readers to judge. When a Horse has been rode hard all the summer, his legs may become swelled or gorged, and require rest to refresh and bring him about, and this may be the only season he can be spared; therefore, under all circumstances, it is more *convenient than beneficial* for a Horse to be turned out in winter.

When it becomes expedient either for the refreshment of the Horse's limbs, or the sparing of the owner's pocket, I cannot but recommend that the Horse should be prepared for the extraordinary change he is to undergo, by first leaving off his cloths, then removing him to a cooler stable, leaving off dressing, giving him less, at least no corn, and, by

degrees, to an empty stable or shed to lay under.

When gentlemen have convenience of their own to turn Horses out in winter, there is no doubt of their being taken care of; in open weather there is good pasturage, and in hard weather, an out-house or stable to lay in, with plenty of hay. A Horse may be benefitted by a winter's run of this sort, and come up refreshed; but as we were alluding to straw-yards, where they take in all that come, and account they do well by them if they keep them alive, which has been the case with many I have seen; not but a Horse may do well, when he is up to his belly in clean straw, and can pick and cull the ears to fill himself: but where they take in for pay, some men scarcely ever think they are over-stocked, and that which is scarcely fit for the Horse to lay upon, becomes his food. Therefore it behoves those who send Horses to straw-yards, not to rely altogether on specious promises, but to occasionally visit them yourself, to see how they fare; and you must not be surprised, if you do not know your own Horse, for the alteration sometimes is beyond any person's conception. A Horse in the rough is so very different from what he appears when kept clean and handsomely done up; how much more so must it be, when reduced by cold and poverty, his flanks hollow, his crest fallen, his coat long and staring, and the colour completely changed by the weather, his spirits flagged, and he appears altogether dejected. This is the state many are reduced to by *a winter's* turning out; and to recover them to the state they were in previous to turning out, if the constitution is not so injured as to preclude it, would cost from ten to twenty pounds.

I leave persons, then, to judge for themselves of the prudence and economy of turning out in winter.

The giving Horses green food in the stable is called soiling; it is not convenient for those who keep no more Horses than they have use for to turn them out to grass, and particularly in that season when people make pleasure on horseback, or travel on business. The work of Horses of this description is hardly to be called exercise; perhaps not more than ten miles a day, on the average, and their pace seldom exceeding more that six or eight miles an hour, and that for very short distances, as fast riding in hot weather is neither genteel or pleasant. Under such circumstances, green food in the stable, as a cooler and alterative, is admissible and highly proper; for some constitutions will not do well without it, dry food for a long continuance not agreeing with them, and no quantity of dry food that you can give would make them thrive, but they will be lank, do all you can. I have hinted, that such a description of Horse is not worth keeping, but where work is light, they serve instead of a better Horse, and their paces and action may be very good, though their constitution, like some of ours, may not be the most robust.

Green food to Horses is a kind of natural physic, cooling and opening the body; and many preclude the necessity of other physic; for you will perceive, at his first having green food, particularly if he works with it, he will void his dung quite soft, if not scour. This is the benefit he derives from it; consequently, clearing out the alimentary canal, and producing that healthy secretion, nature is so desirous of; but after a time, the purgative principle appears to have passed off, and the Horse merely voids his dung, in rather a soft state than not. I, of course, should not advise

a Horse, on green food, to be put to immoderate work, as it may produce inflammation of the intestines, and its frequent consequence—death.

Green food, when cut, soon spoils, and I therefore caution my readers, who buy the bundles of *vetches or tares* that are brought to market, to be mindful that they are fresh and cool. They are frequently cut the day before, and tied up in the bundle full of moisture, which will occasion them to heat, and begin to rot, consequently, must be hurtful from their decomposition. You should have them fresh in every day, and take in no more than you can consume, for they soon spoil, particularly if much moisture or wet be on them. Now, if you are not sure of a regular supply, untie the bundles and spread them on the spare room of the floor of your hay loft; this will keep them for two or three days: and, if you are in the habit of feeding with chaff, have a layer of vetches cut up with it: this you will find excellent and cooling, and when the weather is warm, and your Horse in full work, he will be benefitted by such mode of feeding.

In the course of our work, as we shall have occasion to make reference to our cathartic and other balls, we have thought it most beneficial to arrange them, and distinguish them by numbers, so that an easy reference may, at all times, be made, without a repetition of the ingredients.

PHYSIC OR PURGING BALLS.

No. 1.

Take of Barbadoes Aloes - - - 1 oz.
Ginger, powdered fine - 2 drams.

Form into a ball with treacle, if for immediate use, but if not, form the ball with soft soap. This ball, when the Horse is properly prepared with bran mashes, as directed in the "Management of Hunters," will be found sufficiently strong for any Horse.

No. 2.

Take of Barbadoes Aloes - - 6 drams.
Ginger - - - - - - 1 do.

Form into a ball, as prescribed for No. 1. This ball is generally found strong enough for saddle Horses of all descriptions.

No. 3.

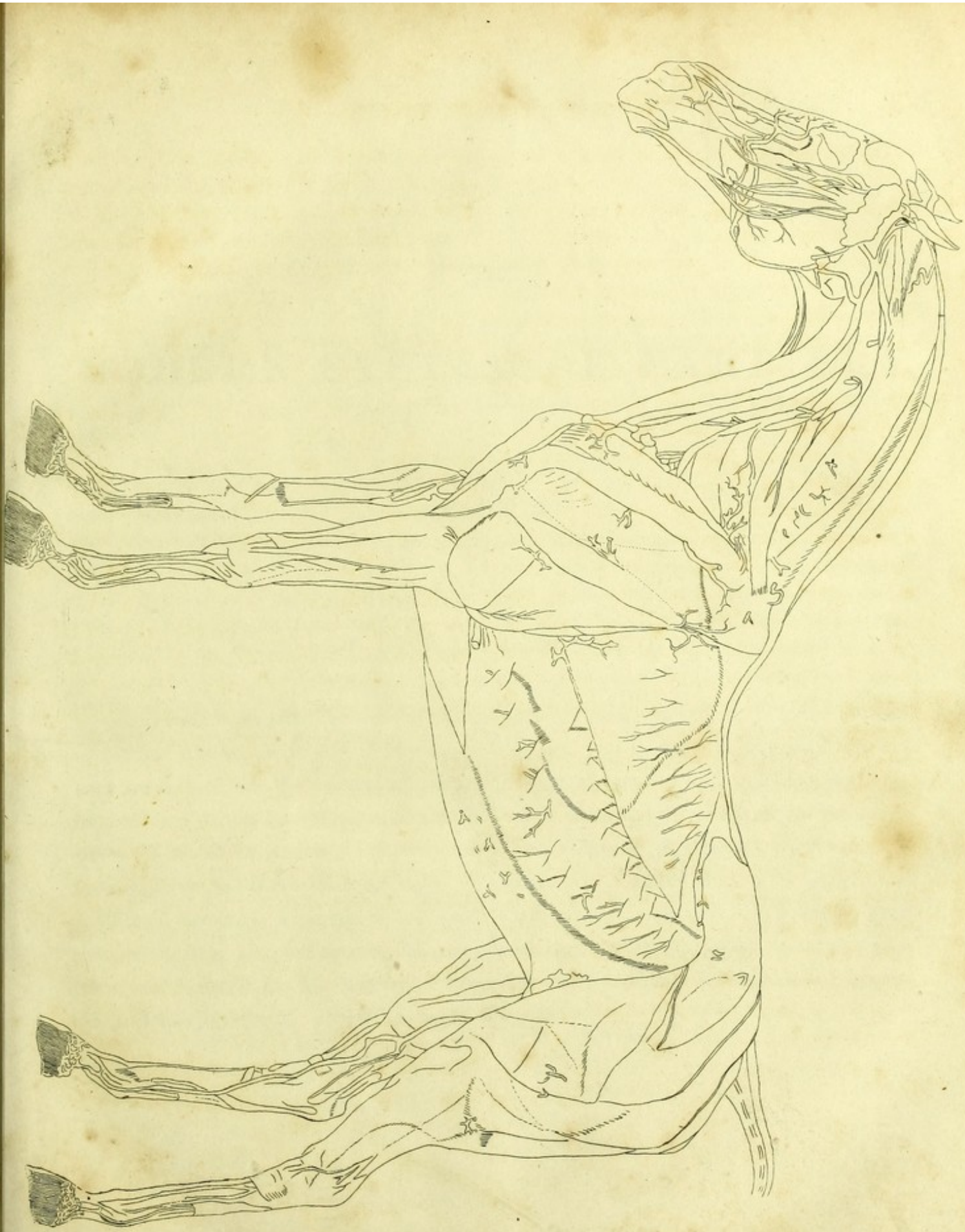
Take of Barbadoes Aloes - - 4 drams.
Ginger - - - - - - 1 do.

Though this quantity of aloes will act as a drastic purge on some constitutions, it will scarcely move others. In the above formula, purgative medicine, you have simply those that actually stimulate the intestines to get rid of their contents without a long farago of a receipt, containing six or eight articles that are of no use whatever. As we at first observed, our object is to make our work as useful as we possibly can, without that needless expenditure which old prescriptions generally run people to.

No. 4.

Take of Barbadoes Aloes - - 5 drams.
Cape Aloes - - - - 5 do.
Ginger - - - - - - 2 do.

Mix, and form into a ball with soft soap, for large carriage or cart Horses; the after treatment as the preceding.



THE

MODERN SYSTEM OF FARRIERY.

PART II.

OF DISEASES GENERALLY.

As this work is intended for general use to all persons who are proprietors of Horses, we have not entered into the anatomical part, as most modern writers have done, as elementary works for the use of students, but have confined ourselves to the practical part only.

Without becoming a convert to the usual style of dividing and sub-dividing chapters, cases, and remedies, as has in general been the custom, introducing a great portion of matter, I shall proceed, as in other respects, and contract the plan, as much as the consistency of circumstances will allow, by bringing in classes such accidents or diseases as bear a degree of affinity to each other, or come under a similar mode of treatment; and shall likewise, as much as possible, divest each case and explanation of *technical terms*, that every part may be universally comprehended.

CHAPTER I.

OF SPLENT, BONE SPAVIN, RING BONE, AND ANCHYLOSIS.

SPLENTS.

Splents are bony excrescences, situated on the inside of the fore leg; they rarely occur on the outside, and this in consequence of the inside being more under the direct weight of the Horse; therefore, when the Horse has one of his fore legs off the ground, there is more weight thrown on the inside of the leg that is on the ground; consequently, the small bone united to the shank bone has more work to perform than the outer one, from the superabundant weight it has to sustain; hence inflammation is frequently set up in the attachment of the large to the small bone, which is of a cartilaginous substance, and easily takes on a disposition to form bone on the slightest exertion; for *splent* will frequently occur with Horses that never have done a day's work; but when young, racing about the fields, when at grass, will produce splent, and when it does occur from these causes, it seldom occasions lameness, as the cold atmosphere they continually are in, acts as a sedative, and reduces the inflammation, and with that the pain that would be occasioned, if splent arose from travelling on hard roads. Splents arising from travelling, the inflammation being much more increased, in consequence of having to lay in a warm stable, that it is frequently, though not above the size of half a pea, and with great difficulty to discover, will occasion the most acute lameness. Another cause of splent, arising from the speedy cut, which is just under the knee; and I have known this to proceed on so far, that valuable Horses, good hackneys, have been doomed to slow work the remainder of their lives; and this in consequence of it interfering with the bones of the knee, or proceeding inwards, and by which means affecting the suspensory ligament. The remedies for splents are now more humane, and have the best effect, than those formerly in use. The practice at the Royal Veterinary College, is to divide the skin above and below the enlarged bone, then pass a seton immediately over it, change and dress the seton, consisting of coarse tape, every day with digestive ointment made as follows:—

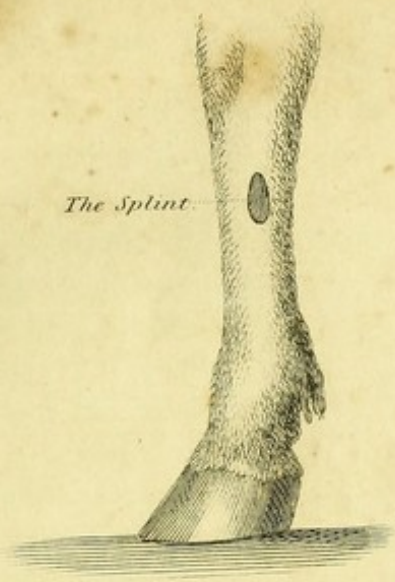
Take Hogg's Lard - - -	6 oz.
Common Turpentine -	2 do.

Another method to allay the irritation occasioned by splent, was practised at the College, which was to cut down on the top of the

a

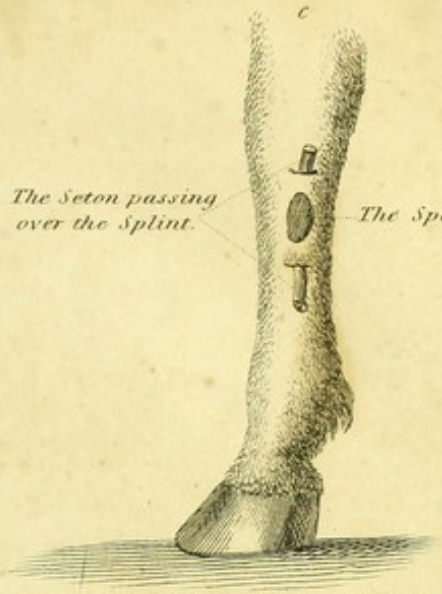
e Healthy Leg representing
the inside below the knee.

b



The inside of the fore leg representing
the situation of splint.

c



Method of treating Splints at the
Royal Veterinary College.

BONE SPAVIN.

d

The Horses hock in its natural
or healthy state.

e

When affected with
Bone spavin.

f

Method of fireing for Bone spavin
the most effectual.

RING-BONE.

g

h

i

splent, and divide the *periosteum*, which is that membranous skin-like substance, immediately attached to the bone, and from the stretching of which, in consequence of the bony excrescence or splent forming, occasions the pain and lameness; but these remedies, though practised at that royal establishment, are not calculated for practice either in town or country, they both leaving a considerable *blemish;* and where persons have to make merchandize of their Horses, it deteriorates very much their value. My practice has always been the following, and I never found it to fail or blemish in any one case: if the case is a recent one,

Take Spirit Turpentine - - 1 oz.
Olive Oil - - - - 2 do.

Rub this liniment well on the part, night and morning, and apply a woolen bandage moderately tight round the leg; have the shoe removed and apply *a thick* heeled one, it will relieve the parts amazingly: should the lameness not be removed in the course of three days, then you must apply some stronger application, and especially if the splent be large.

Take Mercurial Ointment - - 1 oz.

and rub about the size of an hazle-nut well in on the part, morning and night, as long as any remains: then apply

Blister Ointment - - - - 2 drams.

By this method of practice you will get rid of splents, without the fear of blemish or injury to the Horse's leg: if you are obliged to have recourse to the last remedy above named, do not forget to have *a cradle* on the Horse's neck, as he may, by biting it, occasion what is so much to be desired, keeping him free from blemish.

During the application of the local remedies, give the following:

Take Cape Aloes - - - - 6 drams.
Resin, powdered - - - 6 do.
Common soap, to form into a mass:

divide into three balls, and give one every second day; for food, give half bran and half corn, made moderately wet.

BONE SPAVIN.

This is also an exostosis or bony enlargement of, or about the inner part, of the hock joint, but more particularly at the lower part of the joint, or, in some cases, only situated at the upper end of the leg bone, though spavin may occur on any part of the hock; for, from the peculiar construction of the hock joint, and the number of bones nature has placed there, for it to perform its natural functions, added to which, it being the seat from whence the principal propelling motion arises, it is little to be wondered at, that Horses should be so very liable to spavin. Young Horses are extremely liable to spavin, in consequence of farmers and breeders putting them to work at too early a period; farmers generally commence using their young Horses in the summer time, to assist in drawing their hay, corn, &c., together. Now, any sudden strain on uneven ground, and colts, as a matter of course, pull awkwardly at first, being frightened at the sound of the carter's voice, much more the crack of his whip, makes a sudden start forwards, and, from the violent exertion he puts on, in all probability strains his hock. This being so complicated a joint, sufficiently to produce considerable inflammation, lameness, and

spavin; though I have seen a great number of Horses affected with what is termed spavin, that never went lame at all, and some very excellent hunters too: this arises from the situation the bony enlargement exists in; if at the upper end of the leg bone, and not so as to interfere with the small bones of the hock joint, it may grow to a very considerable substance, and but slight lameness exists; if this should be the case, the treatment of spavin, although also it may arise as well from hard riding, or other straining causes, but when taken in its early stage, such swelling may be treated with gentle counter irritants, which will invariably remove the lameness in a very short time; I do not approve of cooling lotions or repellers, as they are so exceeding slow in their operation, and seldom or never restore the Horse from lameness; but, in colts the mildest methods should be preferred, though their effects are much slower. For a mild application apply the following,

Take Cantharides powdered - 4 drams.
White wine vinegar - 4 ounces.

Put these into a six-ounce bottle, and let them stand three or four days, shaking the bottle four or five times a day; at the expiration of which time it will be fit for use.

Rub about two table spoonsful of the lotion on the Horse's hock night and morning, shaking the bottle well each time; should this not have the desired effect,

Strong Blister.

Take Cantharides powdered - 6 drams.
Mercurial ointment - - 4 do.
Hog's lard - - - - 2 ounces.

Cut the hair off close, an inch and a half further round than the spavin extends; rub the blister well in with the hand; (in all cases of blistering be careful that the Horse wears a cradle,) in all probability this blister will remove the spavin entirely, or at least the pain and lameness; for, when once bony matter is formed, they never are wholly removed.

Some spavins may require a second or third blister, in such cases repeat the above at an interval of about three weeks, not earlier to prevent occasioning a blemish.

With full grown Horses, and old Horses, this disease is with difficulty remedied; however, as success sometimes attends even the milder methods, it should not even at any age of the Horse deter us from trying other remedies; some bold adventurers succeed sometimes with them, where superior skill, under the direction of prudence, fails; but notwithstanding this, their more frequent ill effects, by exciting excessive pain and inflammation, and even death, should render every person very cautious in their use; but the poor animals (if they could reason,) would be thankful if they knew such barbarous blockheads, are now-a-days pretty well exploded, with their mallet, and chisel, and punch altogether.

If the ointment is not effectual, you must then have recourse to firing, which may be done in the manner explained, by the cut at the head of this article, see No. 3; be careful not to fire through the skin, for wherever you do, a blemish will be certain to supervene after firing; lay the following blister on lightly, you must on no account rub it in, as by that means you would produce a blemish.

Mild Blister.

Take Cantharides powdered - 2 drams.
Hog's lard - - - - 2 oz.

As before stated, smear this or lay on lightly on the part fired; in the course of five weeks, should this first firing have not had the desired effect, fire again, and extend beyond the edges of the first operation, and apply the blister again.

The practice for the cure of spavins made use of, at the Royal Veterinary College, is by introducing setons over the diseased part, dividing the skin above and below the spavin, about two inches, then with a blunt seton needle introduce your tapes (generally two,) and dress daily with digestive ointment, composed as under.

Take Common Turpentime - - 3 oz.
Hog's lard - - - - - - 8 do.

Melted together over a slow fire; the setons remain for about a fortnight, daily being changed at each dressing. I have known it in some cases to have a very good effect, but like all other remedies, it is not applicable to all stages of the disease, in the early or incipient state I have no doubt of its being a good remedy. During the operation of any of the above remedies. be careful to give medicine, such as the following,

Take Cape aloes - - - - 2 drams.
Linseed meal with soft soap,

to form a moderate size ball. Give one about every third day. You must not give any medicine that will act on the urinary organs, while you are using so much blistering ointment.

RINGBONE.

This disease takes its name from its situation, viz. which is at or about the joint of the large and small pastern bones, and from great inflammation existing, spreads round the coronet, forming a bony ring round the top of the hoof, the ligaments of which become injured from over exertion, and that principally from the great exertion the Horse is required to use in propelling the weight he is obliged to carry or draw, consequently it more frequently occurs behind than before; overweighting the Horse will produce it, or putting him to work before he finished, as it is termed; any severe strain, and even blows are given, and it is not an uncommon thing for ill-tempered grooms or carters to kick Horses about their fetlocks, which I have no doubt by the blow inflammation may be set up, and ultimately produce ringbone.

Horses affected with ringbone, may or may not be lame; it all depends on that degree of inflammation which would increase the greater deposit of bone matter, and occasion the disease to spread, which it frequently will do, even so far that the coffin bone, and the navicular, or nut bone partakes of the disease.

However, if the Horse should be lame, the best plan to proceed, is, to relieve the vessels as near the part as possible, and that by bleeding in the foot to the amount of at least two quarts; after replacing the shoe and applying a pledget of tow, give the following,

Take Aloes Cape - 6 drams.
Ginger - - - 1 do.
Form into a ball with soft soap.

If this dose of physic be not sufficient to purge the Horse, increase the dose with a dram or two of aloes as may be necessary, remembering to having fed the Horse on bran mashes for at least a day previous; when the physic is set, then apply the mercurial blister as prescribed in the last case (spavin), and keep it open by applying occasionally hog's lard to the part for five or six days; in the course of three or

four weeks, should the Horse have not got rid of his lameness, you must have recourse to firing, and which perform at least half way up the large pastern bone, and down to the hoof, in what is called diaments; after which lay some mild blister on; this will, in most cases, remove the lameness altogether; if it should not, repeat the firing, and blister again.

ANCHYLOSIS, OR STIFF JOINT.

The origin of this disease is an inflammation of the ligaments, connecting joints together, and occurs in the fore legs, particularly between the large and small pastern bones; it also may arise from sprain, or laceration; it also may arise from various other causes, as tumefaction of the ends of bones, caries, fracture, dislocation; also the joints are very apt to become stiff, as the Horse becomes aged. It is a disease that more frequently occurs in the spine, or back-bone of the Horse; and he is then termed rigged in the back, because it most generally affects him about the loins; and the difficulty he shews in turning, and that with a kind of jerk, according as he may be turned either to the left or right, has occasioned the term *rig;* also, if he be trotted, he will have such a decidedly rolling gait, and appearance of weakness, that he at once proclaims the disease; though there are many Horses that are called *chinked in the back* may in a measure be restored, for slow work, and as much rest as you can possibly give them; so that this kind of anchylosis of the backbone does not interfere with the Horse so much, if used for slow work on a farm. If anchylosis takes place in either the fetlock joints, pasterns, knee, hock, or stifle, I should decide the Horse to be totally useless, and present him to the nearest friend who kept hounds; *for a cure is impossible.* Consequently, to prevent my readers going to expence and trouble, I deem it the best advice I can give them, to get rid of such a Horse at once.

CHAPTER II.

FRACTURES.

FRACTURES.

Fractures mean a division of a bone into two or more parts, or fragments. A *simple* fracture is when the bone only is divided. A compound fracture is a division of the bone, with a laceration of the integuments; the bone mostly protruding. A fracture is also termed transverse, oblique, &c., according to its direction.

When bones of the Horse are fractured, there is so much trouble in keeping him quiet, and in one position, for the process of union to go on; added to which, the doubt of being of much use after, that it is generally determined on that the Horse shall be destroyed; though two cases have come under my notice, which I will relate, when considering on fracture of that specific bone. The fractures that most generally occur are in the head, occasioned by Horses running violently against a post, or bar; likewise the ribs, hip-bone, thigh-bone; and, indeed all bones of the leg; and these from falls, or kicks from other Horses.

FRACTURE OF THE HEAD.

This is not a very common case; but all fractures are in general accidental; this, like all others, may at some time or other occur.

I can best explain the nature of this kind of fracture, by relating a case that occurred in my practice, whilst I was in the army. I must first describe to you the nature of the stables, or lines, as they are called in India (for it occurred when I was there): they are long ranges of buildings, which contain about one hundred Horses each, all worked open, except the pillars to support the roof, with a wide avenue down the middle; consequently, the Horses stand head to head, divided by the avenue; this middle space is for the men to have free access to their Horses.

The Horses feed off the ground, and their corn is given them in nose-bags; they are tied by the head to a wooden bar, which is fixed into the pillars at the head; their hind legs are fastened by a long chain, to the end of which is a ring and peg; the peg is driven into the ground about two or three yards outside the stable; there is another wooden bar about the height of the horse's head, fixed into the pillars as the other: this is the cavalry stable of the Indian army. Now the case I was going to relate was this:—at the usual watering time of the Horses, in the afternoon, about five o'clock, one of the Horses broke loose out of the hands of the man who

attended him; this occasioned a tremendous hue and cry after the runaway, which made the poor animal gallop about most furiously; at last getting in sight of his standing in the stable, he made a desperate rush into, and fractured his skull against the top bar of his standing, with that violence, that he was knocked down by the stunning effects of the blow. The farrier-major immediately sent for me. On examining the wound, which was about an inch wide, I could discover no indentation or roughness of the bone, and I considered it merely a wound of the skin. Fearing that concussion of the brain might take place, and its effects, I had the Horse bled to the amount of six quarts, the head to be frequently fomented with warm water, and the Horse not to have any food that night. In the morning the Horse appeared better; kept up the fomentations, and gave him aloes, six drams. This treatment was continued for two days, when we commenced the healing process of the skin, which was accomplished in about a week.

It was my usual practice, when a Horse had been sick, or having met with any accident, to keep him under my care for two or three days, before ordering him to work; at the end of the third day, when I was going to discharge the Horse, to my great astonishment I found him attacked with *locked jaw*. I was then certain the bone must have been fractured, and consequently, pressure on the brain. I had the Horse immediately cast, and taking a scalpal, made two sections in the skin, forming two sides of a triangle. On examining the parietal bone, I found a fracture, perpendicularly, about an inch and a quarter long, with a piece of bone splintered off, about three quarters of an inch long, which I have now by me. I then took a pair of sharp pointed forceps, and extracted the splintered bone, drew down the skin, and attached it by half a dozen sutures, dressed as a common wound, with digestives, until granulations began to form; after which it healed completely in about three weeks. In the meantime I had to attend to the locked jaw, which yielded by degrees, to copious bleedings and solution of aloes, day by day, until purgation was produced.

Explanation of the Plate.

The letter A gives the situation of the parietal suture, which runs perpendicularly up the front of the head.

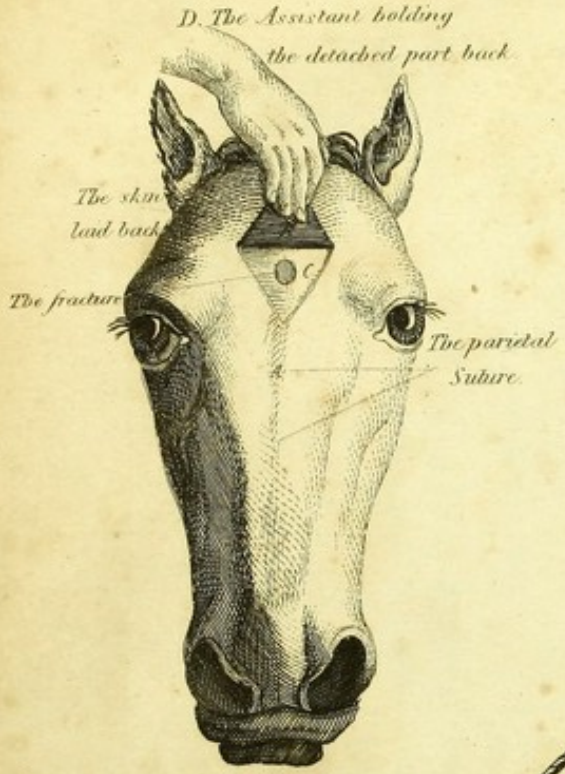
B, the fractured part, just on the suture.

C, the skin dissected and laid back, the upper part of which was held in its situation by an assistant.

FRACTURES OF THE RIBS.

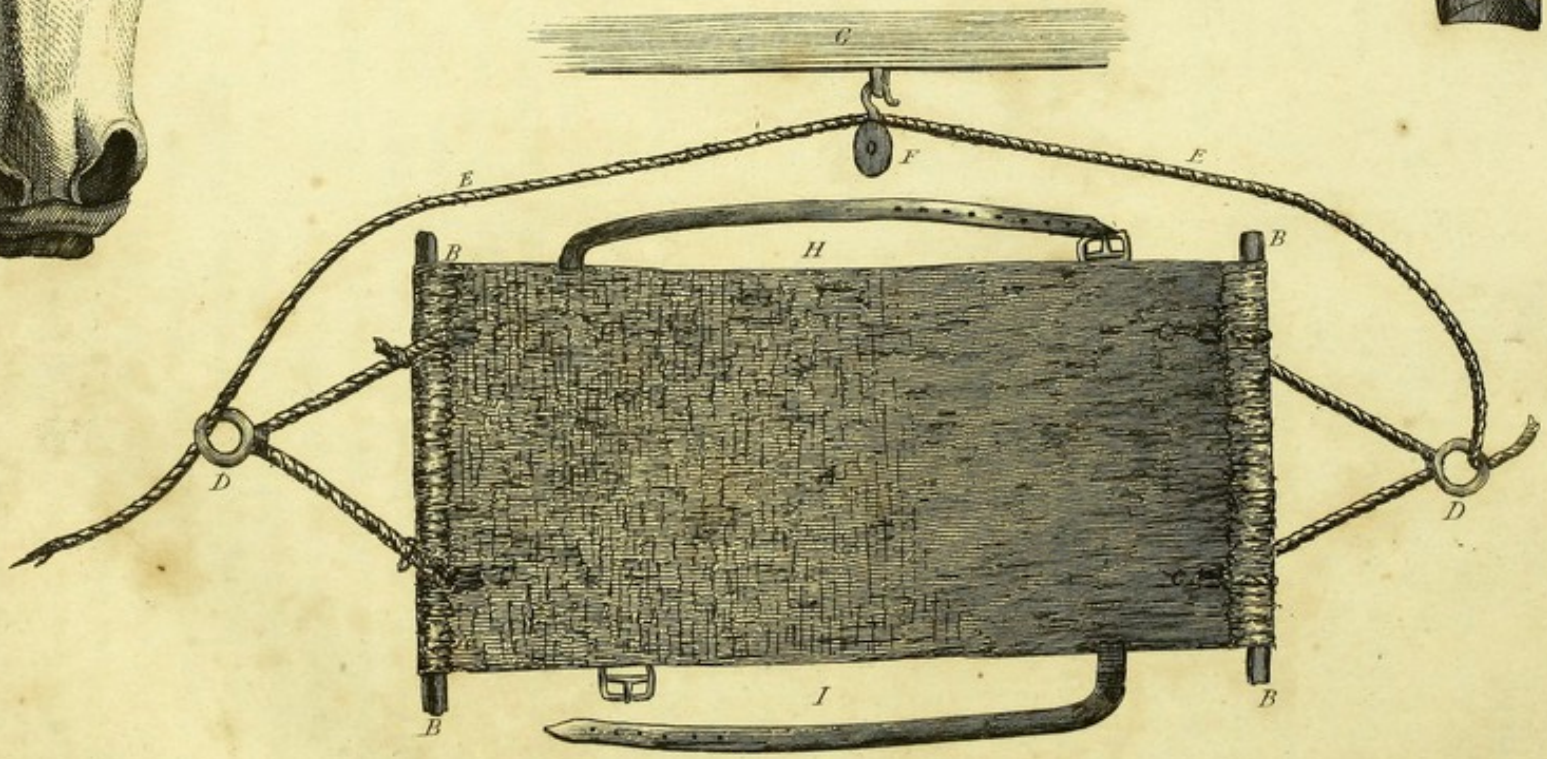
Fractures of the ribs frequently occur, and arise either from kicks from other Horses, and more especially when at grass than at any other time; though I have no doubt they frequently may arise from blows; and very frequently amongst poor cart horses, and those in large towns, used amongst the lower class of people that are termed costermongers and dustmen; for, if a Horse cannot travel at the rate they require, a hedgestake, or large stick is soon made to play a tune on the ribs of the poor animal, who may be doomed to serve such a master. These fractures generally unite of themselves; Nature being all-bountiful, sets up the healing process of herself, and the accident seldom, or never comes to light, until the beast becomes the property of the slaughterman.

FRACTURES.



A The Boot or laced Stocking
to be applied to a fractured leg.

A Sling or Suspender in case of
Fractures or other accidents



London Published by Wm Emans. Cloth Fair. 1838.

FRACTURED BACK.

Fracture of the back is not infrequent, and that from several causes; it may arise from laying down in a narrow stall, and the difficulty of getting up again; and sometimes from the Horse turning over in the standing, whilst lying down, so that there is not room for him to get his hind legs clear of the stall post; consequently, from struggling to regain his feet, the ligament of his back becomes so much strained, that inflammation commences, and in all probability may terminate in anchylosis; in consequence, the Horse puts on a peculiar gait, which by Horse-dealers and grooms is called *chinked in the back;* or, he is technically called a *German.* It sometimes will occur in casting a Horse, to perform an operation, though the greatest care may have been taken, and you have about you men who understand their business. An occurrence of this kind took place at the Royal Veterinary College, though the usual great care was taken. I had once a similar case, in casting a Horse for firing; but there was every possible care taken, and when that can be satisfactorily proved, it amounts merely to accident, which every operator is liable to.

I need scarcely say, for fractured back there is no possible cure. I have tried blisters and charges, but never with any good effect, but running the owner to an expence that might have been saved; though some persons will make you attempt at a cure; but with me it always failed.

FRACTURES OF THE LIMBS.

These, like all the other cases of fractures the Horse may be liable to, are difficult of cure; and, in consequence, the Horse is at once destroyed; but many fractures of the limbs may be so restored, as to become valuable animals; especially if it should occur with a good formed stallion, or mare; the breed of which may not only be kept up, but they may be useful for many purposes besides.

FRACTURES OF THE BLADE-BONE.

Fracture of the blade-bone is not at all infrequent, and particularly the neck of the bone. This may occur either from kicks, or the Horse falling when going at a fast trot; so that when he comes to the ground, one leg is extended before him, the other under his body. With coach-horses, I have known this frequently take place: in this case the Horse draws his toe behind him, cannot bear the least weight on it, and appears in the most excruciating pain. The remedy is, first to take about four quarts of blood from the Horse, at the anterior part of the leg, from the plate vein; have the Horse slung, so that the feet just touch the ground. This being completed, bathe well, with flannel dipped in hot water; which repeat until the inflammation appears to subside; feed with cold bran mashes, and give the following—

Take Cape aloes - - 4 drams.
Linseed Meal - 1 do.
Soft soap to form the ball.

If this should not be sufficient to keep the system cool, in three days repeat it.

Apply the following liniment to the Horse's shoulder:—

Take Ol Terebinth - - 2 oz.
Ol Oliva - - - 2 do.

Continue this treatment for about three weeks,

when you may give your Horse a month's run at grass, where he will be most likely to lay quiet; you will perceive by this time, if he will be fit for work.

FRACTURE OF THE ARM.

This bone frequently falls a victim to fracture, it being so exposed and so very liable to kicks; but here in this case you have a much greater advantage of obtaining a cure than the last named fracture; in this case you must sling the Horse lightly, as in the preceeding case; but, instead of taking blood from the arm, take it from the jugular vein of the neck; treat in every other respect as ordered for the foregoing; but here you have an additional advantage, take a piece of tape, the broadest you can buy, and about four yards long, bind this round the fractured part tolerably tight, let it remain on two days, then remove and apply more of the liniment, after which put your tape on again, and continue in this manner, until the Horse can put his foot to the ground; when he is able to do so, remove the sling, and let him have a loose box for a week or two before you turn him out.

FRACTURE OF THE ELBOW

Is one of those fractures that must be united in the same manner as the above; though there is sometimes great difficulty in keeping the limb sufficiently relaxed to obtain your end; therefore, when you sling the Horse, put a side line on, or to make shift, fasten the end of a halter round the pastern, and pass it up to the sling tackle; the foot being drawn about four inches off the ground, to relax the flexor muscles, then proceed as in the foregoing article.

FRACTURE OF THE SHANK-BONE.

When a fracture of this bone takes place, with good management it may be restored, because you can apply bandages and other compres's with more facility, and in greater variety, after securing the Horse by means of assistants; having first ready a leathern bandage something in the shape of a leathern boot, about seven inches long with holes in it. (*See Plate*) o that when laced up the edges do not touch by a quarter of an inch; now place the ends of the fractured limb as evenly in contact as you possibly can, then get one of your assistants to lace the boot tight on, and by this means it will act as a kind of a splent, to secure the bone in its proper situation, after having done this, get four yards of bandage, (flannel will be best), and bandage the leg well from the knee to the fetlock; remove all the straw and litter away from him, and if much irritation appears about him, give him

Cape aloes - - 4 drams.
Resin - - - - 1 do.
Soft soap to form the ball.

You must not remove the flannel bandage for at least a week; when you may, if you think proper, pour at the top of the boot, so that it may run down between the boot and leg, a little of the liniment prescribed for fractured *blade-bone;* you will perceive when the Horse is getting better, by his bringing the leg more into use and bearing upon it: pursue this plan until you can with safety remove the boot, then apply the liniment and the woollen bandage only. For food, if the Horse is accustomed to the stable, give half bran and half oats made damp; if

the accident occur while the Horse is at grass, give bran mashes only.

Description of the Plate.

A, the form the boot is to be made in; B B, the length from top to bottom, about seven inches; C, the lace to draw the edges together within a quarter of an inch, so that it may be made tight.

FRACTURE OF THE THIGH-BONE.

The thigh-bone is sometimes fractured at its lower head, where it joins the bones of the hock, though this is not a common case, and I have only met with two in the course of twenty years practice; though, I make no doubt, many Horses are killed from the appearance of the fracture; the leg below the situation of the fracture dangles and shakes about, as if only sustained by the common integuments (or skin), the Horse cannot touch the ground with it, and literally goes on three legs. It arises generally from violence of temper of the Horse, or it may occur from a sudden slip of the hind leg on wet slippery stones in going up hill, &c.

The first case I saw was a chesnut Horse, one of the rankest kickers I almost ever beheld; but the gentleman to whom he belonged, was exceeding fond of him for saddle work, and having purchased a gig was determined to try him in it, having for two or three days previous, had him put to in a cart, where he did not shew the least symptoms of vice; being so much pleased, he ventured with him in the gig, having a friend with him, who being the best coachman was requested to take the *ribbons* in hand; he had no sooner done so, and being both seated for a start, to encourage the Horse on, he drew the whip across his loins; the Horse refused to go, consequently, the application of the whip commenced; this would no longer do for the chesnut, consequently he returned the compliment with interest, until he had kicked the dash-board all to pieces; in doing which he got his leg entangled between the foot-board and the bar, and so near to the middle that he he could not extricate it, he consequently made a sudden plunge, and snapped the thigh just above the head of the lower end of the thigh-bone; he was put into a friend's stable, just by where the accident happened, and I was immediately sent for; I found the leg as before dangling as if by a piece of cord; I confess the case being a new one to me, I was a little taken aback at first; on examining the leg, (which took me some considerable time to do, the Horse was so restless, and sweating profusely from the pain he was undergoing); at length, having made up my mind, my next attention was drawn how to secure the limb, (not having any tackle with me); however, I made shift and completed a cure.

I first got an old horse-collar and put on him, then a roller, to the roller I fastened the the top of the collar, with a strap I found in the stable, to preventits getting forward on to his neck. I then procured a halter, and taking the end out of the noose, put the bow part round the fetlock joint of the fractured leg, passing the other end between the Horse's fore legs, and into the collar, the end of which I gave to an assistant to hold until I got the Horse's leg into a proper situation; I then procured a good bandage (woollen), and the gentleman whose house the Horse was taken to, fortunately happened to have by him three parts of a bottle of liniment, composed of ol turpentine, and ol olive; I rubbed about

two table-spoonsful of the liniment gently on the part, then directed the man who held the halter to draw the leg gently forward, until I had brought the parts as even together as possible; having done so, an assistant with the bandage, bound the parts up tight and firm; this being done, made the halter fast to the bottom of the collar; thus ended the replacing of the bone. I did not remove the bandage for a week, found things going on satisfactory, continued the liniment and the line to foot for three wecks, when the Horse was able to be moved about a few yards; as I before stated, through the restlessness of the animal, I had two men to sit with him day and night, (neither could I give him medicine); his principal food was bran mashes, as a substitute. This Horse being an *entire Horse*, and as I observed, a favourite, the owner would have him castrated, which operation I performed for him; and on getting well, turned out one of the best gig Horses I ever saw.

The second case that came under my notice was a fine brown Horse, belonging to a gentleman residing in Red Lion-street, Holborn, and the accident occurred going up Holborn Hill, in the frosty weather of the winter of 1836.

The Horse was placed under the care of a very skilful Metropolitan Veterinary Surgeon, whom I happened to meet one morning at Messrs. Tattersal's establishment, Hyde Park Corner; he mentioned the case to me as quite a new one, and requested me to accompany him to see it; I did so, and on examining the leg, gave him my opinion, with the method I had treated the last case; he declared he had never seen a case of the kind, though a gentleman of twenty-five years practice. Whilst we were consulting on the proper mode of proceeding, the owner of the Horse came into the stable, and regretted very much the accident; and particularly so, as he two days before had been offered a good price for the Horse; but now he wished he could get rid of him at five pounds; I asked him if he was in earnest; he said he was. I immediately struck the bargain, stipulating he should give me stable room, and his man to look after him for a month; I paid him the money, and the Horse was mine, and within the month I had him home, and turned him out for another month; when be became perfectly upright, I drove him about two months, and sold him at Dixon's Repository for *twenty-five pounds*. During the month the Horse remained with the gentleman who I bought him of, he underwent the same treatment as in the first case.

Note.—Since writing the above, I have found amongst my papers a memorandum of a case exactly similar, which occurred during my pupilage at the Royal Veterinary College. It was a Horse belonging to the late Mr. Cline; who, when on his death-bed requested the Horse might not be sold, but turned out to grass for the remainder of his life, as a pensioner on his late owner's bounty, (he being a great favourite); however, he was taken up to have his feet pared and shod, and as a matter of course was sent to the Royal Veterinary College, all of which was attended to. The Horse was tied to a ring close to the door that admits you to the paddock, (and where he had been standing for sometime for the groom to take him away); some person entering the shoeing forge hastily through this door, which moves on pulleys, and consequently making a noise, added to which, flashing the light immediately in the Horse's

face, he started back, and dragging at the halter, slipped up behind, and broke the thigh-bone: the assistant Professor was immediately sent for, who examined it, and then ordered the Horse to be destroyed.

I merely mentioned this, to show we should not give up any case until some means had been tried.

FRACTURES OF THE PASTERN BONE, THE COFFIN BONE, AND NAVICULAR BONE.

I have specimens of these by me, but as there can be no probable or possible cure, I do not think it worth time or paper to say much of them; therefore, we leave them in other hands.

CHAPTER III.

DISLOCATIONS.

DISLOCATIONS.

Dislocation of the stifle bone: this frequently happens from kicks and slips out of the hind leg, in consequence of slippery stables, gate-ways, &c., so that the bone becomes thrown out of its socket; in consequence of which, the limb becomes totally helpless, and the Horse draws it after him in the most distressing manner.

With care and caution this may be reduced, by extending the limb forward, and fastening it in the same manner, as described for fracture of the tibia; then placing one hand against the bone, and pressing moderately, from you, with the other, take hold of the point of the hock, and you will feel the stifle bone snap into its place or socket, and which you can only prevent from a re-ocurrence by using counter irritants all round the joint; such as

Ol Terebinth - - - 3 oz.
Ol Olivæ - - - - - 3 do.

apply three or four table-spoonsful of the liniment to the Horse's stifle, all round the joint, morning and night: this will create considerable swelling, and by so doing keep the stifle bone in its socket. Should this be found not sufficiently powerful to retain the bone in its place,

Take Cantharides - - - 1 oz.
Ol Terebinth - - - 4 do.
Shake well together when used.

This will occasion a considerable swelling, but will have the desired effect.

OF THE SESAMOID BONES.

Before I proceed to state the nature of the disease, it will not be inapt to inform the reader the situation of, and why we use the term sesamoid*. These bones are situated at the back part of the fetlock joint, and are attached at the upper end or point to the suspensary ligament, the flexor tendons passing in a concave groove between the two, in their passage to the pastern and coffin bones. These bones have a peculiar elastic movement; every step the Horse takes, and more especially on the fast trot or gallop, they partially descend, on the Horse putting his foot to the ground: and this may be plainly seen in long pasterned

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* Sesamoid is the term given to these bones, in consequence of their likeness to an Indian grain, better known in England by the term of Indian wheat.

Horses, where *the fetlock* (hair) almost seems to touch the ground, and if the Horse be overweighted, may be distinctly seen.

Now the *inelastic* connexion these bones have below to the head of the large pastern bone, and the *decided elastic* connexion they have above to the suspensory ligament, clearly shews how easy these bones may be partially, if not altogether, dislocated; and that, principally, on the inner side, in consequence of the superincumbent weight being thrown on the inner side, when the other foot is in the air, or of, perhaps, more plainly speaking, off the ground. For we all know, what a simple thing as treading suddenly on one side, will displace the ancle joint of the human subject, as a slip off a high ground suddenly to lower: instance the sensation in going up a flight of stairs in the dark, and, when at the top, to imagine another step, the concussion is so great, that fracture of the limb has been the consequence.

The action of the sesamoids is backwards and downwards; in doing which, the upper end of its elastic attachment upwards, must, of necessity, expand; and this expansion, driven to excess, either by over weight, heavy ground, or, when a Horse is at his top speed, brings the non-elastic attachment below into such violent action, that they become incapable of contending with it; and, consequently, the ligamentious attachment is ruptured. This is not an infrequent case; for, in racing particularly, as well as hunting, the Horse makes a sudden drop, and many times it is taken for, for what is termed, "breaking down;" but it is no such thing: it is the rupture of a portion of the lower attachment of the sesamoid bones, and that, principally, of the inner side: consequently, the inner side of the fetlock joint will appear much larger than the outer; and if you pass your hand down the leg, over the part, pressing gradually as you move your hand down, you will immediately discover the partial dislocation, not only from the projection of the upper end of the bone, but from the heat and pain the Horse will evince, on pressing that part of the bone, which makes the most prominent appearance.

I have known this accident occur, and the inflammation run to that height, that the whole of the leg, up to the knee, has been so swollen, that the disease has been taken for strain in the back sinews, when, in fact, it arose from this partial dislocation of one of the sesamoid bones.

I have said more on this disease than I should have done, according to natural right, but it not having been mentioned by any writer before, to my knowledge, I claim the discovery of it to myself, in which I feel justified, without arrogating too much. With regard to the cure of this disease, it is at all times of long duration; not but the time may be very much shortened, if persons discovered the part affected at once. All liniments, or blisterings, will never permanently remove it, though they may relieve for a time; but when the Horse is brought into use again, he becomes lame: therefore, you must have recourse to firing at once, and not in a partial manner, but go a little above the bifurcation of the suspensory ligament; say about an inch, and as far as half way down the large pastern bone. Fire *all round* the leg completely, then lay on lightly,

Cantharides - - - -	4 drams.
Hog's Lard - - - -	2 oz.

Take the necessary precaution to prevent the

Horse either rubbing or biting the leg. Whilst the Horse is in the stable, give him bran mashes cold, and

Cape Aloes - - -	4 drams.
Ginger - - - -	1 do.

Mix, to form a ball, with soap. If he should be costive, which is sometimes the case, repeat the medicine, before you give him a run at grass; which do in about nine days after the firing.

CHAPTER IV.

OF GREASE, MANGE, SURFEIT, MALLENDERS AND SALLENDERS, WARTS, HIDE-BOUND, AND FARCY.

GREASE.

The disease of grease was a pest to stables of almost every horse-master in the kingdom; and though simple in itself, the real cause was not known until within the last twenty years. The disease is not only disagreeable, but painful in the greatest degree, and not unfrequently lays the foundation of other diseases, such as cracked heels, canker, &c. Nothing was more common than to see it in stage and hackney-coach Horses, farmers' Horses, and, indeed, every kind of Horse but the racer. This, at first, appears strange (but I will endeavour to explain it presently); also the projecting and disagreeable appearance of what is called grapes, projections at once unsightly, hanging at a Horse's heels. Grease, now being better known, is discovered to be an inflammation and suppuration of the vessels of the skin, and that, generally, in the hind legs, its circulation being weaker there, being situated at a greater distance from the heart, the circulation becomes, in a great measure, diminished, and, for want of uniform power with other parts, a conjestion takes place.

The cause of grease is the circulation becomes quickened by the Horse being brought into a hot stable, most likely with his hind legs wet, the evaporation of which moisture produces cold, and then conjestion follows, as a matter of course, for the warm stable will increase the action of the heart.

Grease does not affect all Horses alike, nor all parts alike, a certain description of Horse being more susceptible of taking on the disease, as I before mentioned. Thorough bred Horses, such as the racer, are the least subject to grease, and that, principally, from his skin, added to good grooming; and this is obtained, in a great measure, also, from temperature; for, if a thorough bred Horse was exposed to cold for years, his skin would become thicker, and thicker, and such Horses would degenerate.

There are many circumstances which give a predisposition to grease; the first is, thick skin, white hair, because it is a proof of a weak circulation (hence, grey Horses become white with old age). Another circumstance is the colour and make of the animal; light chesnuts with white legs, narrow chests, and long legs. But few Horses have it now, because the existing cause must be applied, which is heat; but not simple heat, because then we should have it in the summer; but

in proportion as heat follows cold, the effect is produced.

Grease often breaks out in October, when the Horse's legs begin to feel the change of season, and their legs become wet and cold; after coming to stable, the heat occasions evaporation, and *that more cold*, and in proportion as they are cold, so are they susceptible of heat, if not governed by specific limits.

Grease may be either local or constitutional. I will first speak of grease in its local form, which generally is in proportion to the relative temperature the parts have been exposed to. Heat after cold is then an exciting cause, and according to the previous cold it acts; the cold being in part governed by moisture, and the length of time occupied in evaporating: if, therefore, Horses' legs with much hair, hold most water, and produce much cold, so will they be liable to grease.

From these facts, it is natural to conclude, the practice of washing the Horse's legs, without they are afterwards wiped dry, is bad; for, by rubbing the legs quite dry, you do to the vessels of the heels, what the heart is doing to the arteries, namely, increasing the circulation, and thus preventing conjestion and inflammation; and if the dirt cannot be perfectly rubbed off, it is better to have a little dirt, than a great deal of grease.

In order, then, to avoid grease, when Horses go into stable, let them have as much air as you possibly can, by opening the windows, that the increase of circulation may be gradual.

Many opinions have been advanced, to show that grease was only local, but I consider it, in many instances, to be thoroughly constitutional; and that, from the fact of many Horses having it during a number of years, though the greatest pains may be taken with them to prevent it at any rate. "There is no rule without an exception," for impurities of the blood may be lurking in the system, and Nature takes these means to get rid of them, and she wisely selects those parts as remote as possible from the vital principle of action; for, it is well known, where, from the kind of Horse, and the care constantly taken of him, we are instantly convinced it must arise from diseased blood, or an hereditary retention of taint from sire to dam.

Having said thus much of the nature of the disease, I shall now endeavour to point out the best method of cure. The first thing you will have to do is, to bleed the Horse according *to size and condition;* take from three to six quarts from him. Supposing this operation to be performed, give him to eat bran mashes only; indeed, regulate him as directed in the chapter on conditioning hunters: at night, give him one of the doses of physic, as recommended at the conclusion of the same article. Take a bucket of warm water, and some soft soap, and well wash out the Horse's heels; free them from all skurf and scabs, dirt, and any other offensive matter that may be lodged in them. This done, get for a poultice four ounces of linseed meal, pour sufficient hot water to make it of a proper consistency; then, just as you are going to apply the poultice, have ready before a pot of digestive ointment as follows:—

Take Common Turpentine - 4 oz.
Hog's Lard - - - 12 do.
Melt together over a slow fire.

Mix about two ounces with your poultice, and fasten round the Horse's legs by means of an

old stocking, which should first be drawn on the Horse's leg, tied round the hoof, and then turned down to receive the poultice in the hollow of the heel. Poultices do no good except they are always kept moist; therefore, at night repeat the washing with the soft soap, &c., and also your poultice: do this until the Horse's heels are thoroughly clean, and appear healthy; you then may commence healing them, which do with the following.

Take Common Turpentine - 2 oz.
Hog's Lard - - - 2 do.
Alum, finely powdered 3 do.

Melt the turpentine and lard together; then sprinkle in the alum, and stir till cold. Should this not be found sufficiently strong, add to it

Sulphate of zinc - - 1 oz.

These remedies are generally found sufficient to heal the cracks and sores of the heels; but you must be careful not to stop the discharge too sudden, and, especially, if of a constitutional nature.

Some constitutions will not even admit of ointment being applied; if such be the case, prepare the following:—

Take Sulphate of zinc - - - 8 oz.
Boiling Water - - - 2 pints.

Apply this lotion frequently to the Horse's heels.

If you feel inclined to try a mild lotion first, use alum instead of the zinc, varying the dressing, as it may be requisite.

At the end of five or six days, give another dose of physic, which manage as directed before. The Horse should have exercise, if the weather be dry, but on no account should his legs get wet: a bandage round them will be found highly beneficial; and, by all means, put him in a loose box, or bay of a barn, that he may exercise himself at liberty. When the process of physicking is concluded, give the following,

Diuretic Balls.

Take Resin, powdered - - - - - 8 oz.
Nitre, do. - - - - - 4 do.
Juniper Berries - - - - - 4 do.
Soft soap, to form the mass, and divide into twelve.

Give one of these balls every second day. By this treatment you will get rid of grease; but constantly bear in mind, to prevent grease, there is nothing to equal cleanliness.

MANGE.

This distemper is so universally known, that a general description of its most predominant features would be a very indifferent compliment both to the time and understanding of my readers; suffice it, therefore, to say, a mere superficial view of it instantly conveys to the spectator a very strong idea of wretchedness and poverty. For nothing can convey it stronger than nature exhausted, sinking under a complication of disease, debility, and poverty.

And in this case, so true it is, one misfortune seldom comes alone, that the latter seems in combination to go hand in hand with this distemper, wherever it makes an appearance: and as a proof of the truth of this observation, it is very little seen amongst Horses of any estimation; on the contrary, it is almost entirely confined to the lowest stables, and the lowest proprietors.

It is observed to fall chiefly upon those that

are ill fed, or scarcely know what corn is, at least, by the taste, but are kept entirely on the refuse of provender, barren pastures, musty hay, separated hay-bands, swampy mossy ground, so poor, that quoting the old adage, "you may whip a louse over it," rushy moors; from all of which, nature may receive a wretched existence, but cannot be furnished with support, at least, the support necessary to contribute nutriment for the constant healthy subsistence of so large a frame as the Horse. From this mode of living (or rather starving) originates so severe and inveterate a disease as mange; this the economy and law of nature demonstrates to a certainty, consequently, requiring no further animadversion.

For the blood, being by this barren source of nourishment, robbed of what it was, by nature. intended to receive, consequently, becomes impoverished even to a degree of incredibility: in fact, the blood becomes thin and weak, debilitated, and loses a considerable portion of its living principle. Thus extravasated and unrestrained, its morbid effects and virulence soon displays itself upon the surface, with a severe and constant irritation and itching, principally about the neck and under the hair of the mane, though all parts of the Horse are subject to it, occasioning the poor animal to be constantly rubbing himself, till with this and the loss of hair from different parts, he bears the universal appearance of approaching excoriation. Many persons of the old school are in the habit of applying powerful caustic applications, which may have had the desired effect ultimately, but the pain the poor dejected animal is put to, is not only grievous to behold, but, I should say, six out of every ten become subjects for the dog-kennel.

That the poor distressed and emaciated subjects may be in some degree alleviated from their pain, we shall endeavour to point out such methods as will eradicate the disease, with proper attention and observation.

The commencement of the treatment is to feed, night and morning, with half *bran* and half *malt*, or with equal parts of *oats* and *bran*; but I prefer the *malt* to be made slightly wet, not sloppy; sprinkle a handful of coarse *brown sugar* in it, then mix all together, and give morning and night; for the middle-day feed, give a quartern of sweet oats, with a handful or two of chaff with it. During this treatment, which must be continued for at least a week, and will begin to soften his skin, and, as grooms say, "begin to loosen it a bit," which will be a favourable sign, give the best and sweetest hay you can procure.

At the expiration of a week, when the frame becomes more invigorated, discontinue the mashes, let his diet be changed to good oats, with a handful of bran night and morning, first sprinkled with water, that one of the following powders may just adhere to it.

Take Sulphur - - - - - 1 lb.
Prepared antimony - - 1 do.

Rub these well together in a mortar, and divide into twenty-four equal parts. For the middle-day feed, continue the oats and chaff, dry.

You may now commence your external applications, which are as follows. Procure a pail of warm water, and a quarter or half a pound of soft soap, or more if required, and tie a portion of it in a linen or woollen rag, and with this, let every infected part be thoroughly washed, and well cleansed, by forming a substantial lather, so that no scurf

or filth remains upon the surface. Then rub tenderly with a linen towel until dry, and, on the following morning, begin to rub in a necessary portion of the following ointment upon every part affected, as the urgency of symptoms may require, and repeat daily until you are satisfied of the cure.

Take Mercurial ointment (weak) 8 oz.
White hellebore, powdered 3 do
Olive oil, sufficient to make it soft.

Or, use the following, which I consider a more convenient application.

Take White hellebore, powdered 4 oz.

Boil this in three pints of water until reduced to one quart, then add

Muriate of quicksilver - 2 drams.

that has been previously dissolved in

Muriatic acid - - 3 drams.

This forms a lotion, and is to be applied to all the affected parts with a small piece of sponge, having first poured a portion of the lotion into a saucer. This is a very efficacious remedy, and I have known the disease perfectly cured with three dressings; but should not recommend it until the Horse is sufficiently strong to bear the application.

Continue the use of the powders before mentioned, with occasionally nitre in his water (an ounce is sufficient at one time) for three weeks or a month, and, so soon as it is conceived by the Horse's condition, that he is in a state to bear it, take away a moderate portion of blood, say between two or three quarts; then give him afterwards two mild doses of physic, selected from the prescriptions on that article; this will be found necessary, and renovating.

The Horse, from his previously impoverished state, will be much restored by the following Tonic medicine.

Take Sulphate of iron - - - 12 drams
Gentian, powdered - - 12 do.
Ginger, do. - - 6 do.

Form into a mass with honey, and divide into six balls, and give one every day: by these means, you will strengthen the constitution, and beat of that poverty-stricken appearance he had previously laboured under.

Now, with regard to the stable, and the Horse's appointments, such as the saddle, clothing, &c., harness, either gig or cart, should be well washed and cleaned with soft soap and hot water; his stable should be well limed and white-washed, so that every particle of the disease be totally eradicated; this and good keep will prevent a recurrence of so disagreeable a disease.

SURFEIT.

Of surfeits there are two kinds, originating from different causes; one being no more than an advanced stage of hidebound, or out of condition, which, having been long neglected, continues to increase, with all its concomitant symptoms, till the blood becomes affected, and Nature sets up this process to relieve herself, which soon displays itself upon the skin, a degree of virulence, that forcibly appeals to the sensations of the owner.

The other kind of surfeit may be attributed to drinking cold water. This kind of surfeit, differing from the former in cause, but very little in effect, is that kind, where, from ignorance or inattention, a Horse is suffered to drink immoderately of cold water, when in a violent perspiration, and the blood, consequently, in the highest degree of circulation.

The shock nature sustains by this revulsion may be instantly imagined, even by a mind not at all accustomed to search into the changes nature may undergo. The blood, in its greatest velocity, is so instantaneously checked by the sudden application of cold to the stomach. The stomach and skin sympathizing so intimately together, the pores of the skin become, as it were, instantly plugged up. Now, the acrimony, or serous part of the blood, which extravasates itself, and by an effort of nature, is propelled to the skin for transpiration, where the pores (having been instantly collapsed at the time of the water taking effect), are so closely obstructed, that its passage to the surface is absolutely prevented, and rendered impracticable. Thus fixed, it becomes united with the perspirable matter already confined there (forming a *morbid* combination), and is, in the course of time, compelled by the progress of internal inflammation, to make its way through the skin, upon which it at last appears in a variety of forms, and different symptoms, assuming distinct degrees of malignancy, according to the state, habit, and constitution of the subject, at the time of attack.

Having satisfied ourselves as to the causes (for this is a very prevalent disease, both with hackney-horses, as well as cart-horses), we next proceed to the cure. For instance, remove cutaneous obstruction, correct the acrimonious state of the blood, and gently quicken the circulation. The better to gain this object will be, first, to take away a moderate portion of blood, about three quarts, that the impetus may be encouraged; open the body with warm bran mashes, and according to the mildness, and inveteracy of its appearance, give (as the case may require), either two or three of the following purging balls, allowing sufficient time between each dose, and exerting more than usual precaution on account of avoiding cold; for though this quantity of mercury is remarkably gentle in the operation, being small in quantity, and may be administered with the greatest safety and effect; still care is required in all cases where you administer mercury.

Take Barbadoes aloes - 6 drams.
Calomel - - - 1 do.
Ginger - - - - 1 do.
Soft soap, sufficient to form the ball.

After the course of physic is regularly gone through, and properly conducted, let strict attention be paid to the very necessary directions of food, dressings, and water; and in three days after the last dose of physic, begin with the following course of alterative powders.

Take Antimony, powdered - 1 lb.
Sulphur - - - - - 1 do.
Cream of tartar - - 4 oz.

These are to be mixed well together, and divided into twelve equal parts, giving one every night with the feed of corn; which, being first sprinkled with water, the powders will adhere to it, and insure their consumption. A handful of chaff is excellent to make the powders adhere. During this administration of the alteratives, occasionally give an ounce of nitre in the morning water.

Should any trifling eschars, scabs, or excoriations prove obstinate upon any part of the body they may be washed with a solution of zinc.

Take Zinc - - - 1 oz.
Boiling water - 6 do.

Dissolve the zinc in the boiling water, and apply to the sores, with a small piece of sponge; this you must continue until the sores are healed.

MALLENDERS AND SALLENDERS.

MALLENDERS

Are cracks, situate directly upon the back part of the knee-joint; occasioned, in general, more by neglect in grooming, than by any casual or constitutional defect in the subject. The matter they discharge is, in some cases, thin, and of an acrimonious nature; in others, it forms a kind of glutinous discharge, and makes an appearance of small scabs, or scurfy eschars upon the surface, constituting a want of flexibility, and frequently considerable lameness in the leg. The first thing to be done, is, to have the parts well washed with soft soap and warm water; repeating the washing night and morning, till the eschars relax from their rigidity, and separate of themselves And this will be considerably promoted by rubbing in lightly, after each washing, a small quantity of hog's lard; this will loosen the scabs, and they will fall off much easier when you wash.

As soon as the cracks are perfectly free from scabs, or scurf, apply the following ointment.

Take Strong mercurial ointment 1 oz.
Hog's lard - - - - 1 do.
Gunpowder finely powdered 4 drams.

Let these be well worked together, and applied morning and night. This will stimulate the parts to heal quicker than any thing I ever could discover. You must also not forget the washing, morning and night, which should be about an hour previous to applying the ointment; thus you give the parts time to dry. Should a perceptible foulness in the subject justify the measure, take away a proper quantity of blood, according to the size of the animal; and, occasionally, put an ounce of nitre in his water, for a fortnight; or, give half a dozen of diuretic balls, as follows:—

Take Powdered resin - 3 oz.
Linseed meal - 1 do.
Soft soap to form the mass.

Divide into six, and give one every morning the first thing. Should these remedies appear not to assist the cure, and the cracks not heal so fast as you desire, you must then proceed to stronger means.

Take Cape aloes - 8 drams.
Calomel - - 2 do.

Form into a mass, with linseed meal and soft soap, and divide into two balls. Give at intervals of about five days, according to the strength of the Horse.

SALLENDERS

Are situated upon the fore-part of the hock. Sallenders are to the hind legs what mallenders are to the fore legs; they originate in the same cause, and are cured by the same means; rendering it unnecessary to make further remarks under this head.

WARTS

Are troublesome things to the Horse, on account of their itching so; and very much, to the eye of the owner; and especially if they are apt to bleed much, and it is highly disagreeable to ride a Horse in such a state. The only means to remove them, is, either by ligature, or the

knife. In many cases you will be obliged to have the Horse cast; some warts are situated in such places, that you would not have an opportunity of properly getting at it, without incurring considerable danger. If it be your intention to remove them by ligature,

Take Arsenic - - 1 dram.
Hog's lard - 8 do.

Mix, and apply to that part of the ligature embracing the wart, once a day; or you may apply, in the same manner, butter of antimony, anointing the part with the feather-end of a pen. But, the most effectual manner, and the one I have always used with success, has been to remove them with the knife; and immediately, but slightly, cauterize the part. This I have found to answer better than any other application.

HIDE-BOUND.

This is a subject that has hitherto been very little treated of; and, by no means, at all satisfactorily. It has been attributed to many causes; but, from observations I have been able to make, I must confine it to few. The signs of hide-bound, are, as its name would express, a want of flexibility of the skin, which is pervaded by a general stiffness, that seems to form an entire adhesion to the flesh, without the least partial separation or distinction. There is a kind of dusty scurf, plainly perceived underneath the hair, that raises it up in different parts, and, giving it another hue, the coat, in many places, forms an appearance of two or three colours, shewing at once the insensible perspiration, which should be always going on, is either retarded, or wholly stopped. either by some internal cause, or forcibly shewing that poverty is no stranger here.

The Horse is generally languid, dull, heavy, and weak; his excrement is dark, foul, and very offensive. He sweats much upon every moderate exertion; then his coat stares, the hair turns different ways, the effluvia of which is highly disagreeable, and affords evident proof of weakness and debility.

The probable cause at once shews itself; such as bad food, and want of the proper care the Horse requires in the stable. These are the principal causes that can be assigned for this complaint or defect; still there are others, all centering in poverty; such as long lank grass, in low swampy land in the autumn, and musty hay, or bad oats, at any season, which may in some degree allay the hunger, but not gratify the appetite; for being in itself destitute of the effect and quality of superior food, no nutritive contribution can be conveyed for the generating blood, or rousing the system.

The sources for the supply of chyle being thus obstructed, the lymphatics are deprived of their due proportion of nutritive fluid that should pass through these smaller vessels, and they become, not only in some measure contracted, but in a great degree inactive, in consequence of wanting their natural stimulus, chyle; which, with the want of external care and dressing, contribute to an almost universal obstruction of the cutaneous pores. These, from the preternatural debility of the general system, are compulsively thrown open upon the most moderate exercise, when a Horse that is, from excellent food, care, and attention, or in what is termed good condition, will not display the least moisture upon his skin, even in undergoing a much greater fatigue.

Thus much has been said to prove its existence as an original complaint, probably caused by these means, *when abstracted from its con-*

sideration as a symptomatic attendant upon any other. And when that is really the case, by effectually removing the cause; in other words, cure the disease on which it is an attendant; and then, of course, you will get rid of its concomitant likewise.

In respect to a cure, very little instructions will be necessary; for under judicious management, it is scarcely entitled to the appellation of disease, being in fact no more than a temporary inconvenience. Therefore, any way will do to effect some little change in the circulation of the blood; as for instance, take away about two quarts of blood, and in three or four hours after give a mash of malt, oats, and bran, equal parts, continuing every night for a fortnight, stirring in it one of the following powders,

Take Flour of brimstone - 12 oz.
Antimony - - - 1 lb.

Let these be well rubbed together, and divide into twelve parts. Give his other feeds, morning and noon, equal parts of oats and bran moistened with water: if the continuance of the bran should relax his body more than you approve of, put into his feed a handful of split beans, and the same quantity of chaff. This method of treatment you will find successful; but you must accompany it with regular and substantial dressing, air, exercise, sound good oats, the best sweet hay, and good soft water. When by these means, he begins visibly to improve in his hide, coat, and condition, let him have twice in the week a brushing gallop, to produce a tolerable sweat, and enliven the circulation, taking great care to let him stand still until he is perfectly cold; when his dressings should be thoroughly gone through with attention, and care, and perseverance, every night and morning. If this method should be unattended with success, there must be some unknown cause lurking in the system, in which case,

Take Blue pill - - 2 drams.
Aloes, Cape - 4 do.

Give this at night, and keep all food from the Horse during the night; in the morning treat as in administering a dose of physic; in the course of four or five days repeat the medicine, and, if a third dose should be required, which you will be able to ascertain from his appearance, let him have it, taking care the Horse does not get chilled during the action of the mercury

FARCY.

It is one of those diseases to which the Horse is liable, and for the cure of which, and its co-disease, *glanders*, the Veterinary Profession have been more puzzled with than all the diseases to which the Horse is liable. Until of modern date, farcy was not thoroughly known; for all the old writers said it was something the matter with the blood, but could not tell what; the French writers studied the disease, and its nature, but still we got very little farther on in progressive knowledge; however, we are not enabled at the present day always to promote a cure, though it is satisfactory to be able to define the disease in a much more enlightened form.

Farcy, then, may be defined to be an inflammation and suppuration, attendant with ulceration of the absorbents of the skin. It was formerly thought to be a disease of the veins, from its frequently appearing on the inside of the thigh, where they are conspicuous and prominent, but the disease does not lay in the veins. The disease being exterior to the

trunks of the veins, and laying in the superficial absorbents of the skin covering the veins, was not this proved to a demonstration the veins would ulcerate and open, and considerable bleeding take place, clearly showing the disease is in no wise connected with the veins. Externally the skin may be said to be the only visible part susceptible of farcy; but when the case runs on and becomes violent, the lungs partake also of it. Every part of the skin is susceptible of the disease, but not all parts equally so; wherever the skin is thinest, these parts are more liable to become affected than where the skin is thick.

The commencement of the disease is generally ushered in with swelling and inflammation, and, at length, single tumour forms; this goes on until matter is formed, suppuration takes place, and of course ulceration; the tumours do not always suppurate, often becoming hard and schirrous. These, in the old farriers' language, are called "*buds*, or farcy buds;" there are frequently many of these, forming a kind of chain: this is an absorbent enlarged and inflamed, and frequently will continue to enlarge to an alarming degree; these are the common symptoms and appearance of the disease. The cause of its taking place in the hind legs most frequently, is, because the living power of these legs is much less, consequently, more liable to be out of repair.

This disease, as we said before, is one that less progress towards a cure has been made, than almost any disease of the Horse, and that in consequence of its containing a *poison;* which poison, if applied to the skin of a sound Horse, will produce inflammation and matter of the same kind; and in all probability, if the matter becomes absorbed, it will produce *glanders;* still this may not be the case, all constitutions not being equally susceptible of taking on the disease, though actually in contact with the poison; this, like all medicines, have not the same effect on all constitutions, more than this specific poison. However, it proves this matter to be contagious, because it is possible to produce it on a healthy animal. Here is one curious fact also; if you insert the poison deep below the skin, it does not produce *farcy;* but, being absorbed into the system, it produces *glanders;* the absorbents do not inflame in this case, clearly proving it a disease of the skin; so that the deep seated absorbents become affected, and the superficial ones not so. From this cause, if you were to skin a Horse, with farcy, at this stage of the disease, there would not be the least appearance of it under the skin; nor can it be produced in a sound Horse without an abraded surface; though I think it may be produced if applied to the membrane of the Horse's nose, if it were carefully done, so that the surface was not abraded. Professor Coleman's opinion, is, that one Horse in a stable cannot communicate it to another, without an abraded surface; shewing, it must be generated, and that constitutional diseases cannot be produced except by contact; if poisoned atmosphere be inhaled, disease may be propagated by breathing it, whilst contagion requires the actual contact of the diseased animal with the sound; though there is little or no distinction, for the poison does not come in contact with the lungs under infection. For, in proportion as crowds and filth abound, do such diseases break out. Contagious diseases may be, then, produced without contact; but not only may be, but as regards farcy, I question whether one in one thousand, ever becomes affected by the actual touch of this matter, showing clearly that it is

not a local disease. I have heard persons say it arises from drinking cold water, and eating beans; but I cannot see how these wholesome materials for food can produce a poison. I think it far more probable to be produced by a poisoned atmosphere; an atmosphere over and over again impregnated with what escapes from the lungs, the skin, the dung, and urine: there is no surprise in the matter, if we examine for a moment why such a composition should not affect the lungs, and if not immediately the substance of the lungs; but the system will become affected through the blood, which is continually travelling through them at every pulsation.

The air also furnished to go into the lungs, was never intended by nature to be made use of when charged with deleterious gases. Pure air is so important to life, that if deprived of it only for a few minutes we should die. If we breathe from a bladder long enough, we shall drop from exhaustion; and yet, examine the contents of that bladder, and there will be found oxygen, but there has a poison become united to it, which cannot be detected, and which is incapable of sustaining life. Farcy, then, is a consequence of that law stamped upon animal existence, that where they exist beyond a certain number, it is necessary that they should be thinned, for it is better some should die, than all be made uncomfortable: now nature accomplishes this by poison, in some animals, producing fever, &c. &c. This is the true cause of farcy, produced through the medium of the lungs, uniting with the blood, and it circulating every where. It has been contended by some writers, that the blood cannot be affected, for if capable of receiving a poison, it became so subdivided that of course it was inert: another argument set up was, the blood going to all parts, and all parts not becoming affected; but this is easily accounted for; for if you give a Horse turpentine, and bleed him in the course of an hour afterwards, you will distinctly smell the turpentine; though we know the kidneys are the parts alone affected by it, showing that by the law of nature, that all parts are not alike susceptible; for there is no disease which affects all parts, therefore, it is no proof the blood may not be contaminated, because the skin alone is affected, and though glanders or farcy, or both, can be produced when the poison is absorbed, the substance of the lungs may not be affected at all in the early or curable state of farcy, though they generally do become affected, and in such case, medicine is of no use whatever. Horses most predisposed to this pest of diseases, are narrow-chested Horses, with flat sides and long legs. The common farriers will, one and all, tell you they can cure the disease, because they think it a local affection, which is easily cured. Their practice being to burn the ulcers, destroying the specific action in the part, and they may in some instances perform a partial cure, if the poison has not gone further, the buds healed, and the cure said to be completed. But in most instances, when thus locally treated, it breaks out again, even at the end of twelve months. I have known it to occur and terminate in glanders; those only being cured, which have not the lungs affected.

The cure of farcy may be obtained, if it be purely local; such as when the buds are on the legs only, so as it appears to be confined to the lymphatics of the skin; but if the poison be once got into the system, I should at once despair of any thing like a cure. If the

membrane of the nose should become at all ulcerated, or the membranes lining the bones of the head, secrete and discharge a disagreeable matter, the chances are one hundred to one of your succeeding in a cure. However, I have always treated it as a constitutional affection, not trusting in the term local or otherwise.

If the Horse should be in tolerable condition, I should immediately bleed, according to strength, size, &c., and give the following:

Take Cape aloes - - 8 drams.
Ginger - - - - 1 do.
Form into a ball with soft soap.

And treat as directed in administering doses of physic. Should you perceive the farcy buds diminish at all, or even no increase take place in those which are formed, give a second dose of medicine, and treat as before. Your next thing is to lay the farcy buds open; these you will find principally on the inside of the hind leg, frequently down the neck, in the line of the jugular vein, along the back, and frequently on the face. This last, whenever I found them, the cure was always doubtful. Some persons open the buds with a lancet, and apply the actual cautery, to destroy at once by fire what we imagine cannot be done any other way: but I object to this mode of treatment myself, as I have seen much more good done by other means. First, open all the abscesses with a lancet, after squeezing out the matter, which you must be exceedingly careful in doing, for the pain the Horse experiences will make him very fidgetty, but sometimes attended with great danger. After you have cleaned away all the matter from the sores, apply a little sulphate of zinc to each of the opened buds. This application will be found highly beneficial on first opening the buds: if you should have done this in the morning, repeat it again at night; then on the morrow, wash the sores well with the following lotion.

Take Extract of Saturn - - - 2 oz.
Spirits of wine, camphorated 8 do.
White wine vinegar - - 1 pint.

Mix well together, and keep close stopped for use; then

Take Prepared antimony - - 1 lb.
Sulphur - - - - - - - 12 oz.
Cream of tartar - - - 8 do.

Incorporate well in a mortar, and divide into twenty equal parts, giving one every night in the corn, first sprinkling with water to insure the adhesion of the powders. This proportion is meant for the distemper in its mildest state, when the buds make their first appearance.

Should the distemper be in a more advanced stage, bleeding should be repeated, in a proper time and in a moderate degree; and upon the scabs or eschars peeling from the buds, wash them well, occasionally, with the following:

Take Corrosive sublimate - - 2 drams.
British brandy - - - ½ pint.
White wine vinegar - 1 do.
Tinct. myrrh and aloes - 2 oz.
Water - - - - - ½ pint.

First dissolve the sublimate in the brandy, then add the other articles, and shake well together: or,

Take Sugar of lead - - 1 oz.
Sulphate of zinc - - 1 do.
White wine vinegar - 1 pint.
Water - - - - - ½ do.
Mix together.

For internal medicines, an immense number have been tried, I believe, all the mineral and vegetable poisons, and with some excellent effect; but the variety being great, you cannot always hit upon the right one; therefore, I shall not enter into a long detail, but at once present you with the formula that I have been in the habit of using, all of which I have found good.

Take Cantharides - - 5 grains.
Arsenic - - - 4 do.
Sulphate of iron - 1 dram.
Gentian - - 1 do.
Ginger - - 1 do.
Form into a ball with soft soap.

Give one every morning, first thing. Or,

Take Corrosive sublimate 4 grains.
Sulphate of iron - 2 drams.
Form into a convenient sized ball, with linseed meal and soft soap.

Give every morning, Or,

Take Blue pill - - - 2 drams.
Aloes - - - - 1 do
Ginger - - - 1 do.

Mix together for one ball, with a little oil of turpentine, and give one every second morning. Great care must be taken to watch the Horse, that he do not become salivated; if either of the foregoing prescriptions should appear to take the Horse's appetite away, let him remain for a day or two, without the commencing it again. During the exhibition of these medicines, the Horse should be well kept, feeding him without a sparing hand. You may occasionally dissolve an ounce of nitre in his morning water, as he will then be most likely to drink. A little green meat will be good for him; and when you perceive him getting better, get him a run at grass in some place handy, and give him a feed of corn morning and evening. Speared malt is excellent for them at this time; also, if you take about a tea-cupful of linseed, and pour on it a quart of boiling water; taking also, and mixing with it, eight or nine good potatoes, well boiled and worked up together, give this with his corn at his middle-day feed. Should he at first refuse it, do not be disheartened, he will take to it in a short time; and the benefit arising from it will surprise you. Carrots are very good, chopped up fine; also turnips of the Swedish kind, as they contain more saccharine matter than any other; also parsnips, a few at a time; for if given in quantities, are apt to gripe. The treatment, as practised at the Royal Veterinary College, is by administering, from two to five drams of sulphate of copper, in solution, in about a pint of water; increasing or decreasing the dose, as circumstances may require; and also applying a solution of the same sulphate, in the quantity of two ounces to a pint of water, to the sores daily.

CHAPTER V.

OF WINDGALLS, BOG SPAVIN, THOROUGH PIN, CAPPED HOCK, TUMOURS OF THE ELBOW AND THE KNEE.

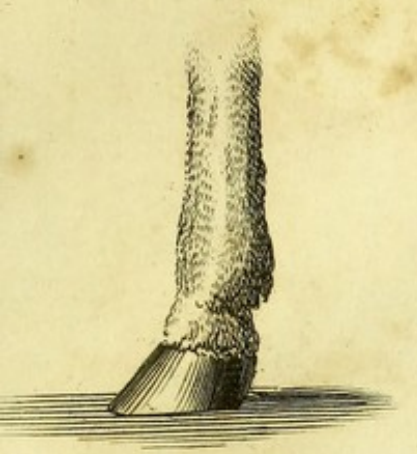
WINDGALLS.

THE term windgall *, was never more misapplied to any disease, than the present; for the enlargement in which the disease consists, does not contain air at all; but they are a kind of syst, or sack, attendant on most, or all joints, but particularly those which will come under our notice, in consequence of their frequently occasioning lameness, and, at best, a great eye-sore. These sacks are situated on both sides of the tendons, just above the fetlock joints, before, and not unfrequently upon the hind legs likewise. These prominences become enlarged, generally, from hard work, occasioning a greater determination of blood to the part; consequently, a greater secretion of mucus they contain, increasing, until they become disagreeably large. It is from this circumstance, that if you apply liniments, or lotions, to windgalls, and apparently reduce them, that they immediately enlarge again on being put to work; for, if the sack containing the mucus be enlarged to the disagreeable size we sometimes see it, it never contracts to its original feature.

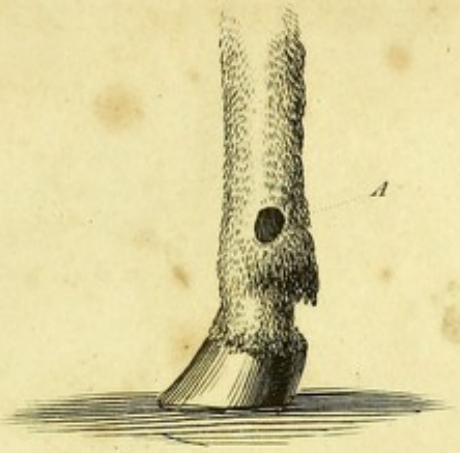
For the cure of windgalls, I shall give my reader the practice I have invariably pursued, and not without considerable success. As before stated, liniments, lotions, and even blistering has little or no effect; but the plan I have adopted has been, first to clip the hair off all round the leg, over the fetlock joint, and about three inches above the seat of the enlargement; then take from four to six ounces of *mercurial plaister*, and put it in a melting pot, previously having procured an old paint-brush, and when thoroughly melted, rub on the parts where the hair has been clipped off, well grubbing it in with the old brush. Having done this to your satisfaction, take a flannel bandage, about three yards long, and about three inches broad, bind this tight round the leg, and let it remain so situated for a fortnight, when you may take a pair of scissors, and snip the bandage down the front of the leg, and let it fall off at liberty. (You must not forget the cradle.) I have treated windgalls repeatedly in this manner, and have had no further occasion to do more to them. However, should this not be found effectual, I have either fired the parts, or opened the

* The technical term for windgalls is enlargement of the "bursæ mucosæ;" but, as we promised to avoid technicalities, we give the name they are generally understood by.

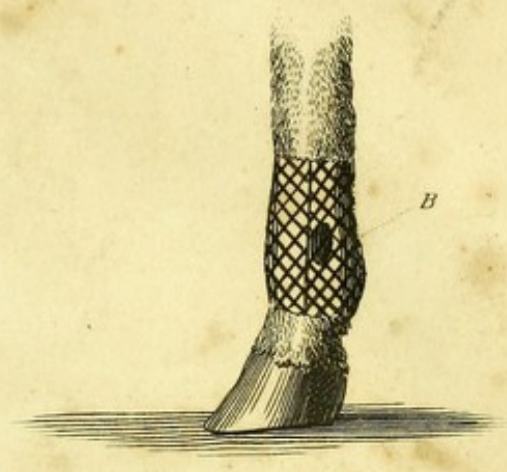
WIND GALLS.



The fore leg free from Wind galls.



A. The Wind gall either to be opened or have the mercurial plaster applied.

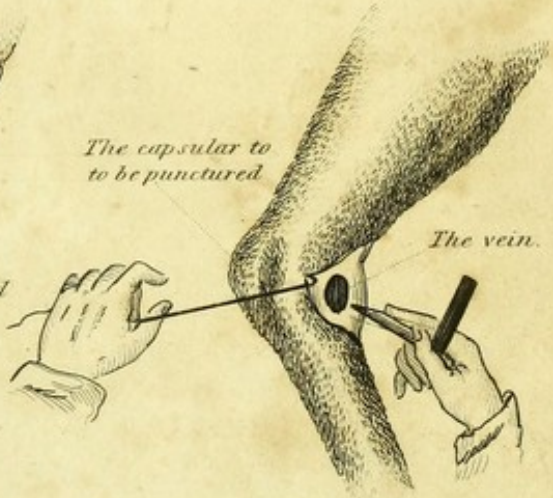


B. Method of fireing for Wind galls all round the leg.

BOG SPAVIN.

The Horses hock in its natural or healthy state.

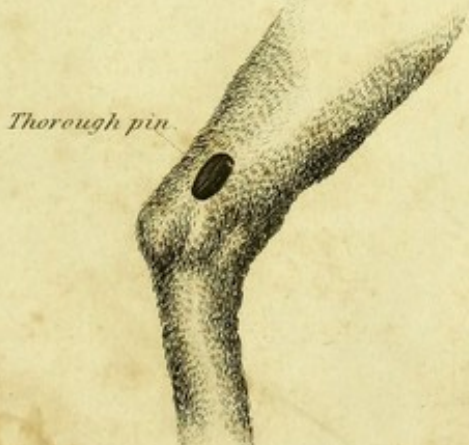
When affected with Bog or Blood spavin.



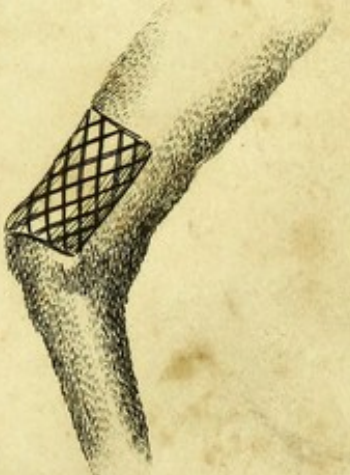
Method of reducing the enlargement by puncturing the mucous capsular.

THOROUGH PIN.

The Horses hock in its natural or healthy state.

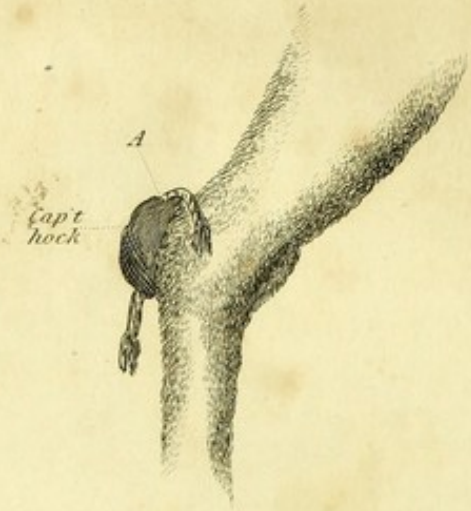


When affected with the disease called Thorough pin.



Method of fireing for Thorough pin after first being punctured.

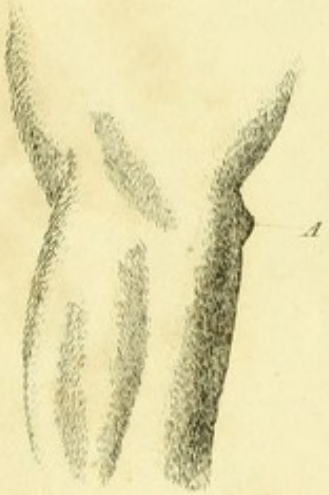
The Horses hock in its natural or healthy state.



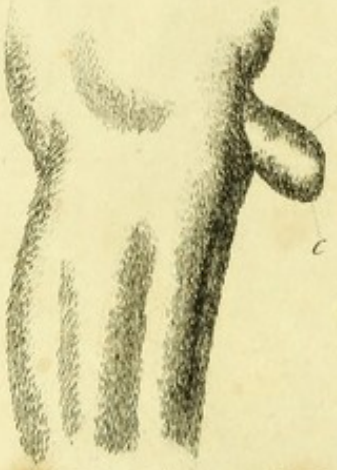
When affected with the disease called Cap't hock. A. when operated on with seton.

The method of Fireing for Cap't ho after first being laid open.

TUMOUR OF THE ELBOW.



The fore leg at the Elbow in the healthy state. A. The Elbow.



The fore leg the Elbow being tumified. B. The tumour. C. The place to operate on with the Bistory.

D. The situation to cut down on the tu when intended to be dissected ou

TUMOUR OF THE KNEE.

A. The Horses knee in a healthy state.

B. The tumour to be operated on.

C. Method of puncturing the tumou depending part - previous to blis

bursæ, in the following manner:—You must have the Horse cast, and introduce a pretty large abscess lancet into the enlarged *bursæ* at bottom, or lower part, so that you may be enabled to introduce your finger, which do, and turn it about several times; by this means you will break down the membrane of the sack; then put a suture in the wound, and draw the lips of which together, and let your Horse get up. This will occasion, at first, some little swelling, which bathe well with warm water, two or three times a day, and apply a bandage. When the inflammation has considerably subsided, treat the puncture as a common wound. I sometimes have, if the case was a bad one, and the windgalls very large, as soon as the inflammation had subsided, cast the Horse again, and fired the parts, which has answered exceedingly well. I should recommend the Horse a loose box, and a dose or two of physic, during the time he is resting.

BOG SPAVIN

Is a disease, very commonly attendant on hard work, and especially in young Horses, when they have been too early used. The hock, as has been before observed, is liable to more diseases than any other joint belonging to the Horse; it being designed for very extensive motion; but the motion of it, during natural labour, is very different from that, which is throwing a Horse upon his haunches, pulling him up suddenly, or taking high and wide leaps. These violent motions of the joint, are, as it may well be supposed, likely to produce disorder. Bog spavin, then, is an enlargement of the mucus capsule, situated immediately in the bend of the hock, and near to the superficial vein, passing obliquely over the part; in fact, it may be said to be a corresponding disease to windgalls in the fetlock joint. It does not always produce lameness; but, when so large as to occasion lameness, and prevent the Horse from working, immediately open the tumour, in the manner described for windgalls; only being careful not to puncture the vein, which may be easily prevented, by tying a fillet of tape round the bottom part of the thigh. You will then immediately discover the course of the vein, and it will be your own fault if you do not avoid it. Having made the puncture, and found out the mucus, put in the wound a little sulphate of zinc, and proceed in all other respects as you would for windgalls.

THOROUGH-PIN

Is that large bursal enlargement, situated in the upper and back part of the hock, the tumour shewing itself on either side; hence its name, thorough-pin. This seldom occasions lameness. The causes of this disease are similar to the two preceding; over weighting, immoderate riding, and ill-management in the breaking of young Horses.

For the treatment of this, proceed precisely as directed for *windgalls and bog spavin.*

CAPPED HOCK

Is a large swelling that arises at the point of the hock. It is seldom detrimental to the Horse's action, but is very objectionable to the eye. It arises chiefly from kicks, or laying on hard stones, or other injury, the point of the hock is so very liable to. It is sometimes hereditary *. If not relieved soon in its early

* Why I say that capped hock is hereditary, is, in consequence of seeing it so in one family. About fourteen years ago I was called to see a Horse belonging to Messrs

stage, it frequently becomes of considerable size, and what appears strange, the skin seems to thicken as it becomes larger.

For the treatment of *Capped Hock*, if you should perceive it in its early stage, I use repellents, such as the following:

Take Sal ammoniac	-	1 oz.
Spirits of wine	-	8 do.
Vinegar	- -	8 do.

Rub some of this lotion on the point of the hock, night and morning. Should this not promote the absorption of the fluid, then introduce setons on each side of the hock, and keep the discharge up for a fortnight, dressing every day with digestive ointment, as follows:

Take Common turpentine	-	4 oz.
Hog's lard	- - -	4 do.

Melt together over a slow fire, and dress the setons with it, when you change them every morning.

Should this not have the desired effect at once, puncture with a lancet, and fire in the manner seen in the Plate. Whilst using the above remedies, give a mild dose or two of physic.

THE ELBOW.

These tumours frequently arise from various causes: they are situated at the point of the elbow, and sometimes grow to an amazing size; I once recollect seeing one in Messrs. Barclay's stud of dray-horses as large as a child's head, it appeared to give little or no inconvenience, but the appearance is highly disagreable. These tumours are not always alike in their contents, some of them containing a yellowish fluid, and that in a considerable degree; this you may discover by the undulating feel it has when pressed between the thumb and finger. This kind of tumour contains a yellowish serous fluid, deposited in the cellular membrane, which greatly abounds in this and the neighbouring parts. The other kind of tumour is hard, will not yield to pressure, and sometimes proceeds to calosity. These tumours generally arise from heavy dray-horses laying down on rough paved stables, and frequently when they double their fore feet up under them; the large calkins of the shoes just comes in contact with the point of the elbow, and a bruise from either of the foregoing causes will produce it; it may sometimes arise from kicks, but this, I should imagine, but seldom; as if it arose from a kick, the Horse would instantly go lame, whereas by bruising gradually, it continues growing without producing lameness, as you may see in the hands of blacksmiths, the right hand in which he holds the hammer, the inside of which is covered with an immense thick skin; but he feels no pain in producing it, because it comes on gradually; but put a tyro to use the hammer for only one or two hours, and it is

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Bird, of Hammersmith. On the occasion of one of my visits, he asked me to see a brood mare, and two of her colts, laying in a field close at hand, which he considered of excellent make and form. The dam was a known good one. She was a light chesnut mare; the colts were of the same colour, one a three-year old, the other a yearling; and all three, dam and colts, affected with capped hocks. There had been a colt, which would then have been two years old, but it had been dead about six months, and he had capped hocks too. As far as my recollection will serve me, I believe Mr. B. informed me they were all got by different Horses. This, I think, is sufficient proof of like getting like. I know it frequently occurs in the human subject, and why not in animals? I know a guard of a mail-coach, who has one leg shorter than the other; he has a son, about sixteen years of age, affected precisely in the same manner, and numbers of instances might be adduced, if we had space to enter on that subject.

more than ten to one, but *his* hand becomes severely blistered. But to our subject: after examining the tumour, and being satisfied as to the nature of it, you next proceed to the cure. If it should be the kind of tumour containing fluid, take your seton scissors, then taking up the skin in the most dependent part, make an orifice, and let out the fluid; and, further insert your finger, as if preparing to place in a tent, which do with tow, smeared all over with digestive ointment, as follows:

No. 1.

Take Sulphate of copper, finely powdered 1 dr.
Common turpentine - - - - 2 oz.
Hog's lard - - - - - - - - 4 do.

Melt the turpentine and the lard together, and when nearly cold, sprinkle in the sulphate of copper.

Or, No. 2.

Take Red precipitate - - - - 4 drams.
Common digestive ointment* 4 oz.

This will promote a healthy discharge, if the first does not: keep this open for a week or nine days. If the parts should swell much, foment three or four times a day, with flannels dipped in hot water, until you see the swelling abate.

The hard kind of tumour you must treat in another way, and the only way it can be, to be effectual, that is, at once make an incision down the middle of the tumour, and disect it completely out, then insert a plegit of tow, smeared with the first named digestive ointment, No. 1, and sew up the wound until within an inch and a half of the bottom, which must be kept open during the suppurative process; when that is ended, dress as a common wound, with compound tincture of myrrh.

THE KNEE.

Sometimes enlargements on the knee take place, but they are of little consequence, though I was once called to a Horse thus affected; the tumour was about the size of half a walnut; I immediately punctured it with a very small abscess lancet, squeezed the matter out, blistered the part, and ordered the Horse to be turned out: in a month, he came up, and no person could discover the place, that either the puncture or blister had been made. The Horse was the property of a dealer, and of great value.

* What is meant by the common digestive ointment, is, the turpentine and hog's lard alone.

CHAPTER VI.

THE EYE AND ITS DISEASES.

THE EYE.

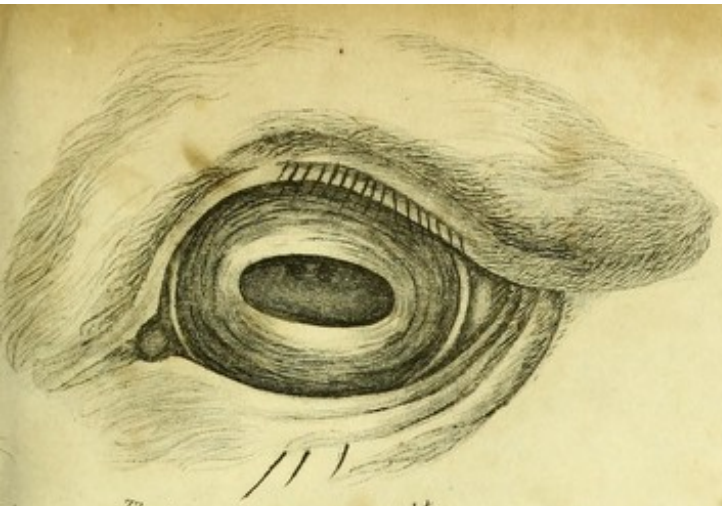
The eye is such an important organ, and the structure of such sublime grandeur, that we cannot in justice to our readers pass it over slightly; but shall endeavour to give as full a description as we possibly can of this piece of natural mechanism.

MUSCLES OF THE EYE.

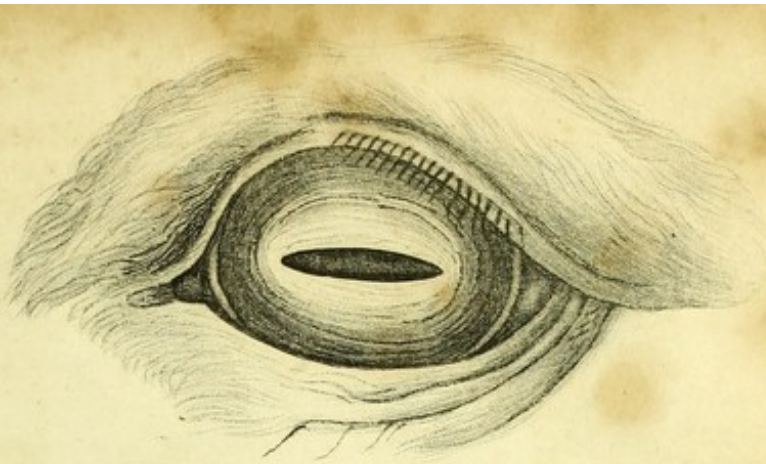
The muscles of the eye, of which the *orbicularis* first comes under our notice, which surrounds, and is attached to the bones of the orbit; and though these fibres are attached to the lower eye-lid, it seems scarcely for the purpose of motion, as this lid is to appearance stationary; this muscle passes under the loose skin of the upper eye-lid, which has great motion; the office of this muscle is to close the eye-lid perfectly, or in the act of winking, which is performed involuntarily; therefore, this muscle in sleep is in action. There is an antagonist to this muscle, the *levator palpebræ*, arising from the posterior part of the orbit, passes over the orbit, and contiguous to the *lachrymal glands*, which are placed in the hollow of the orbit above the eye; this pair of muscles is in almost unceasing action, and like all other muscles, they would become weary, but by acting in opposition they are rested at intervals; for when the eyes are shut, the *orbicularis* is in action; when awake the *levator palpebræ*; but this is relaxed by the act of winking, which is clearly *one* intention of winking; another is allowing the tears to pass over the orbit, which performs their office of removing extraneous matter, by means of the action of the eye-lids.

To move the eye, there are four straight muscles, two oblique, and one retractor, the powers of which are very superior to those of the human subject; but nature is diversified in her gifts; thus, some have wings, whilst we have brains and hands, which more than compensate for all deficiencies.

But to be acquainted with the different functions, and organizations of the eye of the Horse, it requires greater attention than persons at first sight are aware; there being a muscle attached to the Horse's eye called the *retractor muscle*, which the human subject has not. But, going back to the straight muscles, we will begin with the *levator oculi*, which arises from the posterior part of the orbit, goes over the retractor muscle, and is attached to the *sclerotic coat;* it is for the purpose of directing the eye upwards, the eye always acting in unison with these muscles.

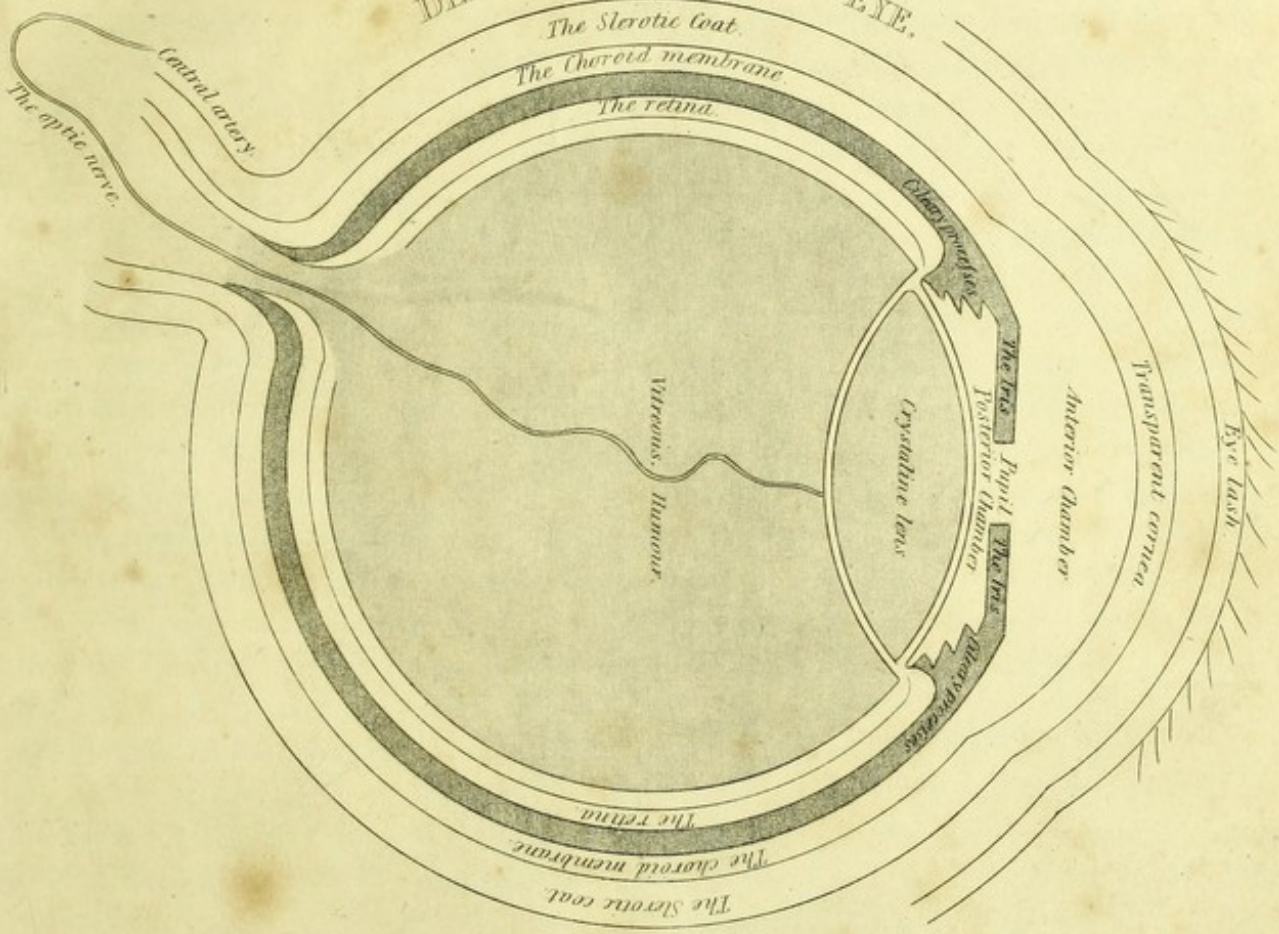


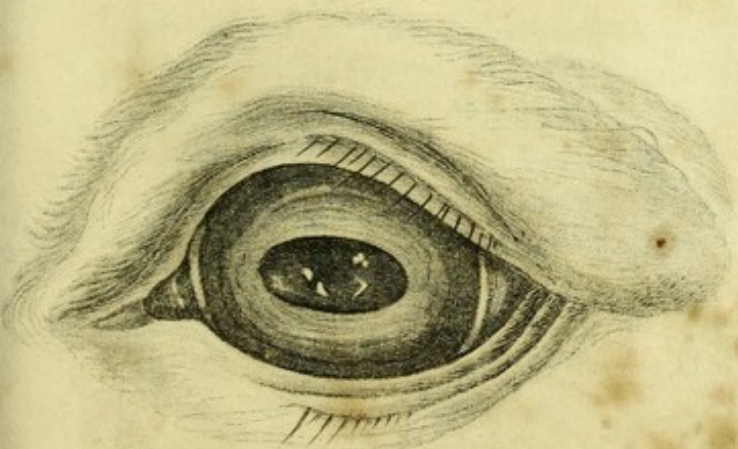
The Pupil in a moderate Light.



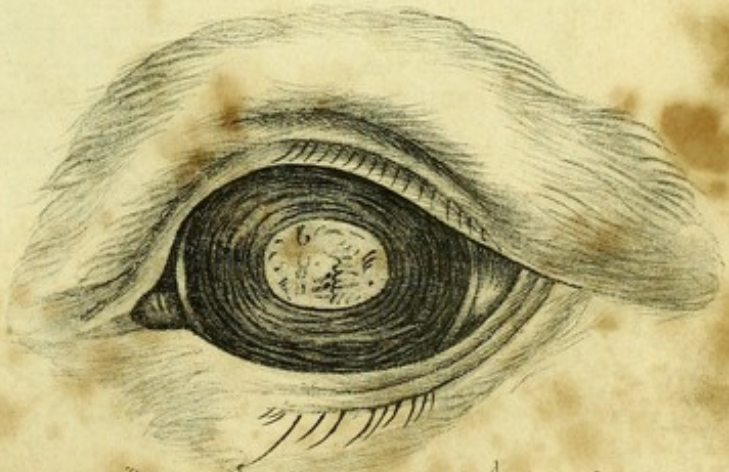
The Pupil in a strong Light.

DIAGRAM of the HORSES EYE.





The Eye when affected with Cataract



The Crystaline lens thoroughly decayed

London, Published by W. Lizars, Cloth Fair 1828.

The next muscle is the *abductor*, which arises from the posterior part of the orbit, and is inserted into the anterior part of the *sclerotic coat* on the outside; this muscle directs the eye from the nose, and unlike the *levators*, these muscles cannot act together, for one eye being turned from the nose, the other is directed to the nose by another muscle; the intention of this is obvious, that in cases of alarm, both eyes should be directed to the same object, one by the *abductor*, and the other by the *adductor*. The *depressor occuli* arises from the posterior part of the orbit, and is inserted into the inferior part of the *sclerotic coat*. The *adductor* has the same origin, and is inserted into the *sclerotic coat* towards the inner *canthus*. All these muscles acting together, have the power of drawing the eye into the *orbit;* but their action is inconsiderable.

The *oblique muscles*, which are two, one of which arises from the inferior part of the orbit, and is inserted into the *sclerotic coat* below, the other called the *trochliaris*, arises from the same, and going through a pulley-like adaptation, is inserted into the anterior part of the *sclerotic coat*, and thus draws the eye forward. Their chief use is to act in opposition to the straight muscles, by drawing the eye forward.

The *retractor occuli* arises from the superior part of the orbit, surrounds the *optic nerve*, but is separated from it by adeps [*i. e.* fat]; and that the fibres may not affect the nerve, they are not attached to the *sclerotic coat*, where the nerve emerges. This muscle performs two functions: I will just mention here how you may distinguish the *inner and outer canthus;* when the eyes are separated from the body, it is the broad side which forms the inner *canthus*, over which the *haw* plays. I may here allude to the formation in birds, which is a little similar to the *haw*, called the *membrana nictitans*, a semi-transparent membrane, having a muscle and a tendon. In the Horse this is cartilage edged with black, at the anterior part fastened to the *conjunctiva* by the cellular membrane, and if you attempt to pass your finger between the eye and the haw, you are prevented by the *conjunctiva*, showing that the *conjunctiva* is a reflected membrane over the cellular attachment. The *haw* is divided into two parts; the anterior part is convex on the outer surface, concave on the inner, to fit the convexity of the eye; the *haw* acts as a kind of shield, but not being sufficient to cover the whole orb, whilst in its natural situation, the *retractor muscle* acts first, by which means the ball of the eye presses upon the *adeps*, and the *haw*, in consequence, is forced over the eye, showing it has no movement of its own, but is dependent on the *retractor muscle*, thus performing its functions by moving apart, to which it is least attached.

LACHRYMAL GLANDS.

In noticing the *lachrymal glands* placed above the *levator palpebræ*, laying close to the *sclerotic coat*, white and large, and through being of a white colour, consequently, not possessing much blood, its secretion is large, as may be proved by its duct, which secretion is evidently regulated by circumstances. These ducts pierce the *conjunctiva* at the upper and outer part, and thus moisten the eye.

THE EYE-LIDS.

The eye-lids in the Horse, must claim a little attention, the peculiarity of them, is, the bottom one has no lashes, but the upper one

has a double row in the centre, not extending from *canthus to canthus;* these lids are seldom diseased, or even the cause of disease.

THE CONJUNCTIVA.

The *conjunctiva* is immediately connected with the eye-lids, the haw, and the *orbit;* it possesses three different structures, that is, three separate degrees of vascularity. It lines the inner surface of the eye-lids, covers the eye-ball, being reflected over every part; now this membrane is highly vascular in that part lining the eye-lids, it is less so over the *opaque cornia*, and still less over the *transparent cornia*, never admitting red particles of blood, unless in a state of inflammation. Now the eye-lids have a secretion of their own, to protect them from the tears, which, though congenial to the eye, are not so to the edges of the *palpebræ;* and it is a well known fact, shewing the susceptibility of parts, for the salt that is in the tears will at any time inflame the cheek, but not the eye; but warm water applied to the eye, will inflame it, and be congenial to, and relieve the cheeks; though we cannot account for these facts, but by the different susceptibility of the nerves going to these parts.

THE FUNCTIONS OF THE LACHRYMAL GLANDS, TEARS, CONJUNCTIVA, EYE-LIDS, HAW, AND RETRACTOR MUSCLE.

As the above parts of the eye are all, more or less, blended together, I have thought it best to give their functions together, from the intimate connection one has with the other. The apparent use of the eye-lid, is to protect the eye from foreign matter, and also to regulate the admission of light; independent of these, the inner surface of the upper eye-lids, covered by the conjunctiva, is connected with the tears, which flow between the eye-ball and eye-lid, the conjunctiva is thus prevented from coming in contact by a fluid; the eye-lids also secret a fluid of their own, which prevents any tendency to irritation; the action of the lachrymal glands is, at intervals, even in sleep, taking place, though there may be but little wanted; but any foreign matter, even the wind, will at once excite their action: this is occasioned by the nerves of the eye-ball being irritated, the tears, in consequence, are thrown out to alleviate such irritation. Between these glands and the mind, there is also great sympathy, and when their action is excited, so that the secretion be too extensive to be carried off by the nose, the tears flow over the cheeks, and constitutes weeping. This secretion is also affected by the action of the retractor muscle, which, acting with the adductor muscle, the eye-ball is brought to the inner canthus, and the haw forced over the eye-ball. Foreign matter very seldom occasions blindness, for the tears and eye-ball moving in one direction, and the haw in a contrary one, any foreign matter is quickly dislodged.

The tears, then, we see, keep the parts moist, transparent, and, remove the waste from evaporation, which is always going forward in moist external surfaces. The tears having performed their office of lubricating the eye-ball, and the parts attached, they pass on into the ducts, called *puncta lachrymalis*, situated at the inner canthus of the eye. This duct in the Horse is but little larger than in the human subject; passing through a canal, partly bony and partly membranous, terminates at the lower end of the nostrils, much increased in size. This formation in man is of

a more complicated nature than in the Horse, consequently, it is very frequently subject to disease by becoming obstructed, and occasioning a serious, troublesome complaint ; in the Horse it very seldom occurs, and then but with trifling inconvenience. The action of the haw takes place from any cause that arises from tenderness and pain or inflammation ; and this may be continued so long, that the retractor and adductor muscles permanently contract, the haw being completely powerless of itself, is left protruded out : when this should be the case, there is no difficulty or danger in cutting it out with a pair of scissors.

THE CORNEA.

In the Horse there is no opaque cornea visible, whilst in man, it constitutes a prominent feature of the eye ; which, though it does not appear to add to perfectness of vision, adds greatly to the beauty and expression of the eye ; and as it was not necessary we should see in the night, being supplied with sense and hands to secure sustenance in the day, and requiring much sleep from the activity of the brain, this defect in sight is fully counterbalanced by beauty and expression.

The transparent cornea is more or less convex in all animals, both from its form and the fluid it contains. In Horses, it is not circular but horizontally oblong, being more contracted at the outer than the inner part ; also, the ball of the eye being denser and transparent, that law of optics takes place, that rays of light, passing through a transparent *convex* body, become bent, conveying objects to *a focus*, and *this focus* conveys it to the *retina*, thus constituting vision. In man, the cornea is often too *convex*, in consequence of which, the rays of light are brought to a focus before they reach the *retina ;* this constituting near-sightedness ; the reverse taking place with old people, the cornea being too flat. We cannot so well judge of defect in the sight of the Horse ; there is no doubt that many Horses with prominent eyes, and very convex, have imperfect vision, as they invariably are very apt to shy and start.

THE IRIS.

In examining the eye, and looking into the anterior chamber, which contains the aqueous humour, we there see the *iris*, and the centre of the *iris* is that opening called the *pupil ;* looking steadily at it, there is a blueness apparent, showing that there is free access to the back part of the eye through the pupil, also showing the iris divides the humours of the eye into two spaces, which are called chambers, the anterior and the posterior. The iris appears to hang as a curtain between the cornea and the *crystalline lens.* The iris is composed of two orders of muscular fibres, and also demonstrates the colour of the eye ; as, for instance, a black iris constitutes a black eye, a blue iris, a blue eye. In bay Horses it is of a cinnamon colour ; sometimes it is white, constituting a wall eye, and with a wall eye there are generally white hairs on the eye-lashes and orbit : the colour of the outer part of the iris is no criterion for the posterior, which is generally black, and is the part that is of service to the Horse's vision. The shape of the iris, at the circumference, is oblong, like the transparent cornea ; it is very muscular, and its fibres are radiated, these being wound round the circumference with another order of muscular fibres and another round the inner margin, and the union between

the two is by the radiated expansion of one order of fibres and of the blood vessels.

Having thus come to the opening of the iris, I shall call it, as before, *the pupil*, which is not a solid body, but a passage left by the iris for the rays of light to penetrate in their passage to the posterior chambers of the eye. The iris undergoes many changes, as to size, in all animals; and, in the Horse, as it changes its form, from round to oblong, and *vise versa*. In cats, the changes are well seen, for, in a strong light it is very oblong, but perpendicular, whilst it is horizontal in the Horse. This shews the object of nature at once, for a cat has necessity of seeing upwards and downwards for securing its prey, not sideways where its powers would be lost. Ourselves and the Horse have occasion to see every way; so that, though the pupil becomes horizontal, it is never very narrow: there is also a peculiar structure in the Horse's eye, which seems to have the power of keeping out light, occasioned by four glandular bodies, two placed at the lower edge of the upper margin of the iris, and two at the lower margin. These are not seen in a weak light, when the pupil is large; and seldom in the dead subject: they are seen best in prominent eyes, under a strong light; they are black, and covered with the *nigrum pigmentum* (or black paint), which in the dead eye becomes a mucous. These bodies may almost be called an internal eye-lid, and united to the iris they complete the curtain.

We will now endeavour to explain the functions of the iris, which may be easily seen, by observing the effect of different degrees of light on the iris, light being the stimulus, and, through the nervous energy, the iris becomes affected; the pupil being passive, the iris expanding, makes the pupil much smaller; on the other hand, if the iris contract, the pupil appears so much larger. The iris is possessed of abundance of nerves and muscular fibres; for though this is not perceptible to the naked eye, our reason demonstrates them, and we must never suffer the superior light of our reason to be darkened by the imperfection of our senses. The muscular fibres of the iris are of two orders, the one appearing a kind of *sphincter* (signifying to shut up) at the inner margin, and, being excited by a strong light, it contracts at the same moment; the transverse order relax and elongate, and thus the pupil is diminished: the stimulus of light being removed, the transverse preponderate, diminishing the iris, and, consequently, enlarging the pupil. It would appear that the circular or sphincter order require a very strong stimulus to be able to overcome the constant superabounding power of the transverse order of fibres, the varied action of the pupil taking on different forms, according to the strength of light; in a weak light becoming circular, occasioned by the transverse fibres being in full play; but, as in a strong light the pupil becomes oblong, it would appear by this, that the transverse fibres have not an equal power of relaxation, only at the top and bottom; for, at the corners, they scarcely relax at all. There is considerable sympathy between the iris and the retina, as in *gutta serena*, or glass-eyed, as it is termed; that is, when the optic nerve has lost its sensibility, the iris has likewise.

THE OUTER COATS OF THE EYE.

In considering the outer coats of the eye, we commence with the sclerotic, which is composed of tendinous material, very dense,

but not equally thick all over, the thickest part being its posterior; this part receiving more pressure against the orbit, when under the influence of the retractor muscle, nature required it to be thicker, to repel the pressure it might receive. Anteriorly, there is a groove receiving the posterior edge of the transparent cornea, called the *ciliary processes* (the white folds at the margin of the *uvea* in the eye, covered with black matter); there is a passage through the sclerotic coat for the optic nerve, which does not pierce it at its centre, but pierces the sclerotic and choroid coats at the inferior part.

The choroid coat is on the inner side of the sclerotic, and is very vascular, possessing many blood-vessels, nerves, and absorbents. The appearance in this coat varies in different animals, forming a difference of covering, which it most commonly possesses. It is most commonly in white ferrets, and also in the human subject, with those classes of persons commonly called "*albinos*," with long white hair, &c. In all these the colouring matter is wanting, and the arteries of the coat are alone seen; the consequence is, the bottom of the eye looks red. In consequence of this formation, there is an incapability of seeing in a strong light, seeing best in the dark, which is most properly called, *a diminution of light;* there being no such thing as positive darkness: and I may remark, that in sympathy with such, the eye-lashes are always white, and the hair of the head is white also; and frequently on smaller animals all the hair is white: the same occurs to white mice and white rats. In man, generally, both surfaces of the choroid coat, the one in contact with the sclerotic coat, the other with the retina, are covered with a black pigment, which, in the dead animal, becomes a kind of mucus. But there is a difference according to circumstances: the negroes in the tropics have it much blacker than those in temperate regions, by which they have a power to absorb superfluous rays of light, so that vision is not painful. From these facts, we may conclude, this pigment is a kind of regulator, absorbing superfluous rays; also shewing, that such eyes cannot see well in a weak light, as the rays are all absorbed without affecting the retina; for nature has never been able to make one piece of mechanism to perform opposite effects well. This coat, in Horses, is of great importance, from its having a different coloured pigment from man, which alone has occasioned many mistakes, all the pigment or colouring matter below the optic nerve, being about one-third of the whole, is black, but above it is green and blue, and a distinct line separates them: the compound of this, in the living eye, gives it the appearance of sky blue, which, seen through the humours, is of *a greyish blue.* Horses frequently, and by very eminent men, have been pronounced unsound from having this grey cast or shade in the eye. The optic nerve having pierced these two coats within, the black covering is lined here with a little pigment; it is then distributed over the whole of the surface, as far as the junction of the opaque cornea with the ciliary processes. Now the cause of this variegated coat, and why it should occupy the superior part in particular, is, because the rays of light pass through the nerve going beyond the retina. In man, you know, from the colour of the pigment, the rays become absorbed, and thus ended; but in a pigment that is not black, they are not ended, but reflected back, striking the nerve a second time, and the effect must then be an

increased vision: and in the Horse, most especially, it, as a matter of course, follows, that the rays strike the nerve twice, *only at the upper* part, as it is there that the green pigment is situated; but these rays are obviously the weakest, especially when the Horse's head is near the ground, which is a natural position from his propensity to grazing; the black pigment also receiving the strong superior rays, and the green pigment being the weakest: thus, by this combination the rays are equalized, and sharp keen sight produced.

THE CRYSTALLINE LENS.

The crystalline lens is not exactly a perfect lens, the anterior side being rather the flattest; it is contained in a perfect capsule or bag, a fluid separating the capsule from the lens, which is called the *liquor morgagni* (from a person of that name, M. Morgagni, who first discovered it). This capsule does not adhere to the *tunica vitrea*, but is confined in its situation by the tunica vitrea, being reflected over its edge, at which part also it is surrounded by the choroid coat, formed into folds, called the ciliary processes. It was a doubt formerly how these parts grew, but that mystery has since been solved, on discovering that both arteries and veins are possessed in these parts; for as they grew, of course there must be materials required. But this was not in early times believed, in consequence of the parts being so very transparent, but the transparency depends upon the situation of its vessels and its organization; but this fine arrangement may be destroyed in a second, its organization lost and become opaque. The lens are not only flatter anteriorly, but it is not of the same structure throughout, the outer surface being like a mucus or jelly, but within it becomes harder, even to the centre; thus you at once see how the rays of light are bent from one degree to another, in in proportion as they approach the centre. From this cause, in conjunction with the iris conveying to the eye that singular property of acting both as *a microscope and a telescope*, which in no one instrument has been effected by man.

There have been many conjectures on this point; but my opinion is, it depends upon the lens, and there is one circumstance that bears me out; and that is, after the operation for cataract, the person so operated on, employs two sorts of glasses, concave and convex ones. But the iris now comes here under observation, as it alters under different effects of light. This is an involuntary power; but there is another power independent of light, for, if I will, to look at a minute object, though the light be weak, and consequently less stimulus, yet the pupil will become smaller, by the iris expanding; and looking at a large object in a strong light, the pupil will expand in defiance. The pupil being small, the rays (as in the first instance) are admitted and confined to those from the object alone. Thus there is no confusion of images on the retina, but the smallest object is seen, and, as in the last instance, when the object to be seen is large, the mind excites the iris to contract, that the rays may be admitted from all parts through the lens, for a perfect representation.

THE CILIARY PROCESSES.

In examining the *ciliary processes*, which appear to be a continuation of the choroid coat, that surround the capsule of the crystal-

line lens, and their formations appear to be that the circumference of the coat ending here, to embrace the lens; it, by which means is thrown into folds, in order to fit; something similar to the gathering of a shirt, at the wristband.

The vitreous humour is of a peculiar construction; though it appears to be a kind of jelly, it is not; but nearly of the same fluidity as the aqueous humour. This appearance arises from its being contained in cells, and not in a single capsular bag. This is proved by breaking the cells, the fluid then drops freely. It is also admirably formed, for being in contact with the expansion of the optic nerve, as it cannot alter its position, or be injured by pressure.

VISION.

The phenomenon of vision is at once curious and grand. In the first place, all objects to be seen require a sufficient quantity of light to render the nerve sensible; though different animals require different degrees, man of all animals requiring most, plainly demonstrated from the construction of the eye, it having a small transparent cornea, and a black pigment; thus proving we were intended to sleep much, and being gifted with brain and reason, we have no occasion to prowl about at night; for, in comparison with other animals, many of our senses are imperfect, such as hearing, seeing, and smelling; and so are our arms for flying; but we are as perfect as nature intended; that is, we do not require further protection. The vision to be perfect, must be painted on the retina; and here is a curious fact, that though we have two eyes, we see only one object; yet there is an object painted on each retina, but only one on the *sensorium*: but having only one sensorium, so that as long as the object is the same, there is only one impression formed; but immediately objects change, there are different impressions formed. All objects on the retina are painted upside down, so that it is evident the rays of light cross each other; for they meet in a point near the lens, and proceed through the vitreous humour nearly in the same right lines. This is proved by taking off the sclerotic coat, then placing a sheet of paper behind, with a candle before, the image becomes perceptible upon the paper. I have every reason to believe that objects are represented on the sensorium as they really are; and this appears no more difficult, than when there is an object upon each retina, there should be but one upon the brain: but to speak more correctly, I think the impression upon the sensorium, is no more than the knowledge that the objects are there; not really that there is an impression made there similar to that on the retina.

Having considered the structure and general laws of the eye, I shall proceed to explain the alterations to which the eye is liable; a knowledge of the parts was first necessary to be enabled to discover how alteration is produced. The eye of man is liable to many diseases, the Horse but few; but before we enter on the diseases of the eye, I will make a few observations on the

SOUND EYE.

As a blind Horse is well known, it is highly essential to be thoroughly familiar with the appearance of a sound eye; for it is only gained from practical experience. There is a peculiar kind of eye which dealers call a sour eye; this kind of eye the dealers know very

well is very much disposed to blindness; but they do not know why. The fact is, the predisposition arises from disease; it is the effect from attacks of inflammation, which produces a morbid degree of sensibility to light, from sympathy the retractive muscle is brought into action, and, consequently, the eye is drawn into its orbit, and appears small.

DISEASES OF THE EYE.

INFLAMMATION OF THE CONJUNCTIVA.

It will be remembered, the conjunctiva is that membrane lining the eye-lids, covering the cornea and the haw of the eye, inflammation of which is the most common disease the eye is subject to.

As regards this disease, then, the first thing to ascertain is, whether the transparent cornea is affected or not. One criterion is, the iris at the border of the pupil, not being seen without difficulty. We then direct our attention to the other, and not finding the pupils exactly alike as to size, &c., that which is the smallest you may pronounce diseased, the sphincter muscle of the iris being contracted through sympathy. Next notice the blood vessels of the membrane under the eye-lid; they will appear turgid, even if there is only one of those vessels shooting into the transparent cornea, it is a diseased eye. We must then direct our attention to the glandular bodies at the upper edge of the iris; if they are not alike in colour, you may predict the Horse will go blind, this effect being from a little lymph being lodged there from previous inflammation. The haw is likewise a criterion to go by, if the haw of each eye be not in a similar situation, but one protruding more than the other. These incipient appearances of one disease, are of great importance, as the Horse has but few diseases of the eye, and this being the one he is generally subject to, and it as frequently ending in blindness.

The Horse is generally attacked with this disease in the night time, and is then thought of but little moment, the groom supposing the eye to be injured by the halter, or by rubbing his eye against the manger, or some rough place in the stall; but I never knew the disease produced by a foreign body, and as to producing it by blows, it is exceedingly difficult to wound the eye; but if it should be occasioned by a blow, there will be an abrasion on the external surface, and on examining which, you will easily determine how to proceed.

Take Extract of Saturn 4 drams ($\frac{1}{2}$ oz.)
Spring water sufficient to fill a common sized wine-bottle.

Apply this lotion frequently every day. Or,

Take Sulphate of zinc - 1 oz.

And dissolve in the same quantity of water as above; either of which, if the inflammation

arises from a blow, will effect a cure in a few days.

This disease does not often attack aged Horses, if they have been exempt previously. Horses are most subject to it between four years and six years old, when their growth is becoming nearer complete; and, consequently, if highly kept, a plethoric habit is produced; the solids of the body ceasing to grow, the deposit being greater than the system requires. Young Horses are but little susceptible of this disease; I mean in early life. When an attack commences, if nothing be done to prevent it, the inflammation increases rapidly, until the pupil is hid, and the whole surface of the eye appears bloody. This, by proper remedies, may be wholly removed. These attacks fly from eye to eye; first in one eye, then in the other, probably at the interval of some months, till one or both eyes go blind. If one only be lost, the general opinion is, the other becomes perfectly sound, and is considered much stronger. All these facts prove it is not a local disease, but that it is constitutional, and that from its attacking first one eye and then the other. The causes of this disease I have no doubt is a poisoned atmosphere. I observe in these cases, either the Horses do not perspire at all, or they perspire profusely, from langour; so that it appears, when it does take place from plethora, the Horse then is in a languid state. This disease proceeds from the conjunctiva, until all the other parts partake of it, including the iris, which under the attack secretes pus, which falls into the posterior chamber, where absorption takes it up, or probably ulceration may take place. It is worthy of notice, that the constitution appears to undergo a change, when blindness ensues; for, this periodical opthalmia generally ceases when one or both of the eyes go out, although at first sight, one cannot tell how the constitution has been affected by the loss of this organ, or see a reason why the inflammation should not recur at intervals.

This disease may arise from the effects of purging; but purging only causes the constitutional tendency to the disease being brought into effect, and producing debility from the medicine which becomes the exciting cause; the disease then being constitutional, it will direct us to notice the proper remedies.

Take Blue pill - - 12 drams.
Opium - - 2 do.
Linseed meal - 1 oz.
Form into a mass with soft soap.

And divide into six balls. Give one every second morning fasting. Or,

Take Sulphate of copper 12 drams.

Or,

Take Sulphate of iron - 12 drams.

Take either of the above, and form into a mass with linseed meal and soap, and divide into six balls, and give one every morning about eleven o'clock. These two last are strengthening, and when the disease arises from debility, will be found of essential service. Bleeding generally, according to the strength of the animal, should not be omitted, but it will relieve it in all its stages, though not eventually cure it. The best thing in the shape of lotion I could discover, was the following:—

Take Common salt, a table-spoonful and a half.
Spring water, as much as will fill a wine-bottle.

Bathe the eyes several times in the day with the above; or, you may take either of the lotions prescribed for blows in the eye.

I have inserted setons between the jaws, which seemed to do good for a time; and I have derived the most satisfactory benefit by using the following:—

Take Tartar emetic - 1 dram.
Hog's lard - 1 oz.
Form into an ointment.

Rub a little on the side of the Horse's cheek, and also underneath the eye, until small pimples arise. Great care must be taken to prevent its going into the Horse's eyes.

CATARACT.

The common termination of the foregoing disease is cataract; which is a process of inflammation in the capsule of the lens, and the opacity is an effect from their disorganization, with apparently but little pain, from the paucity of nerves. The opacity invariably begins in the centre, from its being the hardest, and having less of the living power in consequence, so the circulation becomes more easily affected. There being no simple cataract in the Horse (as we fortunately have in the human subject), many appearances of the lens take place in cataract; in some, a general determination of blood to the coats of the eye, and irritation ensues. The retractor muscle then acts from sympathy, which produces pressure on the tunica vitrea, and the cells of the vitreous humour are destroyed, together with the capsule of the lens; and to prevent the lens floating about, lymph is thrown out, forming an artificial capsule. Consequently, by this action of the retractor muscle, the aqueous humour is pressed upon by the lens through the other parts, and this humour against the transparent cornea. To prevent the eye bursting, the humour becomes absorbed, the lens are thrown against the iris, the iris dilates, coming in contact with the transparent cornea; the pupil in consequence becomes lost. From these complicated effects, any attempt to operate would be difficult and useless. It has been performed several times at the Royal Veterinary College. But imperfect vision is useless, and detrimental to the Horse, which is ever always the case in operations for cataract, in the human subject; but imperfect vision to man is a blessing in comparison with loss of sight; for this may in a great measure be restored by the use of glasses; but I fear we should have some difficulty in fixing on glasses that would relieve the eye of the Horse.

GUTTA SERENA

Is another disease of the eye of the Horse, which appears to be paralysis of the optic nerve, it not being at all sensible to the light, though admitted through a perfect organ. It is much more common in the human subject than in Horses. In Horses I believe it to be connected with some affection of the brain. I have tried blistering behind the ears, on both sides, repeatedly, but without any success. I have also tried rowels between the jaws, and kept them open for a length of time, but still could do no good *.

* About the year 1815, a young veterinary surgeon, just emanated from the Royal Veterinary College, and who had not seen any practice previous to his going to that establishment, was called to a Horse (belonging to a quaker, a gentleman of the same town), affected with inflammation of

the eyes. Our tyro at once pronounced the necessity of taking blood; but being rather a timid operator, he, in striking the phleme, only just touched the jugular vein but slightly, the blood scarcely deigning to flow; consequently he pinned up that side, and proceeded to the other, with no better success. The consequence was, the Horse's neck was greatly swollen, and though it was well bathed, it had no effect; suppuration took place, and the Horse lost the vein on both sides: but while this was going on, the inflammation entirely left the Horse's eyes. The gentleman to whom he belonged kept him for two or three years after, but no inflammation ever returned. I saw the Horse five years after, but he had continued quite well and sound.

CHAPTER VII.

OF WOUNDS IN GENERAL; WOUNDS OF THE HEAD, CHEST, ABDOMEN, JOINTS, SHEATHS OF TENDONS, ARTERIES, AND VEINS; BROKEN KNEES; GUN-SHOT WOUNDS; AND SUTURES.

OF WOUNDS IN GENERAL.

Wounds are a species of injury, to which Horses are not only perpetually liable, but of so many different kinds, and requiring such various modes of treatment (according to the cause, appearance, situation, depth, and state of the wound, or habit of the subject), that to enumerate the whole, with all possible or probable circumstances, would be to write a volume on the article alone, which is certainly entitled to every degree of attention, from the simple and complex cases that so frequently occur.

Wounds may be divided into such a variety, that to enumerate the list of probabilities, would be to encounter the work of an age, and serve more to perplex than enlighten those not altogether adequate to the task of defining technical terms or professional descriptions. To enlarge upon every probable means by which a wound may be received, and from the variety of weapons, or stable instruments, is an absolute impracticability; we will, therefore, endeavour to define what wounds are; and then shew them in the most prominent features, with the best means of cure.

A wound may be defined to be a recent solution of continuity in the soft parts, suddenly occasioned by external causes.

Wounds (as we observed before), in general, are subject to a great deal of variety, both in their nature and external appearance. The differences depend in a very great measure on the nature of the injured parts, the manner in which the wound has happened, and its extent.

Wounds of fleshy parts are exceedingly different from those of tendinous ones, both in regard to their appearance and nature, and degree of danger. There is also an essential difference between such as are made with a sharp cutting instrument, and others, in which the fibres, besides being divided, have suffered considerable contusion and laceration. A wound made with a narrow pointed instrument, is also of a very different nature from one that has an ample orifice.

The degrees of danger, attending every wound, depends very much on some of the following circumstances:—

The extent of the injury, the additional violence which the fibres of the part have suffered, besides their division, the nature of the blood-vessels, or nerves, which happen to

be cut; the nature of the wounded part, in respect to its general power of healing, favourably or not; whether the operations of the system at large, and life itself, can be well supported or not, while the functions of the wounded part are disturbed, interrupted, or suspended by the accident; the age of the patient, the goodness, or badness of his constitution, and the opportunities which there may be of receiving proper aid and assistance of every kind.

INCISED WOUNDS.

As a general observation, we may state, that a wound that is made with a sharp, cutting instrument, which is in short a mere incision, is attended with less hazard of dangerous consequences, than any other kind of wound whatever. The fibres have only been simply divided; they have suffered no contusion, nor laceration; they are consequently less likely to inflame much, so as to suppurate and slough; and they commonly admit of being united again in a very expeditious manner.

LACERATED WOUNDS.

Lacerated wounds are those in which the fibres, instead of being divided by a cutting instrument, have been torn asunder by some violence, capable of overcoming their force of adhesion. The edges of such wounds, instead of being straight and regular, are jagged and unequal.

CONTUSED WOUNDS

Contused wounds is a term applied to those wounds, which are occasioned by some blunt instrument, or surface, which has violently struck a part of the body.

Lacerated and contused wounds differ from simple incised wounds, in appearing at first view much less alarming than the latter, while in reality they are much more dangerous. In simple cut wounds, the retraction of the parts and the bleeding, are generally much more considerable, than in a lacerated wound of the same size. However, notwithstanding these circumstances, they commonly admit of being healed with by far the greatest ease. It is even proper to remark, that lacerated and contused wounds are scarcely ever attended with any serious effusion of blood, even though some large blood-vessels may be injured. This is apt to lead persons, even practitioners astray; for, in proportion as there is little bleeding, you may safely conclude that serious violence has been done to the fibres and blood-vessels.

PUNCTURED WOUNDS.

A punctured wound signifies one that is made with a narrow pointed instrument, the external orifice of the injury being small and contracted, instead of being a size proportionate to its depth. A wound produced by the thrust of a sword or bayonet, affords us an example of a punctured wound.

Wounds of this description are in general infinitely more dangerous than incised ones, notwithstanding the latter have the appearance of being by far the most extensive. The greatest degree of danger, in cases of punctured wounds, always depends on the additional injury, and rough violence, which the fibres have suffered, besides being divided.

Some of the disagreeable consequences apt to follow, are also imputed to the frequent great depth, to which punctured wounds are liable to extend; in consequence of which circumstance, important parts and organs are

often injured. These cases are likewise less easy of cure, owing to the difficulty of extracting any extraneous substances which may happen to be lodged in the wound. All punctured wounds and stabs are at the same time dangerous, inasmuch as they are particularly apt to be followed by a great deal of inflammation, fevers, deep-seated abscesses, sinuses, &c

POISONED WOUNDS.

Wounds of this description are not very common in this country. The stings and bites of certain insects, and the bites of vipers, mad dogs, cats, &c., are the only instances which we meet with. The only insects to be dreaded are the stings of the wasp or the hornet. This, to appearance, is the most formidable creature of the winged tribe in Britain, the sting of which is attended frequently with the most acute pain and inflammation; even the sting of the wasp, should it occur where the skin is thin, such as the inside of the thigh, occasions extreme pain and irritation.

WOUNDS OF THE HEAD.

Wounds of the head of the Horse do not so frequently occur, as at first sight may be anticipated. The principal are wounds of the ears, the eye-lids, the nose, or the salivary gland or duct. The duct is situated at the angle of the jaw, where you feel the Horse's pulse. This duct is sometimes liable to be torn, and causing the saliva to escape, instead of passing on to the mouth to mix with the animal's food, and frequently occasions great debility.

From the situation of the parotid duct, and its liability to become wounded, what is called a salivary fistula may be the consequence, unless some steps are immediately taken to afford relief. The cheek and face become considerably swollen, in consequence of the saliva insinuating itself into the cellular substance. The plan to prevent this proceeding on, is to make use of the actual cautery: a budding iron is the best thing; after using which, draw the lips of the wound together with a suture, and apply adhesive plaister over the whole, in strips, about a quarter of an inch apart, first cutting the hair close off all round the part, or the plaister will not remain on long. Laceration of the Horse's ears sometimes occur; in such cases have your Horse cast, and cut off the lacerated part, and if it should not look at all eye-able, remove as much more to make it so; then crop the other ear to correspond. This is the only method you can pursue, as from the little vascularity of the ear, it being principally composed of gristle, you cannot expect union to take place. The eye-lids frequently become lacerated and very much torn, from nails or splinters of wood about the rack, manger, or standing. In this case you require a steady hand, a small curved needle, armed with whity-brown thread, and introduce sutures sufficient to bring the parts as much in contact, and as near to the appearance as they were before the accident had taken place. After which, use the following:

Take	Sulphate of zinc -	½ oz.
	Spirit of wine -	2 do.
	Water - - -	16 do.

Apply the above lotion to the parts affected three or four times a day. Wounds of the nose, or nostril, sometimes occur, which are exceedingly difficult to heal, in consequence of not always being able to apply proper reme-

dies. The only thing you can do here, will be to sew up the lacerated parts, and apply compound tincture of myrrh, as in a common wound.

WOUNDS OF THE CHEST.

These wounds are not infrequent, especially in large towns, where there is considerable movement with all kinds of vehicles; and either from obstinacy, or ignorance of the drivers, it frequently happens that the shaft of one carriage coming in contact with the Horse of the one he may chance to meet, enters his chest, and as a common result, the Horse dies immediately; but, if the shaft should fortunately pass between the shoulder-blade and the ribs, there is in that case a chance of cure. In the first place then, ascertain the depth of the wound, the force of the blood must also be immediately restrained by copious bleeding, and introduce a piece of tow well smeared with digestive ointment, into the wound, in order to procure a discharge as soon as possible. Keep the Horse without food for at least twelve hours; at the expiration of which time, give him—

Aloes - - - 4 drams.
Resin - - - 2 do.
Form into a ball with soft soap and linseed meal.

If by this time the parts should have become much swollen, bathe well with hot water, and if the discharge be once effected, you may be sure your Horse is going on well, and you have only to continue the dressing, with the medicine occasionally, and you will soon effect a cure. But should the wound not be made in the direction before named, but enter the cavity of the chest, and the lungs become in any means ruptured, the case is then hopeless; this you will easily ascertain by air rushing out of the wound, and by the peculiar scarlet hue of the blood.

If swelling should take place between the legs, or under the chest, take your phleme and strike it, to let out the air which has been extravasated.

WOUNDS OF THE ABDOMEN.

These wounds generally arise from being gored with the horns of some mischievous bull or cow, whilst in the field, or by being staked, and not infrequently by some of the hooks attached to the harness, generally occasioned by the carelessness of the man or boy who have to look after them, and especially if the stable door should not be sufficiently wide, which is frequently the case with most of our farmers' stables; these wounds also frequently occur in the Horse Artillery, from the violence of temper, sometimes both of man and Horse. I have known the hooks attached to the tackle occasion some frightful lacerations; and on one occasion locked-jaw supervened.

These wounds frequently penetrate the cavity of the abdomen, this of course is attended with much danger; if any of the intestines should protrude, carefully replace them, unless they should be very cold, or mortification appear, in which case procure some warm water, not too hot at first, and bathe the parts well, and by degrees making the water warmer, until you get nearly to blood-heat; then, after returning the intestine, sew up the external wound, and apply a roller padded to the part: you must refrain from giving food or water, but give clysters of gruel, and also gruel as a draught, but this but sparingly at first; when you remove your roller, do so with the

greatest of caution, and if appearances are favourable, apply over the wound a plegit of tow, and a large adhesive plaister over the whole; then, again your padding and roller as before, in this case bleed copiously as soon as you have adjusted your first dressing; if mortification should have taken place, the Horse will soon give you sufficient proof of it; but, should better fortune attend you, you must bring him on by degrees, and not commence feeding him too freely for some time.

WOUNDS OF JOINTS.

Wounds of the large joints, made either by puncture or incision, are of a very dangerous nature, as these parts are surrounded with tendinous and membranous structures; which, though not very sensible in a sound state, yet, when inflamed become exceedingly sensible, often attended with vehement pain and fever.

Superficial wounds of the joints are often disagreeable cases; but the danger is always increased when the injury penetrates the capsular ligament. This event may be detected by the introduction of a probe, and frequently by a discharge of the synovia, which is secreted by the inner membrane of the capsular ligament of the joint, for the purpose of facilitating its motion. But as a discharge of a similar kind may proceed from mere wounds of such (bursæ mucosæ) synovial bags, such as windgalls, &c., that lay under the tendons of muscles, in the vicinity of joints, our judgment might be deceived, were we unacquainted with the situation of these little membranous bags. Wounds which penetrate large joints, must be looked upon as much more dangerous, than those in which only these *bursæ* are opened.

Almost all the joints of the Horse are liable to be laid open, and their cavity exposed. I have seen the stifle, the pastern, and knee, at one time, completely exposed; but the knee joint is, of all others, the most frequently liable to this accident; it does sometimes occur to the shoulder joint, but this very rarely. When a joint is penetrated, there is an escape of synovia, or, as it is commonly called, joint-oil; now, in consequence of the escape of this fluid, it brings the ends of bones together, occasioning, in conjunction with the air getting in, considerable inflammation through the whole extent of the capsular surface, causing that exquisitely tender sensation the Horse feels, on having the joint touched; in some cases the fever runs so high as to prove fatal *. When a joint is early discovered, after being penetrated, the synovia will flow white and pure, or it may have a little tinge of blood in it; but, if the accident is not discovered for three or four days, you will find the joint-oil to put on a yellowish colour, and the discharge be considerably increased. If means be not speedily taken to close the external opening, coagulable lymph is thrown out, and in consequence of the inflammation being great, the vessels may inosculate together, and in all probability a stiff joint might supervene. In some cases, the pain and irritation are so great, that the animal either sinks under it, or becomes a mere skeleton. But, this in a great measure is not to be looked at with so much surprise, when we come to

* I recollect, whilst at the Royal Veterinary College, a large cart-horse was brought in with an open joint, ultimately the opening closed, new granulations formed, and a wound about the size of half-a-crown was the consequence; this wound was ordered to be dressed with spirits of turpentine, which was accordingly done, but from symptomatic fever, the Horse died in three or four days.

examine into treatment, the old farriers have generally adopted, by applying in general strong stimulants, taken from their long list of infallible nostrums.

The treatment of open joints, if discovered in their recent state, may not be so difficult: our first care is to remove all extraneous matter, such as dirt, gravel, &c.; you next proceed to the closing of the wound, which must be first commenced by clipping off the hair for some distance all round the wound, if not large, and apply strips of adhesive plaister, drawing the lips of the wound as close as possible together, over which place a plegit of tow, and immediately after a linen bandage, about three yards long, and four inches wide, so that the shutting up of the cavity may be complete; in addition to which, the symptoms of irritation, both local and general, must not be neglected; for if the symptomatic fever should be high, we must treat the Horse accordingly; this you will discover by his breathing short, loss of appetite, heat and dryness of the mouth, as well as the quickness and weakness of the pulse; if such should be the case, immediately take from two to four quarts of blood, and give the following:

No. 1.

Take Aloes, Cape - - 1 dram.
Digitales - - - 2 do.
Linseed Meal - - 3 do.
Form into a ball with soap.

Give a ball of the above kind night and morning, until the fever and irritation is abated.

Or, No. 2.

Take Cape aloes - - 1 dram.
White hellebore - 1½ do.
Linseed meal - - 3 do.
Form into a ball, and give as the first. By these means you will allay the irritation, and decrease the fever, and the frequency of the pulse also.

When the wound is more extensive, or more irregular, we must then employ sutures with the plegit of tow, as before described, and to well bandage the part, also every means must be taken to keep the Horse as still as possible; use a neck cradle, fearing from the irritation he may be inclined to gnaw the part affected. If these means have not the desired effect, we must have recourse to the actual cautery; and, if the opening be not too large, the budding iron is as good shaped one as you can use, touching the edges lightly: if the wound should be larger and irregular, use one of your firing irons carefully. I have known these means succeed when all others have failed. Have your iron heated to a dull red heat, which will be quite sufficient, and be careful not to insinuate it too far, as you may have considerable inflammation follow: you can easily judge when the cautery has been sufficiently applied, by the stoppage of the synovia, over which put a plegit of tow, and a poultice of bran, wetted frequently with the following:

Take Sal ammoniac, powdered - 4 ounces.
Sugar of lead - - - - - 1 do.
Vinegar - - - - - - - 3 pints.
Water - - - - - - - - 1 do.

If the oozing of synovia recommences, by no means hesitate to apply the iron again; and, as often as the oozing appears, repeat it, by which eventually success may be calculated on. In some aggravated cases I have blistered immediately, and that with good effect. Rowels are sometimes employed as near the

part as convenient, but in these I have no faith. Give bran mashes, or half bran and oats made damp: if you should have much difficulty in giving the Horse the fever balls,

Take Glauber salts - - 4 ounces.
Linseed meal - - 2 do.
Hot water - - - 1 quart.

Mix well together for a drink, which repeat morning and night: in mixing your meal with the above, do so first in a bason with a little *cold water*, it will prevent its clotting together.

WOUNDS OF THE SHEATHS OF TENDONS.

Wounds of the sheaths of the tendons, both behind and before, frequently occur during hunting, staking, stubbing in coppices, or from cuts or injuries from the stable-fork; should any of these occur, so that the tendons become wounded, it is attended with considerable pain and inconvenience. For the treatment of these accidents, it will differ in no respect whatever from that laid down in the description of wounds of joints.

WOUNDS OF THE ARTERIES.

The Veterinary practitioner ought to have an intimate knowledge of the course of the arteries, in case of performing operations, that he may avoid wounding them: there are several methods of stopping the flow of blood, which is apt to alarm the junior practitioner, and by so doing occasions fear, and a nervous feeling to come over him to the great detriment of, and sometimes proving fatal to his patient; however, we would recommend him at all times to be perfectly cool and collected; and, as observed before, make himself well acquainted with the course of the arteries. Bleeding from arteries are stopped generally by *compression* and *astringents*, by *ligatures*, by the *actual and potential cautery*, sometimes by *styptics*, and not unfrequently, if the artery be only wounded, to divide it altogether.

It must be plain to every one who understands the course of the circulation, that pressure made on that part of a wounded artery, which adjoins the wound towards the heart, must check the effusion of blood. The current of blood in the veins, running in the opposite direction, requires the pressure to be applied to that side of the wound which is most remote from the heart; as pressure is the most rational means of impeding hemorrhage, so it is the most effectual, and almost all the plans employed for this purpose are only modifications of it. The ligature, the application of a roller and compresses, only become useful in the suppression of hemorrhage on the principle of pressure, the cautery, caustics, and styptics excepted.

We have already remarked, that all the best means of checking hemorrhage, operate on the principle of pressure, the actual and potential cautery, with some styptics excepted; the two first of which act by forming a slough, which stops up the mouth of the vessels.

Let us next consider the various modes of pressure. The different things that have been praised as infallible, would seldom or never have succeeded without compression. It was always requisite, even when caustics were used, to employ compression, which were bound on with sufficient tightness to resist the impulse of the blood in the artery and the premature separation of the eschar, occasioned by the actual or potential cautery.

When the blood does not issue from any particular vessel, but from numerous small ones, compression is preferable to the ligature.

The employment of the latter would render it necessary to tie the whole surface of the wound. The sides of the wound are to be brought accurately together, and compresses are then to be placed over the part, and a roller to be applied with sufficient tightness to make effectual pressure, but not so forcibly as to produce a danger of the circulation of the limb being completely stopped. If compression can ever safely be trusted in bleedings from large arteries, it is when these vessels lay immediately over a bone, against which they can be advantageously compressed.

The *ligature*, being well known to be a means of stopping hemorrhage, which is safe and easy, and much less painful than former methods, we need not longer search for such remedies. It may indeed be set down as a rule, whenever large arteries are wounded, never to trust to any styptic application whatever; but to have immediate recourse to the ligature, as being, when properly applied, the most simple and safe of all methods. In explaining the action of the ligature, when applied round an artery, without including the surrounding parts, the internal coat of the vessel is torn through by it—experiments which I have tried on the arteries of Horses and dogs; if the ligature be tied round with sufficient tightness, it will cut through its inner and middle coats, although it be immediately removed, the vessels always become permanently impervious at the part which was tied as far as the first collateral branches, above and below the obstructed parts. This division of its internal and middle coats, produces an obstruction to the circulation of blood through its canal.

There must be a small quantity of stagnant blood, just within the extremity of the artery; but this does not, in every instance, immediately form a coagulum capable of filling up the canal of the artery; in most cases, only a slender coagulum is formed at first, which gradually becomes larger by successive coagulations of the blood; and hence the coagulum is always at first of a tapering form, with its base at the extremity of the artery. But the formation of this coagulum is not material, for, soon after the ligature has been applied, the end of the artery inflames, and the wounded internal surface of its canal being kept in close contact by the ligature, adheres, and converts this portion of the artery into an impervious, and at first conical sac. It is to the effused lymph, that the base of the coagulum adheres, when found to be adherent. Lymph is also effused between the coats of the artery, and among the parts surrounding its extremity. In a little time the ligature makes the part, on which it is directly applied, ulcerate, and, acting as a tent, a small aperture is formed in the layer of lymph effused over the artery. Through this aperture, a small quantity of pus is discharged, as long as the ligature remains; and finally, the ligature itself escapes, and the little cavity, which it has occasioned, granulates and fills up, and the external wound heals, leaving the cellular substance a little beyond the end of the artery somewhat thickened and indurated; but, if it should be in a situation where you can apply a bandage, it ultimately becomes absorbed.

As all *styptics* are not to be depended on, as before stated, the judicious practitioner seldom will apply them, as they generally tend to irritate, and seldom do good: they are sometimes, however, proper to employ to diseased surfaces, where the vessels seem to have lost their natural power, or disposition to contract

Firing, or the *actual cautery*, is an excellent styptic to stop the bleeding of an artery, as in docking, castration, &c. It is generally resorted to as the safest styptic, also in operations of festulous withers, frequently in dissecting out fungus flesh you are apt to wound a number of small arteries: the actual cautery is the only means you here can employ with any good effect. In these cases keep the Horse's body open with alterative medicines; such as the following:

Take Cape aloes - 2 drams.
Sulphur - - 3 do.
Form into a ball with soft soap,

and give one occasionally; feed with half bran and half oats made damp.

WOUNDS OF THE VEINS.

Wounds of the veins generally arise from incautiousness in blood-letting, though the operation is performed by some of the greatest bunglers that possibly could take a phleme and blood-stick in hand, without having any ill effects arise. Still, it may happen on some occasions, to the most experienced practitioner, either from inattention in pinning up the orifice, such as drawing the skin a considerable way out, or not adjusting the lip of the wound equally together, so that blood becomes extravasated into the surrounding cellular membrane; also it may arise from the foul constitution of the Horse, when every little scratch or wound will have a tendency to inflame and suppurate; if this should be the case, apply the following:

Take Sal ammoniac - - 1 oz.
Extract of Saturn - ½ do.
Vinegar - - - 1 pint.
Water - - - - 1 do.

Shake these well together in a bottle, and apply frequently during the day. If absorption takes place, and the parts regain their former appearance, all is well; but if the tumour suppurate, and you feel a fluctuation on pressing the part, make a depending opening, or introduce a seton through it. But if the vein itself should take on the inflammation, it must arise from rusty or unclean phlemes; and, in all probability, the vein may be punctured through, in consequence of driving the phleme with too great violence in the act of bleeding; also, the Horse being suffered to have his head at liberty immediately after bleeding, instead of being tied up for at least two or three hours, the pin causing an irritation, he becomes inclined to rub against any thing that is in his way, such as the edge of the manger, &c. Sometimes the constitution will take on this morbid action as before stated. This disease begins to make its appearance in about two or three days after the operation of blood-letting, by a small tumour at the situation of the orifice, the lips of which unclose and look red with a sort of ichorous discharge issuing, and sometimes blood itself will escape. In this case, if the progress be not stopped, the tumefaction extends along the course of the vein towards the head; the vessel becomes hard, and the contained blood in the trunk forms into a firm coagulum, by which it becomes impervious, and all attempts to save it becomes afterwards a failure. Suppuration of the tumour now begins to make its appearance, sometimes not in the immediate part where the original puncture took place; abscesses will form in various situations above. If not taken in time, the morbid action extends upwards so as to involve the head on that side as well as the neck

in the disease ; and when this occurs, it greatly interferes with the Horse's eating and drinking. In this disease the symptomatic fever is apt to run high, and, from the excess of irritability brought on, the Horse frequently falls a victim.

The treatment of this disease is altogether difficult, and frequently doubtful. It has been by some writers thought, that in the early stage of the disease, the better plan would be to close the venial orifice, which is to be done by the application of the budding iron applied to the outer edge of the orifice. What good this is to do I really cannot tell ; because if you occasion sloughing of the part, that does not remove the main disease, only it may have a tendency to heal the orifice without having any connexion with the vein where the disease may be going on all the time, to a very considerable extent : it is also said, that the ichorous oozing once being stopped, the vein will become in all respects as it was at first : but this I deny ; for if the vein once takes on inflammation, its obliteration is certain to follow. Nor is this of so much danger as many persons would have you believe ; for there are a number of branches that will enlarge for the return of the blood from the head, &c. Still, in such cases, keep the Horse's head tied up, so that he have as little motion as possible.

Now, my plan, that I have always pursued in these cases, has been, instead of using the cautery to heal up the original wound, to keep that wound open, then introduce a probe as far up the course of the vein towards the head as you can ; then feeling down upon the end of the probe with your finger, cut down on the course of the vein about an inch above the end of the probe, and apply a ligature firmly on. Then take a probe-pointed bistory, slit up the length of the vein that may be obliterated, let this wound be well washed with warm water, and apply a suture or two, and a piece of tow or tape dressed with digestive ointment until suppuration takes place ; after which, in all probability, the sutures will come away, when dress as a common wound with compound tincture of myrrh. If abscesses or sinuses become formed before you are applied to, your better plan then is to introduce setons, so that the matter formed may escape by a depending orifice. Sometimes these sinuses take on an indolent manner, and become very troublesome : in such a case, inject them with a solution of sulphate of zinc, which will generally be found sufficiently strong to answer all purposes ; say,

Take Sulphate of zinc - 1 oz.
Water - - - - 4 do.

Let the water be warm, and dissolve the sulphate of zinc in it ; this injected into the sinuses will be found of great service, and less irritable than corrosive sublimate, copperas, &c., &c. During the application of the foregoing remedies, give the Horse the following :

Take Blue pill - 8 drams.
Cape aloes - 8 do.
Resin - - 8 do.
Form into a mass with linseed meal and soft soap.

Divide into six balls ; give one every second morning, first thing on going to stable.

It sometimes happens that the plate and thigh vein may take on inflammation, in consequence of the phleme being driven in too far, and puncturing the facia and parts underneath

the vein. Should such occur, the best application is, to bathe well with hot water five or six times a day, and give the following:

Take Cape aloes - 4 drams.
Resin - - 2 do.
Form into a ball with soft soap,

and give one every second day, until the symptoms abate.

BROKEN KNEES.

Horses, in the act of falling, endeavour, as much as possible, to save their head from coming in contact with the ground; but if not able in time to put forth their fore-leg to prevent this concussion of the head, the knees generally become the sufferers, and, in some cases, to a very considerable extent; producing great laceration, open joint, and, at least, shaving, as it were, the hair completely off the knee to a greater or less extent.

Should the cavity of the knee be opened, and *joint oil* escape, sufficient instructions as to method of treatment has been amply given in the article, "Wounds of the Joints," which we beg to refer our readers to. But when the laceration only extends to the skin, you must treat accordingly, there being only one safe, and, we should say, proper mode of treatment. In the first place, avoid all irritating applications; but instead of which, procure a bucket of hot water, bathe the knee and surrounding parts well, for at least half an hour, then apply a poultice composed of linseed meal and warm water, which continue until the inflammation is subdued; after which apply the following:

Take Extract of Saturn - - - 2 drams.
Tincture of myrrh, compound 2 oz.
Water - - - - - - - 3 do.

Apply this mixture to the wounded knees every time you visit the stable, and when you have, by this application, produced skinning over, apply a mild blister to the part, which will prevent, in many bad cases, even the appearance of a scar, if well managed.

This being accomplished, the next thing is to promote the growth of the hair, for no gentleman is fond of riding a Horse that has once been down, let him be ever so good, unless the hair is well grown over the parts again. Many recipes are given to make the hair grow, most of which are useless; for nothing acts specifically in this way: whatever gently stimulates the skin is the most proper for this purpose; for which you may use a little of the digestive ointment every day, and, by the by, it is an article no stable ought to be without; or use the following, especially if the knees be black:

Take Digestive ointment - - 1 oz.
Gunpowder, rubbed fine - 1 dram.

Mix and rub some of it on the part daily.

OF GUN-SHOT WOUNDS.

Gun-shot wounds are made by the projection of hard obtuse bodies from cannons, muskets, &c.; but the latter fire-arm occasions by far the greatest number. These wounds are the most considerable of the contused kind, and what is to be said of them, will apply, more or less, to all contused wounds, according to the degree of contusion. Daily observation evinces that balls which obliquely strike a surface, do not penetrate, but are reflected, though they may be impelled with the greatest force, and the body struck may be as soft and yielding as water. This alteration in the course of the ball, not

only happens on the surface of the body, but also in the substance; for a bone or tendon, &c., may change the direction of a ball, which touches them at all obliquely. Hence it is manifest, how it happens that the track of a gun-shot wound is not always straight, and how the balls sometimes run under the integument for a considerable distance, both in the body and limbs.

A ball, when it strikes a part of the body, may cause four kinds of injury: first, it may only occasion a contusion, without penetrating the part, on account of its being too much spent, or of the oblique way in which it strikes the surface of the body. Secondly, it may enter and lodge in the surface of a part, in which case, the track of the wound has only one aperture. Thirdly, it may pierce through and through, and then there are two openings, one at the entrance, the other at the exit of the ball: the circumference of the aperture, where the shot entered, is usually depressed; that of the opening, from which it comes out, elevated: at the entrance, there is commonly more contusion than at the exit of the ball: the former is generally narrower; the latter, wider, and more irregular, especially when the round smooth figure of the ball has been changed by its having struck a bone. Fourthly, a cannon ball may tear off a whole limb.

Gun-shot wounds differ very much, according to the kind of body projected, its velocity, and the nature and peculiarities of the parts injured. The projected bodies are mostly bullets, sometimes cannon balls. From the contusion which the parts suffer, on the violent passage of the ball through them, there is most commonly a part of the solids surrounding the wound deadened, which is afterwards thrown off in the form of slough, and which prevents such wounds from healing by the first intention, and makes most of them necessarily suppurate. This does not take place equally in every gun-shot wound, nor in every part of the same wound, and the difference commonly arises from the variety in the velocity of the body projected; for, where the ball has passed with little velocity, which is sometimes the case at their entrance, but still more frequently at the part last wounded, the injury may often be healed by the first intention.

Foreign bodies are more frequently met with in gun-shot wounds than any others, and are commonly of three kinds. First, pieces of clothing, leather, part of a girth, or other things which the ball may have forced before it. Secondly, the ball itself. Thirdly, loose splinters of bone. It is only when the ball strikes a naked part, does not touch a bone, but goes through and through, that the wound can be free from extraneous matter. Foreign bodies are the cause of numerous unfavourable symptoms, by irritating sensible parts, and exciting pain, inflammation, hemorrhage, and long suppurations, &c. They are constantly more productive of such evils, the more uneven, pointed, and hard they are. Hence spicula of bone are always most be dreaded.

When a ball strikes a bone, the concussion produced is another occasion of bad symptoms to be added to those already mentioned. When slight, its effects are confined to the part injured. Sometimes they extend to the neighbouring joints, in which they produce considerable inflammation, frequently abscesses, and, in many cases, stiff joint, rendering the animal ever afterwards useless.

From the circumstance of the inner surface of gun-shot wounds being more or less dead-

ened, they are late in inflaming. But when a ball has fractured a bone, which fracture has occasioned great injury of the soft parts, independently of that caused immediately by the ball itself, the inflammation will come on as quickly as may be wished; because the deadened part bears no proportion to the laceration, or wound in general.

When the ball moves with little velocity, the mischief is generally less; the bones are not so likely to be fractured, and the parts are less deadened. However, when the velocity is just enough to splinter a bone which is touched, the splintering is generally more extensive, than if the impetus of the ball had been much greater; in which case it would rather have taken a piece out. When the ball moves slowly, it is more likely to be turned by any resistance it may encounter in its passage through parts; and hence, the wound is more likely to take a winding course. When a ball enters a part with great velocity, but is almost spent when it comes out again, in consequence of the resistance it has met with, there may be a good deal of sloughing about the entrance, and little or none about the exit, owing to the different degrees of celerity with which the ball traversed the parts.

As the ends of the torn vessels are contused and compressed, gun-shot wounds have little propensity to bleed much, and unless very considerable vessels are lacerated, they do not bleed at all: sometimes not in this case. The greatest danger of bleeding is always when the dead parts are detached eight or ten days after the injury. Angular uneven bodies, such as pieces of iron, cut lead, &c., always occasion far more dangerous wounds than round even bodies, like leaden bullets. Wounds occasioned by a small shot are frequently more perilous than others produced by larger balls, because their track is so narrow, that it cannot be traced, nor consequently the extraneous body itself extracted. Such a shot oftentimes injures a viscera, when there is not the smallest external symptom of such an occurrence. Sometimes a great part of the danger also arises from the number of shots which have entered.

TREATMENT OF GUN-SHOT WOUNDS.

The first thing to be done is to ascertain, if possible, the extent of the wound; which is at all times best done with the finger, in preference to a probe. Besides, in extracting the ball, or any pieces of harness, &c., the finger will act as a director; these, if possible should be at once extracted. If extraneous substances remaining in the wound, either loosen gradually, and come into view, so as to be easily removable; or they continue concealed, prevent the cure, and frequently give birth to a fistulous ulcer. In some instances the foreign bodies remain in during life without inconvenience; and in other cases, after a time, they bring on a renewal of inflammation and suppuration. Sometimes a foreign body varies its situation, sinking down, and afterwards making its appearance at a different part, where it may excite inflammation and suppuration.

When the ball lodges in the wound, it is difficult to trace it, as the parts collapse after its passage. The ball does not regularly take a straight directi n through the injured part, but oftentimes a very tortuous one. The latter circumstance is more apt to occur as the ball is more spent. In every case in which it is not easily discoverable, all painful examinations should be abandoned, and the foreign

body left in its situation, where it rarely creates any trouble.

Sometimes, the ball may be both easily found and extracted; at other times, it lodges on the opposite side of the leg, just under the skin. If the integuments under which the ball is lodged, should be so contused that they will probably slough, they are to be considered as already dead, and an opening is to be made in them for the extraction of the ball. But when the ball lies so remotely from the skin, that it can only just be felt, and the skin itself is quite uninjured, no counter opening ought to be made. The wound heals better when the ball is left in, and far less inflammation takes place in the vicinity of this extraneous body, than about the orifice of the wound. A counter opening always renders the inflammation at the bottom of the wound as great as at its orifice. It is better to let the wound heal up, and extract the ball afterwards.

As a certain portion of the parts surrounding the orifice made by the ball, become bruised, consequently sloughing, must be expected, parting the bruised or dead bodies from the living; in some cases this takes some time, and should be hastened on, by applications such as the following:

Take Oil of turpentine - 3 oz.
Olive oil - - 3 do.

Shake well together in a bottle, and rub some on for a distance of six inches all round the wound. This will stimulate it to put on the suppurative process. Apply a tent in the wound, smeared over with the common digestive ointment: when the suppurative process appears too great, desist from rubbing on the liniment, and apply a lotion, as follows:

Take Alum - - 1 oz.
Sulphate of zinc - 2 drams.
Water - - 1 pint.
Dissolve the alum and zinc in the water,

And apply two or three times in the day. The Horse should be supported well; for, in general these cases come at a time when provender is short, as in time of warfare, &c. I should not recommend bleeding in gun-shot wounds, unless the symptomatic fever should run high, and even then do it with caution; for it frequently happens, when the sloughing takes place, the wound bleeds rather more than we could wish. In such cases you must apply your astringent lotion. As before stated, you must keep your Horse well, or you will be in a great measure disappointed. Give the following every morning:

Take Sulphate of iron - 10 drams.
Ginger - - 12 do.
Gentian - - 12 do.
Linseed meal - 6 do.
Form into a mass, with soft soap,

And give as above directed.

ON SUTURES.

In the treatment of wounds, sutures have been frequently mentioned: it may not be improper to name those principally in use, and the method of applying them. A suture in surgery means a mode of uniting the edges of a wound, by keeping them in contact with stitches.

The Interrupted Suture. The wound being cleansed of all clots of blood, and its lips brought evenly into contact, take a curved needle, armed with a ligature of thread

doubled, or good twine; commence by carefully passing your needle from without, inwards to the bottom, and so on from within outwards. Care must be taken to make the puncture far enough from the edge of the wound, lest the ligature should tear quite through the skin and flesh. The other stitches are only repetitions of the same process. The threads having been all passed, you are in general to begin tying them in the middle of the wound; though if the lips of the wound be carefully held together by an assistant, it will not be of great consequence which stitch is tied first. The common rule is, that one suture is sufficient for every inch of the wound; but that in some instances a stitch must be more frequently made, particularly when a wound gapes very much, in consequence of a transverse division of muscles. As we have already explained, it is necessary to pierce the skin at a sufficient distance from the sides of the wound, lest the thread should cut through the flesh in a short time; the distance I generally use is about three or four-tenths of an inch. When a wound is very deep, it would be conspicuously absurd, and even, in many instances, dangerous, to drive the needle through a vast thickness of parts. Other wounds, of considerable length, might not be in some places four-tenths of an inch deep, though it is true, sutures (the interrupted one at least,) could never be requisite at such points.

The interrupted suture obviously receives its name from the interspaces between the stitches; and it is the one most frequently employed. Its action is always to be assisted and supported, either by bandage, if the wound be in the limbs, or in other situations, by adhesive plaister, &c.

The Glover's Suture. This had also the name of the continued suture. It was executed by introducing the needle first into one lip of the wound from within outwards, then into the other the same way, and in this manner the whole track of the wound was sewed up. But the glover's suture is now almost got into disuse, as improper to be employed in cases of common wounds. When we remember, in making this suture, how many stitches are unavoidable, how unevenly, and in what a puckered state the suture drags the edges of the skin together, and what irritation it must produce, we can no longer be surprised at its now being never practised.

The Twisted Suture is not very applicable to the Horse, though by some writers it is recommended for certain wounds, as the eyelids, lips, nostrils, &c.: it may be advantageous in some cases, but I prefer the interrupted to all others, and on all occasions.

CHAPTER VIII.

OF ULCERS IN GENERAL; ON POLE-EVIL; FISTULOUS WITHERS; ULCERS IN THE MOUTH; STRANGLES; AND VIVES.

OF ULCERS IN GENERAL.

Ulceration is the process, by which sores, or ulcers are produced in animal bodies. In this operation the lymphatics appear to be at least as active as the blood-vessels. An ulcer is a chasm formed on the surface of the body by removal of parts back into the system, by the action of the absorbents. At first, it may be difficult to conceive how a part of the body can be removed by itself; but there is not more difficulty in conceiving this, than how a body can form itself. Both facts are equally well confirmed. When it becomes necessary that some whole living part should be removed, it is evident that nature, in order to effect this object, must not only confer a new activity on the absorbents, but must throw the part to be absorbed into a state which yields to this operation. The absorption of whole parts in disease, arises from several causes, but those we have principally to contend with, either arise from the parts becoming bruised, or from constitutional irritability.

Ulceration, or in other words, absorption, takes place much more readily in the cellular and adipose substance, than in muscles, tendons, nerves, and blood vessels. Hence, in the progress of pus to the surface of the body, ulceration often takes a circuitous course, for the purpose of bringing the matter to the skin. The skin itself being highly organized, considerably retards the bursting of abscesses. It is on this same account, that when ulceration is spreading, the edges of the skin hang over the ulcerated part.

When ulceration takes place, in consequence of the death of an external part, it occurs first on the outer edge, between the dead and living substance.

Abscesses constantly make their way to the surface of the body by ulceration; but as some textures more readily admit of being absorbed than others, the matter often follows a circuitous course before it can arrive at the skin, hence showing the cause at once why sinuses becomes formed.

The parts which are situated between an abscess, or any extraneous substance, and the nearest surface, are those which are most susceptible of ulceration. This is one of the most curious phenomenon connected with the process under consideration. It shows that there is a principle in the system, by which parts are always prone to free themselves of disease. Slight pressure from without will even produce a thickening of parts, such as pressure from the saddle, the harness, &c.;

there is frequently a thickening in the parts, but, though this may occur, still there appears to be a corresponding backwardness to admit disease.

There is one difference between the advancement of an encysted tumour, to the surface of the body, and the progress of an abscess in the same direction, viz. that the former does not excite ulceration of the cyst, but an interstial absorption of the sound parts, between the cyst and the skin, till the cyst and the external skin come into contact: at which period inflammation takes place, and absorption becomes accelerated into ulceration. In an abscess, the progressive ulceration begins in the cyst, at the same time that the interstial absorption, in the second part covering the matter, is going on. The action of progressive absorption is to remove surfaces contiguous to irritating causes, as in case of tumours, pressure becomes a cause.

That pressure is a frequent cause of ulceration, is daily proved by the effects of harness on Horses, &c.

That irritating substances produce ulceration, need no illustration.

Progressive absorption may occur, either with or without suppuration. We have instances of the latter, in cases of extraneous bodies which travel about the body, without producing irritation enough to give rise to the secretion of pus.

Absorption, with suppuration, in other words ulceration, either happens in consequence of suppuration already begun, in which event the pus acts as a pressure, or else absorption attacks external surfaces from particular irritations, or weakness, in which suppuration must follow.

An Ulcer is usually defined to be a solution of the continuity, in any of the soft parts of the body, attended with a secretion of pus, or some kind of discharge.

The principal ulcerations to which the Horse is most liable, is pole-evil, fistulous withers, ulcers of the mouth, and strangles; we shall endeavour to give our opinion first.—

ON POLE EVIL.

This, of all ulcers, is the most troublesome the Horse is liable to, and the surgeon has to contend with; for, though the veterinary surgeon may complete a cure, the time and expense incurred, neither remunerates him for his applications and trouble, or does it gain him any credit in his professional career. The old farriers in this disease, went violently to work with all the scalding materials the druggists shop could turn out, but the milder means adopted by the modern veterinary practitioner, has in a great measure done away with that unskilful and unsurgical mode of treatment; still it happens, unfortunately, that this disease does not come under the notice of the veterinarian until the village farrier has expended all his recipes and knowledge on the poor animal, for it is more than ten to one, if they know any part that is really affected. However, we will endeavour to point out to our readers the nature and real situation of pole-evil.

Pole-evil, then, is an unhealthy inflammation, which takes place at the back of the ears from blows or bruises, or other injuries the Horse is liable to sustain on that part, and especially with farm or cart-horses, and more so where you have not got the best disposed carter, for these men, when in a passion, will strike a Horse about the head with the butt-end of the whip, stick, &c., which ever they may chance

to have in their hand. I have seen a Horse knocked down senseless, with comparatively a slight blow at the back of the ears. Now, there is a mucus capsule at the conjunction of the head, with the first bone of the neck, over which passes the *ligamentum colii*, or as the farriers' term it, the *pax-fax* of the neck; these parts from blows, &c., take on inflammation, and hence an ill-conditioned ulcer is formed, and from its situation being near the head or knowl, it is called pole-evil. Chesnut Horses are more susceptible to this disease than any other; at least, so I have observed in my practice, and this I attribute to the delicacy of constitution of light chesnut Horses, more than any thing else. There is scarcely a case of pole-evil that, either directly or indirectly, arises from constitutional means; though hay-seeds about the head may induce the Horse to rub, and in consequence produce irritation; dragging back in the halter may occasion bruises, all of which may produce ulceration. For the treatment of pole-evil when first discovered, (and that requires either the eye of the master or some professional man to notice, for your servants will rarely tell you of the disease in its early stage, especially if conscience revolts, and tells them it originated in a blow, which they had inflicted on the Horse's head,) will frequently yield to repellent applications, of which apply the following:

Take Sal ammoniac - - 4 oz.
Sugar of lead - - 1 do.
Vinegar - - - - 1 pint.

Apply this lotion constantly to the pole of the head, by keeping cloths on continually wet; in applying your cloth, have it sufficiently large, so that you may cut two holes in it to pass it over the Horse's ears, by which means it will be retained in its place; this cloth you can easily renew, or with a sponge apply more of the lotion, in the mean time feed on bran mashes, and give—

Cape aloes - - 6 drams.
Juniper berries - 2 do.
Form into a ball with soft soap.

Give one twice a week.

Should the tumour appear stationary, and the process of absorption not likely to commence, I have found great benefit from applying a liquid blister, as under:

Take Cantharides - - 1 oz.
Vinegar - - - 3 do.
Spirits of wine - 1 do.

Put together in a bottle, frequently shaking it; it will be fit for use in eight or ten days. Rub about two table-spoonsful on the tumour night and morning.

When all hopes of preventing an abscess have ceased, we must then promote the formation of nature, by stimulating the skin, and instead of poultices or applications of warm water, apply the following:

Take Oil of turpentine - 2 oz.
Oil of Olives - - 2 do.

Rub well into the swelling, night and morning, until on pressure you find a fluctuation under your finger and thumb. When the maturation is perfect, which may be known by the soft feel of the tumour, the next thing to be taken into consideration is, the evacuation of the contained tumour, and that at the most depending situation, to prevent the formation of sinuses. Nothing is so good in this case as introducing setons on both sides of the

neck, and should they act well, a speedy cure may be anticipated. But when from improper management, matter has not only formed, but has been suffered to remain, or has only evacuated itself by a superficial opening either natural or artificial, and not from one in a depending situation, whereby accumulation of pus has taken place, and, in consequence, the ligaments have taken on disease, extending under the curvical ligament, and having it hollow below. In such cases the healthy secretion always ceases, and instead a thin ichorous or glairy discharge is set up: this ichorous matter penetrating itself into the interstices of the muscles, sinuses become formed in every direction, and if not speedily relieved caries of the bones of the neck is the consequence. From this neglect of the disease, or the bad treatment of it, you not infrequently see a Horse, having had this infection, get, what is called, a stiff neck, poking their nose and head out in a disagreeable manner. Though I never had an opportunity of examining the vertebræ of a Horse thus affected after death, I make no doubt that anchyloses had taken place between the first and second vertebræ. However, to prevent these disasters, we must proceed more actively to work; and here I would recommend my reader to call in an experienced veterinary surgeon, who can handle the scalpel with dexterity and confidence. Having cast your Horse, proceed to a careful examination with a probe and your finger the extent and direction the sinuses have made their course: here you must take time, and ascertain the full extent of the sinus that is formed. Do not attempt to satisfy yourself by a kind of slight of hand examination, but be certain. As you have got your Horse confined, make much of this first; but critical examination, for your cure will depend greatly upon it, and, of course, relieve the Horse considerably of pain. You will find your finger of much more service than the probe; therefore, carefully examine the ulcer well with the finger, and this, more especially, if caries should have taken place; for this must be disected out before you can possibly expect a cure. These are things the old farriers know nothing of, consequently, if they could heal the external opening, they imagined they had accomplished a great feat; and hence the liability of the parts becoming diseased again. Hard and callous edges must be removed, and the smaller sinuses laid open, so as to form a cavity. If all this be not thoroughly attended to, and done as before stated (for it cannot be made too impressive), it will happen, that when the whole seems on the point of healing, a new tumour will suddenly arise, and frustrate all your hopes, which renewed abscess, in every instance, arises from caries bone being left, or some ligamentous portion remaining. In this case, the experienced veterinarian, who is expert with the knife, and fully acquainted with the anatomy of the parts, will not hesitate at the worst of cases. But in the hands of the common farrier, much injury has been frequently done from the injudicious use of the knife. I have known even the curvical ligament to be divided by these ignorant pretenders, who have no character to lose; consequently, grope on in ignorance for the paltry fee of a few shillings, sooner than acknowledge themselves in error. Instead, therefore, of hazarding any of these evils, the practitioner will be justified in this state of the case to introduce setons, even to the number of three or four on each side, going down to the bottom of each sinus, let

them be ever so deep, go to the bottom of them. Dress your setons with mild blister ointment, as under, every day:

Take Cantharides, powdered 2 drams.
Hog's lard - - - - 3 oz.

Continue this until the matter becomes of a good consistence. But where cases of great obstinacy occur, and this also fails to produce a good effect, you must at once make up your mind to make use of stronger means:

Take Corrosive sublimate - 2 drams.
Water - - - - - 2 oz.

Dissolve the sublimate in the water, and inject the sinuses with the mixture. If this does not produce any amendment, we must proceed to the scalding means, in order to overcome the morbid action, and by which means produce a healthy inflammation, from which, healthy granulations may follow; to obtain which, try either of the following:

No. 1.

Take Arsenic, finely powdered - 2 drams.
Digestive ointment - - - 4 oz.

No. 2.

Corrosive sublimate - 1½ drams.
Digestive ointment - 4 oz.

No. 3.

Butter of antimony - - 3 drams.
Oil of turpentine - - 2 oz.

Either of the above may be applied in the following manner: melt either of them in an iron ladle to a scalding heat, and as your Horse lays on the ground (for you must cast him to do this properly), carefully pour the liquid into the wound, putting in, at the same time, a little tow. At the end of four or five days, sloughing will commence; after which, apply digestive ointment, and treat as a common wound: if the wound should not be going on to your mind, apply the scaling application again.

FISTULOUS WITHERS.

Fistula is in general the consequence of neglect, or the non-observation as to how the saddle may fit; for, when the saddle is too wide in the trees, the pressure, in consequence, coming on the withers with double force, and that repeatedly, that the parts become bruised and pinched, and occasions the formation of matter inevitable. I am very sorry to observe, this is seldom taken notice of in time, till the evil has been repeated, and constitutes bruise upon bruise, when an inflammation and swelling ensue, threatening an unavoidable suppuration. To this greater error succeeds; for during the time the process of nature is going on, and the matter in the tumour is forming, we generally use the repellent lotion, as prescribed for pole evil. But here begins a terrible struggle between the contending powers of nature and art; for those applications failing in their intentional effects of repulsion upon the contents, distribute their properties upon the integuments, where, by their repeated application, an induration is effected very unfavourable to the abscess in its more advanced state. Nature at last becomes predominant, and effects her purpose; the tumour suppurates, and, as a consequence, discharge comes on, but without one of those advantages that would have been acquired had the efforts of nature been attended to and properly encouraged, instead of being opposed.

This is the origin and progress of what

constitutes a confirmed fistula, and comes under the very method of cure described in the last article, with renewed instruction and remembrance to lay open all sinuses or cavities into which the probe can be passed, taking care to make no transverse opening across the withers, to avoid dividing the long ligament; but be careful to make the incisions longitudinally on either side, or both, if it should be required. Should the discharge not put on an healthy appearance, make an ointment of the following:

Take Digestive ointment - - 2 oz.
Red precipitate - - - 2 drams.

Form into an ointment, and apply every morning to the wound, until the discharge becomes more healthy. Should you succeed by the above application, in obtaining an healthy discharge of pus, try the following, in order to heal the wound as soon as possible:

Take Vinegar - - - - - - 2 oz.
Compound tinct. myrrh - 1 do.
Tinct. of cantharides - - 1 do.

Inject this mixture to the bottom of the wound two or three times a day, which will produce a healthy secretion of pus, and promote the healing process. If you should make up your mind not to use the lotion, it would be as well to warm the precipitate ointment in an iron ladle, and pour in the wound, so that it may penetrate every sinus that may have been formed.

Incisions or scarifications made whenever necessary, and all callous, hardened parts must be disected out, and, if required, pass two or three setons in the most depending situations you possibly can. This method should be pursued in preference to any other, unless the wound has been suffered to proceed some considerable time, and a vast formation of proud or fungus flesh have formed, when the knife becomes the only remedy. This method should have the preference on all occasions; consequently, if the milder method should not succeed in restoring the parts, then you must proceed with the scalding method, as in pole-evil.

Thus much by way of instruction for curing, what may mostly be prevented by a moderate care and attention: keep in mind that this disease, when first discovered, may be completely removed by repellent applications, but, when bruise after bruise is suffered to go on, and matter once formed, repellents do much more harm than good. If none of the preceding applications should at all be successful, you must proceed to the scalding ones, such as described for *pole-evil*, which we beg to refer the reader to.

ULCERS IN THE MOUTH.

There sometimes arise ill-conditioned ulcers in the mouth, from the irritation of too severe a bit, or from some sympathetic inflammation, such as a ragged tooth, and frequently from constitutional irritation, when it not infrequently occasions watery tumours to arise similar to gum-boils in the human subject: to remedy this affection, take the following mixture, touching the sores three or four times a day:

Take Spirits of wine - 2 oz.
Vinegar - - - 2 do.
Honey - - - - 1 do.
Alum, burnt - - 4 drams.

Take a small stick, with some linen or tow tied to the end of it, and apply as directed above. As all persons do not know the

meaning of burnt alum, I will tell them how to produce it, in case they make up the above prescription themselves, supposing they might live at some distance from a regular practitioner; for the preceding prescription, buy an ounce of common alum, then place in your fire-shovel, and put it on the fire, when the heat will evaporate the watery matter from the alum, leaving you the burnt alum, or what is termed, *alumen ustum.*

ON STRANGLES.

It is most strange, that so bad a definition of the disease, called strangles, as yet has been given to the public, though all veterinary writers agree, that every Horse is liable at some period or other to take on the disease, we may say scarcely any Horse is known to escape; they are even subject to it at all times of life, but, the periods of attack are mostly when rising three or four years old *; Horses at that time of life, are generally taken in from grass, though colts at grass frequently become affected; but, Horses removed from grass to a warm stable, are much more liable to take on the disease, clearly showing, it is the heated atmosphere combined with the stench of the dung and urine, producing inflammation and suppuration of the submaxillary glands.

I shall not presume to introduce any thing dictatorially decisive upon the subject, but submit to the consideration of others what appears to me to contain every just reason that can be assigned for the appearance of a distemper, attacking each subject to a certainty at different periods without contagion, or any cause hitherto established, but that *it is so.* For my own part, after affording it every degree of consideration, there is absolutely but one rational cause to be offered why Horses become subject to this disease, and that is, as before stated, inflammation and suppuration of the submaxillary glands; and this is brought on nine times out of ten when the the Horse comes into the stable, either to be broken into saddle or harness, proving that impure air to be the general cause, for in those cases where it takes place out of doors, poverty is then the principal cause, producing extreme debility; and most frequently, these Horses so attacked, and in so weak a state, generally, or at least most frequently, become victims to the disorder, and not unfrequently when debility reduces young Horses to a state of almost starvation, it will generate into glanders.

Having introduced thus much towards the elucidation of the cause, I will proceed to the symptoms. The first attack generally commences with a dull sluggish heaviness and inactivity, the Horse becomes dispirited, loses his appetite, is frequently seized with a hollow husky cough, occasioned by the irritability of the inflamed glands, and consequently sore throat. To excite a degree of moisture in the mouth that may allay this disagreeable sensation, he is often picking his hay, but eats little or none; a degree of symptomatic fever comes on, and a consequent claminess and thirst is perceptible, but the Horse appears to have great difficulty of swallowing water. As the disease advances, he becomes proportionally languid and inattentive, a swelling of the glands between the jaws becomes apparent, which is at first very hard, exceedingly painful, and visibly increasing. He now swallows with great difficulty, heaves

* I once had a mare of my own affected with strangles at sixteen years of age.

at the flanks, and his whole appearance evidently urges the necessity of an immediate attempt to relieve nature.

For the treatment of this disease be exceedingly careful how you may be decoyed to bleed the animal, which never do, unless the febrile symptoms run very high, and then only in small quantities, as you would in catarrhal affections; for the debility of the animal will not allow you to draw much blood from him. I should not exceed two quarts in almost any case, unless there is much heaving at the flanks, and the pulse be hard and quickened, and the extremities cold. Use a nose-bag, frequently replenished with hot water and bran, for the purpose of steaming the nostrils, and promoting a discharge; and should the tumours break inwardly, you will find this of great service. Having thus far decided, your next object is to promote the suppuration of the swelling as quick as you can; but this must not be attempted by any thing in the shape of poultices. Poultices have a tendency to do much more harm than good, unless you have a man constantly in attendance, for the moment the poultice becomes cold, it acts as a repellent to the tumours, and obviates what you wish to produce. Therefore.

Take Oil of turpentine - 3 oz.
Olive oil - - - 3 do.

Apply this liniment to the Horse's throat, and tumours between the jaws, three times a day, having first clipped off the hair close, to allow the liniment to act quickly. Should this not produce suppuration so quickly as might be anticipated, use the following:

Take Cantharides - 2 drams.
Oil of turpentine 2 oz.
Olive oil - 2 do.

Shake well together in a bottle, for two days, and apply as directed in the former.

Either of these applications will produce a speedy suppuration of the tumours, and on feeling them, you will find an undulation; at this period you are justified in introducing the lancet, and letting out the matter; but never lance the tumours, unless you are perfectly sure that matter is formed. If the tumour should break of itself, and the opening be small, enlarge it with the lancet. Now have the parts well fomented, and wash with warm water two or three times a day; always remembering to wipe them dry with a *linen cloth*. This being done, place on a hood, with a piece of flannel to cover the jaws. When all discharge has terminated, and if the orifices you have made with puncturing appear red and healthy, you may now proceed to the healing process, which naturally of itself would take place, but it is necessary to assist nature as much as we can; for which

Take Sulphate of zinc - - 1 dram.
Vinegar - - - - 2 oz.
Watery solution of aloes 3 do.
Dissolve the sulphate in the acid, then add the solution of aloes.

Apply this mixture to the sores, morning and night.

For feed, any nourishing diet you can obtain will be proper; but be careful always to administer it in small quantities; you had better try the Horse with half bran and oats, slightly wetted, and when he can begin to swallow tolerably well, give him a little speared malt in his feed: this will rouse him from that debilitated state the disease has reduced him to; and to further strengthen his system give the following:

Take Cape aloes - - 6 drams.
Sulphate of iron - 6 do.
Gentian - 12 do.
Linseed meal - 12 do.
Form into a mass, with soft soap, and divide into six balls,

And give one every second day.

There is a consolation in this disease that a symptom of danger occurs but seldom, and then principally when Horses take on the disease at grass, and especially in consequence of being *only colts*, they are not brought under the eye of the master so often as they otherwise would be; as it very unfrequently happens that the servant's eye can penetrate so deep as a master's, so that the poor animal is not reported sick, until he is almost dead; but if the Horse be kept in the stable, the danger generally occurs from neglect, or absolute cruelty, in riding or driving to extremity. When the disease has commenced its course, so as to produce fever, and consequent inflammation, as before observed, it generally terminates in glanders; consequently, the greatest care to cleanliness is of the highest importance, such as sponging the nostrils well out every morning and evening, and be careful to keep your Horse warm.

ON VIVES.

The disease of vives (if it may be called one), is common to all Horses, and of all ages, and at all times of the year. Why the term *vives* arose, I am not able to ascertain; but as it is generally known by that term, it would be folly to change it in a general work of this kind, until a few more years has passed away.

Vives, then, is an inflammation and enlargement of the parotid glands, situated and commencing at the base of the ear, and continued down to the angle of the jaw. This disease is by old farriers called *bastard strangles;* but this is an error, for they have no affinity to strangles in any way; they never suppurate, but they occasion great pain to the Horse whilst eating, in consequence of the action of the jaw continually pressing on the enlarged gland.

These swellings at times become so fixed, that cough and considerable irritation is produced about the anterior part of the epiglotis (the part that covers the wind-pipe in the act of swallowing, to prevent food passing down that tube), and when food comes in contact with it, cough is almost sure to take place; and the irritation in consequence so great, that the Horse will cough repeatedly, with that violence, that you would imagine the rupture of some vital part must be the consequence.

In this disease never apply stimulants in order to promote a discharge; for, if you do, the situation being so prominent, and always in view, and if an ichorous discharge, which frequently occurs from *a gland*, you leave a blemish which will greatly lessen the value of the Horse; but the method I have found always best, was to apply to enlarged glands, the following:

Take Ammonia - - 1 oz.
Olive oil - - 4 do.

Rub about two table-spoonsful of the liniment on each gland, morning and night, and

Take Cape aloes - - 6 drams.
Ginger - - 1 do.
Form into a ball with soap,

And give, or here I perhaps best may say, attempt to give, for if the Horse's throat should

be at all sore, giving a ball is always attended with difficulty; and should this be the case:

Take Glauber salts - - 4 oz.
Linseed meal - - 2 do.

Mix your linseed meal with a little cold water first in a bason, then take about a quart of hot water, and dissolve the salts; when done, mix altogether, and carefully horn it down. This must be repeated morning and night, until you perceive the swelling goes down, and the Horse begins to feed better. Should you be able to give him the ball, you must let five or six days intervene before you repeat the dose.

Some Horses are extremely awkward, either to give a draught, or take a ball; if such should be the case:

Take Sulphur - - - - 12 oz.
Glauber salts, finely powdered 1 lb.
Well work together in a mortar,

And give one in the Horse's feed, morning and night.

For feed give bran mashes cold; but if he should not take to them well, put a handful of sweet oats with them to entice him to eat. Mind, in all cases when you have to feed sick Horses, that your hands are free from unpleasant smells, as they are so exceedingly delicate, that the least offensive smell will occasion them to refuse all kinds of food, even if their appetite be ever so good.

CHAPTER IX

RHEUMATISM, ANTICOR, LAMPAS, WARBLES, SITFASTS, BRUISES, AND BARBS.

RHEUMATISM.

Rheumatism in Horses has been but little treated on; by not more than one or two English writers, though the French have written considerably on the subject; and in all probability, this was the cause of drawing the attention of the veterinarian to the subject.

This disease is characterized by fever, pains in the joints, increased by the action of the muscles belonging to the joint, the disease frequently flying to one joint, then to another, and most frequently in young Horses. In aged Horses the back and loins become the parts principally affected; the Horse going stiff, scarcely able to turn, and his legs moving under him more like jointless props than legs. It is frequently preceded by shivering, heat, thirst, and frequent pulse; and some persons, from these symptoms, are apt to be led to think that inflammation of the lungs had taken place. However, the young surgeon must not be deceived by these appearances; for after the above symptoms the pain soon commences and fixes on the joints.

Rheumatism may occur by pain in the joints without fever, and this mostly with coach or hack-horses, from being ridden or driven hard, until they perspire very much, and are afterwards allowed to stand in a draft of wind. Rheumatism may arise at all times of the year, when there are frequent vicissitudes of the weather, from heat to cold. Obstructed perspiration is the principal cause which produces rheumatism. I have in my notes an account of one Horse affected with *sciatica*, a species of rheumatism, which he caught all of a sudden. The gentleman to whom he belonged, had been riding rather sharp in the month of March. On coming home, he turned his Horse into the stable, his groom at the moment being otherwise employed; however, on the man going to the stable, he immediately led the Horse to a pond in the yard to water; consequently he received so sudden a chill from the cold water, and the wind being cold at that season of the year; added to which, the dilatory manner in which grooms work at their Horses, that an attack of *sciatica* was the consequence; which was shown by the Horse first lifting up one hind leg, then the other, and especially in wet weather and after strong exercise. In the above case, I observed the Horse's urine to be always thick and muddy, made in small quantities, and that frequently. This I consider a case of confirmed chronic rheumatism. The Horse was purchased by a coach proprietor for little more than half his

worth, whose Horses were under my care; he worked the Horse for about five years, but he never recovered, and ultimately died of inflammation of the lungs.

I before stated, this disease most frequently attacked coach and hack-horses, and the considerable number I have had the care of, confirms me in this opinion; but it most frequently attacks these Horses in the back and loins; and for the treatment of these Horses, I would recommend abstracting about three quarts of blood, according to size and constitution, and if the inflammatory symptoms are severe, then give the following:

Take Barbadoes aloes from 4 to 6 drams.
Ginger - - - 1 do.
Digitalis - - - 1 do.
Soft soap to form a ball.

After the bowels are freely opened,

Take Oil. turpentine - - 2 oz.
Olive Oil - - - 2 do.
Ammonia - - - 4 drams.

Apply some of this liniment to the spine of the back, where the stiffness appears most, which will in all probability be across the loins; should these means not prove effectual, I have been successful, after having cast the Horse, in introducing setons, one on each side of the back-bone, near the loins, and dressing with digestive ointment.

When this disease attacks young Horses, it is generally in the *acute* form, but mostly free from fever; colts, about two or three years old, are mostly subject to it, and that principally in the winter months, when they are at grass, and the pasture is bad, not containing any nourishment. I consider acute rheumatism in this case, to arise as much from debility as any cause, the colt not being able to bear up against the inclemency of the weather. As soon as the lameness is discovered, for here the joints are the principal seat of disease, (and mostly the fetlock joints); therefore have your colt immediately housed, and should it arise from debility, you must in no wise bleed; for the cold and wet generally is the cause, and he requires tonic medicines to rouse and strengthen the system, therefore in the first place—

Take Gentian, powdered - 12 drams.
Anise-seed, do. - - 12 do.
Liquorice, do. - - 12 do.
Antimony, do. - - 1 lb.
Sulphur - - - 12 ounces.

Rub well together in a mortar, and divide into twelve packets. Give one in the Horse's feed, night and morning. For food, take good hay, and half oats and bran, three times a day.

Apply flannel bandages to all his legs, round the fetlock and pasterns; this, in general will remove the pain, after having rubbed in some of the foregoing liniment, but do not bathe the joints, as by so doing the evaporation arising afterwards will produce cold, and consequent stiffness, leaving the matter worse than they were at first.

Some of the old farriers have termed this disease, *the flying lameness*, in consequence of it going frequently from one part to another; I just make this remark, that should "The Modern System of Farriery" fall into the hands of agriculturists, &c., where the term has become familiar,. they may know how to detect and treat the disease.

ANTICOR.

Is a disease of the chest or belly, being a species of tumour formed by the debile state

of the absorbents, and they not being able in consequence, to perform their functions; therefore, a serous fluid becomes deposited in the cellular membrane, which greatly abounds in these parts, and the fluid running together to the most pendent part, form the tumour called anticor, from its being against or near the chest, or the heart. The disease is not a frequent one in this country, but those who have written on the subject, say it is frequent on the continent; in India I have seen several cases, and even in England, but in consequence of the Horses not being examined minutely after death, the cause of the disease has not been discovered; in this case I would never advise to bleed, which would still add to the debility of the system, but give half bran and half oats made wet, for your corn feeds, and plenty of good hay, then

Take Aloes, Cape	-	6 drams.
Resin -	-	6 do.
Sulphate of iron		10 do.
Linseed meal	-	4 do.

Mix, and form into a mass with soft soap.

Give one of these balls every morning. Put an ounce of nitre into the Horse's water every night.

LAMPAS.

Is an enlargement or tumefaction of the roof of the mouth or palate, and particularly in young Horses; and in some cases become so prominent, as to project below the teeth of the upper jaw; this generally occurs when the Horse is changing his teeth, or the tusks making their appearance: another cause is, when Horses are first taken from grass, which is, of course, soft food, and then put into a stable on hay and oats, both being hard meat, will occasion the palate of the mouth to enlarge and inflame. The Horse by these means is not only deprived of a great portion of the nutriment necessary to his support, but becomes poor, weak, dejected, and altogether out of condition. It has been attributed to the change from grass to warm stables; but this I cannot conceive at all to be the case, for breeders of Horses, *God knows*, generally have their stables cool enough, so that I cannot see how atmospheric air has to do with the disease at all.

For the treatment of lampas, scarification has been recommended, but I never found that method succeed, though it is practised at the Royal Veterinary College, and also recommended by many veterinary surgeons (on their first emanating from that establishment) until practice has taught them better. This is an operation that more frequently comes under the notice of the common farrier than the surgeon, and by its so doing, custom has established an useful and expeditious extirpation by the actual cautery, *(see Plate of Instruments)*; and though I am no advocate for violent remedies where they can possibly be avoided, yet this is a cure so speedily effected by an expert operator, and the animal's suffering is so very trifling, that when a comparison is drawn between the temporary inconvenience, and the immediate advantage, no hesitation can be made respecting the operation.

When the operation has been performed, let the Horse wash his mouth out with clean water, and you need not apply any thing to it, the wound will heal of itself in a few days; for if you make an application, it only increases the pain of the animal, and in a few seconds he licks all off again.

WARBLES

Are those swellings or tumours formed on the sides, or some part of the back, in consequence of the unequal pressure of the saddle; it may also arise either from the excessive heat and friction, or the edge of a narrow saddle-cloth coming directly under the seat of the rider, and not unfrequently by the girths being too short, the buckles at either one side or the other set below the saddle pannel, by which means the lower corners of the buckles from chafing constitute these swellings. If the pressure be repeated, and the groom not having noticed it, which he ought to do every time a Horse comes home from either hunting or severe road work, the tumour will sometimes suppurate; a sore will be the consequence, and remain troublesome for some weeks.

As soon as the tumours are perceived, and before matter is formed, (which may easily be detected by the Horse wincing on being rubbed on or about the part,) use the following repellent several times in the course of the day to the tumour, with a piece of sponge:

Take Sal ammoniac	-	2 ounces.
Sugar of lead	-	½ do.
Vinegar -	-	1 pint.
Water -	-	1 do.

The Horse must have perfect rest in a loose box or barn, as a saddle or any thing irritating must be kept from him. If the tumour remains hard, and no appearance of going away, it becomes then what is termed

A SITFAST.

If sitfast is formed, you have only one certain and expeditious cure, all applications in the shape of blisters, liniments, &c., to soften the tumour will avail you nothing; therefore, take a scalpal and disect the tumour completely out, and dress with the common digestive ointment, in which has been rubbed down with it a little red precipitate; when you have brought the wound to a healthy appearance, treat it two or three times a day with compound tincture of myrrh.

If in the first instance warbles should break, wash and dress first with the ointment as above, and then heal up with the tincture. In the mean time, let your saddle pannel be altered, fearing a recurrence of the accident.

BRUISES

Are tumours formed from external injury, such as kicks from other Horses, or passionate grooms, on the legs and other parts of the body; if the bruise be slight, and though lameness be the result, it frequently becomes reduced almost apparently of itself; but if the injury should be severe, the extravasated blood will then become a source of pain and irritation. In some cases the blood is thrown out instead of becoming absorbed, coagulates, and at length becomes vascular, and the enlargement remains permanent.

Consequently, the treatment of bruises will vary according to circumstances, if the case be not too severe a one.

Take Camphor -	-	1 ounce.
Spirits of wine	-	8 do.

Dissolve the camphor in the spirits, and rub on a portion every morning and night, or,

Take Brandy -	-	4 ounces.
Vinegar -	-	4 do.

Mix and apply as above. If the bruise be in

such a situation you can bandage, never omit it—flannel is the best. If the tumour remains hard and unyielding to the above treatment, you must stimulate the absorbents by applying mercurial ointment, well rubbed in for three or four days, after which apply a blister; should this not succeed, you must have recourse to firing.

BARBS

Are small tumours situated under the tongue, and frequently occasion great pain, so that the Horse with great difficulty can masticate his food. They are easily seen on drawing the tongue on one side, where two little prominences make their appearance. They arise from an inflammatory action, existing in the salivary ducts, arising either from symptomatic or local fever; they are generally attended with a great flow of saliva, and sometimes inconvenience the Horse very much. The old farriers used to recommend their being entirely removed, by snipping them off with a pair of scissors; but there is no necessity for this. If you treat them in the following manner, they will soon recede:

Take Alum	-	1 ounce.
Water	-	4 do.

Dissolve and apply with a bit of sponge, tied to the end of a stick, several times a day. Give the Horse an ounce of nitre in his water, about five or six mornings, and you will perceive the gradual reduction of the enlargements.

CHAPTER X.

STONE IN THE INTESTINES, STONE IN THE KIDNEYS, AND STONE IN THE BLADDER.

STONE IN THE INTESTINES.

This is a disease which we are unfortunately obliged to acknowledge we have no remedy for, the horizontal situation of the body of the Horse, and the nature of the food, renders the Horse particularly liable to concretions in the intestines, and generally taking place in the intestine termed *the colon*, from a peculiar curvature it has in doubling on itself; at this curve, stone of the intestine generally is found. Most of these concretes, however, are composed at first of salubrious matter, which first collecting around some accidental nucleus, as a nail or stone, and very frequently it occurs amongst millers' Horses, from a portion of the grinding-stones, by friction having become mixed with the food millers' Horses generally are fed with. From frequent deposits of a portion of the alimentary contents coming in contact with the nucleus, layer upon layer becomes formed, until in some cases they are of an enormous size; and I have even seen two in one animal; these calculi, in many cases, are dense and hard to admit of a fine polish, whilst some are of a softer nature, and appear more like hardened dung, and will break easy, taking on the shape of the dung. Hair balls I have frequently found in the intestines; but this more frequently occurs in *neat cattle*.

Horses do not appear to suffer so much from calculi as might at first be expected, and then it only appears like an attack of gripes, on account of obstructed dung in the intestine, giving pain; when the passage is accomplished, the pain immediately ceases. But they frequently, or always, bring on a fatal strangulation, and consequent inflammation, in such cases the Horse will fall a victim.

As before stated, the cure is out of our power, and the prevention is little less so, unless you perceive the Horse addicted to eat roots or lick up the earth, which they frequently are addicted to: your only chance of prevention is to give bran mashes for a day or two, until you perceive his dung become moist, and if in work, let him resume his usual food.

STONE IN THE KIDNEYS.

Stones sometimes form in the kidneys, in the cavity which you perceive on dividing a kidney by a longitudinal section; in the Horse they accumulate till they fill the whole of the cavity; and I once had a case, that from the inflammation produced thereby, the kidneys became totally absorbed, and a large

tumour formed in its place, the Horse could with difficulty walk, and ultimately the pain and irritation became so great, that the Horse drew his penis, which constantly hung out, and of itself became so very large, that he could not withdraw it. I accordingly ordered the Horse to be destroyed; and on opening him, found the right kidney a complete stone. The specimen I gave to the owner of the Horse, who used to exhibit it to his sporting acquaintance, and procured me many friends.

STONE IN THE BLADDER.

Though this disease is not so frequent in the Horse as in the human subject, still I have no doubt of it occurring more frequently than is generally supposed; and that will be made plain to any one who is in the habit of frequently visiting the knackers' yard, for very many calculi are there found, after death, in the bladder. Therefore, I believe many Horses are condemned to these repositories of the dead, in consequence of either not knowing the cause, or of a surgeon not having proper instruments to perform the operation of extracting the same (but which may now be obtained, in cases properly fitted up, at Mr. Long's, Veterinary Instrument-maker, 117, High Holborn.) The symptoms are frequent inclination to make water, shew excessive pain, and voided in small quantities; sometimes a sudden stoppage of it, and very frequently occasions very acute spasmodic pains. The Horse also walks wide behind, or appears loath to move along, and occasionally reels about, walking with a staggering gait. However, for this a remedy is now discovered, and, I believe, first put into practice by Mr. Sewell. The presence of stone in the bladder, is not very difficult in discovering; for, if you examine the bladder, by introducing your hand up the rectum, and feel for the bladder, just beyond the bone called the pubis, you will meet with the bladder; then feel if there be any hard substance to be felt, conclude if such be the case, it is stone in the bladder.

For the removal of the substance, introduce a long whalebone staff, well oiled, up the *urethra*, until the end of it be felt just under the *anus;* then take a scalpal, and cut perpendicularly down upon it, and enlarge the opening to about an inch and a half; into this opening pass a long whalebone probe (or as it is called, a sound); the end of which you will distinctly feel strike against the stone; thus being satisfied, withdraw your sound, and introduce your forceps, for the purpose of extracting the stone. If the opening should not be large enough, you may take your concealed bistory, and cut up a little * (the Horse is supposed to be cast, and laying on his back), then endeavour to seize the stone, and withdraw it whole; if you find this not practicable, you must take hold of the stone by degrees, and break it down, your forceps being made for that purpose; then withdraw them, and empty them, they being made with hollow heads to contain the particles of stone you break off; continue to do this, until you are *perfectly satisfied* the whole of the stone is removed. This being done, inject warm water into the bladder, which will give the Horse great ease, and the poor animal will almost tell you the delight he experiences by the removal of so offensive a matter. The Horse may now be allowed to get up, and in all probability some sediment and urine may

* The Horse is laying on his back, therefore, cutting up would be cutting down if the Horse were standing.

escape from the wound for a day or two. This you need not be alarmed at, but bathe the parts with warm water two or three times a day; after which time, you will perceive the wound close, the urine pass off in its natural channel, when treat the wound as a common one, with applying to it twice a day compound tincture of myrrh. Should the Horse put on any appearance of fever, give him in his feed (with half bran and oats, made slightly wet)

Antimony	- -	12 oz.
Sulphur	- -	12 do.
Digitalis	- -	6 drams.

Mix and divide into twelve powders. Give one in his feed every night.

With mares the operation is less difficult, as the parts may be dilated instead of being cut, though I should recommend the use of a round-headed catheter, sufficiently large in the bore as to allow the sound to pass through it; when having introduced the catheter, and drawn off the urine, then pass the sound down the catheter into the bladder; having done this, withdraw the catheter, and satisfy yourself of the calculi being there, and proceed as before directed for a Horse.

I have seen this operation performed twice, in visiting the Royal Veterinary College, by Mr. Sewell, and both did well; that gentleman also informed me it had been performed in the country by several practitioners, and he did not know of a case to have failed.

CHAPTER XI.

ON WORMS; JAUNDICE, OR YELLOWS; DIARRHŒA, OR LOOSENESS; CRIB-BITINING.

ON WORMS IN GENERAL.

What inveterate obstacles these insects are to a Horse's improvement, where they have unluckily gained possession, time and experience have sufficiently demonstrated; though an eminent writer on the subject says they do good; but this I cannot see; for a toad, or a snake, may be said on the same grounds to do good, as no living animal taken into the stomach becomes destroyed by the *gastric juice.* However, I consider them of as pernicious a nature and destructive a tendency, that having at once secured a settlement in either the stomach or intestines, the Horse becomes a prey to perpetual depredation, till effectual methods are taken for their total extirpation.

There are three kinds of worms to which the Horse is liable to; first, the long white worm, very much resembling the common large earth worm, but much longer and harder; at its middle it is about the size of a large swan's quill, and regularly tapering off to the ends. The length of these worms are various, from six inches to twelve; they generally occupy the small intestines, and are at times exceedingly troublesome, frequently occasioning gripes, and not infrequently inflammation of the intestines, by their excessive irritation.

Another kind of worm is the small thread or needle worm, and is frequently found in all parts of the intestines, but more particularly in the large intestines. They have also been found in some of the blood-vessels, in the windpipe, in the lungs, &c. These worms occasion great disturbance in the system when they become numerous, but not so much as the last named.

There is a third kind of worm, called botts; these are of two kinds (which we will endeavour to explain presently), that one is larger than the other, the large size generally taking the cuticular coat of their stomach for their abode. These worms are exceedingly offensive, not only impairing and debilitating the stomach, but very frequently produce inflammation of that important organ. This worm, or grub, has a peculiar form at its tail of two processes, in the form of pincers, which when he has the good fortune to make fast in the coat of the stomach, his attachment is so firm, that even in the dead subject considerable force is required to remove them. This attachment, as I said before, is at the tail, its head lying pendulous in the stomach, indulging in any thing the Horse may have to take down; and

most frequently at this time the Horse's appetite is very considerably increased, than when free from these internal robbers.

The second kind of botts are much smaller than the foregoing, and I have every reason to believe are not always attached to the stomach, but occupy the rectum, or last intestine; they are of the same nature as the other, and you frequently find them attached to the anus, and occasion the Horse often to kick and fidget about, in consequence of the irritation they are the cause of. I have every reason to believe that the bott lies in the stomach nearly twelve months; for it is in the summer months that the larva of the gad-fly, which is supposed to be the parent of them, deposits her eggs on the hair, which is then taken into the stomach of the Horse, and comes to maturity in the early part of the following year, and becomes ejected with the Horse's dung.

There is but little remaining to be said as to the cause of botts, more than what we have mentioned above; but I have frequently seen them come from Horses that have not been out of a stable, and this about the time *new vetches* are brought to market. Give your Horse a few bundles of vetches, and you may be sure to remove botts. At any rate there is sufficient proof the Horse is affected by them, and he will eject a considerable quantity.

Worms may be discovered to be in the system by the dry yellowish matter adhering to the fundament, and running two or three inches down below. This is merely the soft part of the worm, in making its escape, irritates the sphincter muscle until it becomes crushed; and this I know for a fact, having in cart-horses seen it frequently occur. They are frequently detected in the dung, especially the *thread worm* and the *long white worm*, and that I believe to be the only method of discovering them; for the long worm is too strong in itself to be crushed by the sphincter, and the thread worm too small for any impression to be made on them. There are other symptoms when worms are predominant; they occasion irregular appetite, the bowels also are at one time costive, and as irritation might arise, they become loose, with an unhealthy secretion attached to the dung. When botts are prevalent, the Horse is frequently rubbing his tail against the sides of the stall, or against a post.

The long white worm is very hurtful; the Horse may eat well, and appear hearty, but he does not thrive; becomes hide-bound, in consequence of the skin sympathising so much with the stomach, the coat stares, and feels rough; it is very frequently attended with a short dry cough, sometimes by attacks of the gripes, the breath is hot and smells very disagreeable.

For the treatment of worms, I know but of two articles that any reliance can at all be placed in, and that can lay claim to approbation, as that certain and indubitable one, as calomel. Antimonials and preparations of tin have each their advocates, even down to train oil, as well as the vegetable kingdom, which has in the opinion of some, been never failing, such as rue, savin, box, &c. and also tobacco.

But experience has determined the specific effects of calomel in this case absolutely infallible, before the power of which every species of worms and their oviparous remains, indiscriminately fall, and are totally exterminated without the shadow of a doubt. So soon, therefore, as they are suspected, or at least so

soon as they are ascertained to have taken possession, it will be prudent to prevent a Horse becoming injured in his appetite, reduced in flesh, or altered in condition by constantly preying upon the contents of the stomach or alimentary canal, consequently, I should recommend the following; first prepare your Horse as for a dose of physic, by giving bran mashes, &c., and let your dose be adapted to the strength, size, and condition of your subject by these rules; if the Horse be thorough bred, and delicate in form, take the following:

No. 1.

Calomel - - 1½ dram.
Linseed meal - 2 do.
Honey to form the ball.

Now be particular in giving the ball as follows: give the ball the last thing at night, then put your setting muzzle on, and let him remain without food until the morning, when you then visit the stable, give him a warm mash of bran, replace your muzzle, and when you leave him, give him a handful of sweet hay; proceed in this manner until about six o'clock at night, when give him the following:

Take Barbadoes aloes - 5 drams.
Gentian - - 2 do.
Form into a ball with honey.

Then again put on your muzzle, and by the time in the morning you again visit the stable, it is ten to one but the physic has operated. You must now treat your Horse (but with the greatest care), as in the ordinary course of physic. Probably my reader may not at first sight imagine why I recommend the calomel to be given alone, but for his better information I will inform him, a small quantity of calomel given alone, and eighteen hours before you administer the aloetic medicine, is not only more efficacious, but the system becomes impregnated; another thing, you are not so likely to have superpurgation supervene; there is also another reason, the Horse will purge without being taken out to exercise, which when exhibiting calomel is very advantageous, as you do not run so much risk of his taking cold. After the lapse of about five or six days, repeat both the balls, as directed above; but do not increase the quantity of the calomel or aloes, until you have seen the operation of the second dose, then you will be able to judge whether the *aloes* will require increasing or decreasing in quantity; if the Horse should want it, or you think the enemy is not altogether dislodged from his firm hold, give the Horse a third dose.

If the Horse is beyond the pitch of delicacy, stronger in make, and more like a hackney or coach-horse for size, you may give him,

No. 2.

Calomel - - - - 2 drams.
With the aloetic balls increased 1 do

Proceeding as before laid down.

But should it be a large, strong, and foul waggon-horse, you may then increase your calomel ball to two drams and a half; and if very large Horses, even to three drams, and your aloetic ball in proportion. By proceeding in this course, you will perceive the subject will in a few days, with proper care and attention, with good food and exercise, evidently demonstrate the advantage from being delivered from such company.

But as there will most undoubtedly be Horses troubled with worms, in the possession of those who, from the nature of their avocations, cannot submit them to so long a respite from business,

as is necessary for a regular course of the preceding medicines, it will naturally be expected an effectual substitute should be held forth for the gratification of all parties, consequently, I now come to the second remedy, which I have found very efficacious in expelling worms—

Take Glauber's salts	-	4 ounces.
Linseed meal	-	1 do.
Hot water -	-	1 quart.

First mix the meal in a little cold water, to prevent its getting lumpy, when sufficiently worked up, put it into the salts and hot water. Give this draught with a horn every morning fasting, for six successive mornings; the Horse may go to exercise, or slow work of any kind, if you should perceive him to perspire a good deal, and appear fainty, discontinue the medicines for a few days, when commence again, until you are satisfied the worms are completely removed.

JAUNDICE OR YELLOWS.

This is a disease commonly called *yellows*, and is common to Horses of every description; it arises from various causes, the most material of which I shall endeavour to explain. The more simple and least dangerous complaint passing under this denomination, arises solely from an obstruction in the biliary ducts, for the Horse has no cystic duct or gall-bladder like most other animals; by this obstruction the bile does not flow into the intestines, where, by its peculiarly stimulating property, it excites the peristaltic motion by which they expel their contents; the bile thus impeded in its usual progress, becomes absorbed, incorporating itself again with the blood, and through the system of circulation diffuses itself to every part, denoting its presence by an early appearance of yellowness in the eyes, mouth, tongue, and saliva. To these invariable symptoms may be added, those not altogether so certain in its early state, the Horse generally seems heavy and dull, dejected with loss of appetite, and consequent rejection of food, more than will barely subsist nature, a slight symptomatic fever comes on, and keeps pace with the disease, a sluggishness or aversion to motion is plainly perceptible, a foul faint sweat appears upon the least exercise, and the urine is of a dark brown or saffron tinge, the dung varies much in different subjects, but is in all many degrees paler, and more undigested than the dung of Horses of high condition.

The indications of cure naturally arise out of the very description of the disease, to affect which there will not be considerable difficulty, provided it be taken in its early stage, when it may most probably be totally removed by the following, without having recourse to the stronger means:

Take Cape aloes	- -	12 drams.
Calomel	- -	6 do.
Liquorice, powdered		6 do.
Linseed meal	- -	2 do.
Form into a mass with soft soap,		

And divide into twelve balls, one to be given every second day. Give the Horse half bran and oats wetted for morning and evening feed, and scalded bran mashes for his middle day feed; if the bran mashes do not sufficiently relax the bowels, give occasionally a glister of warm water, into which throw a handful of salt.

During this course of medicine, every requisite must be paid to appetite, food, and gentle exercise; mashes of malt and bran, may be occasionally given at night, to keep the

body lax, and not suffer it to get too much debilitated, but regular in evacuations.

The disease, if arising from the cause before mentioned, and attacked in its infancy, will generally submit to the above course of treatment only; but in more advanced cases double the quantity may be required, and in addition to which abstract three or four quarts of blood, which will be found highly beneficial; but you will find almost in all cases the above balls to have the desired effect; but should you not be so fortunate, or the disease happen to a large cart-horse, increase the dose of aloes a little according to circumstances; if the Horse should be weak and emaciated, you then decrease it a little. After the Horse's medicine has completely set, and he appears to be going on well, give the following:

CORDIAL BALL:

Take Anise seeds	- -	1 ounce.
Ginger	- -	1 do.
Liquorice	- -	1 do.
Caraway seeds	- -	1 do.

Treacle sufficient to form the mass.

Give an ounce of this mixture every morning fasting; should it be a cart-horse, increase the quantities of each, and give an ounce and a half for a dose.

During the time of taking these, let the former instructions relative to food, exercise, dressing, &c., be strictly adhered to, with such other attentions as circumstances require, remembering to relinquish the medicines every second morning, or once in three, but not to discontinue them entirely, till all symptoms disappear.

The distinct kind of this disease, arising from a remote and very discouraging cause, is that species originating in an induration, or schirrosity of some or great part of the liver *; I say discouraging, because there is little or no hope of obtaining a cure; and this may naturally be concluded, even by a superficial consideration of the case, from the remote situation of the organ, and the still useless application of medicines. We can only palliate the disease. The first thing to be done, is to extract blood, to the quantity of three, four, or five quarts; this is of course premised to reduce the contents, and take off some degree of stricture from the vessels; remove obstructions of the body by mashes of bran and speared barley, for two or three days previous to administering any medicines. When his bowels are pretty lax, give the following:

Take Calomel	- -	6 drams.
Antimony	- -	6 ounces.
Sulphur	- -	6 do.

Rub well together in a mortar, and divide into six powders. Give the Horse one of the powders in his feed every other night, first having slightly sprinkled the corn with water: on the intermediate days, in the mornings, give

Glauber salts	- -	3 ounces.
Linseed meal	- -	2 do.
Cream of tartar	-	1 do.

Dissolve the glauber salts and cream of tartar in a quart of warm water, then add the meal, being first mixed with a little cold water; horn this draught down carefully, and if the disease appears to be removed, give a course of the cordial ball, as directed in the preceding case.

* This you will be assisted in the knowledge of, by pressing your hand sharply against the region of the liver on the right side.

ON DIARRHŒA, LOOSENESS, OR SCOURING.

This disease is decidedly a weakness of the absorbents to take up the watery matter secreted within the intestines, consequently, an increased action of the peristaltic motion is set up to get rid of this watery fluid, from this cause the evacuations of the dung is produced in a liquid form. This disease is not like dysentry; for here the purging from the first instance continues until arrested, the dung also being in such a continual fluid state, there is none of that slimy matter attached to it that is in dysentry, which is commonly called melting of the fat; there is little or no fever attached to this disease, and I think properly speaking none, for if the pulse should at all become quick and hurried, it is more from debility than from any other cause: this is different to those Horses which are likely to purge from excitement; for I have seen many Horses full of good keep, their bowels regularly open, sufficiently healthy, on going to hounds, commence purging instantly; this must occur from nervous excitement. Some Horses are liable to purge from the least excitement; and this most frequently arises from peculiar make and colour, such as light chesnut-horses; flat-sided, long lank legs, are more subject to intestinal, and other internal diseases than any other kind of Horses. But in diarrhœa the Horse appears dull, heavy, and inactive, seemingly oppressed, and visibly over-loaded, though without any appearance of pain, but subject to general disquietude, the discharge is large in quantity, dark in colour, fœtid in smell. Nature, in the present instance, generally performs her own work with so much ease and frequency, for Nature does not purge herself until she wants purging; proving, in my opinion, the system wants rousing, for debility being, I am confident, the first cause.

Diarrhœa seems evidently to depend on an increase of the peristaltic motion, or of the secretion of the intestines; and besides the causes already noticed, it may arise from many others, influencing the system generally, or the particular seat of the disease. Of the former kind are colds, checking perspiration, excitement, and other disorders, drastic cathartics, spontaneous acidity, &c. In this complaint each discharge is usually preceded by a murmuring noise, with a sense of weight and uneasiness in the hypogastrium, what by grooms is called *wash bellied.* When it is protracted, the Horse loses his appetite, and his countenance becomes dull, and the skin generally dry, hard, and the coat staring. Ultimately great debility and emaciation, and swelling of the legs often supervene; sometimes it arises from ulceration of the internal surface of the intestines, and frequently to a considerable extent. The bile also, from some peculiar change in its nature, will produce diarrhœa, occasioned principally from bad food. The disease, though not so much thought of as it ought to be, is the cause of many a valuable Horse becoming its victim, and that in my opinion from improper treatment; for some people are apt to go to the other extreme, and administer to the Horse a long list of astringents to stay the purging, which in my opinion is highly improper, as I before remarked. Debility, and debility alone, is the cause of diarrhœa, let it be excited or brought on by whatever means it may.

For the cure of this disease, then, I should recommend, first, a proper attention to be

paid to the food the animal is eating, such as his hay and corn, which ought to be of the very best quality. Then being satisfied on this head,

Take	Blue pill - - -	1½ oz.
	Sulphate of iron - -	16 drams.
	Glauber salts - -	16 do.
	Liquid laudanum -	16 do.
	Linseed meal - -	16 do.

Mix the sulphate of iron with the glauber salts together in a mortar, and pound them very fine, then add the other ingredients, working them well together. Divide into twelve balls, and give one morning and night. Boil a teacupful of rice until it is entirely soft, then squeeze through a thin tamis or cloth, and give in the Horse's water to drink. Should these means not succeed, give the following:

Take	Sulphate of iron -	12 drams.
	Arsenic - - -	1 do.
	Gentian - - -	12 do.
	Aloes, Cape - -	12 do.

Mix well together, and form into a mass, with soft soap.

Divide into twelve balls, and give one every morning. You will perceive by pursuing this course of strengthening medicine, that the Horse will speedily regain his appetite, and his usual courage and strength. In some cases it is highly proper to give a few *cordial balls* (as prescribed in the foregoing case,) at intervals, until the disease is entirely removed.

ON CRIB-BITING.

The peculiar action of crib-biting cannot be mistaken by the merest tyro in Horse-knowledge, on seeing the Horse feed; for, at every swallow an eructation of air is produced, and by making the edge of the manger a fixed point, he is enabled thus to do so with ease. This, as has been said by some writers, is exceedingly painful to the animal; but this I am not inclined to believe, for very frequently we find crib-biters, not only high conditioned animals, but fat; therefore, whatever creates pain, cannot produce fat. Still there is a difference in crib-biting Horses; some will crib badly, and get fat; others become lean; and this appears extraordinary at first sight, but is of great importance; for as the Horse keeps in flesh or condition with crib-biting, or falls off, so his soundness or unsoundness depends; consequently, it becomes a matter of great importance. This disease, or habit, more properly speaking, takes place mostly in young Horses; and here my opinion differs from many others, for I am confident it is frequently occasioned by uneasiness in cutting the breeding teeth. Sometimes the cause is, Horses being ill-fed, when they are particularly hungry. I have no doubt many Horses wear away their fore teeth so much they will not meet, and it occurs by not being able to gather up their food; but there is one decided symptom of taking in air, and expelling it also at the same moment, for, if you observe the Horse swallowing, he expels air, and at the same moment he inhales fresh air, clearly shewing it by the expansion of his nostrils. Now, by some writers, crib-biting has been described as dyspepsia, similar to that disease as affecting the human subject; but this is impossible, or how would one Horse take it from the other standing in the same stable? which I have known frequently to occur; and it is a well known fact, that no training-groom will allow a crib-biter to stand in his stable. I could

give numbers of instances to prove the propensity of its being catching, if I had space to enumerate them, having had more than one hundred and fifty of my own hack horses at one time, and four or five of them rank cribbers; but I was obliged to keep them to themselves, having put them in company with others, and saw their direful effects. There have been persons who have attempted to introduce a cure for crib-biting, but it has not always proved infallible; one is to buckle a strap round the Horse's neck tight, this will prevent it for the time being; another is to have a number of sharp pointed studs, driven into the strap to prick the neck and throat every time the Horse swallows; (if this be the case, which it is,) how can pressure on the neck affect the stomach? Now, if this be the truth, dyspepsia may be easily cured by tying your neckerchief a little tighter than common, which I should say ought to be taken as a specific for the disease in the human subject; but not so with the Horse, remove your straps from his throat, and he is as bad as ever.

Professor Coleman says it arises principally from a Horse's long fasting, and the noise which arises from the air that he swallows. Now, here I differ from the worthy *professor;* for I would ask how spasms of the stomach arise when a man has been without food or drink the whole of the day? does not the stomach secrete wind of itself? or why take a glass of gin or brandy to remove the wind off the stomach? you may feel blown up, as it is said, without food; how is it that in the dead subject gas is generated? but so it is, and in the living subject too; for debility alone will generate gas, and is equally applicable to the Horse as to man, only with this difference, a man can indulge, and the Horse cannot; shewing clearly in my opinion the stomach has nothing at all to do with the affection. Some say giving Horses bad keep will produce the affection, but it is ridiculous; because look at farmers' Horses, which are kept on the refuse of the farm, why do you not find more crib-biters in the farmers' stock than elsewhere? No; you find them principally amongst high-fed Horses, and the reason we shall endeavour to explain:—High-fed Horses are rarely subjected to have much hay given them; consequently, the stomach never becomes so full as if distended with the Horse's natural food, such as hay or grass only; for I never heard of a crib-biting Horse at grass or on hay only. The cause is, in my opinion, from a spasmodic affection of the *diaphragm*, generally produced by the error of diet; for if you feed on a considerable quantity of corn, and little hay, you produce crib-biting, and *vice versa.*

To obviate this affection, I believe the whole of the veterinarians have been equally puzzled; but a few years ago, Mr. Yare invented a kind of muzzle, that the Horse could eat through, but was not enabled to seize the manger, in consequence of two iron bars being fixed longitudinally to the mouth part; but this, like all others, entirely failed, for when removed the Horse would take to his old habit again. I have also tried prepared chalk in two-ounce doses, but with no better success; but the only thing I ever found was in the shape of a palliative: remove the Horse thus affected into a stable by himself, without manger, stall sides, or any thing he can take hold of, but the bare walls, and give all his food on the ground, both hay and corn. I have by this means been able to remove, in a great degree, this trouble-

some affection, though I cannot promise a cure.

Crib-biting would not deter me from buying a very valuable Horse; for I have done so, *at a price*, and removed them to a stable, as above described, when it has totally left them; but this I would not answer for as a general rule.

CHAPTER XII.

DROPSY OF THE HEAD, OF THE CHEST, OF THE PERICARDIUM, OF THE BELLY, AND OF THE SKIN, AND OF SWELLED LEGS.

DROPSY.

Dropsy is a preternatural collection of serous, or watery fluid in the cellular substance, or different cavities of the body. It receives different appellations, according to the particular situation of the fluid.

When it is diffused through the cellular membrane, either generally or partially, it is called *anasarca.*

When it is deposited in the cavity of the cranium, it is called *hydrocephalus;* when in the chest, *hydrothorax;* when in the abdomen, *ascites;* and when within the scrotum, *hydrocele.*

I have been more particular in enumerating the particular names this disease takes, or according to its situation, that the reader may not be led astray by the pretender, or country farrier. For the causes of these several diseases, are, if we may call it so, of a family nature, and principally originating in debility: such as long continued evacuations, or it may occur from the suppression of urine, the sudden striking in of eruptive humours, obstruction of the lungs, exposure for a length of time to a moist atmosphere, laxity of the exhalants, defect in the absorbents, topical weakness, in which case it is most frequent, and indeed any thing that produces *debility.*

DROPSY OF THE HEAD.

It is a disease that not frequently attacks the Horse; but when it does do so, is very likely to puzzle the young practitioner, as he may be apt to take it for the staggers, the symptoms being very like those produced in that disease; but I do not believe they arise from the same cause; for water in the head, when it occurs in the Horse, is generally in consequence either of injuries done to the brain itself, or by blows, falls, &c., or from schirrous tumours, or excrescences within the skull, from original laxity, weakness in the brain, or from general debility, and an impoverished state of the blood.

With respect to its proximate cause, very opposite opinions are still entertained by many clever writers; which, in conjunction with the equivocal nature of its symptoms, prove a source of considerable embarrassment to both old and young practitioners. Some believe it to be inflammatory, and in consequence bleed largely. Slight inflammation, in the first case, may produce a deposition of fluid on the brain, but this inflammation has by its effects

produced debility; but I have no doubt that a torpor of the absorbent vessels may occasion the disease, consequently a debility in those vessels to perform their office.

It sometimes happens with Horses that are brought up immediately from grass, and ridden rather sharper than they ought to be, causing congestion on the brain; but as we shall have to speak of that disease in its regular course, we will now enter on the symptoms of dropsy in the head.

In the first place, the Horse refuses his food, hangs his head down in the manger, is dull, and seems careless of all kind of food, hanging himself forward, resting his whole weight on his fore legs, the Horse looking as if he was going to sleep, and wanted rousing up. Now, for the treatment of this disease, you must first make yourself acquainted with the cause. If it be a farmer's Horse, and not having been ridden lately, you may natu ally conclude its being congestion on the brain This may exist without any visible pain on pressure; should this be the case, do not bleed, for you will not find that relief from it you anticipate; but

Take Watery solution of aloes 1½ oz.
Nitre - - - - - - 2 do.
Linseed meal - - - 2 do.

Mix for a drink, and give immediately. Let the Horse have plenty of room, such as a loose box, or bay of a barn; let him have plenty of straw, in case he shou'd lie down, and be inclined to roll or knock himself about. Should this treatment appear not to relieve him, apply a blister to the pole or back of the neck, composed of

Cantharides - - 2 drams.
Hog's lard - - 2 oz.

Let this ointment be well rubbed in behind the ears. Should this disease be occasioned by blows, or falls, &c., examine the head well, to be convinced if any pain is existing there; and should this be the case, do not hesitate in immediately opening the temporal artery, and abstract as much blood as you can, without the Horse's fainting; if you see him begin to tremble, it is time to leave off, for you have gained your object. Secure the artery in the following manner:—take a curved needle, armed with doubled whitey-brown thread, take up the lips as directed in sutures, then lay a plegit of tow over the orifice, tie up the suture, and the bleeding will be stopped. For feed give very little, or no hay, but bran mashes: do not give any corn. I recommend bleeding, if the disease arises from blows, because it is most likely to stimulate the absorbents to take on their natural functions. For the medical treatment, proceed as before directed.

DROPSY OF THE CHEST.

This, as a primary affection, is not common in the Horse, but as a secondary attack it becomes frequent, and that most especially supervening in an attack of inflammation, consisting in a collection of fluid within the cavity of one or both of the pluræ; and in these cases there can be no doubt of it arising from debility. Many gallons of fluid have been found so formed within a very short space of time; in some instances pus has been discovered; in others, matter and other coagulable masses are frequently discovered floating in it.

The causes of this disease, as I before stated, are principally arising from the termination of inflammation of the lungs, and is generally to be discovered by the peculiar

action of the Horse in breathing, and even in his method of standing, straddling wide with his fore legs, and not unfrequently in breathing he does it with a jerk, and if you pay attention, you may hear the water in his chest make a sudden noise, as if disturbed. This arises from the lungs taking in air, and in consequence they become dilated, and occasion the rumbling noise in the chest with the water. Horses will sometimes have dropsy of the chest, when little or no inflammatory action has been going on, and this principally from bad keep, and bad or worse masters. Horses that have it from these causes, may work at slow work for some time without the disease being discovered, in consequence either of the unwillingness, or the poverty of the masters not enabling them to procure assistance in time, whereby producing poverty in the Horse, and the consequent debility, until nature takes compassion on the poor animal, and finishes his career in death. On opening the animal, a quantity of yellowish serous fluid is found floating about his chest, the lungs contracted and become smaller, in consequence of the fluid interfering with them in the cavity, and the Horse is then pronounced *rotten.*

As we observed in our preceding remarks, it is seldom that we can detect the disposition to inordinate secretion sufficiently early to attempt any means to restrain it; and when formed, we have seldom power enough over the absorbents to effect its removal through their agency.

It, however, becomes a duty of ours to attempt it, and as Nature frequently will set up a natural cure, we may occasionally assist her efforts; but, in doing this be careful how you determine on bleeding; for in this case, never bleed though the pulse may be quick, for the quickness is in consequence of *debility,* not arising from fever; for when the affection is formed, it is seldom or never that any inflammatory action remains; consequently, blood-letting would be highly injurious, and the result would prove we had mistaken cause for effect.

Medicines to promote nausea are frequently said to have a good effect; but I never could discover that, though I have tried them several times, such as white hellebore, in two-dram doses, every five hours, but I have succeeded by administering the following, beyond my most sanguine expectations.

Take	Sulphate of iron - -	2 oz.
	Juniper berries - -	2½ do.
	Myrrh - - - -	2 do.
	Antimony - - -	1 lb.
	Sulphur - - -	8 drams.

Form into a mass with soft soap,

And divide into twelve balls. Give the Horse one of the balls night and morning. Rowels and setons sometimes do good, but they are so long in acting, that I would recommend blistering the sides and chest in preference. Give the most nutritious food you possibly can; oats, with a few beans in them for corn, and the best *old hay* you can procure, and for water, let oatmeal or rice be first boiled in it. The last resource you have, if the above remedies fail, is puncturing, or tapping the chest; though this operation is driven off almost to the latest period of the disease, and very unfrequently succeeds; still I have succeeded in a cure, when driven to this extremity; but the earlier it is performed, the greater the probability of its having the desired effect.

We will now endeavour to describe the mode of operating. The situation most eligible for the opening, is that wherein a depending orifice may be gained for the complete evacuation of the water, without danger of wounding important parts by the puncture. If it be carried too low, the mediastinal folds, or even the pericardium may be endangered; but this would only occur unless you attempted the puncture perpendicularly, so as to make the puncture between the cartilages of the ribs; but in either of the costal openings, between the seventh and tenth ribs, about an inch above their termination into cartilage (*See* Plate of Skeleton), an opening may be first made by a scalpal, towards the anterior edge of the rib, to avoid wounding the intercostal vessels, first drawing the skin a little forwards or backwards, to ensure a future closing to the access of air. Having done this carefully, introduce a three-inch trochar, by penetrating the muscle between any of the above-mentioned ribs, withdraw your trochar, and allow the cannula to remain in until the whole of the fluid is drawn off Having performed the operation, and the discharge of the fluid convinces you were correct in your judgment, puncture the opposite cavity in a similar manner. If the dropsy, or accumulation of fluid be fully formed, that is, if one or both cavities be nearly filled with serosity, less caution is necessary in the introduction of the trochar; and if the operation be performed more early in the disease, which in general it should be to ensure success, then it is necessary to proceed more cautiously, to avoid puncturing the lungs.

Having introduced the trochar, only so far as to observe the gush of fluid, put the cannula forward, retracting the trochar, consequently leaving the cannula alone in the orifice. The cannula must be pushed up to its collar, where it will remain, until the fluid is all drawn off.

Coagula, or even the inflated lungs, sometimes is found to obstruct the flowing of the latter portions of the fluid; to obviate which, introduce a probe into the cannula occasionally, until you are satisfied the whole is drawn off. When the whole of the fluid has been withdrawn, take out your cannula, and close the orifice by adhesive plaister, or by the common suture; for you must not think of performing the operation a second time, as is frequently practised in the human subject; for having drawn off the fluid, you must depend upon the medicine as before prescribed, for if water again accumulates, the debility will be so much the more increased, and the natural consequent, the animal falling under the disease.

DROPSY OF THE PERICARDIUM.

Dropsy of the pericardium is an increased collection of fluid in the sac surrounding the heart, therefore called dropsy of the heart. The symptoms are the same as the preceding case; but I am sorry to say there is no means of cure, neither in the Horse or the human subject; therefore we must submit to Nature in this case, and obey her laws.

In making this short account of the dropsy of the heart, we do so more to convince the public, who may unfortunately have such a case; for frequently the veterinary surgeon may get blame when there is none attached to him, for the loss of an animal (thus affected) under his care.

DROPSY OF THE BELLY.

This, like the last-named disease, seldom occurs in the Horse, and when it does so, there is frequently great difficulty in detecting it; yet, now and then, it may arise, and in consequence we are bound to notice it. It may take place after inflammation of some of the abdominal viscera. It consists of an increased deposit of fluid within the cavity of the belly. Now, Nature here has formed what is called the peritoneal sac, only of such dimensions as to hold its natural organs, such as the stomach, liver, intestines, &c., &c.; so that it being called a cavity, is only relative to what by nature is intended to be there. If water escapes into this cavity, it at once becomes a foreign body, and by which means is known, the tension of the abdomen, and by the undulations felt by one hand, when the belly is gently struck by the other; also, if you place your ear on one side the belly, and get some person to lightly force the opposite with their hand, you will by such means hear the undulating motion of the water perfectly distinct. In this disease, also, the urine is made in small quantities, the thirst is greatly predominant, the breathing quick and laborious; and this in consequence of the fluid having taken up a portion of the cavity of the abdomen, the lungs become pressed upon, and have not room to perform their natural functions; in consequence of the abdominal viscera pressing upon the diaphragm, the flesh also becomes wasted, as well as the adipose matter, which is frequently found floating in the fluid.

Here, I am sorry to say, we cannot always rely on a cure, but the disease fortunately happening but seldom, and that is then frequently the sequel of some other disorder of the viscera; but if the animal has stamina sufficient, there is a probability of recovery. Diuretic medicines are here the only means to rely on, combined with tonics; and I cannot recommend any thing better than the prescription laid down for dropsy in the chest; and if possible give exercise, rub the legs well, and bandage with flannel. I have found this disease cured, if taken in time, by blistering all four legs; and should the blisters rise well, you may almost rely upon completing your object.

WATER FARCY, OR DROPSY OF THE SKIN.

This disease, properly speaking, is very improperly named; the proper name being *anasarca;* but we have kept to the name it is generally known by, and that because it most frequently happens with young Horses, and consequently not having left the hands of the agriculturist, he might be somewhat puzzled without the local name.

Water farcy is then a species of dropsy, from a serous fluid spread between the skin and flesh, or rather a general collection of lymph in the cellular system. This species of dropsy shows itself first with a swelling under the Horse's belly; the tumefaction is soft and inelastic, and pressed upon by the finger retains its mark for some time. By degrees the swelling ascends and occupies the trunk of the body and the neck, even the eye-lids, face, and nostrils appear bloated, the lips are much swollen, also the legs and the sheath becomes greatly enlarged. When the disease arrives to this pitch, the breathing then becomes difficult, the urine small in quantities, and dark coloured; the bowels are costive,

and perspiration much obstructed ; the Horse becomes remarkably thirsty, attended with emaciation of the whole body ; to these symptoms may be added, a dull heavy appearance, and sometimes a cough.

In some cases the water oozes out through the pores of the skin, and you will see the hair, which, at that time of year (spring and fall,) is rather longer than at other periods, covered with the fluid thus effused.

This disease may be brought on by all the causes of the last named ; but here I should say debility to be the chief cause, and that frequently from bleeding too much. It is very frequent in the spring and fall of the year, when Horses are weak from moulting.

When the disease is partial, it is not so difficult to cure, as when it has become general ; however, we must proceed to rouse the system, by giving tonics, and those I have found most successful, have been the following :—

Take Cantharides - -	1 dram.
Sulphate of iron -	2 oz.
Sulphate of copper -	2 do.
Gentian - - -	4 do.
Mustard - - -	3 do.
Ginger - - -	3 do.

Mix and form into a mass with soft soap.

Divide into twenty-four balls. Give one every morning.

If the swellings have become considerable, puncture them with a middle-sized phleme, or lancet, in several places, and evacuate the fluid.

Great care must be taken in keeping the Horse warm, clothe him well, and well dress him, morning and night, by which means you will open the exhalants of the skin, and greatly relieve him. You must also be attentive with feeding, to give the most nutritious food possible ; oats, with beans, malt, and occasionally a few carrots. When the weather will permit you, let him have exercise, with clothing on ; it will determine blood to the skin, and give him great relief, always remembering to put on him after you have dressed him, a dry cloth. You then can dry the one you exercised him in, which will serve for the dry one next time. Do not forget to bandage his legs well with *new flannel* bandages. If the Horse should not be in that debilitated state as above described, give him, in addition to the above medicine, two or three times a week, at night time ;

Aloes, Cape - -	12 drams.
Nitre - - -	12 do.
Resin - - -	12 do.

Mix and divide into six balls.

SWELLED LEGS.

Swelled legs is a very prevalent disease of the Horse, principally affecting the hind legs, or only one of the hind legs ; the fore legs also are not exempt from this affection. It arises from various causes, but the one I have now to speak of, is occasioned by a deposition of fluid in the cellular membrane of the limbs, commonly in their lower parts, below the knee to the hoof. The disease, if suffered to increase, the skin cracks, and ultimately discharges pus, and then it falls under the head grease ; for the remedies *see* that disease. This disease may be brought on either by poverty, wet straw-yards, especially where the Horse has not been fed well, but on the outsides of hay-stacks. or that musty bad

hay, which the farmer can do nothing else with.

The complaint may supervene on other long-protracted diseases, and any of the above causes may produce it; we must not forget also bad grooming, by men who are too idle to perform their duty, and without a degree of feeling attached to them; for the disease is very painful, and at times occasions great lameness.

In all the foregoing stages, or causes of the disease it is not difficult to restore the patient, for it is evident that it arises from the debility of the absorbents to take up the effused fluid, and return it into the system; therefore, we must employ tonic medicines to arouse them to a new action. Bleeding I do not consider here at all necessary, but would recommend the following:

Take Sulphate of iron	- -	12 drams.
Cape aloes	- -	12 do.
Juniper berries	- -	6 do.
Myrrh	- - - -	6 do.
Soft soap to form the mass.		

Divide into six balls. Give one every morning. Have the Horse's legs well rubbed and bandaged; give him gentle exercise once or twice a day, and these things being attended to, with good grooming and nutritious diet, as sweet oats, with a little chaff and bran, and occasionally a few carrots and speared barley, will restore your Horse again. Avoid of all things giving *beans*, as when a Horse comes from grass or straw yard, and you give him beans immediately to force him, as it is called, the heels generally after swelling, become cracked. This will lead us on to those other causes which occasion swelled legs, as heated and foul atmosphere, standing long in his dung and urine, living high in the stable, with little or no work; with coach-horses in particular, where their journeys at the present day do not exceed eight or ten miles a day, which is generally performed in an hour, or a trifle of time more, the standing in the stable twenty-three hours out of the twenty-four. Horses coming into hot stables with their heels wet, from their having been in water or snow, and not immedately attended to, in order to dry them as quick as possible, in most of the above cases *debility locally* is the cause; but I should not say general debility, and that because it occurs to Horses high-fed and exercised, as well as to plethoric Horses, which sometimes are neglected; but for means of cure you must proceed differently. In these cases bleeding will be highly necessary, and give a course of physic (according to the strength and constitution) of the purging balls, and after which, a dozen of diuretic balls, as prescribed in the list of medicines, which *see* at the end of the work, and proceed as in the article *condition*, which we beg to refer the reader to in the introductory part of the work.

CHAPTER XIII.

OF DIABETES, OR PROFUSE STALING; BLOODY URINE AND STRANGUARY, OR THE OBSTRUCTION OF THE URINE.

DIABETES, OR PROFUSE STALING.

This disease is not frequently found in the Horse, but it is occasionally so, it therefore deserves our notice. The appearances of it are great thirst, with a voracious appetite, gradual emaciation of the whole body, and a frequent discharge of urine, containing a large proportion of saccharine, and other matter, which is voided even in a quantity exceeding that of the aliment or fluid introduced; these are the characteristics of this disease. But it is always much milder when symptomatic, than when it appears as a primary affection.

Diabetes may be occasioned by the too frequent use of strong diuretic medicines, severe evacuations, or by any thing that tends to produce an impoverished state of the blood, or general debility, such as bad hay, heated oats, and very frequently from foreign oats that have been long on their passage, either from the Baltic, or Ireland. It has, however, taken place in many instances, without an obvious cause.

That which immediately gives rise to the disease, has ever been considered as obscure, and various theories have been advanced on the occasion. It has been usual to consider diabetes as the effect of relaxation of the kidneys, or as depending on a general colliquation of the fluids. The liver has been thought, by some, to be the chief source of the disease; but diabetes is hardly ever attended with any affection of this organ.

The primary seat of the disease is, however, far from being absolutely determined in favour of any hypothesis yet advanced; and from the most attentive consideration of all the circumstances, the weight of evidence appears to induce the majority of practitioners to consider diabetes as dependent on a primary affection of the kidneys.

Diabetes sometimes comes on so slowly and imperceptibly, without any previous disorder, that it now and then arises to a considerable degree, and subsists long without being accompanied with evident disorder in any particular part of the system; the great thirst which always, and the voracious appetite which frequently occur in it, being often the only remarkable symptoms; but it now generally happens that a considerable affection of the stomach precedes the coming on of the disease; and that in its progress, besides the symptoms already mentioned, there is great dryness and roughness of the coat of the Horse.

Under a long continuance of the disease,

the body becomes much emaciated, the legs begin to swell, great debility arises, and the pulse weak and small.

In some instances, the quantity of urine in diabetes, is much greater than can be by any means accounted for from all sources united, and when subjected to experiment, a considerable quantity of saccharine matter is to be extracted from it.

On dissecting and examining the kidneys of Horses which have died under this disease, the kidneys invariably have appeared to have been much affected. In some instances they have been found in a loose flabby state, much enlarged in size, and of a very pale colour; in others, they have been discovered much more vascular than in a healthy state, approaching a good deal to what takes place in inflammation. The bladder, in almost all cases, is found to contain a considerable quantity of muddy urine.

For the remedies of this disease, there have been a great variety proposed; but their success is generally precarious, or only temporary at least. Medicines determining blood to the skin, are extremely proper, and for which I should recommend the following:—

Antimony - - -	1 lb.
Sulphur - - -	1 do.

Rub together in a mortar, and divide into two-ounce packets. Give one in the Horse's feed, morning and night; the feed first being made slightly damp, that the powder may adhere to it.

If the Horse should appear weak and much debilitated, give him one of the above powders in his feed every night, and the first thing in the morning, the following:

Take Opium - - -	½ dram.
Catechu - - -	3 do.
Arsenic - - -	10 grains.

Form into a ball with syrup of buckthorn.

In addition to the above, every middle day, give about a pint of fresh lime-water *, with a horn. Keep the Horse warm, and well clothed, and give moderate exercise. Do not ride the Horse, but lead him, your groom riding another. You must pay great attention to his food; if it be a time of the year you can get new hay, it will prevent him from being so thirsty; do not give oats, but barley, speared, or wheat with it, but not much.

ON BLOODY URINE.

Bloody urine is a disease generally caused by some injury to the kidneys, in straining to draw heavy loads, carrying heavy burdens, &c. Bloody urine may be caused by ulceration in the kidneys, from violent exercise, bursting some of the smaller vessels in the kidneys, or other urinary passages, or any causes that may occasion bursting of the capillary blood-vessels in those parts. If there is a sudden discharge of pure blood by the urinary passages, it comes from the kidneys; but if a small quantity of dark coloured blood, whether it be mixed with purulent matter or not, it proceeds from the bladder.

In prescribing for the cure of this disease, you must by all means avoid giving diuretics, for they are very hurtful; you must endeavour to

* For the benefit of those who do not know how to make the lime water, we will give them our method:—Take of quick lime, that is light and fresh-burnt, one pound; put it into an earthen vessel, and pour upon it two gallons of water; let it stand until the lime is settled, then pour off the clean water. It must be kept in bottles, well corked.

restore the parts to an healthy state as soon as possible, and this you can generally do by giving the following:

Take Catechu - - - 3 drams.
Opium - - - 1 do.
Alum - - - 2 do.
Aloes, Barbadoes - 1 do.
Form into a ball with honey or treacle.

Give one morning and night. Many persons apply hot sheep-skins to the loins, but I never saw much good effect arise from their application; but you will find great benefit in applying as under to the Horse's loins:

Take Liquor of ammonia - 2 ounces.
Olive oil - - - 2 do.

Rub this on the Horse's loins, morning and night. Mix, and when applied, shake the bottle well. If the Horse be in high condition, take three or four quarts of blood from him, and keep him warm.

OF STRANGUARY, OR OBSTRUCTION OF URINE.

Strang ary is an obstruction, or temporary suppression of urine, and may arise from different causes; for, as before observed, the variety of parts appropriated to the secretion and excretion of urine are so numerous, as to render the exact cause of disease a matter of ambiguity and uncertainty, even by good judges. Stranguary, sometimes is a concomitant to the inflammatory cholic, and is then the effect of pressure from the indurated fæces, or hardened dung, retained in the rectum or last gut. When it does not arise from this cause, it may proceed from inflammation of the kidneys themselves, from ulceration, spasms upon any particular part, on inflammation of the neck, or the bladder itself.

When it is the consequence of cholic, and proceeds only from that original cause, it may be considered merely symptomatic, and will be entirely subdued with the first complaint. The signs of this suppression are too palpable to be mistaken; the Horse is in an almost perpetual position to stale, without effect, indicating by action and attitude, the expectation of an unusual discharge; when, after frequent straining, the effort terminates in a groan of seeming disappointment. The Horse does not in general appear in acute pain, but seems full in the flank, somewhat dejected, and to a minute observer, seems not only conscious of his inability, but to supplicate assistance and relief.

The most certain means of affording relief to the Horse, is to abstract about three or four quarts of blood, in order to relax the parts; then introduce the hand up the rectum, and remove all hardened dung*, then throw up an emollient clister, composed as follows:

Thin gruel - - 3 pints.
Common salt - 3 table spoonsful.

Let this be injected moderately warm, and retained in the body as long as possible, by pressing the tail down against the fundament. If the bleeding and glisters have not had the desired effect in a moderate time, repeat the glister, and give

Camphor - - - 2 drams.
Nitre - - - 1 oz.
Form into a ball with treacle,

And give as soon as possible.

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* This is called by the old farriers *back-raking.*

These are safe, mild, and efficacious; in general producing the desired effect, without any uneasy sensations. Repeat your remedies every four or five hours, until you have gained your object.

Thus much for stranguary occasioned by spasm, or inflammation of the neck of the bladder: but, as before stated, it may proceed from inflammation or ulceration of the kidneys, and a paralytic affection or palsy of the parts, in either of which, symptoms are frequently doubtful, and seldom certain; circumstances may constantly vary in different subjects, so as to render the true seat of disease a matter of conjecture only.

The only symptoms to which some certainty may be attributed are the following:—If proceeding from spasm, on either part, there may be frequent periodical relaxations that will permit the urine to flow in small quantities for a very short time, when it may as suddenly stop. In this case, the urine will be of its usual colour, or at times rather deeper, as if not perfectly complete in its secretion from the blood. In such case the treatment will be as just pointed out, but with this additional direction, repeat the bleeding again.

But where the cause originates in palsy of, or ulceration upon, any of the above-named organs, attached to the offices of evacuations, no great expectation of cure can be indulged in, but more particularly in the former, with which approaches certain death.

CHAPTER XIV.

ON CASTRATION, OR GELDING; AND HERNIA, OR RUPTURE.

CASTRATION, OR GELDING.

The operation of castrating a Horse is by removing his testicles, he is then called *a gelding;* and of course by the operation loses a considerable degree of firery disposition, sometimes displayed in the entire Horse or Stallion. However, the gelding is so much more considered of general use, that few entire Horses are kept, excepting in the racing stud, or by individuals to breed from.

The proper time for castrating colts, is when they are about twelve or from that to eighteen months old; but I have known, even at that age, both testicles not having descended into the scrotum; when such is the case wait a few months longer. Some breeders, according to the custom of their locality, will have their colts cut at a very early period, that is about three months old; but I consider this more fancy than any thing else; therefore, I should recommend, for all general purposes, not to cut colts earlier than twelve months; the colt gets better formed, and it being at a time he cannot be used for any kind of work. In Yorkshire, they let them remain a longer time, so long as three or four years old; hence their high breed of coach-horses. Breeders in that county work them until near four or more years old, then castrate and bring them out at five years old fit for the dealer, and with the exception of cart-horses, are the most valuable kind to breed.

There is great difference in castrating young colts and old Horses, the former requiring no preparatory means being employed, in consequence of having been continually at grass; this is not the case with old Horses, which should be bled and have a dose of physic, and fed on bran mashes for a week before the operation takes place.

The method of operating is to have your Horse led out on to some soft straw or loose manure, then put on your hobbles, cart the Horse on his left side, secure the off hind leg with the side line, and pass it through a web collar buckled round the neck, take the line round the heel of the Horse, and again through the collar, when make perfectly and securely fast, that there may be no possibility of its breaking or giving way, when the Horse struggles during the operation. Having every thing in readiness, such as your smallest scalpel, the clams armed with fresh tow, and a curved needle armed with fine pack-thread (in case of accident). Grasp one of the sacs of the scrotum firmly in your left hand,

then taking your scalpel in your right hand, make a section in the skin, in the most depending part of the bag, through the integuments, and of sufficient length for the testicle to protrude itself through; lay down your scalpel and grasp the protruded testicle with your right hand, and gently draw back the scrotum with the other, so as to expose the spermatic cord, on which fasten the clams sufficiently tight to prevent its slipping; then take your searing iron of a dark red heat, and saw the testicle off; I say saw, because if you make use of a saw-like motion, the end of the cord becomes cerated thereby, and requires but little more from the iron; though in all cases it is necessary to touch the end of the cord again before you loosen the clams, to prevent bleeding; but if care be taken, and not being too much in a hurry, it will be easily accomplished. Now loosen your clams gradually, and if blood does not seem to appear, proceed with the other in the same way; should a little blood escape from the first orifice, do not feel alarmed, for it may be only from the Horse's struggling; let the Horse get up, and be placed for a few days in a barn or out-house. Give, immediately you have housed your Horse, a diuretic alterative ball, as under:

Take Cape aloes - 3 drams.
Resin - - 2 do.
Form into a ball with soft soap.

Continue the feed of bran mashes for three or four days, when turn him out; I have never found this simple method fail, if proper care be given; though in some counties, I wonder more do not die than do, from the rough brutal manner in which the operation is performed; for instance, in the county of Gloucester, the operator, the first thing he does, is to withdraw the penis, wipe it clean, and smear it well after with hog's lard, *as he says to make the Horse draw his yard easy;* then, after having performed the operation by burning the scrotum open to evacuate the testicle, and having removed it, he pours into the sac a quantity of green ointment, then comes the hog's lard again, to the tune of about half a pound to supple his thighs. A similar method they have in Devonshire; added to which they sew up the scrotum after performing the operation, to prevent the artery from bleeding the Horse to death. But these are all whims of old practitioners for want of knowing the anatomy of parts. Some veterinarians will not perform the operation at all, but the reason must be obvious, as it is decidedly a surgical one *.

* Whilst serving with my regiment in India, I was asked my opinion of a beautiful chesnut-horse, relative to castration; though the Horse was perfectly quiet and docile; but the scrotum had become so much enlarged in one of the sacs, that it hung down within a few inches of the Horse's hock; the appearance was displeasing, and the noise the Horse made in galloping by its flapping against his thighs was such that it became remarkable; and the owner consulted me as before stated. I examined the scrotum, and found the testicle remarkably small, but it contained a considerable quantity of fluid; in fact, the Horse was affected with hydrocele. I could easily have extracted the fluid, but fearing the bag might fill again, I consented to operate; and accordingly, as I had anticipated, on cutting through the tunics of the scrotum, at least *three quarts of yellowish fluid* escaped; at this time I felt great difficulty in retaining my hold of the testicle, from the considerable enlargement of the scrotum; however, I did so, and from the amazing length of cord I was obliged to draw down, I had great contention with the cremaster muscle; however, I succeeded and placed my clams† on

† The clams used in India are about five inches long, made of a round piece of wood, about the size of the handle of a sweeping broom; this is then slit down the middle, so that there is two flat sides, these sides have a groove up the middle about the size of a goose quill; the groove is filled with corrosive sublimate one dram,

In this operation there are cautions required, and those of moment, though it is mainly performed by ignorant men, who are called *cutters or gelders;* and though they will perform the mechanical part of the operation very well, and to all appearance things go on as they should do; but if any alteration for the worse should take place, these men do not understand it, and not having a character to loose, the matter is easily looked over, with the old adage attached to it, "*bad luck this time, better luck next;*" not so with the veterinarian, who is supposed never to do wrong, or *bad luck* attend him; his character is at stake, for ten to one, the first company his employer falls into, Horses will be a part, if not the greatest part of their conversation, who are sure to blame the operator if he be a "vet," so that if John Jones or William Thomas, have been gelders or cutters, and their forefathers before them, for at least five generations, they must know more than a scientific and well educated veterinary surgeon. Therefore, it behoves every man, undertaking the operation of castration, to be well informed, not only of their parts, but their means of cure. The greatest enemy you have to contend with, is inflammation of the parts; should this take place, and the Horse walk stiff with his hind legs, moving with a straddling gait, (and especially if he be an old Horse,) bathe the parts well with warm water three or four times a day, after which wipe perfectly dry; then rub all over the enlarged scrotum and sheath with good digestive ointment, and be not afraid to introduce some into the sac, which will promote a discharge; give the ball as recommended before, every second day, until the swelling goes down. The food you must regulate according to the age or size of the Horse, but avoid giving much corn; bran mashes, green food, &c., are the best. In old Horses, if attacked with swellings after the operation, you must give a dose of physic, and bleed: all the other applications will be needful to be attended to, as in young Horses.

Locked jaw not unfrequently supervenes on this operation in India, and that I attribute to the injury the nerve sustains, in consequence of the operator pulling at the testicle so forcibly, as before mentioned.

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well, but not being contented with doing well *, I immediately removed the testicle with a scalpel, leaving the cord only within the clams, which with the Horse's struggles, and the cremaster muscle being on the stretch, he easily withdrew it from between the clams, and the cord of course receded into the sac, and bleeding commenced most furiously: however, I did not loose my presence of mind, but took a straight needle, and introduced the *glover's suture*, the scrotum filled with blood to a tremendous extent, but yet I had hope on my side; I ordered the Horse to be kept quiet by himself, and gave him aloes six drams, gave him bran mashes and hay, saw the Horse on the morrow, and found an immensely large scrotum. I procured some warm water and a sponge, and then commenced, carefully cutting the stitches, and to my astonishment three parts of a common stable-pailful of coagulated blood came tumbling down through the orifice I had made for the escape of the testicle. I syringed the scrotum well out with warm water, in which about two ounces of chloride of lime had been put in, until all appeared safe, and no discharge of blood whatever. The scrotum was dressed in this manner for three or four days internally, and regularly bathed with warm water outwardly, and around the sheath three times a day. This Horse went home perfectly recovered in three days over a month, and fit to ride.

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and hog's lard sufficient to form an ointment; they are, before placing on the cord, tied together at one end, then at the other pressed together with pincers, and tied at the other, these are taken off *on the morrow after the operation.*

* I merely make this remark, on account of Indian Horses, that sometimes undergo this operation, die from mortification taking place; and my belief of this is, the operator tugs at the spermatic cord, on purpose to place the clams up high, as if he had been on board a ship in rough weather, and the order was given "main sail haul."

HERNIA OR RUPTURE.

Hernia or rupture, is the displacement of some of the abdominal contents, from the cavity outwards, by some of the natural or by some artificial openings. The intestines are by far the most common of the abdominal viscera. When such protrusion takes place through an opening, and the protruded part can be readily returned, it is considered as reducible hernia; if the opening be too small, of course it becomes irreducible. If the mouth of the sac around the intestine constringes, and produces inflammation of the gut, it then forms what is called strangulated hernia, and sometimes proves fatal, unless relief be promptly obtained.

From the position of the Horse, stallions are frequently affected with scrotal hernia, for the scrotal cavity remaining open to the abdomen, the intestine frequently descends ; but this is not the case with geldings, for the absorption that has taken place after castration, almost prevents the possibility of scrotal hernia. In India, these scrotal hernias are almost a daily occurrence, and especially with Horses which have violent action to perform, and are of a loose weak nature. Castration is not general in India, and the relaxing state of the climate I consider to be the principal cause; but it is attended not only with inconvenience, but great danger.

Omental hernia is exceedingly common in India; and I once performed the operation of castration on a Horse, and to my astonishment the omentum protruded itself, which, after having put on the clams, I allowed it to do; I then introduced my finger into the sac, and as far as I could feel up, ripped it off, it might be about two feet long, the Horse did well. Accidents, violent exertions, kicks, gores from neat cattle may produce ventral hernia in any part of the cavity, and they form a pouch or sack. Horses may die from strangulated hernia, the death of which may be attributed to simple enterites or any other cause. I once had a case of a black Horse, belonging to Messrs. Blake, of Devonport, placed under my care ; they had just come from Truro in Cornwall, (they having several establishments at different towns, within ten and twenty miles of Devonport) ; they were in the habit of driving fast, to cover so much ground ; the Horse came into the stable, but soon evinced symptoms of enterites ; I bled the Horse to about six quarts, ordered gruel with glisters, as if for enterites, with orders to call me at two o'clock, if the Horse was not better; it proved so, the man came and stated the Horse was as bad as ever ; I then prescribed counter irritation, but all to no effect, the Horse died about six o'clock in the morning ; on opening him, I found a strong ligamentous cord, as thick as my finger, inserted into the peritoneum, and continued up to the messentery, equally strong inserted to that body. Now by some violent exertion, either in going up or down the hills of that neighbourhood, the intestines had been thrown over this cord, and could not replace themselves, and strangulation was the consequence, clearly shewing that violent exertions produce the disease. But to return to our subject.

Most cases of reducible hernia, originating in accident to the walls of the abdomen, can only be supported by bandage, the great force of the abdominal muscles, and our inability to confine the animal perfectly still, while the parts unite, prevent their permanent reduction.

But with scrotal hernia, we have a much greater advantage, although the temporary

reduction of the gut may be commonly affected by the application of the *taxis* or pressure, I have performed this operation, and the accident never occur again.

With regard to symptoms of scrotal hernia, for that is the only one class you can well discover, the animal paws continually, lays down and as frequently gets up, sweats profusely about his loins and quarters; sometimes they roll, but this appears with such difficulty, that after immediately doing so, they will jump up, and that so suddenly, that it is difficult to get out of their way; if it be an entire Horse*, (for if not, do not trouble yourself,) examine well the scrotum, and you will immediately find which is diseased, by its fulness and tensity; having satisfied yourself on this point, have the Horse's four legs secured, and drawn by a rope until he completely lays on his back; this being done, endeavour to return the gut, by taking hold of the scrotum of the diseased side, and press the gut to return through your fore-finger and thumb; should you not be able to accomplish this matter, you must have recourse to the operation for hernia: which is, take the diseased sac into your left hand lightly; then, instead of cutting at the most pendulous part of the sac, as in castration, be exceedingly cautious, and cut into the sac near the seam or pubis, running between the sacs of the scrotum. Now be careful, have your scalpel in good order, and divide the integuments carefully, until you can feel with your finger the contents of the sac; let your opening be so small that you can only admit the point of your fore-finger; *now mark*, if the sac should be so large or dilated, first make an incision on the side, so that you may introduce your fore-finger as far as you can, then make a second cut, allowing your finger to be the director; this being accomplished, introduce your finger into the abdomen and feel for the abdominal ring, which you will easily do, if steady and careful; when you have accomplished this, let an assistant hand you a concealed bistory, run the bistory down your finger for a director, and partially cut through the ring, having the edge of your bistory bearing forward and upward; should you succeed in reducing the hernia at first, you have gained your object, but if not, you may try again; but here, as before, with the greatest caution, and divide the ring, should such be required; immediately castrate the Horse on that side. Give a gentle dose of medicine and soft food, as bran mashes, &c.

* I have made this remark, because some writers talk of scrotal hernia in geldings. I must confess, although having been bred almost a Horse myself, I never saw it

CHAPTER XV.

OF STRAINS IN GENERAL; STRAIN IN THE SHOULDER; STRAIN OR CLAP IN THE BACK SINEWS; OVER STEPPING; BREAKING DOWN; RUPTURE OF THE BACK SINEW; STRAIN OF THE FETLOCK JOINT; STRAIN IN THE COFFIN JOINT; STRAIN OF THE ROUND BONE; STRAIN OF THE STIFLE JOINT; AND ON CURB.

OF STRAINS IN GENERAL.

STRAINS are a part of this work to which such frequent application will be made for information, that they cannot be too accurately explained for the purpose of being understood: therefore, to understand this subject clearly, it is unavoidably necessary to be informed, not only of the causes from which such complaints proceed, but the parts that constitute the seat of disease itself.

To acquire which, let it be observed, strains are of two kinds; the one originating in the ligamentary parts, by which the different joints are preserved in contact; the other, by a relaxation of the muscles or tendons, or by a rupture of any of the membranes covering or adherin to such tendons, whose purposes are the direct office of motion. Hence it is, that the farrier and the groom are so frequently at a loss for their definition of any particular lameness, fixing by conjecture upon any part, attributing it to any cause but the right; and to this they are seldom directed by any mental information, possessing a very barren conception of the structure of parts, their purposes or appropriations.

The elastic part of a tendon or sinew, is the muscular, to which in fact the tendon is a continuation only, with this difference, the tendon is made by nature to occupy a much smaller space than muscle, for it would look rather awkward to see the muscles of the fore leg extending down to the heel of the Horse, instead of that fine uniform make which the tendon gives, and especially in the race Horse: the tendon is not of that elastic nature that some writers have described, but it is the muscular end where the elasticity exists; this at first sight would appear strange, for the injury takes place in the tendon, not in the muscle; and for this reason, the *non elasticity* of the tendon and its sheath will rather submit to rupture, and that for want of the elastic quality; these tendons, or sinews, are strong substances, composed of innumerable threads or fibres, possessing the properties of extension and contraction to a certain degree, beyond which their flexibility cannot be extended, without palpable

injury and certain lameness; for by over-straining their elastic quality, small as it is, rupture is the consequence, and lameness in proportion to the injury sustained.

To render this idea as clear as I possibly can, and that it cannot be misunderstood even by the merest tyro in Horse knowledge, let us suppose that a Horse is going at his best pace on the trot, and in so doing his *toe* covers a prominence, or the edge of one, where the heel has no support, the consequence is, an extension of the tendons, or a rupture of the same; by which means destroying part of Nature's work, and constitutes what is termed, letting down of the back sinews; a circumstance which frequently happens on the turf, and the Horse is then said to be "broken down."

This being supposed to have happened, the principal indication of cure will immediately strike every reader, so far as the gradual contraction and tone of the tendon is concerned; but the previous and instantaneous consideration, will be to prevent as much as possible, any consequent inflammation that may fall upon the parts.

To which end take away, so soon as convenient after the injury is sustained, a portion of blood adequate to the state and strength of the subject, from a vein as contiguous to the part affected as may be consistent; and as your success will in a great degree depend upon the earliest applications—

Take Vinegar - - 1 quart.

Make this hot; which having done, add extract of Saturn, one ounce: foment the leg with this until it is exhausted, say for two or three times a day; and after each fomentation bandage the leg well and firm, with a woollen bandage. Give bran mashes for a day or two, and the following:

Take Cape aloes - - 2 drams.
Juniper berries - 1 do.
Form into a ball with soft soap.

Give one every other night.

After fomenting with the above for two days, use the following embrocation; let two or three table-spoonsful be gently and gradually rubbed into the affected part, every night and morning, always remembering to use the bandage tolerably tight and firm—

LINIMENT FOR STRAINS.

Take Barbadoes tar - 2 ounces.
Spirits of turpentine - 2 do.
Opodeldoc - - 4 do.

Mix well together, and keep well stopped for use.

To this application must be added *rest*. Too much stress cannot be laid upon this most predominant and necessary article, from which the greatest good must certainly result. To the want of patience and mercy only, it is to be attributed, that such an infinite number of fine Horses have been considerably blemished, instead of being indulged with proper time in the field, or the luxury of a loose box; by this means an excellent Horse would have been saved from the scoring of his legs with the hot iron.

And what is no less astonishing that, in the present age of equestrian sagacity and penetration, few can be found, whose reason will sufficiently demonstrate the absolute necessity of time and rest, to restore the tone of a relaxed muscle or tendon; a system of knowledge, as clear as any mechanical principle that can be produced.

When the Horse has continued in the stable, under the treatment before mentioned, for at

least a fortnight, he should, if in the winter time, have his liberty in a loose box, bay of a barn, or large stable, where he will, by a natural attention to his own ease and safety, (unless hurried, driven, or disturbed, which should by all means be prevented,) sufficiently guard the injured parts. On the contrary, if in the summer, he should be turned into a paddock or pasture alone, at a distance from other Horses, where he cannot by their neighings be excited, by any exertion of spirit or extravagance, that may occasion a relapse. But in either cases, if the enlargement of the part does not subside, and the lameness bear visible marks of amendment, so soon as may be reasonably expected, take the Horse up, and apply the following liquid blister :

MILD LIQUID BLISTER.

Take Cantharides, powdered 4 drams.
Vinegar - - - 4 ounces.

Mix well together.

This mixture must be gradually rubbed over the whole part, for at least half an hour, letting it be entirely absorbed by, and around the seat of pain, if possible ; then apply the bandage as before described, and shorten the halter, to prevent the Horse gnawing the part : at the expiration of three or four days, the Horse may either be turned out, or put in a loose box, as the time of year may serve ; but my opinion is, let the time of year be what it may, a loose box is preferable to any thing. When the Horse is first brought into use, let his work or exercise be gentle, fearing a relapse of the complaint ; if such should be the case, immediately have recourse to the following :

Take Of the best vinegar, or verjuice 1 quart.
Common salt - - 4 oz.

Rub the parts well with it, twice a day.

By this method of practice, I have seen the complete cure of many, without having recourse to firing, which is in general much too speedily adopted, and no doubt hurried on by the great anxiety of the ignorant farrier, and who may be anxious to shew off his abilities ; but with all kind of strains, you must give the animal rest, and to this alone, nine times out of ten, the cure is to be attributed ; for after firing, even in extreme cases, turning out is the sequel, and if taken up sound, I should attribute much more of the cure to that grand specific *rest*, than to the effect of firing ; in addition to which also, your Horse comes out without any blemish whatever.

Strains in the ligamentary parts are in general occasioned by sudden jerks, short turns, or sinking in deep ground, and forcible exertions to get extricated. These being situated at the junction of bones, and in some cases, covered with muscles and soft parts, that no great expectation of relief can be formed, upon the efficacy of external application, when the seat of pain is unluckily so remote from the surface. Having given a cursory explanation of strains, I shall now proceed to give a detailed account of these affections and their situations, with the best mode of cure.

As has been before observed rest is one of the best remedies we have in hand for sprains ; but that is Nature. Now, it is our duty to assist Nature to its furthest extent ; in doing which, we are obliged to call in medical aid, and when we do this with confidence, we generally meet with success.

It has been customary, to enumerate the different parts most likely to suffer from sprain; therefore, we will not go out of the course, but take them in due order, beginning with

STRAIN IN THE SHOULDER.

Strains in the shoulder, formerly called chest, or body founder: in strain in the shoulder, there cannot be the slightest mistake in discovering it, for when the Horse is put in motion, he makes a circuitous or rotary motion of the leg that is affected, and drags his toe on the ground, in endeavouring to bring it forward; he also, (if I may be allowed the term,) appears to hutch up that side altogether, in endeavouring to make a walk of it. Shoulder strains are, therefore, frequently the consequence of a side wrench, or slip, by which means, the fore-legs become so widely separated, that the muscles attaching the fore-leg to the body of the Horse, become so much stretched, or I have no doubt, in some cases, actually ruptured, that the greatest pain is evinced; the ligamentous attachment also participates in the injury, though if properly observed, the muscle of these parts are of themselves of a peculiar delicate and tender nature, and may easily become ruptured. One of our most celebrated writers considers the *flexor brachii* the part most affected in shoulder strain; but how he can reconcile this, I am at fault to ascertain, it having so little to do with the shoulder, having a distinct and contrary action to those muscles where we generally find the disease to exist. Shoulder strains do not frequently occur, though grooms and farriers, and other persons about Horses, are often led, from habit, to attribute it to every lameness they do not understand, and the seat of which does not make itself evident almost to the blind and uninitiated; for, on viewing a Horse in front, the muscles of one shoulder will appear wasted. Though this be so evident, it requires more than usual exertion, to make even intelligent persons believe that the evil did not originate where it does. In all affections of the feet, where there is much pain and lameness, nine times out of ten, the lameness is placed on the shoulder, and this in consequence of persons not knowing the real seat of disease; for the Horse will draw his fore-legs closer together, the spine of the blade-bone becomes prominent, and the whole substance seems lessened. The origin of this is from inaction, in which case muscles always diminish; added to which, the pain the animal is continually in, occasions him to give rest to the diseased limb.

It is very necessary, therefore, to be able accurately to distinguish shoulder strain, and much more difficult to persuade your employer of the situation of lameness; but if proper attention be paid to the rules before laid down, as to the action of the leg, there will be but little difficulty in at once pronouncing where the seat of lameness exists. When the Horse is at rest, the limb is generally pushed forwards, the Horse scarcely daring to touch the ground with it, the toe only just resting on the ground, the Horse putting on the appearance, as if in the act of lifting up the leg; by these means, you will be able easily to distinguish it from diseases of the feet; for in those cases, the Horse puts his foot straight out, what is called *pointing*, resting on the entire foot. These symptoms being so entirely different to affections of the feet, I trust my readers will have no difficulty in determining between the two, especially if they take the leg off the ground, and extend it forward as

much as possible, and at the same time press the muscles of the chest; this will at once determine in the mind of a judge the seat of lameness. This being discovered, we shall refer our readers to the part treating of "Strains in General," and as a remedy use the liniment directed for strains. Some people are fond of what are called repellants, or cold applications; but they will be always found to fail, nothing answering so well as a remedy that will promote the action of the absorbents, and at the same time act as a counter-irritant. Should the parts occasion a degree of fever, take blood from the jugular vein, according to the size and strength of the animal; apply then the tar liniment; but do not apply a common blister, either if the lameness arise from a ligamentous strain of the shoulder, or the muscles of the chest, for at best you produce either blemish or eschar; but as a mild application in the shape of a blister, I would recommend the following:—*See* mild liquid blister in "Strains in General." Apply as directed under the head of that article, rub on the affected part, morning and night, until the swelling and inflammation will not allow you to continue it further. Do not be alarmed at this, but wait for two or three days, and the swelling will subside, when the application should be repeated, until the same effects again prevent the application. In this way keep up a mild inflammation for a week or ten days; this you must be directed in as the disease abates. It is very seldom necessary to continue the application after the second time, the disease generally yielding by that time to its use. This will be found a much more eligible mode of practice, than the common blister ointment.

In addition to the above remedies, you must not forget the alterative medicine, as before directed; it will not only keep the system cool, but will promote the absorption of any extravasated fluid that may have taken place in consequence of the injury.

There is one thing in strain of the shoulder, which must in no wise be lost sight of; and that is, it is apt to return, unless you give the Horse a sufficient time to *rest;* for, though the lameness may disappear, on your first bringing him to work, in nine cases out of ten, the lameness is so liable to return on the least exertion, that I should recommend at least a month or two in a loose box, or in a field, where he can lay quiet, previous to using him, though he may not appear lame. *Rest*, in this case, being so decidedly useful, I cannot dwell too long upon the subject.

Horses sometimes are liable to kicks from other Horses, which will affect the shoulder, and occasion considerable lameness, when there is no strain whatever; when such should be the case, bathe the shoulder well with warm water; after which, wipe completely dry, and apply the tar liniment, as directed before. Insert a rowel in the chest, which will be preferable to bleeding in the plate vein, and your Horse brought into work in much quicker time.

STRAIN, OR CLAP IN THE BACK SINEWS.

A strain, or clap in the back sinews, is not thought so much of by some writers as it really deserves, though those persons acquainted with Horses know to the contrary; for it rarely occurs, that a Horse once strained in his back sinews, or tendons, or their sheaths, ever becomes able to perform much hard work; still, I have known both race-horses

and hunters to be capable of work, after an accident of the above kind; but this is not frequent. However, as the disease is one which we are frequently called in to, we must do our best to alleviate the poor animal who may be suffering under the acute pain of such an affection.

On reference to the article of "Strains in General," I there stated, that laceration of some of the ligamentous fibres may occasion the affection; still it is, however, more generally confined to a distension of these parts, and of the sheaths of the tendons beyond their structural capacity; although there is little reason to doubt, but that the tendons themselves are also sometimes thus acted on. This disease may occur to the hind legs, as well as to the fore ones; but I must confess I never saw it attack the hind legs; but it may be brought on in the fore legs by treading on any thing suddenly; such as downward leaps, in attempting to recover a false step, treading unevenly on any hard or prominent substance. This is also occasioned frequently by lowering the heels too much, or too suddenly, by which the tendons are brought more into action than Nature intended them. The injury in consequence brings on inflammation, with all its attendants of heat, swelling, pain, and lameness, and in all probability an incapability of extending the limb. The effusion from the ruptured vessels may be absorbed with proper treatment; but if coagulate lymph be once formed, it will be with difficulty, or perhaps not at all, and more especially if the lymph should be thrown out between the tendon and its sheath; this being not so readily absorbed, forming callosities around the back sinews, which so frequently follow these accidents, and by their enlargement obstruct the motion of the limb, which is felt in a great degree after exertion, and is shewn in a particular manner at first starting; but having become warm, which I should say arises as much from pain as exertion, the lameness apparently leaves him, and it is then said by persons who have to drive such a Horse, "*Oh! it will go off as he becomes warm;*" not at all reflecting on the sufferings of the poor animal. The cause of this is friction; for, as the deposits of lymph are from the rupture of the small vessels lining the sheath, they become turgid and full. Now, the action of exercise, occasioning friction, friction producing warmth, stimulates the absorbents to take up the fluid from the mouths of the ruptured vessels, and consequently, for a time, or when the Horse is in action, the swelling and lameness, either partially or wholly, disappears. Thus, you perceive the advantage of hand-rubbing and the flannel bandage.

or the treatment of strain in the back sinews, we must refer our readers to the treatment of sprains in general, though with this addition, on the first discovery of the accident, have the shoes taken off, and the heels turned up about half an inch; this will greatly relieve the pain the animal is labouring under. Bleed in the plate vein; next bathe the leg in warm water, and use the "tar liniment," as before directed. If symptomatic fever should come on, use the alterative medicine, and a cooling diet, as bran mashes, a few carrots, now and then; corn you need not be so plentiful with.

Should the repetition of the liquid blister not be successful, you must have recourse to firing; and, with care, this operation may be performed not only with neatness, but as scarcely to be seen. I have, in severe cases,

been obliged to fire twice, and which has proved successful; still I would not recommend firing, until all other remedies failed, and previous to which I would advise the mercurial plaister; or, perhaps, what may be more convenient, the application of mercurial ointment.

Take Mercurial ointment (strong) 2 oz.

Rub a portion of this ointment on the diseased part (first warming it to make it pliable,) morning and night, for three days; then, waiting one day, apply the liquid blister as before described. Put a cradle on the Horse's neck, to prevent his biting the parts, and if he appears irritable, tie him up to the rack.

OVER-STEPPING.

Over-stepping, or, as it is called by some, over-reaching, arises from a peculiar length of action the hind legs have to the fore ones, in consequence of which the fore legs cannot get out of the way of the hind ones; which, when it occurs, is very liable to injure the fore legs, and in some cases so much so, as to throw the Horse down.

These accidents sometimes happen, from the toe of the hind foot being too long, and not squared off properly. It may also occur from bad riding, in pulling up short, or by a Horse galloping with the wrong leg first, which altogether alters his gait, so much so as to be uncomfortable to both horseman and the Horse. The consequence is, that in the attempt to get himself into the proper mode of gallop, he will strike his hind foot against his fore leg; and, if not come down, will lacerate the leg sometimes in a terrible manner. Whenever the wound is such as to leave a flap of skin, whether it be upwards, or downwards, or sideways, it should be immediately cut off as close as possible, as a re-union of the parts can never take place, and by leaving the flap, and attempting to effect the re-union of the parts, there would be a thickening and a greater blemish, and its removal would be found necessary at last.

Though I have introduced this affection in the chapter of strains, it probably might have been better in the chapter on wounds; but it so frequently happens that the tendons become injured by the blow inflicted, that my readers must pardon me for including it with diseases of the tendons.

Now, in this case, poulticing will be highly advisable; and nothing can be better than a warm bran poultice, which should be applied until the inflammation is subdued, always recollecting to bathe the leg in hot water. When the inflammation is removed, apply the following, two or three times a day.

Take Hog's lard	- - -	2 oz.
Alum, finely powdered	-	3 do.
Sulphate of zinc	- -	¼ do.

Work well together in a mortar, and apply as above, it will effect a cure in a few days.

BREAKING DOWN.

Breaking down is a term so generally understood, that it is familiar with all sportsmen and horsemen, though in medical language it is called "*rupture of the suspensory ligaments.*" This is an accident that most frequently occurs to young Horses, either in breaking or training, and more particularly so to the race-horse than any other. The severe training the race-horse has to undergo at the present day, makes him exceedingly liable to rupture the suspensory ligament, as the fixed

point of it being immediately under the knee, and then inserted into the heads of the sesamoid bones, puts this ligament so much upon the stretch, that at every bound the Horse takes, there is no wonder it becomes ruptured; especially taking into consideration the age that Horses are brought on to the course now-a-days, to what they formerly were, and also the pace they go; though the distance may be short, *the pace kills.*

It has been supposed by some, that this accident has arisen from a rupture of the flexor tendon: though I have known after the operation of *neurotomy* having been performed, the flexor tendon to be partially divided, and the Horse go as if rupture of the suspensory ligament had taken place. The limb in these cases betrays the greatest weakness, and the fetlock is almost brought to the ground.

A perfect cure is seldom obtained; but I have known cases where Horses have broken down, and been able to race again, and become valuable. I could relate several instances of the sort; but as this work is not intended to enumerate all the sick cases that fall in our way, I shall abstain from that, and proceed to the cure of breaking down.

The first thing to be done is to bathe the leg well in hot water, then send for your shoeing smith, and direct him to put on a high heeled shoe, in order to relieve the parts. The Horse, in consequence of the pain he endures, will be anxious to eat, give him cold bran mashes, and the alterative ball, as prescribed in "Strains in General." This being done, apply the tar liniment, as before directed, well bandaging the leg, from the knee to the fetlock joint, or a little below it. If, after this application should be tried for about a fortnight, and is found not to succeed, you must proceed to firing: for the manner of which, *See* Plate.

RUPTURE OF THE BACK SINEW.

This is an injury that does not frequently occur to the Horse, though the former injury is in many instances mistaken for this; but that is not the case, though the membrane and the small vessels supplying them with blood, frequently become ruptured, and occasion great lameness, still the substance of the sinew rarely is ruptured. In such a case I should recommend the same treatment as in the preceding, which will be always found the best, and if necessity requires it, you must have recourse to firing; but here rest will be a grand auxiliary, and that in a loose box, if possible; for the frequent excitements a Horse has in the field, he is apt to forget his lameness for the time, and commences galloping about, much to his detriment, and retarding his cure. Slinging Horses has been recommended in cases of this injury; but the great difficulty in keeping Horses suspended is such, that I never saw any good arise from it

STRAIN OF THE FETLOCK JOINT.

This arises from injury done to the ligamentous and tendin us connection of these parts, either from long-continued exertion, or from the effects of more momentary, but violent efforts; such as in leaping, alighting on unequal, or stony ground; by which means the leg may be turned aside, similar to sprain of the ancle of the human subject. Another cause is, that some Horses, let them be going whatever pace they may, occasionally have a peculiar drop behind. This will occasion the injury, and principally arises from debility, or

having travelled too far, so as to exhaust the animal. Though this at first seems but trifling, it occasions great pain to the Horse. Here the tar liniment will be found of great benefit, scarcely failing to remove the lameness in a few days; but do not forget in all these cases, the warm water bath, and the flannel bandage.

STRAIN IN THE COFFIN-JOINT.

Strain in the coffin, as it is termed by farriers and grooms, is not so common a case as is generally thought to exist, for its being confined partially in the hoof, prevents its being subject to those strains which other joints are liable to.

When a Horse becomes lame, an attentive examination to the feet and coronet should not escape the attentive observer; but if you find heat about the coronet, do not take this for the disease, but only a consequent of the disease.

The lateral ligaments uniting the small pastern-bone to the coffin-bone, being the seat of disease, and not unfrequently ossific matter is secreted, arising from the inflammation that proceeds from the strain. To ascertain this, pass your hand carefully down the fetlock-joint, until you come to two little prominences, just above this is the junction or union of the large and small pastern-bones, and where this disease exists, you will there find considerable heat, and on pressure the Horse will exhibit considerable pain and uneasiness. These strains have not been discovered, or at least the seat of them, until of late years, which I claim the merit of to myself.

For the treatment of which, bleed in the pastern vein, or probably what will be more convenient, take blood from the foot: previous to which immerse the foot in hot water for at least half an hour, changing the water as it becomes cool; after which apply the mild blister ointment, as directed in the list of medicines. Should this prove ineffectual, you must have recourse to firing, which *See* at the head of this article.

STRAIN OF THE ROUND BONE.

The old farriers almost (as they say in Cornwall,) "one and all," attribute lameness behind to strain in the round-bone, or stifle, just as their fancy leads them to favour one or the other. However, sometimes the ligaments of this joint become injured by violence; a Horse in a narrow stall may injure himself, either by turning round, or by getting up, or laying down; and I have known some so much injured, that what with their exertions in getting up, and the narrowness of the stall, have considerably injured themselves in making an effort to rise, so that the ligaments of the articulation-bone of the thigh with the pelvis, becomes strained.

Here, for the treatment, do not employ either blister or setons, for the deep-seated situation of the injury prevents this mode of treatment being of but little avail, and if you fire over the part, you then have a confirmed blemish; therefore, use the following:

Take Tartar emetic - 1 dram.
Hog's lard - - 1 oz.

Rub well together, and apply to the parts affected, morning and night, until pimples arise, when desist. Apply a little hog's lard occasionally, to make the parts supple.

STRAIN OF THE STIFLE-JOINT.

Injury or strain of the stifle-joint frequently occurs from the Horse slipping suddenly out-

wards, so that the ligaments become extended beyond their capacity. It may also arise from kicks or other injuries. Here, in this case, the limb has a peculiar rotatory motion, dragging the limb, as it were, after him, with the greatest pain, and a considerable effort even to move it at all. Sometimes the muscles of the thigh are the parts alone injured, and produce the lameness. For treatment, I shall recommend the "tar liniment," which I have always found to have the desired effect. Should this not succeed, try the mild liquid blister, for which *See* "Strains in General." As to firing, do not think of it, the blemish incurred is a stain in the Horse's character ever afterwards.

ON CURB.

This affection has, I believe, been generally applied to a partial dislocation of the *os calcis;* but this is not the case, it being a rupture of the membranes of the sheath of the tendons just passing over the lower end of the *metitarsal* bones of the hock-joint, which sheath is placed there to strengthen the parts, here being the most considerable point of action in the hind extremity. Hence this affection arises so frequently from any sudden action; from leaps, or where the propelling motion is brought most into use, also rearing, or a sudden slip may produce it. It is frequently sudden in its appearance from the above causes.

Curb may appear without lameness, and this from mal-formation of the hock, which is called *sickled hocked,* though no curb in reality exists. The lameness arising from curb is excessively painful to the Horse, though some writers deny this, but any theæcal rupture cannot possibly occur without giving great pain, as the Horse cannot move without bringing the deceased parts into action.

For the cure of curb, I know of but one that is effectual, and that is firing. (*See* Plate for the method of firing.) Many persons object to firing, on account of the blemish it produces; but I consider this to be nonsense. I can recollect the time that a gentleman would not buy a valuable Horse for hunting, until he had been fired for curb; and I have myself fired many four-year old Horses of high price, that could not be disposed of until this operation had been performed. However, as time rolls over our heads, so custom alters; but old sportsmen know the value of the actual cautery, especially amongst Horses which have severe work to do, and know well the only remedy.

The practice at the Royal Veterinary College is to put on a high heeled shoe, and bathe the hock frequently with cold water, or cold salt and water, but these applications seldom or never succeed; if not, a seton is passed over the part, which has just as much effect as passing a seton down the fore leg, in order to remove this accident. For feed and medicine, I must refer my readers to "Strains in General."

CHAPTER XVI.

OF INFLAMMATION GENERALLY.

The term inflammation is generally understood that state of a part, in which it is painful, hotter, and somewhat more turgid than it naturally is; which topical symptoms, when present in any considerable degree, or when they affect very sensible parts, are attended with fever, or a general diseased action of the system.

The susceptibility of the body for inflammation is of two kinds; the one original, constituting a part of the animal economy, and beyond the reach of human investigation; the other acquired from the influence of the weather, sudden changes from hot to cold, and also from cold to hot stables, that are not well ventilated, blows, kicks, &c. The first kind of susceptibility cannot so well be diminished by art, as some animals are exceedingly liable to take on inflammation from their form; such as narrow-chested Horses, or light chesnut Horses, being always found to be particularly liable to inflammatory diseases. The second may be lessened by the mere avoidance of the particular causes upon which it depends.

Inflammation may, with great propriety, be divided into the healthy and unhealthy. Of the first, there can be only one kind; of the second, there may be many, according to nature and situation, and nature of the disease.

Inflammation may also be divided into the *acute*, and *chronic*. Healthy inflammation is generally quick in its progress, for which reason it must always rank as an *acute* species of the affection. Chronic inflammation is always accompanied with a diseased action, as in such cases as tumours, &c.

PRINCIPLES OF INFLAMMATION.

There is much foundation for believing that healthy inflammation is obedient to ordained principles, according to the tone of the constitution, or in the structure or situation of the parts affected. The nature of the existing cause can have no share in modifying the appearance of inflammation, whether this be occasioned by the application of heat, or violence done. Healthy inflammation is always the same in its nature, and all the influence which the exciting causes can have, is proportioning the degree of inflammation to their own violence.

The attentive observations of experience, the only solid basis of all medical, as well as other knowledge, has informed the practitioner, that parts, which from their vicinity to the source of the circulation of blood, through

them undergo inflammation more favourably, and resist disease better than other parts more remote from the heart. The extremities are more prone to inflammation and disease in general, than parts nearer the heart, and when inflamed or cracked, they are longer in getting well; and the circumstance of their being depending parts, which retards the return of blood through the veins, must also increase the backwardness of such parts, in any salutary process.

Inflammation, when situated in highly organized and very vascular parts, is more disposed to take a prosperous course, and is more governable by art, than in parts of an opposite texture. The nearer also such vascular parts are to the heart, the greater will be the tendency to do well in inflammation. Hence, inflammation of the skin, cellular substance, muscles, &c., more frequently ends favourably than the same affection of bones, tendons, ligaments, &c. It is also more managable by surgery; for those parts of the body which are not what anatomists term vascular, seem to enjoy only inferior powers of life; and this explains the difficulty of removing any inflammatory action that may arise in the tendons of the leg, which from their whiteness are not very vascular.

But inflammation of vital parts, though these may be exceedingly vascular, cannot go on so favourably as in other parts of resembling structure, but of different functions; because the mutual operations of universal health depend so much upon the sound condition of such organs. The truth of this observation is illustrated in cases of inflammation of the stomach, or lungs, &c.

In strong constitutions, inflammation always proceeds more propitiously than in weak ones; for where there is much strength, there is irritability. In weak constitutioned Horses, the operations of inflammation are backward, notwithstanding the part in which it is seated may, comparatively speaking, possess considerable organization and powers of life.

Inflammation, wherever situated, is always most violent on that side of the point of inflammation which is next to the external surface of the body; and this is particularly exemplified in gun-shot wounds. Suppose a ball were to pass into the thigh, to within an inch of the opposite side of the limb, we should not find that inflammation would be excited along the track of the ball, but on the side next the skin which had not been hurt. If a ball should pass quite through a limb, and carry into the wound a piece of the saddle clothing, which lodges in the middle, equidistant from the two orifices (which is not unfrequently the case in cavalry regiments,) the skin immediately over the extraneous body, would inflame, if the passage of the ball were superficial.

We see three very remarkable effects follow the prevalence of inflammation, viz.; adhesions of parts of the body to each other, the formation of pus, or suppuration, and ulceration; a process in which the lymphatics are more concerned than the blood-vessels. Hence, the terms *adhesive*, suppurative, and ulcerative inflammation.

All parts of the body, however, are not equally liable to each of the preceding consequences. In the cellular membrane, and in the circumscribed cavities (especially the cavity of the chest,) the adhesive stage takes place more readily than the others; suppuration may be said to follow next in order of frequency; and lastly, ulceration. Now, the

ulcerative stage of inflammation most frequently, in the Horse, attacks the air cells of the lungs, or the kidneys, but do not seem to affect, only partially, any other *mucous membranes;* the suppurative inflammation comes on more readily than either the adhesive or the ulcerative stage. Adhesions, which originate from the slightest degree of inflammation in other situations and structures, can only be produced by a violent kind in the above-mentioned parts. Ulceration is more frequently met with upon mucous surfaces, than adhesive ones.

The cellular membrane appears to be much more susceptible of the adhesive inflammation than the adipose (or fatty cells,) and much more readily passes into suppuration. Thus, we see the cellular substance, connecting muscles together, and the adipose membrane to the muscles, inflaming, suppurating, and the matter separating the muscles from their lateral connections, and even the fat from the muscles, while the latter substance and the skin are only highly inflamed. But it must be allowed that in situations where fat abounds, we very frequently meet with abscesses. This is so much the case, that fat has been accounted a more frequent nidus for collection of matter than the cellular substance. We have mentioned above, the fats being highly inflamed; but this is not an expression strictly true. Fat has no vessels, or principle of life, nor action of its own; consequently, we cannot suppose it can either inflame or suppurate. We know, that it is itself a secretion, and, when an abscess is formed in it, we understand that the mode of action in the vessels naturally destined to deposit fat, had been altered to that adapted to the formation of pus. When we speak of the fat being inflamed, we imply, that the membranous cells in which it is contained, and by which it is secreted, are thus affected.

The deeply-situated parts of the body, more especially the vital ones, very readily admit of the adhesive stage of inflammation. The circumstance of deeply-seated parts not so readily taking on the suppurative stage of inflammation, as the superficial ones do, is strikingly illustrated in cases of extraneous bodies; which, if deeply lodged, only produce the adhesive inflammation. By this process, a cyst is formed, in which they lie without any inconvenience; and they may even gradually change their situation without disturbing the parts through which they pass: but no sooner do these same bodies approach the skin, than abscesses immediately arise.

All inflammations, attendant with disease, partake of some specific quality, from which simple inflammation is entirely free.

When the constitution allows the true adhesive and suppurative stages to occur, it is to be regarded as the most healthy.

SYMPTOMS AND NATURE OF HEALTHY INFLAMMATION, PHLEGMON.

Swelling, heat, and pain being the principal symptoms of phlegmonous inflammation; in short, this term is usually applied to a circumscribed tumour. These are the first appearances observed in every case of phlegmon; and when they are slight, and the part affected is of no great extent, they have commonly very little, and sometimes no apparent influence on the general system. But when they are more considerable, and the inflammation becomes extensive, the soft parts are more swelled than the harder ones.

And though all the symptoms of inflamma-

tion, sucn as swelling, throbbing, tension, may be less manifest when the affection is deeply situated; yet, they certainly exist, as in pole-evil, fistulous withers, &c. Frequently, in Horses dying of inflammation of the lungs, the air-cells of these organs are found crowded with a larger number of turgid blood-vessels than in the healthy state. Coagulable lymph, and even blood are extravasated in the substance of these viscera, which of course become heavier, and feel more solid.

The extravasation of coagulated lymph, which is one of the chief causes of the swelling, is also one of the most characteristic signs of phlegmonous inflammation. Common inflammation exists wherever the blood-vessels appear to be most numerous and enlarged than in a natural state, accompanied with an effusion of coagulating lymph, whether upon the surface of a membrane, or a bone, or into the interstices of the cellular substance, and attended with throbbing and acute pain in the part affected.

I shall now, without proceeding further into the consideration of inflammation, endeavour to treat of its causes, First,

REMOTE CAUSES.

The remote causes of inflammation are several in number, but very easy in comprehension, because only divisible into two general classes. The first includes all such agents as operate by their stimulant or chemical qualities; as for instance, cantharides, large doses of aloes, heat, &c. The second class of causes are those which act mechanically; such as bruises, wounds, &c. After saying thus much, it seems quite unnecessary to give a detail of each particular remote cause.

One remote cause of inflammation, and not the least singular, is *cold;* but cold appears to act in different ways: First, it may be applied in such a degree, and for such a length of time, as to destroy the vitality of the part directly, in which case sloughs are formed *. Secondly, it may be applied in a less degree, or for a shorter time, and afterwards a stimulant, such as heat, may be applied, which will excite inflammation. The production of inflammation by any agent, depends in a great degree upon the suddenness of the operation of the agent which excites it; for a quantity of stimulus, which, if suddenly applied, would produce inflammation, may be applied slowly with impunity. Hence, every slight stimuli will produce inflammation and sloughing, in parts which have been weakened by cold. Thirdly, a part sympathizes very much with the contiguous ones. If a part be weakened, by having its action reduced, and if then the debilitating cause be removed, the action of the part will be increased from sympathy with the neighbouring parts. But, as the action ought to be very little, the power being small, inflammation must arise from the action being increased beyond the power. We ought, therefore, in this case, to diminish the action of the neighbouring parts, in order to prevent their extending to a part which is not able to bear, without becoming diseased.

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* In India this is a frequent occurrence, both with the Horse and native Indian too. In the Horse it is called by the native *barsatee*, and is exceedingly troublesome to be healed. Likewise in the native, in the cold season, it is not uncommon for pieces to come out of their thighs (which are principally bare,) as large as half-a-crown. In the Horse, from the troublesome teasing of the flies, it becomes exceedingly annoying to the surgeon.

PROXIMATE CAUSE.

Numerous opinions have been entertained upon this subject; but almost every theory has been built upon the supposition of there being some kind of obstruction in the inflamed parts. While the circulation of the blood was unknown, and the hypothetical notions of the power of the liver, in preparing and sending forth the fluid continued to prevail, it is not astonishing that the theories of so many writers should be imperfect.

It was formerly supposed that the liver was the centre of the vascular system, from which the blood went forth by day to the extremities, and returned again by night. If then, any peccant matter irritated the liver, the blood was sent out more forcibly, and if at the same time any part of the body were weakened, or otherwise disposed to receive a greater quantity of fluid from the rest, then a swelling was produced by a flow of humours to this place. Fluxions, or flows of humour to a place might happen, either from weakness of the parts which allowed the humours to enter more abundantly, or from the place attracting the humours, in consequence of the application of heat, or other agents.

The ancient writers who supposed that the blood had very little motion, and that its course could be easily directed, or changed, recommended heat to some part which was remote from a recent inflammation, by which they imagined that the current of blood was altered, and a revulsion made. A revulsion was also made by raising a tumour in some other part, or giving nature an opportunity of discharging the humours from distant parts, by applying blisters, &c. When blood was drawn from the vicinity of the fluxion, or congestion, the mode was called *derivation* which only differed from *revulsion*, in the distance to which the humour was drawn being less. Our present object is only to trace the leading doctrines which have at different times prevailed, as being the proximate cause of inflammation.

From the theories of fluxion and congestion, which were quite incompatible with the laws of circulation of the blood, we turn our attention to the doctrine of obstruction.

By some writers obstruction has been strongly advocated, attributing it to a viscidity of the blood, and also was imagined to occasion a resistance to the circulation in the part affected; hence, increased it in the other vessels, proving an irritation to the heart, and augmenting the force or attraction of the blood in that part of the vessel which was behind the obstruction, causing heat and pain, and consequently, an acrimonious state of the fluids, and gangrene in all probability likely to follow.

The viscidity cannot be admitted as a proximate cause of inflammation, because we have no proof (say some authors,) that this state ever exists; for, as they say, "Were a viscidity to occur, it would exist in the whole mass of blood alike, and could not be supposed to produce only a local disorder." But this is not true, for all parts are not so *susceptible* of taking on disease as others; consequently, any poison producing inflammation that may have been taken into the system, may affect one part, and that only, and this from the *susceptibility* of the part.

As for the supposition of the co-operation of an acrimony of the fluids, the proportion of the saline matter of the blood has never been proved to be greater in this than in any other

state of the body. Even were a general disorder of this kind to be admitted, no rational explanation of the proximate cause of local inflammation could be deduced from it.

According to the opinion of one of our best authors, inflammation is to be considered only as a disturbed state of parts which requires a new but salutary mode of action, to restore them to that state wherein a natural mode of action alone is necessary. From such a view of the subject, therefore, inflammation in itself is not to be considered as a disease, but as a salutary operation, consequent either to some violence, or some disease. Elsewhere the author remarks: the act of inflammation is to be considered as an increased action of the vessels, which at first consists simply in an increase or distention beyond their natural size. This increase seems to depend upon a diminution of the muscular power of the vessels, at the same time that the elastic power of the artery must be dilated in the same proportion. This is, therefore, something more than simply a common relaxation; we must suppose it an action in the parts to produce an increase of size to answer particular purposes; and this the author would call an act of dilatation. The whole is to be considered as a necessary operation of Nature. Owing to this dilatation, there is a greater quantity of blood circulating in the part, which is according to the common rules of the animal economy; for whenever a part has more to do than simply to support itself, the blood is there collected in a larger quantity; and Nature never errs. The swelling is produced by an extravasation of coagulable lymph, with some serum; but the lymph differs from the common lymph, in consequence of passing through the inflamed vessels. It is this lymph which becomes the uniting medium of inflamed parts; vessels shoot into it, and it has even the power of becoming vascular itself. The pain proceeds from spasm. When a part cannot be restored to health, after injury by inflammation alone, or by adhesion, then suppuration, as a preparatory step to the formation of granulations, and the consequent restoration of the part takes place.

An increased action of the vessels is now almost universally regarded as the proximate cause of inflammation. This opinion is greatly supported from a review of the several existing causes of the affection, which being in general of an irritating nature, must, when applied to any living or sensible parts, occasion a preternatural exertion of the vessels. The method of cure, as we shall presently see, tends also to confirm the doctrine, with respect to the cause of inflammation.

SYMPTOMS OF INFLAMMATION FURTHER CONSIDERED.

The essential symptoms are swelling, heat, and pain. *Swelling.*—This effect arises from several causes: First, the increased quantity of blood in the vessels. Secondly, the effusion of coagulating lymph and deposition of a new matter. Thirdly, the interruption or debility of the absorbents to perform their office or functions.

Heat.—It was formerly imagined by many who wrote after the discovery of the circulation of the blood, that the heat was produced by the attraction of the red globules against the sides of the vessels. Modern philosophy now, however, teaches us, that a fluid may flow with the utmost velocity through a pipe, for a thousand years, without producing a single particle of heat. The most commonly

received opinion now is, that the production on animal heat depends upon the difference in the capacity of arterial and venous blood, for combining with caloric, and that in the minute arteries, the blood is combined with certain substances; in consequence of which, its capacity is diminished, and heat is given out. But when the venous blood has been freed from such substances in the lungs, its capacity is increased, and the heat which is given out by the decomposition of the air which we inspire, is absorbed. Now, if these things be admitted as facts, the augmented heat of inflammation may be conceived to arise from the increased velocity of the circulation in the part affected. More blood is transmitted into the minute arteries, the capacity of a greater quantity of this fluid for heat is of course there necessarily increased, and more caloric is extracted.

Pain.—This is observed to be greatest during the diastole of the arteries. The affection is probably owing to the unnatural state of the nerves, and not to mere distention, as many have asserted. Were the latter cause a real one, the pain would be proportioned to it.

APPEARANCES OF THE BLOOD IN INFLAMMATION.

The blood, when taken out of the living vessels, spontaneously separates into two distinct parts; the *serum*, and the *crassamentum*. The last is a compound substance, consisting chiefly of coagulating lymph and red globules, the most heavy ingredients in blood. Blood taken away from an animal affected with inflammation, is longer in coagulating, and coagulates more firmly than in any other instances. Hence, the red globules not being so soon entangled in the lymph, descend by their gravity, more deeply from its surface, which being more or less divested of the red colouring matter, is from its appearance termed the *buffy coat*, or *inflammatory crust*. The firmer and more compact coagulation of the lymph compresses out an unusual quantity of serum from it, and the surface of the sizy blood is often formed into a hollow, the edges being drawn inward. These changes in the blood are, in some cases, a more infallible sign of the existence of inflammation, than the state of the pulse itself. At the same time, it is probably only a criterion of some unusual operation going on in the system. In peritoneal inflammation, the Horse sometimes seems to be in the most feeble state, and the pulse, abstractedly considered, would rather induce the practitioner to employ tonics and stimulants, than evacuations; but should the continuance or exasperations of the disorder, or any other reason, lead you to use the lancet, then the *buffy coat* and the *concave surface* of the blood clear away all doubt concerning the existence of inflammation.

TERMINATION OF INFLAMMATION.

Inflammation is said to have three different terminations; or, in more correct language we may say, that after this process has continued a certain time, it either subsides entirely, induces a disposition in the vessels to form pus, or completely destroys the vitality of the part.

When the inflammation is to end in the first-named manner, which is the most favourable, the pain becomes less, the swelling subsides, and every other symptom gradually abates, till at last, the part is wholly restored to its natural size. There is no formation of

pus. nor any permanent injury of structure. This termination of inflammation is termed *resolution*. It is fortunately the most common, as well as the most desirable manner in which the affection ends.

If, however, notwithstanding the application of the usual remedies, the several symptoms of heat, pain, &c., instead of diminishing, rather increase, and the tumour gradually acquires a larger size, turns soft, somewhat prominent in the middle, or towards its most depending part, the inflammation has ended in *suppuration*.

The worst, but happily the least frequent consequence of common inflammation, is the death or mortification of the part affected. The signs of this disastrous event are a change of colour in the part, which from being of a bright red, becomes of a livid hue; small vessels filled with a thin fetid serum arise on its surface, and air is plainly felt to exist in the disordered situation. The pain indeed is diminished, but the pulse sinks, while the tumour is gradually changed into a black fibrous mass.

These are the three most usual terminations of inflammation. By many writers, however, another disorder has been treated of as one in which inflammation is apt to end, namely, *scirrhous*. But, although that complaint may perhaps in a few instances follow inflammation, yet it is far from being a common consequence of it. Hence, although inflammatory affections may justly enough be mentioned as one of the many exciting causes of scirrhous, yet the consideration of this disorder can never with propriety, it is presumed, be introduced into an account of inflammation.

Common inflammation, particularly when it affects glandular parts, is often observed to leave an induration in the part. Such indurations, however, are not at all malignant, and consequently are very different in their nature from what is implied by a real scirrhous.

TREATMENT OF INFLAMMATION.

Removal of the exciting, or remote Cause.

After the description which we have given of inflammation, the reader may easily guess, that the grand principle to be observed in the treatment, is to endeavour to lessen that immoderate action of the arteries, which is now commonly set down as the proximate cause.

The first circumstance to be attended to, in all cases in which resolution is to be attempted, is the removal of all such exciting causes of the disorder as may happen to present themselves. Foreign substances in wounds frequently excite inflammation, and ought to be taken away as speedily as possible. A piece of bone, or nail taken up in the foot, or even a thorn in the leg, often give rise to the affection, and require immediate removal. Such exciting causes as these may oftentimes be detected and removed at once; and this is doing a great deal towards the cure of the inflammation. Many of the exciting causes of this affection are only of a momentary application; yet, though they no longer exist, the process of inflammation must follow the violence and irritation which were suddenly produced, and still remain. Hence, taking away, if possible, the remote cause, it is proper to *moderate* by other means the increased action of the vessels.

If the doctrines which we have advanced be true, that inflammation depends upon an

increased action of the vessels, and that a greater quantity of blood is impelled into, and circulates through the inflamed part than in the natural state, it follows that *bleeding* must be a principal means of relieving inflammation, because it lessens the action of the whole arterial system, and of course of that part which is undergoing inflammation; and because it diminishes the quantity of blood transmitted to the part affected, by lessening the whole mass in the circulation.

Bleeding, however, is often misemployed, especially when regarded as the only remedy for inflammation, and other steps are neglected. The obstinacy and vehemence of the process, in weak constitutions, prove that bleeding is not invariably proper. When inflammation is complicated with an unhealthy state of the alimentary canal, blood should be taken away with great circumspection. A great deal of induration, with little pain and heat in the inflamed part, the probability of a long and copious suppuration, and the dependance of the inflammation on local weakness, are particular instances in which you should be sparing of this evacuation. Bleeding is quite unnecessary when the local inflammation and symptomatic fever are trivial, and especially if the cause of the affection can be entirely removed.

On the other hand, bleeding is highly beneficial in all cases in which the inflammation is uncomplicated, and attended with a good deal of febrile disturbance. The same is also strongly indicated, when the part affected is very sensible and highly important, in regard to its office in the system. Hence, inflammation of the eye, which is a most sensible part, particularly requires a free evacuation of blood. Inflammation of the lungs, brain, or stomach, which are organs, the sound state of which is intimately essential to the regular continuance of all the various operations in the animal machine, particularly demands the employment of the lancet; for, if a successful effort be not promptly made to stop such inflammation, death itself, in all probability, may be the result.

The efficacy of bleeding is greater the sooner it is practised, and the more suddenly the blood is evacuated. *Bleeding* near the part affected is usually more effectual than when done in a remote situation. The preceding remarks chiefly relate to *general* bleeding; but in local inflammation, topical bleeding is scarcely ever improper. It is always a point worthy consideration, whether bleeding *in or near the part*, will answer better than taking blood from the *general habit;* for certainly less may be removed in this way, so as to have equal effect from the part inflamed, and probably from every other disease that is relieved from bleeding, and yet affect the constitution less. Although, in many cases the general habit may be relieved by bleeding, yet the part affected will always require this evacuation most. That local bleeding has very considerable effects on the inflamed part, is proved by the sudden relief it produces.

The modes of performing local bleeding are by the lancet, or if in the feet, first removing the horn with the drawing-knife, and puncturing the vein with a strong abscess-lancet; other parts, such as the thigh-vein, pastern, &c., &c., also with the lancet; the eye also with the small eye-lancet, the temporal artery, &c. But never bleed in the *jugular vein* with any other instrument but the common phleme and blood-stick, or either in the plate-vein; but particularly the jugular; or should a

misfortune happen with any other instrument, you would be liable to an action at law. This is referable to practitioners only.

In continuation of our treatment for inflammation, the bowels must not be forgotten, and in exhibiting medicine in cases of inflammation, great care is necessary. The exhibition of small doses of aloes is good, or Glauber's salts in the shape of draught, will be found very efficacious, and is a principal means of diminishing inflammation.

Direct purging, I in no wise recommend; for, if you do, it frequently ends in superpurgation and death. Saline medicines must lessen the quantity of circulating blood, inasmuch as they increase the secretion from the intestinal arteries. Hence they must operate beneficially in the cure of local inflammation, much upon the same principle as bleeding does. A very great authority and writer, was of opinion, that purging lowers action without diminishing strength; by which we are probably to understand, without producing a very lasting or permanent loss of strength. With respect to mild laxatives in inflammation, none are preferable to the above; but of the two, I prefer the saline draught, which in my opinion is decidedly preferable to the aloetic. We may here remark, that besides the benefit which the local inflammation derives from the judicious administration of purgatives, the costiveness and heat which usually attend the symptomatic fever, are also relieved by the same means.

Nauseating medicines, which have the power of producing sickness, lessen for a time the action, and even the general powers of life. This is in consequence of every part of the body sympathizing with the stomach, and the effect may be very quickly excited. Sickness lowers the pulse, makes the small vessels contract, and rather dispose the skin for perspiration. But nothing more than nausea should be caused. Nauseating medicines employed after bleeding once or twice, are often productive of considerable benefit; but there are some affections in which they cannot be used, such as inflammation of the stomach and intestines. In all superficial inflammations, however, they may be safely and advantageously exhibited, as well as in most inflammatory affections internally situated, especially inflammation of the lungs; indeed, in every instance, in which there is an urgent reason for putting as sudden a check as possible to the continuance of the affection; the employment of nauseating doses of white hellebore or digitalis, to the amount of 1½ to 2 drams, three or four times a day, will be found most efficacious.

Opium has been frequently recommended by many veterinary surgeons, and I have experienced good effects from it, especially in inflammation of the bowels. During its employment, the bowels should be kept open by glisters. Care must only be taken to give it in sufficient doses, for small quantities not only fail in fulfilling the object, but frequently produce quite an opposite effect. It likewise occasions a moisture on the surface of the body, which experience shews is eminently serviceable in all inflammations. Opium, combined with aloes, is an excellent remedy in cases of inflammation of the feet; no person but those who have used this drug, would believe the relief given to so painful a disease.

In all cases of inflammation, corn must be prohibited, and even when the inflammation is abated, great care must be had in exhibiting any thing of a highly stimulating nature. Watery, cooling, mucilaginous drinks, taken in

a luke-warm state, are the most proper, such as oatmeal gruel, mashes of bran with chilled water; these keep off heat, and tend to soothe the increased action of the whole arterial system. The stable in which the Horse is kept, should not be kept warmer than his comfort requires; for, of all things, heat keeps up any increased action in the body in the most powerful manner. For the same reason, the animal should not be covered with a superfluous quantity of clothes.

The whole body, but more especially the inflamed part, should be preserved as free as possible from every kind of motion. Every one knows that all motion, exercise, and muscular exertion, accelerate the circulation; and hence, they must have a pernicious effect on inflammation, by determining a larger quantity of blood to the part affected.

I shall now speak of *topical applications*, and first of *cold ones*. With the exception of what has been stated concerning topical bleeding, all the foregoing remarks relate to the general treatment of inflammation: we shall next consider the local.

It has been already observed, that inflammation is attended with an increase of heat in the part affected, and it is an acknowledged and well known fact, that the action of the arteries, as well as any other operation in the animal economy, is promoted and increased by the influence of heat. For this reason, an obvious indication arises, viz., to reduce the temperature of the inflamed part by the topical application of cold; and, in particular, by continually abstracting the heat generated in the part, by keeping up a constant evaporation from its surface.

Preparations of lead, and other sedative and astringent substances, are such as are in the greatest repute for bringing about the resolution of inflammation.

I am decidedly averse to entering into minute discussions, concerning the *modus operandi* of such medicines as are recommended. These disquisitions would only extend our remarks to an unnecessary length, and in consequence probably fail in conveying satisfactory information to the reader. However, I am firmly of opinion, that in some circumstances it may not be improper to deviate so far from the general rule, as to render as obvious as possible, the propriety of what at any time may be advanced; for mere practicable assertions, unsupported by some foundation in reason, can never prove either so useful or agreeable, as they might otherwise be rendered.

We have remarked, that the cold applications used in the resolution of inflammation, are commonly such as are of an astringent and sedative quality; but the whole class of medicines, which are found to possess these properties, can never be recommended as topical remedies for phlegmonous inflammation. The sulphate of zinc, and sugar of lead, combined with vinegar, are the only medicines of the astringent and sedative class, which seem to have acquired permanent celebrity for their efficacy in resolving inflammation.

Extensive experience, and long established trials, have now fully confirmed the virtue of all these local remedies, in which the sugar of lead is the active ingredient. The preparations of lead, certainly merit the appellation of sedatives. The propriety of the term, however, is more particularly evinced by the immediate and obvious operation of the lead, when any of its preparations are outwardly applied to the surface of an inflamed part.

An abatement of the different symptoms of pain and tension, and the communication of an agreeable soothing sensation to the part are almost always its direct palpable effects. Every man of experience and observation will allow, that while there is a chance of accomplishing resolution, no local applications to phlegmonous inflammation are in general so proper as cold lotions, containing the acetate of lead.

Many objections have been raised against the lead lotion, from its poisonous quality, but in inflamed parts there is an impediment to absorption, and this circumstance may tend to render the employment of lead a matter of safety.

Sugar of lead, with vinegar and water, as follows, is the best method of applying it.

Take Sugar of lead - - 4 drams.
Dissolve in vinegar 4 oz.
Then add water - 2 lbs. (1 quart.)

When you do not feel inclined to employ a solution of lead, then try the sulphate of zinc. For this purpose, four drams of this metallic salt is to be dissolved in a quart of water. Take a piece of linen, well wet with the lotion, and apply to the inflamed part.

Many persons impute very little real efficacy either to the acetate of lead, or sulphate of zinc, contained in the above applications; and they attribute all the good that is produced, entirely to the evaporation kept up from the surface of the inflamed part, and to the coldness of the fluid in which the metallic salts are dissolved. Those who entertain these sentiments, think the application of cold water alone, quite as efficacious as that of any medicated lotion whatever.

There are particular cases of inflammation in which the extravasation of blood and lymph into the interstices of the inflamed part is exceedingly copious, while the swelling is considerable, and the pain not particularly great. In such instances, it is a grand indication to rouse the absorbents, in order to remove the extravasated fluid; and with this view a more powerful discutient lotion than the Saturnine one should be employed. Sometimes it is better to use embrocations and liniments, than any sort of lotion; and I have found to succeed in general the best, and for this purpose

Take Oil of turpentine - - 3 oz.
Olive oil - - - - 3 do.

Mix and apply to the part.

Or,

Take Mustard oil - - - 4 oz.

And apply alone, which will be found very efficacious, especially if the disease lays in the joints.

When the part affected is not very tender, or when it lies deep, applications of hot vinegar, or the Saturnine lotion have been applied, but with little or no good effect. Alcohol and æther, have acquired some celebrity, as local remedies for inflammation. Perhaps one great reason why they are not more extensively used in this way, is the expence attending such treatment, as these fluids evaporate with great rapidity. Alcohol may possibly prove useful from its astringent qualities; but it seems much more rational to impute both its virtue, and that of æther, to the powerful manner in which the evaporation of such fluid deprives the inflamed part of its heat.

WARM APPLICATIONS, EMOLLIENT POULTICES, AND FOMENTATIONS.

The absurdity of attempting to reconcile every useful practice with a philosophical theory, is in no instance more strikingly shewn, than in the opposite sorts of local applications which are of service in inflammation. The generality of cases undoubtedly receive most relief from the use of cold sedative astringent lotions; but there are constitutions and parts which derive most service from the local employment of warm emollient remedies.

Were I to endeavour to define the particular instances in which the latter applications avail most, I should take upon me a task which has baffled all the most able writers. Inflammations of the foot, broken knee, strain of the back sinews, may be specified, however, as examples in which, generally speaking, warm emollient applications are better than cold astringent ones. But I am ready to grant, that in all cases of inflammation, which manifestly cannot be cured without suppuration, the emollient plan of treatment ought to be at once adopted, as in either fistulous withers, or pole-evil; for the sooner the matter is formed, the sooner the inflammation is stopped. The inflammation attending gun-shot wounds, are of this description; also, injuries received from the goring of cattle in the field, &c.

Warmth and moisture together, or in other words, fomentations are commonly had recourse to in cases of inflammation, but when the warmth is as much as the sensitive principle can bear, it excites action. Whether it is the action of inflammation, or the action of the contraction of the vessels, is unknown. We see that in many cases that warmth does no good, and therefore it might be supposed to increase the action of dilatation, and do harm; but if the pain should arise from the contraction of the inflamed vessels, benefit would be the result, though we must doubt that this change is produced, as making the vessels contract would probably give ease.

In addition to what has been already observed on inflammation, it seems almost like an insurmountable hill, to give any useful practical advice, with respect to those cases in which warm emollient applications should be used in preference to cold astringent ones. I can with confidence remark, that the veterinary surgeon who consults the feelings and comfort of the animal under his care, will seldom commit any serious error. Hence, in all cases in which the first kind of topical applications seem not to produce the wonted degree of relief, let the second sort be tried. From the opportunity of comparison, a right judgment may then be easily formed.

As for poultices, the linseed meal, in my opinion, should take the preference, and it is easily prepared. Put as much hot water into a bason, as the size of the poultice requires, previous to which, mix the meal with cold water, so that it does not clot in lumps when coming in contact with the hot water, then gradually mix, till the mass is of a proper consistence. Very frequently, a little sweet oil or hog's lard is also added, to keep the application longer soft and moist.

Fomentations are excellent; and in most cases of recent inflammations, as strains or bruises, nothing can be better. The benefit I have perceived from the application of warm fomentations, has been surprising.

By pursuing the treatment recommended

above, the resolution of the inflammation will in general begin to take place either in the course of three or four days, or in a shorter space of time. At all events, it may usually be known, before the expiration of this period, how the disorder will terminate. If the heat, pain, and other attending symptoms abate, and especially if the tumour begins to decrease, we may then be almost certain, that by a continuance of the same plan, a total resolution will in time be effected.

On the other hand, when all the different symptoms increase, and particularly when the tumour becomes larger and softish, attended with a more violent throbbing pain, we may then conclude that the case will proceed to suppuration. Hence, an immediate change of treatment is indicated; and such applications as were proper while resolution seemed practicable, are to be left off, and others substituted. This remark relates to the employment of cold astringent remedies, which when suppuration is inevitable, only do harm, by retarding what cannot be avoided, and affording no relief of the pain and other symptoms. If the inflammation, however, should be already treated with emollients, no alteration of the topical applications is requisite, in consequence of the inevitability of the formation of matter. Indeed, emollient poultices and fomentations are the *chief local means*, both of promoting suppuration, and diminishing pain, violent throbbing, &c., which always precede this termination of inflammation.

When the system is too much reduced by the injudicious continuance of *the rigorous antiphlogistic treatment*, the progress of the ensuing suppuration is always retarded in a disadvantageous manner, and the animal becomes too weak to support either a long continued, or a profuse discharge, which it may not be possible to avoid.

CHAPTER XVII.

OF FEVER IN GENERAL, COMMON FEVER, DISTEMPER, OR INFLUENZA, MALIGNANT FEVER, SYMPTOMATIC FEVER, CATARRH, OR COMMON COLD.

Under the head fever in general, I can only class inflammatory fever as belonging to the Horse; it is particularly interesting to veterinary surgeons, being frequently attendant on surgical disorders, and especially after firing, or blistering.

We have mentioned that in treating of inflammation, that a febrile disturbance of the constitution is attendant on every considerable inflammation. In the present article we shall endeavour to give some account of the particulars of this disorder.

The fever, about to be described, is known and distinguished by several names; some calling it inflammatory, some symptomatic, and others sympathetic. It is sometimes idiophatic; that is to say, it occasionally originates at the same time with the local inflammation, and from the same causes. In other instances, and indeed I may say in all ordinary surgical cases, it is symptomatic, or in other words, it is produced, not directly by the causes which originally produced the inflammation, but in consequence of the sympathy of the whole constitution from the disturbed state of the part.

The idiophatic inflammatory fever is said to be always preceded by chilliness. The symptomatic, or sympathetic inflammatory fever sometimes takes place so quickly, in consequence of the violence of the existing cause, or of the local inflammation, that no preceding coldness is observable.

If, however, the local inflammation be more slowly induced, and consequently operate more gradually on the system, then the coldness is evidently perceived.

The symptomatic fever induced by wounds or other injuries, is excited more slowly, and the period of formation is longer. This fever is not produced when the inflammation only affects parts in a slight degree, but it constantly makes its appearance if the local inflammation be considerable, or if it affects very sensible parts.

The degree in which this fever is excited, does not altogether depend upon the absolute quantity, or violence of the inflammation, but in a great measure upon the degree of the local inflammatory action, compared with the natural power and action of the part affected. Parts, in which the action is naturally slow, are extremely painful when inflamed, and the system sympathises greatly with them. Hence the constitution is very much affected, when *tendons, bones, or ligaments,* are the

parts inflamed. Severe inflammation of a large joint, every one knows, is apt to excite the most alarming, and even fatal derangement of the system.

In common parts, as muscle, cellular membrane, skin, &c., the symptoms will be acute, the pulse strong and full, and the more so, if the inflammation be near the heart, but perhaps not so quick, as when the part is far from it.

If the inflammation be in tendinous, ligamentous, or bony parts, the symptoms will be less acute. The stomach will sympathise more, the pulse will not be so full, but perhaps quicker; there will be more irritability, and the blood will not be so much pushed into the small vessels, and therefore it will forsake the skin.

It seems to be a material circumstance, that parts near to the heart, always exhibit symptoms more violent; and the constitution is more affected, than when parts are situated further from the source of circulation.

If the heart, or lungs, are inflamed, either immediately, or affected secondarily by sympathy, the disease has more violent effects upon the constitution, than the same quantity of in ammation would have, if the part affected were not a vital one, or one with which the vital parts did not sympathise. If the part be such as the vital ones readily sympathise with, then the sympathetic action of the latter will affect the constitution.

When the inflammation is situated in a part not very essential to life, and occasions the general affection of the system, called inflammatory fever, the pulse is fuller aud stronger than common, and the blood is pushed further into the extreme arteries, than when the inflammation is in a vital part. The animal, after many occasional rigours, is at first rather roused. The pulse is, as at first described, when the constitution is strong and not irritable, but if this be extremely irritable and weak, as in many animals is the case, the pulse may be quick, hard, and small, at the commencement of the inflammation, just as if vital parts were concerned. The blood also may be sizy, but it will be loose and flat on the surface.

We may set down the ordinary symptoms of the inflammatory fever, accruing in consequence of local inflammation in common parts, as follows; the pulse is frequent, full, and strong; all the secretions are diminished, the animal is restless, the perspiration is obstructed, the skin is dry and hot, the hair staring, the urine high-coloured and made in small quantities, the mouth hot and dry, attended with great thirst.

FOR THE RELIEF OF INFLAMMATORY FEVER.

Upon this part of the subject very little need be said; for, as the febrile disturbance of the system is produced, and entirely kept up, in almost every instance, by the local inflammation, it must be evident that the means employed for diminishing the exciting cause, are also the best for abating the constitutional effects. Hence, it very seldom happens, that any particular measures are adopted expressly for the fever itself; as this affection is sure to subside in proportion as the local inflammation is lessened or resolved. But when the febrile disturbance is considerable, and the inflammation itself is also considerable, the agitated state of the system may have in its turn a share in keeping up, and even increasing the local affection, and should be quieted as much as possible. However, in

these very instances, I should in all probability be led to a more rigorous adoption of the antiphlogistic plan of treatment, from an abstract consideration of the state of the local inflammation itself, without any reference to that of the constitution. Indeed, the increased action of the heart and arteries, and the suppression of the secretions, require the employment of antiphlogistic means, with alterative medicine, which will in all probability restore the animal in a few days.

But I think it right to repeat, that it is hardly ever necessary to have recourse to such an evacuation as *general bleeding*, merely on account *of the fever*, as this is only an effect which invariably subsides, in proportion as the local cause is diminished.

COMMON FEVER.

Common fever is a rare occurrence in the Horse; but it is not so much its extreme rarity which renders its existence disputed, as that his constitutional tendencies are such as seldom allow general fever to prevail in him without a more active and local translation of the inflammation to some vital organ.

I have frequently met with this fever, and am convinced that many inflammations of vital organs begin by an attack not local, and confined to that immediate part, but by one which exists in the first instance, as a general diffused inflammatory action of the vascular system at large. Most practitioners are aware, that it is a common practice, when a Horse is observed at the very first approach of illness, to rouse him by several means. Among Horse-dealers especially, and other proprietors of Horses, when disease occurs in the spring of the year, it is the custom to watch their Horses narrowly, and to put some plan into practice of the above kind immediately after which they frequently observe no more of the complaint; but if the first cold fit be passed over without attention, a hot stage generally succeeds. In due time the Horse again shivers, his hair stares, and he becomes subjected to other symptoms of illness, and the disease is then fully formed. The means pursued for this end are various; but they are all such as tend to rouse the flagging powers (during the cold fit,) into increased action, and into such a degree of it as considerably to overbalance the increased vascular action produced by the morbid attack, as shall be greater than the increased action of the complaint; and it is upon justly appreciating the two degrees of action, and upon putting the forced one against the diseased one in sufficient strength, that the salutary effort consists. Were such a plan to be put into practice when a topical inflammation of some important and vital organ had actually taken place, it would most undoubtedly greatly aggravate it; but as in diffused inflammatory action constituting fever, there is a specific character not wholly dependent on the increase of the vascular power, so the production of an artificial action, greater than the diseased one in the early stage, will sometimes overcome the febrile one. The causes of this fever is a plethoric state of the body in general, full feeding, with but little or no exercise, sudden alteration in diet, excessive fatigue, great and sudden changes in temperature may, and all of them tend to this; long deprivation likewise from either food or water, particularly the former, may bring it on; but an alteration of cold with heat is certainly the most common of the existing causes of this, as well as of most of the inflammatory attacks

of the Horse. The vessels of the skin seem in these cases to be first acted on, and this from a sudden chill, in consequence of coming in contact with a cold atmosphere, producing those symptoms; first, a shivering fit, the skin shaking violently, the hair staring, the legs, ears, and muzzle feeling intensely cold; all these symptoms remain according to the violence of the attack; the Horse's mouth is generally found dry and hot, and is seen frequently to lick his lips, as if asking for moisture. The skin is found alternately hot and cold, with occasional sweatings; the bowels rumble, and are flatulent, and he appears altogether uneasy, and seems more in want of a restorative than any thing else, by which means the debility and fever will be beat off.

Such is usually the first stage of fever, and thus much of it, I conceive, more frequently than is generally supposed; but it is very common for it at this period to sink its specific character of true fever, into a local attack on some particular organ, as the brain, lungs, bowels, kidneys, and not unfrequently to the feet. Under any of these circumstances, the primary character of fever is lost, and the remaining febrile symptoms become secondary and symptomatic.

The preference it may have in these instances for any one organ over another, is not easily accounted for; but it may be connected with local circumstances, particularly with such as have had a tendency to produce an unusual determination of blood to a part. Violent and long-continued exercise will give disposition to the lungs, from the very great quantity of blood forced through them during exertion. Water, when thrown over a Horse when hot, is very apt by checking perspiration to bring on a state of the bowels, or of other viscera, predisposing them to inflame.

A heavy and awkard rider, travelling a great distance, subjects the kidneys to such injury, that they often require but little additional stimulus to take on inflammation; and it is equally notorious, that severe riding in the snow, or the custom of washing the feet when a Horse is very hot, particularly in frosty weather, will produce by re-action a determination of blood to these parts, with a febrile irritation, the consequence of severe and injudicious management, may by translation be converted into acute founder, and such appears the origin of many acute founder cases. *The disease is then said to have settled in the Horse's feet.* It remains to be noticed, that independent of these purely local attacks, there is great reason to believe, that this fever not unfrequently degenerates into the catarrhal epidemic; for many of these cases which commence with a simple rigour, and which are often prevented from proceeding further by simply overcoming the first attack.

But should none of these attacks occur, but, on the contrary, should this fever remain after the first stage, purely idiopathic, which though very seldom, is invariably the same in any two subjects, but with sufficient general characters to describe them. The pulse loses that fullness, but is hard, and increased in quickness.

What I have described, may be considered as constituting the principal stage of this fever, to which under favourable circumstances there succeeds a softer and less frequent pulse; the countenance looks more lively, and although the muscular weakness rather increases, the irritability lessens, the secretions also return to their natural state,

the mouth feels cool and moist, and the heat of the body becomes gradually natural; also slight symptoms of returning appetite appear, under which circumstances a resolution of the fever is formed.

For the treatment of simple fever, which generally comes on after a journey, and must be under the immediate observance of the groom, he should immediately report the same the instant the cold fit, or rigour comes on; then procure two or three men to work at the Horse with dry straw with all their vigour, the groom in the mean time preparing the following draught—

Take of Good ale (warmed) - 1 quart.
Ginger - - - - ½ oz.
Anise seeds - - - ½ do.

Give immediately, and after rubbing the Horse well, clothe warm, give a good bed of clean straw, and bandage the legs well with flannel bandages. Should the reader have one of the cordial balls, as recommended in this work (*See* list of medicines at the end of the work,) take one and break up and dissolve in the warm ale; if warm ale cannot be immediately procured, take half-a-pint of gin, and three half pints of water, to which add either the ginger or cordial-ball. This preventive treatment will in most cases remove simple fever. On the morrow I should recommend the following alterative—

Take Cape aloes - - 2 drams.
Juniper berries - 1 do.
Form into a ball with soft soap, and sufficient linseed meal.

After which feed your Horse as usual. He will be fit to work in two days' time.

DISTEMPER, OR INFLUENZA.

The distemper, or influenza in Horses, attacks them at any time of the year, and under almost any circumstances; but it is infinitely more prevalent at some times, and under some circumstances, than at others; especially in the spring of the year, or near the sea-coast, and when the wind blows off the sea from the south-east. Having lived on the sea-coast for some years, I have proved this to a demonstration. No age is exempt from this disease. Horses of large towns are very liable to this disease, especially if their heads are fastened in a south-east direction, and the rack at top being completely left open. Occasionally, however, it rages in a truly epidemic form, when the liability to its attack is almost uniform among all varieties, with the exception that even under this state, young Horses, and those newly brought into stable management, are more liable to it than the older ones. The spring months appear to be the time of year Horses are most liable to this disease, and the prevalence is materially increased by the variable state of the atmosphere, as great and sudden changes from dry to wet, and from heat to cold, and still more certainly, if accompanied with an easterly wind. Now and then, it is found to occur in wet autumns also. It has been disputed whether it be contagious or not; but on this point I do not think it difficult to decide, for I have seen a number of Horses stabled together, and some of them not the least affected, while others standing near them, have suffered greatly from the attack. This can only be attributed to the susceptibility of the constitution of some Horses to take on the disease more than others, though it may

appear to some to exhibit all the characters of contagion.

Many foreign writers have not only fallen into the same error with some of our English veterinarians, and confounded this disease with others, such as percemonia, and other diseases of the chest. Nor is the mistake to be wondered at in those of moderate experience, from the circumstance of these diseases owning some symptoms in common, and in fact from its frequently terminating in that complaint; but this I attribute more from unskilful treatment than from a disposition of the disease to such a termination; for, in my practice, I never lost a patient, and in referring to my book, I can count in the year 1835-6, more than three hundred cases, and on the sea-coast too, where they would be more likely to become affected than at any other place.

The first indication of the disease is a loss of appetite; the Horse looks dull and heavy, legs cold, ears cold, the mouth warm and dry; he frequently attempts to blow his nose, from which is a purulent discharge, breathing rather hard. His *parotid glands* under his ear, and extending to the angle of the jaw, are much swollen. Sometimes the *submaxillary gland*, between the jaws, becomes swollen, but not frequently. His ears are cold, and he coughs dreadfully; the violence would almost lead you to believe some important organ would be ruptured. This continues sometimes for three or four minutes, and with equally distressing violence to the Horse, as well as to the observer. Sore throat is always an attendant on inflammation of the tonsils; the Horse cannot swallow his water but with difficulty, more like sucking than swallowing; if he be inclined to eat, the hay is quidded, and then put out again, not being able to pass it over the *glottis*. Sometimes the inflammation will proceed down the windpipe, and then the cough is extreme; it is also sore to the touch outside the throat, that in some cases the Horse evinces great restiveness on laying your hand on his throat, or on the enlarged glands, or the windpipe. The Horse being in such pain, he will stamp and appear in the greatest irritation. In some cases the discharge from the nostrils becomes of a mucous character, and this bear in mind is a favourable omen. Having enlarged on the symptoms, I shall now endeavour to speak of the causes.

The causes, as I have before described, are principally dependent on a variable atmosphere, acting upon a peculiar liabilility of aptitude in the constitution to become affected. In some years, this liability is more general than in others; and if to these be added, an unusually variable temperature, with atmospheric moisture, the disease assumes a more epidemic type.

For the treatment of distemper, or as it is sometimes called epidemic fever, you have one thing in particular to pay great attention to, and that is *never to bleed;* for if you bleed, you will assuredly lose your patient. For I would ask what is this distemper? nothing more than *sore throat*, which may extend as before described; but then bleeding is bad, because no vital organ is affected. Remove the pain and soreness from the throat, and the animal gets well. The very fact of the Horse having a difficulty of swallowing, proves it extends little or no farther than the *rima* and *epiglotis*, whose membranes are of that delicate nature, that certain atmospherical changes will affect these delicate organs; also

the means of cure are so exceedingly simple, that the proof is doubly strong. My treatment has always been the following, and I never found it fail.

Take Glauber's salts - 4 ounces.
Linseed meal - 2 do.

Let this be well mixed with two quarts of hot water, and when of a proper heat, be carefully horned down. To be repeated night and morning. This draught will lower the inflammatory action that may be going on in the system, and you will find the Horse's mouth get gradually cool, and every thing in the shape of fever leave him.

You cannot in these cases attempt to give a ball, for the soreness of the Horse's throat will prevent him swallowing it. Let warm water, or chilled water, in which a handful of oatmeal has been mixed, be placed in his manger, so that he may indulge with that if he things proper. If his bowels should at all appear costive, backrake, and give two or three glisters, until there is evident signs of a relaxation of the bowels. If the Horse should make frequent efforts to blow his nose, without discharging any thing, apply a nose-bag made of coarse cloth, with a portion of scalded bran in it to steam his head. This will produce the desired discharge, and you may calculate your Horse is doing well. Bandage his legs, and dress him well, give him good warm bedding, and prevent as much as possible all drafts from entering the stable. For food, you must not expect him to eat much, until the soreness of his throat is removed, bran mashes will be the best thing, but that only in small quantities, *and cold*. If you give in large quantities at once, and the discharge from the nose becomes copious, he will refuse it afterwards. Warm bran mashes they scarcely will touch at any time of the disease; if a few vetches or grass can be procured for him, he will be most likely to eat them. To remove the soreness of the throat, we make use of counter-irritants, and the best is

Take Oil of turpentine - 3 ounces.
Olive oil - - 3 do.

Mix, and rub this liniment all round the throat, on the swelled glands; and if the disease should have been of some days' standing, rub on about half-way down the neck, as far as you can feel the windpipe. Should this liniment be found not sufficiently strong,

Take of Mild blistering liquid - 4 oz.

And apply to the parts, morning and night. (For which *see* list of medicines at the end of the work.)

In consequence of the difficulty of swallowing, and the consequent debility arising from the want of proper nourishment, the Horse becomes naturally weak, and requires art to assist nature. After all febrile symptoms are gone, which you will easily ascertain by the recovery of his appetite, the coolness of his mouth, and his spirits being greatly enlivened; at this time you may venture to give him the following tonic ball:

Take Sulphate of iron - - 12 drams.
Aloes, Cape - - 6 do.
Gentian - - - 12 do.
Mix and form into a mass with honey.

Divide into six balls, and give one every morning.

In proceeding as before described, you need not fear of success in the cure of distemper, let it come in whatever shape it may.

MALIGNANT FEVER.

What is called malignant or putrid fever, in Horses, is of rare occurrence; and when it does occur, it is generally a sequel of the distemper as before described; and this principally arising from the debilitated state the animal is brought into by *too much bleeding* for that disease; consequently, the system is so much lowered from its natural standard, that the disease may put on a putrid or typhus form; but this, as I said before, from the powers of life being so much diminished by too great an abstraction of blood. Now, when the disease, from improper treatment, is allowed to arrive at this state, it then may in some measure be said to become infectious, but not in any other form of the disease, "as distemper;" for that disease arises solely from the susceptibility of the system to take on disease from a peculiar state of the atmosphere.

The French writers have had much to say of malignant fever; but our continental brethren are so fond of splitting straws of almost every disease, that every judicious reader will admit the almost impracticability of discriminating between the variety of symptoms, by which alone all the family of fevers are to be ascertained. However, I shall give my own practice in as plain and intelligible words as I possibly can.

The malignant epidemic of Horses always commences by similar appearances to those which characterize the mild epidemic. In fact, the one is only a heightened degree of the other, pushed into a putrid typhe; not by the violence of its action, as supposed by some, but by the reducing the arterial system below its proper standard. And another proof of this debility existing in the malignant kind, purging is usually present, and a fœtid stinking discharge from the nose also; the breath is likewise particularly disagreeable, the pulse quick and small, attended with extreme weakness.

In treating of the malignant epidemic, I scarcely need say any thing about bleeding, as I consider *that* the principal cause of the disease; and as soon as any appearances of malignity present themselves, the most active means must be employed to support the strength, rouse the action of the system, and destroy the putrid tendency; for this end take a nose-bag, and fill half-full with bran; then take the following—

Chloride of lime	-	2 ounces.
Water (warm)	-	1 gallon.

Moisten the bran with this liquid, and put the bag on the Horse's head, that he may inhale the chloride, which will remove the putrid tendency; be careful not to have the water too hot. Repeat three or four times a day, for about half-an-hour each time. Give malt mashes, and nutritious glisters, either of rice-water or starch, and give the following ball·

Take Cantharides	-	-	5 grains.
Arsenic	-	-	5 do.
Sulphate of iron		-	2 drams.
Aloes, Cape	-	-	1 do.
Juniper berries		-	1 do.

Let these be well incorporated together with honey, and give every morning, or every second morning. By this method of treatment you may anticipate a successful termination of the disease.

SYMPTOMATIC FEVER.

A symptomatic fever is a degree of inflammation and increased circulation, occasioned

by some distinct or local pain, and is not a disorder within itself; but probably the effect of, and dependent upon some other for its production. This fever is so influenced by the cause, and so entirely regulated by its changes, either for better or worse, as to be constantly reduced to an alleviation of the original complaint, and totally dispelled by a removal of the disease to which it is a concomitant. The fever being only a symptom of some other, the mere effect of preternatural heat, excited by extreme pain, and not a distinct disease, let the original cause be removed, and the effect will cease as a matter of course.

It has been repeatedly urged by authors of great repute, that every fever is one and the same disorder, only appearing differently, according to the various circumstances it meets with in different constitutions.

Much might be advanced in favour of this assertion; but as our work is not one of controversy, I shall endeavour to shew that preternatural heat, or increased circulation, constituting what is termed fever, must have some exciting cause to discover the true seat, of which great nicety of discrimination is unavoidably necessary. For want of due attention to these salutary considerations, many fine Horses have been hastily condemned. Persons should not only be accurately nice in the discrimination of disease, but by attending minutely to circumstances, endeavour to develope the indications of Nature, and strengthen all her efforts. In these cases, no person can be too well acquainted with the qualities of medicines, to the expectation of their effects, to have in view, upon every emergency their operations, certain or probable relief is to be obtained; and to promote those ends by every fair and gentle means that may be justified by circumstances, or dictated by discretion.

Symptomatic fever is most frequently brought on by a general cutaneous obstruction, or sudden constriction of the pores of the skin, which will constitute the foundation of every fever, to which the animal can possibly be subject. Inflamed feet will produce it, tumours of almost all descriptions, even nailing a shoe on too tight will produce symptomatic fever; wounds, and almost all operations that are attended with severity, blisters, &c. &c.

With respect to symptoms, the most certain signs are, an universal heat and disordered pulse, a palpable disquietude and uneasiness, shifting from place to place; the Horse labours under difficult respiration, his mouth is very dry, his tongue parched and hot; he declines food, but will drink water; he sometimes seizes his food with seeming eagerness, then drops it in disappointment. The body is generally costive, and in the early state of disease, there is a slight proportion of obstruction of urine.

Let a fever proceed from whatever cause, the indications of cure are still the same; such as diminishing the preternatural heat to that degree which constitutes its healthy state. Remove all internal obstructions, and by a proper and judicious administration of medicines, calculated to subdue the original cause, all dependent symptoms will certainly subside. For this purpose administer emollient glisters, after having back-raked the Horse, so that you promote easy evacuations (*see* list of medicines,) and give

Digitalis from 1½ to 2 drams.
Aloes, Cape - 1 do.
Make into a ball, with soft soap.

And give one every morning. By administering the above, you will lower the action of the heart and arteries, and by such means, entirely remove their inflammatory action; or give the saline draught, as prescribed, (*see* list of medicines,) give nitre (about an ounce) in the Horse's water every night, feed with bran mashes, or green food, if at the time of year you can procure it; if not, a few sliced carrots mixed with his mash, and a handful of oats, will entice him to eat,—and prevent that considerable debility which frequently arises from symptomatic fever. Have his legs well rubbed, and moderately clothed, and well littered down with clean dry straw.

CATARRH, OR COMMON COLD.

Catarrh, or common cold, is another, and I may say the most frequent attacks of fever the Horse is subject to. Cold, indeed, is an indefinite name for catarrh, it consisting in an inflammation of the *rima glotis* (or top of the windpipe,) which is covered with a highly sensible membrane, even more sensible than the nerve itself, and this is demonstrated by water of an equal temperature producing convulsions. Nature having so constructed those parts to receive an element necessary to the use of the lungs; indeed so essential is it, that the absence is death, by which means we see the cause of their great sensibility, consequently too great irritation arising from so many causes.

This is the seat of catarrh and cough, and is termed *catching cold;* now this is apt to mislead from the true nature of the real cause, for this catching cold refers to no particular degree of cold. The truth is, it is the change from one degree of temperature to another, the warm air acting as a stimulus, and the cold as a sedative; and thus people, without reflection, attribute the attack to catching cold. Horses, as well as ourselves, are necessarily exposed to these variations of temperature many times a day, and this is demonstrated particularly in man, without going to individual cases, but to numbers; for, in removing a whole regiment from comfortable barracks to open camp, here the cold operates, but no catarrh; but on again returning to barracks, which produces the effects of high temperature, when catarrh becomes common; and it is a known fact, that deaths are never so few as in the open field.

Horses that are kept in the open field in winter, we do not find attacked with catarrh, inflamed lungs, grease, &c.; but when brought into the stable, catarrh immediately makes its appearance. This sudden change cannot be referred to simple heat, but to a poisoned atmosphere generated in stables, breathed many times over. Nature not having intended for animals to breathe the same air a second time; and as close as we act up to Nature, in the same proportion will there be a deviation from disease.

Now, this poisonous atmosphere has no want of oxygen, but there is a poison contained in the air, which cannot be detected or thrown any light upon. Horses will certainly lose flesh by being in cold fields, for animal oil wants a certain temperature for its increase. Horse-dealers are exceedingly well aware of this in preparing their Horses for sale. By these facts, different changes are proved; hence, bad constructed stables, and contaminated air, are the veterinary surgeon's best friends.

Thus, catching cold is, properly speaking, catching heat, the disease being of an inflam-

matory nature. How can cold produce it? or what is inflammation? Inflammation is a determination of blood into the small vessels from an increased action of the larger trunks; and the equilibrium being lost, the small ones suffer congestion. But has cold any tendency to produce this action? on the contrary, it is a direct sedative, which all experience, when subjected to a great degree of cold; in such cases, sleep is often the cause of death.

Catarrh, then, being proved to be an inflammation, originating in congestion, cold cannot possibly produce this, but the direct contrary. This may be proved by bringing a frozen animal to the fire, by which means you excite inflammation, and destroy him; but if you rub him with snow, he revives, because the snow, with friction, is warmer than the body, and becomes a sufficient degree of heat. But the idea that cold produces catarrh, arises from its existing most in cold weather; but what the cold does, is this; it renders *the parts more susceptible of heat.* Persons may ask why are the cartilages of the windpipe more particularly affected? they have been made thus sensible as a kind of safeguard to the lungs, and when we consider that in bringing Horses into stables, *it is from cold to heat, and from a pure to an impure atmosphere;* this being more than a simple change. The question now arises how are we to prevent it? I must acknowledge that all animals fatten sooner in a warm temperature than the reverse, but then the change must be gradual; being mindful that the air all this time should be pure, for the diseases of Horses may almost all be referred to ignorance and neglect; and in the same manner, this will apply to all the creation.

As it is necessary to have Horses stabled, for our many frequent uses (we will speak of the construction of a stable in the course of our work). As pure air has so much to do with the prevention of catarrh, we will speak of the improper plan of Horses standing on dirty litter during the day; for the animal poison of which produces more or less effect upon all animals, according to their habits. We, ourselves, are born in an impure atmospheric air, and brought up in it; but use with us is second nature. A Horse comes into the world into a pure atmosphere, never breathing the same air twice; therefore the opposite must take greater effect on Horses than ourselves; and thus we seldom see them ill, until they are brought into stables; the Horse becoming sick, the owner is surprised, and the greater surprise is, the animal should live. Now, I am no advocate for cold stables, neither do I like them heated by dung and urine.

Horses generally become diseased during the night, the impure air then collecting; for, during the day there is a partial ventilation. Most persons on visiting a stable the first thing in the morning, are well aware of the effect of the air on the eyes.

Common catarrh often proceeds to take great hold of the constitution, the irritation causing cough, and not unfrequently ends in chronic cough, from the irritability of the nerves, occasioned by the previous attack. If the inflammation attacks the membrane lining the nose, a discharge will be the consequence, sometimes from one or both nostrils. Nature endeavouring by this means to relieve herself. This inflammation frequently, or almost always affects all Horses coming into large towns. Horse-dealers are well aware of this, and often try to preve t it, by turning them

into a loose place, for the attack seldom or never comes on whilst they are on the road in exercise, and breathing pure air. Mistaken kindness will often permit them to rest when the journey is over; but, in my opinion, however much the Horse may have travelled, he should have walking exercise the next day. The first few days are of the greatest consequence.

The cause of catarrh, according to the doctrine laid down at the Royal College, is common cold; but other causes, as I at first mentioned, will produce the same effects, and deserve great attention from every Horse-master. What is called cold, may arise not only from breathing impure air in stables, but from the real *application of cold*, when the Horse is in an excited state, or perspiration, and be allowed to stand in a draft of air. Now, if cold was the sedative after being heated, it becomes at once a remedy against cold, and therefore checking the perspiration as quick as possible would be proper; which we all know will induce what is called catarrh, or common cold, sooner than any thing; the sudden chill produced by returning the blood to the system, has been too much experienced both by man and Horse, for me to animadvert further on the subject.

In this, as in many other diseases of the Horse, cold acts differently upon different subjects; the injury sustained being in some respects regulated by the degree of heat or perspiration the Horse was in at the time of being exposed to the original cause, some idea may be formed of its probable duration and severity. The effects of cold are not only soon discovered where there is a constant attention and care, but an observation may be very early made to what part it more immediately directs its attack; but, in all cases, either of the eyes, throat, or the head, you will perceive it displayed more or less in a cough, or an obstruction in breathing, according to the severity of the attack. So soon as the Horse is in this state, a symptomatic fever attends, which is to be understood as a degree of febrile heat, or irritability, dependent on the original cause, which gradually ceases as the primary disease is found to decline.

Hence, in this case, bleed moderately, say two or three quarts, not enough to debilitate the animal; that is according to the animal's size, state, and condition. In about three hours, give the Horse a bran mash, having first removed all his hay out of the rack. Give an ounce of nitre in his water morning and night. Continue this treatment for two or three days, giving occasionally a handful of sweet hay, *wetted*. This, in many cases, when taken in the early stage will prove successful. Should this treatment not produce the desired effect in the early stages, and the attack has been neglected, and the disorder having made rapid progress, should the cough be violent, and constant, the Horse very dull and heavy, declining all kind of food, and the symptomatic fever run high; in such cases the symptoms will, perhaps, not immediately submit to the above plan so soon as may be wished or expected; therefore repeat your bleeding in two or three days at farthest, according to the state and necessity, altering the mashes to equal parts of malt and bran, scalded with boiling water; when nearly cool enough for the manger, stir in it

Glauber's salts	-	2 ounces.
Liquorice powder	-	1 do.

Let this be repeated every night and morn-

ing, continuing the noonday feed dry, and the nitre as before. Do not forget good grooming, and gentle exercise.

It should be remembered, for a consolation, that cough or colds thus treated, before they have been suffered by neglect or penury to become obdurate by long standing, generally submit to a very short course of trouble or expence; whilst tardiness in procuring expeditious relief, is often productive of events that no future assiduity can relieve; for a critical discharge of the nostrils may come on, which may terminate either in *chronic cough, broken wind, inflamed lungs*, or even in *glanders*. However, to obviate these misfortunes which may occur, give a dozen of the following balls, not neglecting the nitre in the water:

Take Turkey figs - - - - 4 ounces.
Liquorice, powdered - 4 ounces.
Aniseed - - - - 4 do.
Ginger - - - - - 1 do.
Caraway seed, powdered 1 do.
Honey sufficient to form the mass.

Which divide into eighteen balls. Give one every morning.

To say precisely in what time the cure will be complete, is impossible; but this method of treatment we strongly recommend.

The treatment for cough at the Royal Veterinary College is—

Take Cape aloes - - - 1 dram.
Linseed meal, about 2 do.
Soft soap to form the ball.

Give one every morning. Sometimes a dram of digitalis is combined with the above.

CHAPTER XVIII.

ON ROARING; CHRONIC COUGH; THICK WIND; BROKEN WIND.

ON ROARING.

Roaring is a disease that the Horse is very subject to, especially carriage Horses, and particularly those of the Yorkshire breed; and that in particular from their fine upstanding height, of from sixteen to eighteen hands high, with long necks. These Horses are principally used for carriage-horses in London, on account of their height and showy appearance; for with this kind of Horse, the coachman is enabled to shorten his bearing rein to any length he thinks proper; by doing which he brings his Horse's neck into a beautiful curve; this is done to exhibit him in style, or what these knights of the whip call, bringing him out in form, though by such means the disease called roaring is produced; and in many cases, it is exceedingly unpleasant to hear the noise the Horse makes every time he breathes; indeed, in some cases it is so distressing, as from exertion the Horse will fall, but still this tight bearing rein must be used. It will be here necessary to explain what the cause of roaring is.

Roaring is occasioned by any thing that obstructs the air passages, or in other words, any thing that impedes the air passing up and down from the lungs. Inflammation of the fine secreting membrane which lines the wind-pipe will frequently produce it, from an alteration of the arterial action, that an effusion of coagulable matter may be thrown out, and become organized, and in consequence remains as a permanent obstruction to the passage. Inflammation of the lungs will sometimes occasion it; strangles also will, by occasioning general inflammation round the throat, frequently cause it. But the most frequent cause of roaring is, the *tight* reining in of carriage-horses, by which the wind-pipe becomes distorted, or in other words, to suit all my readers, contracted and diseased; and for this reason, the Horse in his natural state feeds off the ground, consequently, his neck is at full stretch; but when he becomes domesticated, this natural stretch of it is removed from him, for he has his rack level with his head, and the manger but little lower, so that those muscles of the throat connecting the wind-pipe with the spur-bone (as it is sometimes called), and the inner sides of the posterior part of the jaw, becomes in a manner useless; consequently, contraction takes place, and as Nature finds but little or no use for them in such a case, so absorption takes place, and they become shortened; it is from this cause that

you frequently see cart-horses, when turned out to grass for a few hours, spread their fore-legs so extraordinarily wide, in consequence of not being able to reach the ground from the contraction and absorption of a portion of these muscles.

Another cause of roaring, and I may say with propriety the principal cause, and that is the partial absorption, or lapping over the *cartilego ligamentous* union existing between each ring of the wind-pipe, (see the wind-pipe of the sheep, or any other animal), and this from the Horse's head being so bridled in by the bearing rein, naturally by such means contracting the air passage, (see plate), for reasons before stated. Now it has been remarked by a very eminent practitioner, and one particularly so at the Royal Veterinary College, that the throat strap being buckled too tight may be the cause, but how this can be, I am not able to explain; for if this was the case, not one out of every cart or waggon-horse would escape, especially taking into consideration the heavy harness they are appointed with; this is not the case with carriage or saddle-horses, whose harness is of the lightest description, and especially at the present day. However, having stated the principle causes of roaring, it is nothing but right that we should present our readers with the cure.

I must here premise that the cure of roaring is difficult, or *I may say, not at all practicable;* still it may be prevented, and as it is well known "a preventive is better than a cure," I will endeavour to describe to my readers the only mode of obtaining that end; which is by altering the racks that the Horse eats his hay out of; let the rack be on the ground, so that the Horse's neck is on the full stretch, or in a state of nature, in the act of gathering his food; consequently, those ligamentous attachments of the rings of the wind-pipe become elongated and placed in their natural situation, by which means removing at once that corugation of the membrane, that might under other circumstances become thickened, and thus by reducing the air passage, the unpleasant noise of roaring is set up; for Nature never intended a Horse to have his hay just opposite his nose. All Horses in India feed off the ground, and it is a rare thing to meet with a roarer there.

CHRONIC COUGH.

Chronic cough consists in a violent action of the diaphragm, and the abdominal muscles producing a forcible expiration of the air from the chest, with such violence, as is intended to remove any extraneous body that may intercept the passage of the air. Whenever it accompanies a general affection of the constitution, it most frequently takes on the chronic form. Catarrh, and inflammation of the lungs, are frequently attended with cough; and even if those diseases are removed, chronic cough supervenes. Chronic cough is a very usual attendant of thick wind, and on broken wind, also on glanders, and pulmonary consumption. Worms also will produce coughs. It also exists at times, without any attendant difficulty of breathing, the Horse eating well, and appearing in good condition—a chronic or permanent cough appears to affect the Horse when going to stable in the morning, or at the different feeding times; this is in consequence of admitting the cold air into the stable, which becomes a source of irritation to the air passages; thus, you will see in all racing stables, not the least air is allowed to enter; and what Horses in the whole world

are to equal them in appearance or quality? It is not an uncommon thing for Horses on first going out to exercise to cough, but this is in consequence of coming in contact with the cold air. A cough of this description is very common, and it will remain in this state without otherwise affecting the Horse for years, sometimes even his whole life. In other instances it does not end in so harmless a manner, but upon any occasional cold taken becomes aggravated, and this when it may repeatedly occur, the bronchiæ becomes so permanently affected, that chronic cough is thus established.

The effects and termination of chronic cough are dependent in a considerable degree upon the cause producing it. From what we have observed of the termination of inflammation of the lungs, it will be easily seen that an irritation often remains in the air passages after that disease, as well as in some cases of catarrhal affections; in either of these cases, any change of atmosphere excites these excessively irritable parts into action; thus the Horse coughs whenever he may be moved in or out of the stable; for the air being either hotter or colder than what was before breathed in the regular way, becomes a source of irritation. Drinking cold water will produce the same effect for a time, if given in the stable, from the same reason; but if you let a Horse drink at a pond, where the water is of the same temperature as the atmosphere, no ill effects will be produced. Any irregularity of motion or hurry in the pace of the Horse will produce this cough, and in some cases, it is continued to such a length of time, as to be truly distressing, on account of its propelling more blood towards the chest, which cannot bear the increased stimulus. In some cases the irritability of the bronchial membrane itself, does not seem so much increased as that the mucous secreted, from its appearance, is altered, either in quantity or quality. It may become inordinate in quantity, as is often observed, and such Horses when they cough, throw off much of it by the nose, or it may be more acrid in quality; and hence, by these means prove a source of continual irritation. In some cases, the deposit of adhesive matter in the air-passages, arising from the inflammation of catarrh, or inflamed lungs, will produce chronic cough, the deposit proving a source of irritation. This deposit of lymph-like matter, is sometimes removed by the violence of the cough, and by administering expectorants, a separation is frequently obtained, and great quantities of this obstructive matter is frequently brought up. In some constitutions, a great part of this matter becomes absorbed, and this may be greatly assisted by administering proper medicines.

The remedies for chronic cough are according to symptoms produced, and when it appears from a want of mucous secretion, I know of no medicine so good as the ball prescribed in catarrh, which will be found of great use. On the other hand, if the mucous secretion should flow in considerable quantities, so that the Horse appears weakened by it, then it will be proper to use the following:—

Take Sulphate of iron	- -	2 drams.
Gentian	- - - -	2 do.
Aloes	- - - -	1 do.
Honey to form the ball.		

One of these balls to be given daily.

If the secretion should be of an acrid watery description, you will then be justified in trying a course of mercurial medicine, observing at the same time to be careful the Horse does not get a chill during the time you are exhibiting the medicine; and for this purpose I can safely recommend the following:—

Take Blue pill - - - - 2 drams.
Ginger - - - - 1 do.
Form into a ball, with soft soap.

Give one of these balls every second day for a fortnight; if the Horse should be off his feed in the course of the exhibition of the medicine, delay the continnance, and commence again in three or four days. This I have known to remove very severe attacks of chronic cough, and frequently, when attended with worms, you will perceive the coat staring and dry, the stools fetid and slimy. In chronic cough great attention should also be given to the food of the animal, never to give clover; it is heating, and altogether unfit for Horses so affected. Chaff also is not good in this disease; good sweet oats and hay, both made a little damp, will be found the best. Carrots, occasionally, are excellent; Swede turnips, a few; or even a few potatoes cut up, will afford great relief. Occasionally, bran mashes, with a little scalded linseed, will also be found useful.

In cases of chronic cough, where it appears of an aggravated nature, insert a rowel in the chest, and dress with the digestive ointment. (*See* ointments at the end of the work.) Keep the rowel in for at least a fortnight. Should the cough be very severe, apply the following liniment to the whole length of the Horse's wind-pipe, night and morning.

No. 1.

Take Oil of turpentine - - 3 ounces.
Olive oil - - - - 3 do.
Apply as above directed.

Or, No. 2.

Cantharides - - - 1 ounce.
Olive oil - - - - 5 do.

Let these remain in a bottle for about six days, occasionally shaking it, when apply as above directed. In cases of coagulable lymph being deposited in the wind-pipe, these liniments will greatly tend to move it.

THICK WIND.

This is a disease which the Horse is frequently attacked with, or more properly be said, to be a sequel of inflamed lungs; the air-passages, in consequence of the previous disease, frequently become thickened, and in consequence, the air not passing so freely to and from the lungs, constitute what is called thick wind. This is a disease that rarely occurs of itself, but supervenes after some other inflammatory attack that the air-passages may have been subject to, such as catarrh, &c. Long continued and hurried exercise, beyond the capacity of the lungs, is frequently a cause, and such is particularly the case when Horses are driven, or ridden hard on full bellies; and not unfrequently produced when Horses are too fat, or in other words, out of condition, consequently producing inflammation in the air passages. Confinement frequently will produce it, by exciting an inflammatory diatheses, and this more certainly, when over-feeding, with a want of exercise, is added to it.

The remote causes of thick wind are as stated, to be found in morbid vascular action.

The proximate causes are more obscure, but the examination of morbid subjects, in most instances, shews some disorganization in the structure of the lungs. It is notwithstanding, as I have before stated, that a thickening of the minute air-cells are the most frequent cause of this disease. A deranged state of the lungs, and especially if the atmosphere is at all thick and heavy, will give rise to thick wind. The most usual appearance, however, is a morbid alteration in the minute bronchial ramifications of the blood-vessels, occasioned either by a thickening of their own membranous structure, or by a deposit of coagulable lymph within them, by which means their capacity becomes lessened; consequently the air-passages are much smaller than in a natural state, that difficulty of respiration is produced, called foggy, or thick-winded.

Thick wind is easily discovered by any person at all acquainted with Horses, and the *rationale* by which they are produced, is not difficult to explain. The capacity of the air-cells being diminished, renders it necessary for the air to be more frequently taken in; because being acted on by a less surface, and also the air not being capable, from the diminished quantity, of extracting that portion of oxygen from the blood, respiration becomes partially impeded; consequently, the air-cells are not sufficiently expanded. A sense of fulness in the right side of the heart induces the animal to make hasty respirations, to remedy the defect, and consequently hasty expirations; the force with which these operate, occasions the sound so well known as the distinguishing mark of thick wind. Thick wind often degenerates into broken wind, and this we will explain when on that article.

For the treatment of Horses affected with thick wind, there is no better remedy than the *cordial pectoral ball* (*see* list of medicines at the end of the work,) given occasionally in the morning, when the affection appears to distress the animal more than usual.

BROKEN WIND.

This affection of the lungs and air-passages of the Horse, have a long time puzzled both English as well as French writers on veterinary subjects, but without either being satisfied, until that all-penetrating genius of Professor Coleman, of the Royal Veterinary College, threw a light on the subject before unknown: and the theory is a correct one. Mr. Coleman discovered it to be a rupture of the air-cells of the lungs, so that the thin membrane covering the lungs, becomes raised up in small bladders, wherever the rupture takes place. This opinion has been thoroughly proved, on examination after death, in such subjects as had been affected with the complaint when living. The alteration in the structure of the broken-winded lung is in general very considerable. It has been asserted that in a very few instances no change whatever has been detected, and the lungs have had but little or no morbid appearance; but this I should very much doubt, having dissected several Horses affected with broken wind, and having examined the lungs minutely, I have always found great derangement of the lungs. This alteration consists principally in an emphysematous state, dependent on the air as above stated, being extravasated not only throughout the parenchyma in minute air-bubbles, but also extended over the thin covering of the lungs. This extravasation is, in most cases, so complete, as to make the lungs specifically lighter than ordinary, and to make them crepitate

and crackle under the hand. They are also in every instance of a more pale colour than have occurred in natural cases, where they have been almost white, which may be accounted for, by their disorganization having injured their vascularity.

The invariable presence of emphysema in these cases being fully established, it is not to be wondered at that a cure has never been established for broken wind. Some writers have dared to say, there may be a possibility of cure, but without making mention of the curative means; I shall in consequence give my opinion of the best means of relieving the disease, without any pretensions to a cure.

Broken wind may easily be discovered from the peculiar action occasioned by the inspiration and expiration of air from the lungs. The cough also which accompanies it is of a peculiar kind, and seems to be forced out with a kind of grunting noise. The difference between the inspirations is most remarkable, but easily accounted for. Inspiration, or the act of drawing in the breath, is affected with the ordinary ease; but the extravasated air already diffused through the cellular tissue, by means already explained, is still the real cause of this difficulty, by offering a resistance to the complete ejection of the atmospheric air contained in the bronchial cells. Consequently, the broken-winded Horse inspires with ease, but expires with a protracted and great effort, by means of very forcible contractions of his abdominal muscles. The expiration is performed by two apparent efforts, in one of which the usual muscles operate, and in the other the auxiliary muscles, particularly the abdominal ones, are put on the stretch to complete the expulsion more perfectly; after which the flank falls with peculiar force, when these muscles resume their relaxations.

Horses affected may receive a palliative to the distress they frequently labour under, but a perfect cure is impossible; and the best remedy I have been able to discover to relieve broken wind is the following, and always ought to be kept in the stable, especially if the Horse may be required to do some extra work.

FOR BROKEN WIND.

Take Gum galbanium	- -	2 ounces.
Amoniacum	- - -	2 do.
Assafœtida	- - -	2 do.
Antimony	- - -	4 do.

Form into a mass with honey.

Divide into twelve, and give one occasionally; this will greatly relieve the wind, and occasion the Horse to perform his work with apparent ease, though troubled with so unfortunate a disease.

Horses from their prone position, are more liable to pursiveness and broken wind; for, in Horses the intestines press much against the diaphragm or midriff, and in consequence, on the lungs, thereby causing the oppression of the breathing. One remedy in this case is, having particular care to the exercise and feed of broken-winded Horses. The exercise should be gentle, and moderate as to its continuance. The food should be always the best of the respective sorts, and frequently given in small quantities, that the stomach may never be too full. All dry food, such as corn, hay, bran, &c., should always be moistened with water, consequently, preventing that thirst which generally attends this affection; particularly the hay, the flavour of which is much improved by damping, or sprinkling it with

water. The corn should be increased in quantity, and less hay be given; and what is given should be of the best, sweet and clean, being well shook, and divested of all dirt and dust. Be careful not to make the hay too wet; for if so, the Horse will not eat it.

When there is a convenience, these Horses are best when kept out at grass at all times, his corn being continued as when he stood at hay; but when kept at grass for the purpose of relieving his wind, he should not be taken up to stable, except for immediate use; for if taken from grass to dry meat, they become more oppressed in their breathing, from the difference of the change of food. If convenience cannot be had for constant running in the field, the Horse may be soiled in a loose box in the stable, with any green food that may be in existence at the time.

By care, in this method, many Horses have been much relieved, and made useful for many years.

There is also a small degree of broken wind, which by dealers is called pursiveness. Many pursive Horses have several signs of broken-windedness; yet never become thoroughly broken-winded, if not ill-used, or neglected; such as great and foul feeders, which are always more or less thick winded; and except their diet and exercise be carefully managed, they will easily become broken-winded.

Due care being taken, as to the diet and exercise of pursive Horses, according to the directions above for the broken-winded, tar-water, to the quantity of one or two pints, given the morning the Horse is going to work; if you add a pint of warm ale to the tar-water, you will find it of great benefit in relieving the wind. Narrow-chested Horses, disproportioned to the size of the lungs, is considered as the chief natural cause of this pursiveness in the Horse. Another excellent remedy for pursive Horses is the cordial pectoral ball. Horses, at all affected in the wind, let it be slight or severe, their stable ought never to be without a good supply of this invaluable medicine; and I make this remark in confidence, in consequence of the thousands I have sent to all parts of England, within the last ten years.

CHAPTER XIX.

ON GLANDERS.

GLANDERS is one of those diseases that have puzzled the most scientific veterinarians that ever existed, both French as well as English; and even that great philosopher in Horse knowledge, Professor Coleman, has his doubts of its curability, even to this day.

Glanders, there is no doubt, is a contagious disorder, and one that is generally thought incurable. The great number of Horses that have been destroyed by glanders, especially in the army, and in establishments where great numbers of Horses are kept, has excited particular attention to the subject, especially in France and Italy, where many attempts were made in the beginning of the last century to discover a remedy for it.

Lafosse, an eminent French veterinarian, considered it a local disease, and thought he had discovered a successful mode of treating it, which consisted in perforating the bones which cover the frontal sinuses, and injecting through the opening astringent and other liquids *.

After this opinion had been published, some English farriers made a trial of it; and by others, detergent lotions were poured into the nostrils, the nose being drawn up for the purpose, by means of a pulley. Attempts were also made to cure it by arsenical fumigations, and went so far as burning out the submaxilliary glands between the jaws, or sloughing them out by caustics. The various preparations, mercury, copper †, iron, and arsenic, have likewise been used.

From the circumstance of Horses having sometimes escaped the disorder, though they have been standing in the same stall, or stable, or drinking out of the same bucket, or trough with a glandered Horse, many have been led to doubt its being contagious, and the little care that some large proprietors have taken to prevent the spreading of the disorder, in consequence of such opinions having been held, has been the cause of very numerous and serious losses. That the glanders is contagious, has been clearly and indisputably proved by numerous experiments, and the manner in which it is propagated has likewise been satisfactorily demonstrated. At the same time, it must be admitted glanders will arise from inoculation, and this not by a wilful

* This operation I have frequently seen at the Royal Veterinary College, performed by Mr. Savill, but without any good effect.

† A solution of the sulphate of copper, is the remedy made use of at the Royal Veterinary College, in solution, of from two to five drams, combined with a little linseed meal.

intention, but from accident; for, supposing a glandered Horse to have stood in a stall, and some of the matter from his nostrils may hang about the manger, and a fresh Horse coming into that stall, and may by its strangeness be smelling about, and any rough substance that he may come in contact with, occasions an abrasion of the skin, and then this abrasion touching the poisoned matter of glanders, the Horse will decidedly become affected.

But, in a general way, close unwholesome stables, hard work, and bad provender, sudden changes from cold and wet weather to hot stables; in short, any thing that will weaken the animal considerably, is likely to produce glanders and farcy. There will be no longer any danger in admitting this opinion, if at the same time we keep in view the contagious nature of the disorder, in whatever manner it may be produced. For, if such cruel and foolish treatment of Horses does not produce glanders or farcy, it produces other disorders which are often more speedily fatal than glanders; and if it does not actually produce a disorder, it weakens the constitution in such a degree that the animal is rendered more *susceptible* of the contagion of glanders, as well as of other diseases. It is from this cause, that glanders spread so rapidly among post and coach-horses; while among Horses of a different description, its progress is generally slow.

Some writers have said that glanders has often been produced in the cavalry, by putting the Horses immediately after coming from camp, where they are constantly exposed to the weather, into warm stables, and giving them full allowance of oats. This, it is true, has often brought on inflammation, and inflammatory disorders of several descriptions, which were very destructive, and those principally of the catarrhal kind, in which cases they were accompanied with a discharge from the nostrils. The acrimony of the matter would sometimes even ulcerate the nostrils, and the disease would then be considered as a decided case of glanders. Frequently I have known the distemper, or epidemic catarrh, produce this effect.

Having said thus much of glanders, I shall endeavour to describe the symptoms; in doing which I shall endeavour to be as concise as possible:—The first symptom is generally a discharge of glairy matter, from one or both nostrils; principally, or generally from one only, and more frequently from the left than from the right nostril; a swelling of the submaxilliary glands, or kernels between the jaw, and generally on the side of the jaw corresponding with the affected nostril, and frequently attended with cough; the membrane of the nose, especially that covering the cartilaginous part, or septum, becomes ulcerated, and this from the fineness of its texture, and the many small blood-vessels distributed thereon; it in consequence becomes more susceptible of the disease, and especially in its acute form.

Sometimes, however, glanders is accompanied by a disorder of the superficial absorbents of the skin, named *farcy*. Farcy has been considered by many authors as a distinct disorder, I have therefore noticed it in a separate article, (*See* Farcy,) though I am of opinion that it is always a symptom of glanders, whether it appears in a local or a constitutional form.

Glanders is divided into two stages, the acute and the chronic; or the first and second

stage. The acute glanders is generally attended with *acute farcy*, such as chancrous ulceration about the lips, face, or neck, with considerable and painful swellings on different parts, some of these swellings appearing in what the old farriers called a corded or knotted vein. Ulceration and swelling of the hind leg, or sheath, and sometimes of the fore leg, with corded veins, and what is termed farcy-buds on the inside of the limb. The acute glanders often spreads rapidly, and either destroys the animal, or renders him such a pitiable and hopeless object, that the proprietor is generally induced to have the Horse destroyed.

Chronic glanders is generally very mild in the first stage of the disorder, and does not affect the appetite or the general health and appearance of the animal. Such Horses when properly fed and taken care of, and worked with moderation, will often continue in regular work for several years. Many glandered Horses have been known to get rid of the disorder while working, and on several occasions, fresh purchased Horses, and particularly, if old ones, have escaped the disorder. Hence it is this circumstance, as I have before stated, that has led many to believe that the glanders is not contagious.

The second stage of glanders is marked by ulceration within the nostrils, or an appearance in the matter which indicates ulceration, though sometimes too high up to be seen. The matter is in larger quantity, more glutinous, sticking about the margin of the nostril and upper lips, and sometimes obstructing the passage of air, so that the Horse makes a snuffling noise in breathing.

The matter is frequently streaked with blood, and the Horse sometimes bleeds from the nostrils in working. When this happens in the first stage of the disorder, however early it may be, it indicates the approach of the second stage. The matter begins to have an offensive smell, which it scarcely ever has in the first stage, though an offensive smell is by many supposed to be a decisive mark of glanders. In the second stage, the matter generally is discharged from both nostrils, the glands under the jaw become larger, harder, and fixed more closely to the jaw-bone. They are also generally more tender to the touch than in the first stage; the inner corners of the eye are also mattery. The Horse loses flesh and strength, and is apt to stale more than usual, coughs heavy and hard, and at length dies in a miserable condition, generally farcied as well as glandered. It is with this disease as it was formerly with small-pox inoculation, and is now with vaccination. If a person happens to meet with one or two cases, or suppose it were half a dozen, of a Horse escaping the glanders, after standing in a stable with one that is glandered, he thinks himself fully warranted in concluding that the disease is not contagious. Satisfied with this decision, he gives himself no further trouble about it, and pays no attention to any thing that may be said or written in opposition to his own opinion.

It is a remarkable circumstance that glanders cannot be communicated by applying the matter which is discharged from the nose of a glandered Horse to the nostrils of a sound Horse, even though a piece of lint soaked in the matter, be put up the nostrils, and kept in contact with the pituitary membrane for a short time, or even if the matter be thrown up the nostrils with a syringe. But if the smallest quantity be applied in the way of

inoculation, either to the membrane of the nostrils, or to any part of the body, a glanderous ulcer will be produced, from which farcy buds and corded lymphatics will proceed. After a short time the poison will get into the circulation, and the Horse will be completely glandered. The circumstance of glanders not being communicated by applying matter to the nostrils, enables us to account for a Horse escaping the disorder, as he sometimes does, after being put into a glandered stable, or standing by the side of a glandered Horse. I have great reason to believe that glanders is frequently communicated by accidental inoculation. Glanders can also be communicated through the air by effluvia issuing from the glandered Horse, in the same way that putrid fever is communicated; still I knew a carrier that used to travel from Deptford to London daily, who kept two Horses in the same stable, one of which was highly glandered, and remained so to my knowledge for three years; but the other Horse never caught the infection, plainly shewing there must be a susceptibility to take on disease in the system. Glanders, it has been said, cannot be produced by the matter applied to an old wound, or ulcer; but of this I have great doubts. From this it would appear, that to communicate the glanders, the matter must be applied to a wound fresh made, and not to a sore on which matter had formed. A sound Horse has been inoculated with glanderous matter, that had been mixed with ten times its weight of water. This produced some degree of inflammation, and a small ulcer of a suspicious nature; but after two or three days it got quite well. This shews that glanderous matter may be so far weakened by dilution with water, saliva, or the watery secretion from the lower part of a glandered Horse's nostrils, when he has the disease in a very slight degree only, as to render it incapable of communicating the disease. On the other hand, when a large opening is made in the skin of a sound Horse, and a piece of tow or lint, soaked in glanderous matter, is put into it, in the manner that rowels are inserted, the disorder is communicated in so violent a degree, that the animal is destroyed by it, generally in a few days. The same effect may be produced, if glanderous matter be mixed with a little warm water, and injected into the jugular vein of a sound Horse.

A Horse affected with glanders, may inoculate himself, and thereby produce farcy. Horses are frequently affected by an itching when out at grass, and are apt to bite their heels. By this means, the flow of matter from the nostrils inoculates them, and produces farcy. The possibility of this circumstance taking place may be easily proved by inoculating a glandered Horse in any part of his body with some of his own matter. There are many ways in which a sound Horse may be accidentally inoculated with the matter of glanders, for the slightest scratch in any part of the body is sufficient. Horses that are cleaned with a curry-comb, are very liable to be scratched in those parts where the bones are most prominent; such as the inside of the hock, and knee; the shank-bones, and the knee. To such scratches glanderous matter may be applied by the hands of the groom *, after he has been examining the nose of a

* During my studies at the Royal Veterinary College, two grooms who had the charge of the glandered stables, became affected with the disease, and were obliged to be removed into an Hospital.

glandered Horse, or wiping off the matter from his nostrils; or by the Horse himself transferring glanderous matter from the nose of a diseased Horse, or from the manger, or other part where any matter has been deposited; for Horses are very fond of rubbing their noses against the manger or stall; and a glandered Horse will generally rub off the matter from his nose against the manger, the rack, the stall, or against another Horse; and if a sound Horse happens to stand by one that is glandered, they will often be seen nabbing, or gently biting each other, or rubbing their noses together. In short, having proved that glanders is thus communicated, we can conceive a variety of ways in which a Horse may be accidentally inoculated.

When a Horse has been twitched, he generally rubs his nose and lips with considerable force against the manger, and may thus easily inoculate himself with a glandered splinter or nail. Now, the parts where the local farcy first appears, are those most likely to be accidentally inoculated; that is, the inside of the hocks and knees, the shanks, the lips, the under-jaw, where grooms are often trimming off the long hair with sharp-pointed scissors, or singeing with a candle, and often causing an itching, which makes the Horse rub the part against the manger. In this way the heels frequently become wounded. Horses that are kept on grains, bad hay, or any kind of bad provender, are liable to itching humours, which make them nab or bite their skin, and scratch the hind leg with the opposite foot: and we may often see them bite, rub with the nose, and scratch with the hind foot, alternately the other leg. If we take all the foregoing circumstances into consideration, that even from inoculation a month may elapse before the disease makes its appearance, in all experiments for the production of glanders, at any rate, some days will elapse before any ulcer or chancre is produced; a week or two before farcy-buds, or corded lymphatics may appear; and in some cases, probably, a month before the running from the nostrils comes on, except when a young ass is the subject of experiment. If we reflect upon all these circumstances, there will be no difficulty I think of admitting the following positions or references, with their natural conclusions, with respect to glanders, viz.:— That glanders is a contagious disorder, which is communicated by inoculation, or by the effluvia proceeding from a glandered Horse, that may have been kept in a stable with others, when in all probability, the constitution not being sufficiently strong, and debility may arise, creating a greater *susceptibility* to take on disease, than others of a more robust and strong constitution. It has been also asserted by some clever veterinarians, that swallowing a quantity of the matter made into balls will produce the disease; but this I never found to be the case, as I have tried it in several instances, both on Horses and Asses; the Horse's stomach having the power of resisting the impression of poisonous matter, as has been proved in numbers of instances. In doubtful cases; that is, when there is much difficulty in determining whether the discharge from a Horse's nostril is glanderous or not, and such cases frequently occur, have him removed to a stable to remain by himself. Then, purchase an ass, which may always be obtained for a few shillings, and inoculate him with some of the glandered matter. I have generally done it in the inside of the fore leg, on the plate-vein. In two or three days you

will have ample proof whether your judgment was correct or not. I recommend this plan, because a valuable Horse may be preserved at the expence of a few shillings, whereas if a cure was performed by medicine, which is always expensive, and the Horse not (in all probability) worth it; consequently, it would at once be advisable to have him destroyed. If the matter be really glanderous, a peculiar kind of sore or chancre will be produced. From this ulcer, corded veins, as they are termed, will proceed, and farcy-buds, or small tumours will take place. In about a week the animal will run at the nose, and in a short time, put on all the appearance of complete glanders.

In these cases, the disease is always very rapid, and always proves fatal. If the matter be not glanderous, no effect will be produced by it. In large establishments where many Horses are kept, this will be found a valuable test for determining with certainty the nature of a discharge from the nostrils. However mild the glanders might be, and although ulceration of the nostrils cannot be seen, and the quantity of matter be small that may be discharged, and the animal appear in good health and condition, the ass will be as certainly affected by the matter, as if the disease were in the last stage, or in its most virulent degree.

As this work, in all probability, may fall into the hands of gentlemen and agriculturists, that may be at some considerable distance from a regular veterinary surgeon, I will describe the method of performing the operation of inoculation.

Cut off a little hair from the inside of the fore leg, where you can feel the vein (I prefer this place, because I have found the poison act quicker there than in any other place, it being immediately on a large vein, the communication of the poison with the system being more expeditious,) for the space of half-a-crown; then take a lancet, and introduce it under the skin, for about three quarters of an inch in length. The orifice must be wiped free from the few drops of blood that may have made their appearance. Have your lint or tow ready that has first been well impregnated with the glandered matter, and introduce it into the opening with a probe, or small slip of wood. This being done, make a small wadding of tow, and place over all. Apply a bandage to the part to keep in the lint, and let it remain for a few days, and you will soon see the result.

If the matter be glanderous, the part will become excessively sore in about two days, and a scab will form on it, which in a few days will be thrown off, leaving a peculiar kind of ulcer, which will often spread rapidly, causing a painful swelling of the adjacent parts, with corded veins, or farcy-buds. After this, glanders will soon appear. No other matter will produce this effect, shewing at once the nature of the disease.

When colts are kept at grass, as they generally are until three or four years old, they will have passed through a disease, by which the whole constitution appears to be depurated, and consequently becomes invigorated. This is the disease called *strangles;* and most frequently occurs when colts are kept on poor pasture, debilitating the animal so much, that it frequently degenerates into glanders. While the colt is at grass, and kept well, it generally goes through its course without much inconvenience to the animal, and without requiring the interference of art;

but when colts are taken up, broke, and put to work before this disease has taken place, and kept in hot stables, and incautiously fed upon hard and stimulating food; in such instances, Horses have often this disease in a very violent degree.

Sometimes the strangles comes on, and does not go through its course in the natural way; the swelling under the jaws does not suppurate, or become an abscess, but remains hard; or, a small superficial opening takes place, from which a small quantity of matter is discharged; and sometimes is supposed to degenerate into glanders. As I have observed before, glanders is often produced by unwholesome food and hard work, with close filthy stables, and sudden changes from cold to heat, or from heat to cold; especially when the weather is very wet as well as very cold.

This kind of glanders often terminates in consumption; is accompanied with cough, and the discharge is generally from both nostrils, and more like pus than the matter discharged in the glanders arising from contagion. My opinion of this kind of glanders is, that it is not contagious, and should therefore be distinguished by another name. I would confine the term glanders to those discharges from the nose which were capable of communicating the disease to other Horses. This would be found highly useful in practice. The want of this distinction is another cause of the dangerous opinion I have before made some remarks upon, viz.; that glanders, in all cases, is not contagious; an opinion that has led to the most serious losses.

I now come to a consideration of the most difficult part of the subject, that is, the cure of glanders. As I have demonstrated the manner in which glanders is communicated, it is needless to say any thing of the mode of prevention, except briefly observing, that it can only be accomplished by preventing any glanderous matter from coming in contact with the Horse, or mixing with his food or water; and that the only method of purifying an infected stable, is to remove every thing on which glanderous matter may have fallen, and to wash and scrape the fixtures, such as the rack and manger, thoroughly; whitewash it well, and strew a solution of chloride of lime about the stall.

I have already observed that a glandered Horse has, in several instances, been known to get entirely free from the disorder while employed in moderate work, and carefully fed and attended to, with little or no medicine. The general opinions of both English and French veterinarians, I believe is, that glanders is incurable, but that farcy is curable. In my own practice I have succeeded in curing many cases of farcy, when it has been a local disorder; but such cases are generally followed by glanders, there being often a considerable interval (from a few weeks to a few months,) between the disappearance of farcy and the appearance of glanders. When glanders and farcy appear at the same time, or when farcy breaks out in a glandered Horse, it depends upon the blood being strongly impregnated with the glanderous poison, that I should recommend the Horse to be immediately destroyed. There is one exception, however, to this; and that is, when a glandered Horse inoculates himself, as occasionally will happen. Then the farcy is at first local; but it soon becomes a fresh source of contamination, and so increases the disorder in a short time, that it always becomes necessary to destroy the animal. The cure of glanders.

however, cannot be accomplished without great care and considerable expence; and rarely, I believe, except in its first stage, or mild form.

The expence of the cure does not depend so much on the value of the medicine employed, as the length of time that is necessary, and it also must be recollected, that in saying the disease is curable, it is by no means to be understood that there is a certainty of success in adopting any mode of treatment. Therefore, unless the Horse is of considerable value, in good condition, and glandered only in a mild degree, it is not worth while to attempt the cure. It should also be recollected, during the treatment, that as long as there is any discharge from the nostrils, there is danger of its communicating the disease to other Horses. Calomel has been tried, even to salivation, without the desired effect; but when salivation is produced, the animal becomes so considerably reduced in strength; and which, by the bye, is the very opposite end we want to effect, it clearly seems that mercurials have little or no effect in removing glanders; also, Ethiop's mineral, or quicksilver rubbed down with chalk; but all these are fallacious, and I may say, useless. In consequence of these medicines baffling all art, *tonic medicines*, and those principally of the mineral kind, have been resorted to; and the present practice of the Royal Veterinary College, for this disease, is to administer certain quantities of sulphate of copper, formerly in balls; but, as in latter years it is found much more convenient, and I believe more beneficial to the animal, to be exhibited as follows:—

Take Sulphate of copper from 2 to 5 drams.
Linseed meal - - - - 1 oz.
Warm water - - - - 6 do.

Dissolve the sulphate in warm water; then add the meal, stirring them well together, until incorporated. Give this draught every morning. I have seen some good effects arise from it, when the Horse has commenced with it in the early stage of the disease; but when the disease has got firm hold of the lungs, it is of little or no avail. I have succeeded in several cases, when advised of it in time, by giving the following, either in form of ball, or solution, as the last:

Take Sulphate of iron - - 3 drams.
Gentian - - - - 3 do.
Formed into a ball with treacle.

I prefer giving it in form of ball the best; but to this I must add, and which is of the greatest importance, turn the Horse out into a good pasture of grass by himself, to prevent all possibility of coming into contact with any other Horses; and, if possible, a warm shed should be in the paddock or field. Give the ball about the middle of the day, and every night and morning a feed of good oats and beans. By turning out, the Horse will breathe his natural air, not respiring his own air over and over again, as if in the stable. Then, by your tonic medicine and good feed, if he be of any constitution at all worth the expence, you will find this the only practicable means of removing glanders. Constitution has so much to do with the disease, that if well supported by art, these are the only means to be adopted. I should say, never treat a Horse, affected with glanders, in a stable. The Horse, also, by hanging down his head to gather his food, relieves himself, and the discharge comes more free from it. However, practice in this disease, must be the leading feature for knowledge.

CHAPTER XX.

ON EPILEPSY, PARALYSIS, SPASM, SPASMODIC COLIC OR GRIPES, LOCKED JAW, AND STRING HALT.

EPILEPSY.

The affection termed epilepsy, frequently affects cart and waggon Horses more than any other kind; and in different counties and localities, it takes on a variety of names; such as *meagrims, sturdy, turnsick, the falling-sickness, the falling-evil,* &c. The affection, in its first attack, comes on suddenly, and without giving any previous notice. The animal, if in exercise, stops short, shakes his head, and looks wandering; in which state he continues a short time, and then will go on as before. If the case should be a violent one, the Horse frequently falls to the ground, or commences turning round and round, until he falls, apparently senseless.

The whole system appears agitated by strong convulsions; he dungs and stales insensibly; at times becoming exceedingly violent; at others, almost as if life was extinct, but appears unconscious to every thing around him; his eyes appear fixed, and often his jaws are so closely set, that his mouth cannot be forced open. At another time he labours under convulsive motions, and his limbs shake so violently, that he even breaks the pavement with his feet, if the fall should be in such a situation. Sometimes, while the legs are stiff, the head and body are violently agitated. These varieties of symptoms frequently attacking the Horse alternately, it is not to be wondered at that the affection should remain on him in some instances, two or three hours, (more or less,) and then recover, sometimes without any return; at others, the fits are more or less troublesome, according to the success of the means applied for relief. As the fit goes off, there is generally a foaming of the mouth; the foam being white, and resembling that of a healthy Horse. The causes of epilepsy are several; it appears to be dependent on a kind of spasmodic affection of the brain, either from too tight reining up, or the collar pressing too tight. It may also arise from blood being forced on the head by constitutional disorders. Worms, I have no doubt to be a cause of it. Horses of very full habit, plethoric, or over-fed Horses, are liable to it, particularly when not having constant exercise.

For the curative means for epilepsy, nothing can be done while the Horse is enduring the fit but the following, which will be found excellent:—

Take Strong liquor of ammonia - 1 oz.

While the convulsion, or fit. is on, hold the bottle of ammonia frequently to his nose; and in all probability the Horse may immediately jump up, or at least in a very short time, and remove the epilepsy from him. Should he be a large cart Horse, in high condition, take four or six quarts of blood from him; feed him on cold bran mashes, and give a dose of physic or two, according to his strength or size. (*See* list of medicines.) The mercurial ball, composed of blue pill and aloes, is also very good in this case. If you can procure it, feed with grass occasionally; but you must lessen your hard feed. I have seen some poor farmers' Horses attacked, and that violently. This I attribute to the excessively hard and bad arrangement of the harness, as before-mentioned.

PALSY.

Palsy is when a part of the body loses its power of moving, or feeling, or both. This disease, amongst the old farriers, was called *planet-struck*, or *shrew-run*.

If there is only a trembling, or shaking in the part; or, if only one limb be attacked with palsy, it is seldom dangerous. But when it seizes both limbs behind, the case is very troublesome and difficult to cure. The Horse going at the slowest pace, reels about, with difficulty is able to stand at all; and on turning round, is obliged to form an immense circle, to accomplish the act; or, as it frequently happens, ends in a fall.

This, of course, would lead our attention to examine the Horse's loins, which always occasions him to exhibit pain on pressure; shewing that there must be some morbid action going on in the spinal marrow; either in the substance itself, or the membranes covering it; or, from some accident, a small portion of bone may be pressing upon it there; and consequently deprive the posterior nerves of their action. I have no doubt that it may occur from turning in a narrow stall; for it is truly distressing to see some Horses placed in such hen-coop stalls as they are, and in endeavouring to come out, twist themselves almost double. As this affection is not of unfrequent occurrence, every person who knows the value of a good hackney, will be glad to see it removed. The stimulant applications are the best, such as the following:—

Take Cantharides, powdered	-	1 ounce.
Oil of turpentine	- - -	2 do.
Olive Oil	- - - - -	3 do.

Mix, and shake well together in a bottle, and apply a portion of it over the Horse's loins, night and morning.

Or,

Take Tartar emetic	- -	2 drams.
Hog's lard	- - -	2 ounces.

Form this into an ointment, and apply, until small pimples arise. Give the mild mercurial alterative ball (*see* list of medicines,) every second or third day. Some people are exceedingly fond of applying what are called changes, and ordering a run at grass for a few months. A cure by such means is sometimes effected; but in this case, as in many others among the old farriers, they place the praise on the least deserving. The farrier says, "It was my change that restored the Horse;" leaving rest and *Dr. Green*, completely out of the question *.

* In India there is a disease called *kumree*, which always ends in complete paralysis of the hind-quarters

SPASM.

Spasm is an irritability of the muscular fibre, excited by an action of the nervous system, producing various affections, known under the general name of spasm, but subdivided according to the part affected with this excitement. When universal, it forms *tetanus;* when confined to the bowels, it forms *gripes;* and when it attacks the neck of the bladder, obstruction to the urine follows. Inflammation of the sensorium, or of the nerves, or of the investing membranes of these organs, can produce this excitement. Thus, in phrenites, the Horse is excited to exertions much beyond his usual powers. Irritation occasioned by foreign substances can also produce it; perhaps, by exciting an immediate inflammation, although the instantaneous spasm which follows mechanical pressure, and irritation, both in the sensorium and the nerves, can scarcely be accounted for thus. Nor, in truth, do I think it has much to do with it; and I believe no satisfactory account has yet been given on that part of our subject. Sedatives act either by allaying the nervous excitement, or relaxing the part affected with spasm; such as opium, tobacco, &c. Antispasmodics, also, by rousing the heart and arteries to a new action; as gin and pepper, spirit of turpentine, rendering the part above or below the disposition to be excited. In very violent cases of spasmodic affections, copious bleeding, combined with with solutions of aloes and opium, are powerful antispasmodics. In the spasmodic state of the neck of the bladder, nauseating medicines are found to be the best antispasmodics; such as digitalis, or white hellebore. The remedies which act by altering the susceptibility of the parts, are principally bleeding, purging, or glisters, and other evacuants, which do it by diminishing the excess of power; and are, therefore, extremely proper in plethoric subjects, or when the spasm is attended with great vascularity. When, on the contrary, should the spasm attack a subject already in a debilitated state, recourse then must be had to the stimulant remedies, to bring the part to a state to resist the impressions. (*See* list of medicines.)

SPASMODIC COLIC; OR, GRIPES.

Spasmodic colic, or, as amongst agriculturists, it is termed *fret gripes*, &c. Although it is termed flatulent, or windy colic, wind is not so predominant a symptom, as it is in the human subject. I have before spoken of the intestines containing three coats, one of which is muscular; and I have said, such structure is peculiarly liable to spasm. Consequently, we are not to wonder that the alimentary track of the Horse should be liable to it; though the stomach I never knew to be liable to the disease. The small intestines seem more the situation of spasmodic colic, than any other part of the Horse; but there are instances where the large intestines have become affected, and when it proceeds so far back as the rectum, the bladder then also participates in the convulsion, and frequent ejections of urine occur. In other instances

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and most of the Horses used in that country are stallions; and these are the subjects that become affected. I never saw it in a mare or gelding, with the exception, that the Horse on the commencement of the attack had gone through the operation of castration, which is imagined to be a remedy for it; but I never saw one cured by this, or any other remedy; for the Horse will continue getting worse and worse, until he is unable to rise at all, and is consequently destroyed.

the neck of the bladder is the sufferer, and suppression of urine then becomes remarkable; but these are only in extreme cases. The colic, as before stated, is dependent on a spasm of the muscular structure of the intestines. We have evident proof of this from the appearances which present themselves after death, in cases that have proved fatal; when the small intestines, most especially, will be found puckered, and drawn together; or some portions will afford marks of violent contractions, as though tied round with a cord. Occasionally we find an interception, or one portion of intestine invaginated within the other; in which case inflammation is usually brought on by it.

Spasmodic colic, however, usually exists without inflammation, though it frequently terminates in it, if you have either no speedy remedy at hand, or probably a surgeon living at some considerable distance off, is not easily procured; so that from its long continuance, or from violence, as rubbing the belly with a hard stick, &c., which should on no pretence whatever be done. Powerful purgatives to overcome the costiveness usually present, frequently have this tendency; but a still more frequent cause is the invagination of one portion of intestine within another. There is great importance in attending to the medical treatment of colic, that it be not confounded with inflammation of the bowels; but a decision is by no means difficult, by moderate attention and care, the remedies being so diametrically opposite in one disease, to what it is in the other.

Spasmodic colic generally comes on very sudden in its appearance, and not marked, as in inflammation of the bowels, by previous indisposition; but the Horse is at once attacked with considerable uneasiness, shifting his position from side to side, pawing the ground, and stamping with his feet, impatiently and violently.

In a few minutes after this, the pain will appear to go off, and leave the Horse tolerably easy; but in inflammation of the bowels, the pain constantly occasions the stamping, and the pain does not go off, even for the shortest time. As the colic proceeds, the remissions become less and less; the Horse lies down frequently, and on rising, shakes himself; looking anxiously round to his sides, and sometimes, in desperate cases, he will even bite them, or snap at them with his teeth; the Horse also strikes at his belly with his hind feet, as if determined himself to remove the pain, if possible. In inflammation of the bowels, the above symptoms are seldom so severe, the acute pain not being so great.

When on the ground, the Horse frequently rolls on his back; in which situation he will remain for four or five seconds, or probably roll over; neither of which are done in simple inflammation.

The pulse is the next thing to take your attention; which in colic, seldom becomes much altered from its natural state, unless the colic has existed some considerable time, when marks of general irritation sometimes present themselves; the pulse being somewhat hardened and quickened. Sometimes when the paroxysms are on, a slight alteration may then be felt; also in the early stages, should the pain be great; but slight alterations occur and cease on the pain going off.

I have been very particular in describing the symptoms, that mistakes may be avoided; for, if the Horse be under the immediate

influence of existing spasm, it will in some instances present a full bounding pulse, but oftener a wiry, though quickened beat; both of which may be taken for inflammation. The legs in colic are but seldom affected, and never remain cold for considerable periods together; but the coat stares, and the Horse breaks out frequently into cold sweats. He frequently attempts to stale, without effect; at others, he stales frequently. Generally the Horse is costive; a few dry balls only being forced from him during the spasmodic fits.

There are various *causes* which produce spasmodic colic. Cold, supervening on heat, either through the medium of application of the skin, or by application at once to the bowels, in the form of cold water, taken when the Horse is very warm. Costiveness will sometimes occasion it, improper food; also tares, or vetches, given on their being first cut. When they are full of moisture, the Horse is apt to eat greedily of them; and especially, if the weather be warm at such time of the year.

In some Horses, gripes occur exceedingly frequent, under every variation of food, situation, habits, &c.; so as to give reason to suppose there must be some peculiarity of formation, hereditary tendency, or the presence of calculi in the intestines. This latter, I have great reason to believe, is much more frequent, than by some persons it is allowed to be.

For the cure of *gripes*, I should recommend bleeding; and that, more or less liberally, according to the violence; or its having commenced some hours, without mitigation. Extensive bleeding, be it remembered, is one of the most powerful relaxers of spasm, with which we are acquainted with; and instead of its being an antagonist to the antispasmodic treatment, usually adopted by internal remedies, it is found to be infinitely increased in efficacy; and especially when conjoined with opium. Though most of the ordinary cases of gripes will go off by the common treatment of stimulants, and many will go off without any treatment at all, yet bleeding is always a safe and prudent precaution in all cases, as a preventive of inflammation; and, in the more aggravated cases, it becomes essentially necessary, both to combat the inflammatory tendency, and to promote the relaxation of the spasmodic irritation. It is likewise particularly to be noticed, in those violent or protracted cases, to counteract the irritative qualities of the antispasmodics already given; which in simple gripes may do no harm, yet may not prove so, when an inflammatory tendency is at all suspected, or already begun. In every such case, bleed liberally; say, at least six quarts; which, if the Horse be in any thing like moderate condition, cannot do harm. I have known Horses bled in the mouth for gripes; but never saw any good arise from it. Giving the Horse a brisk trot for about a quarter of an hour, after either of the following remedies, I have known do considerable good; but never go faster than the trot. Brushing the belly well, will be of service; but never rub with a stick, as this will tend to bruise the parts, more than do good. I have known the turpentine liniment rubbed well all over the abdomen to be a great assistant in removing the spasm. I do not approve of hot fomentations, the water that may lodge in the hair, becoming cold, will frustrate all your intentions.

As internal remedies, either of the following

will be found very efficacious in removing the disease :—

No. 1.

Take Ground black pepper - ½ ounce.
Tincture of opium - - 1 do.
Good ale (warmed) - 1 pint.

No. 2.

Take Common gin - - - ½ pint.
Tincture of opium - 2 ounces.
Good ale (warmed) - 1 pint.

If costiveness should be present, give

No. 3.

Take Oil of peppermint - - 2 drams.
Castor oil - - - - 6 ounces.
Tincture of aloes - - 4 ditto.

Should the costiveness continue, you must back-rake, and administer warm clysters, with a handful of salt thrown in each, about three quarts at a time, until the bowels are relieved. If you are situated where you cannot immediately call in assistance, most houses have the following in them, which give

Take Ground black pepper a teaspoonful.
Common gin - - ½ pint.
Good warm ale - - 1 do.

Should the disease continue on the Horse longer than you expected, you must repeat the remedies until relief is obtained. If the clysters should not have the desired effect, take a large onion, peel, and quarter it, and pass it up the rectum, which will speedily stimulate it to action.

ON TETANUS, OR LOCKED-JAW.

Tetanus, or locked-jaw, is a violent spasmodic contraction of the muscles, which are concerned in the elevation of the lower jaw; and which extends, more or less, to all the muscles destined to perform voluntary motion. This disorder, which may be excited by different causes, is much more common in hot climates, than in our own. However, it too frequently occurs amongst us, and happens to be one of great difficulty of cure, especially in consequence of wounds; and more particularly after such injuries of tendons and ligamentous parts. It is one of the most fatal symptoms which can possibly arise in these cases, and therefore demands the most assiduous attention of the veterinary surgeon.

Tetanic complaints may, from certain causes, occur in any climate that we are acquainted with. These complaints generally affect middle, or aged Horses, more frequently than young ones. The causes from whence they proceed, are cold and moisture, applied to the body while it is very warm; and especially, the sudden vicissitudes of heat and cold; or the disease may be produced by punctures, lacerations, or other lesions of nerves in any part of the body. There are probably some other causes of this disease; but they are neither distinctly known, nor well understood. If the disease proceeds from cold, it commonly comes on in a few days after the taking of such cold; but if it arises from puncture, or other lesion of a nerve, the disease does not come on for many days after the lesion has happened; very often when there is neither pain or uneasiness remaining in the wounded part; and very frequently when the wounded part had been entirely healed up*. The disease sometimes comes on suddenly, to a violent degree; but

* *See* case of fracture of the head, p. 53.

more generally, it approaches by slow degrees to its violent state. In this case, it comes on with a sense of stiffness in the muscles of the neck, which gradually increasing, renders the motion of the head difficult and painful. The haw of the eye also will be seen protruding, on the least motion of the hand being raised towards the head.

As the rigidity of the neck comes on, and increases, there is commonly at the same time a sense of uneasiness felt about the root of the tongue, which by degrees become a difficulty in swallowing; and at length, an entire interruption to it. While the rigidity of the neck goes on increasing, there arises a pain (often violent,) at the lower end of the back, which will occasion the tail to stick out, attended with a quivering motion. When this pain arises, all the muscles of the neck, and particularly those of the upper part of it, are immediately affected with spasm; and, as it were, drawing the upper part of the head, violently and strongly backwards. At the same time, the muscles that pull up the lower jaw, which upon the first approaches of the disease were affected, are now generally afflicted with more violent spasm, and set the teeth so closely together, that they do not admit the smallest opening.

This is, what has been named, *locked-jaw* (or trismus,) and is often the principal part of the disease. When the disease has advanced thus far, the pain at the top of the neck and lower jaw, is renewed with violence. As the disease thus proceeds, a greater number of muscles becomes affected with spasm. After those of the neck, those along the whole of the spine, become affected, bending the trunk of the body strongly backwards, with the fore-legs stretched directly out before him.

In the extremities, both the flexor and the extensor muscles, are commonly at the same time affected, and keep the limbs rigidly extended. Though the extensors of the head and back are usually the most strongly affected, yet the flexors, or those muscles of the neck that pull the head forward, and the muscles that should pull down the lower jaw, are often at the same time strongly affected with pain and spasm. During the whole of the disease, the abdominal muscles are violently affected with spasm, so that the belly of the Horse is strongly retracted, and feels as hard as a piece of board.

At length, the flexors of the head and trunk become so strongly affected, as to balance the extensors, and to keep the head and trunk almost in a straight line, and so rigidly extended, that they are incapable of being moved in any way; and it is to this state the term *tetanus*, has been strictly applied.

At the height of the disease, every organ of voluntary motion seems to be affected, and amongst the rest, the muscles of the face. The eyes also seem distorted, and commonly rigid, and scarcely movable in their sockets. The nose also appears drawn up; the spasms are everywhere attended with most violent pain. The utmost violence of spasm is, however, not constant; but after subsisting a minute or two, the muscles admit of some remission of their contraction, although of no such relaxation as can allow the action of their antagonists. The remission of contraction gives also some remission of pain; but neither is of long duration. The attacks of this disease are seldom attended with any fever. When the spasms are general and

violent, the pulse is contracted, hurried, and irregular; and the respiration is affected in like manner. The heat of the body, is commonly not increased; the extremities are generally cold, with a cold sweat over the whole of the body. Blood is frequently drawn in this disease; but it never exhibits any inflammatory crust, and all accounts seem to agree, that the blood drawn seems to be of a looser texture than ordinary; and that it does not coagulate in the usual manner. It is no less extraordinary, that in this violent disease, the natural functions are not either immediately or considerably affected; and it is usual for the appetite of hunger to remain through the whole course of the disease.

This disease frequently follows docking and nicking; also I have known it after castration.

As I have endeavoured to describe the disease, *locked-jaw*, as plainly as possible to my readers, the first thing that next presents itself, is the means of cure; and this, I must confess, is a difficult one. So many remedies have been tried, and so many failures arising, that there can be no certain remedy pointed out, for the removal of so distressing a disease. The cold bath, had for a long time its advocates; but without any real good. If one Horse got well under such treatment, it was applied to all, but not with general success; consequently, it fell into disuse. Bleeding, as a relaxant to the spasmodic action of the muscles, has also shared the same fate. Blistering the whole course of the spine, I am sorry to say, has met with no better success. Even the old farrier's remedy, of docking the tail about an inch, does not seem to carry a *specific* with it. Unctions, balsamic, and spirituous embrocations, which many practitioners have recommended, are not only useless remedies, but even hurtful. If the case arises from a wound, we ought to endeavour to excite a local inflammation in the wounded part itself, and to raise the inflammation as high as is consistent with the resolution afterwards. We certainly know that nothing promotes a general phlogistic diathesis through the system more than a wound, attended with a high degree of inflammation; but this is not always to be obtained, though you may apply the strongest stimulants the whole list of medicines could produce; for, I have found that in wounds productive of tetanus, there is an absolute want of this inflammation, so necessary to the cure and well-being of the patient; to do which, enlarge the wound as much as may be convenient, and insert a plegit of tow, first being dipped in warm oil of turpentine.

I have restored a Horse from tetanus, by a strong solution of aloes, combined with laudanum, as under:—

Take spirituous solution of aloes 3 ounces.
Laudanum - - - - 1 do.

Give this mixture frequently; say every three hours. If the jaws are so closely set, that you cannot give it the Horse by the mouth, have his head elevated by force, and pour the mixture into a quart bottle; then carefully pour it down one of his nostrils; which after a little time he will not resist. When he has began to take the above, without much difficulty (for you must not mind a little trouble,) you may break a little of the cordial pectoral ball with it; and continue it until you see a change for the better: which, if such be the case, and the jaws become a little loose, you may expect a favourable termination. Give

glysters the whole of the time you are exhibiting the medicine. I have administered prussic acid; but never with any good effect. I have also administered brandy, with the cordial pectoral ball dissolved in it, with good effects. In conclusion: of tetanus, I should never give a case up, until I had tried every means possible.

ON STRING-HALT.

String-halt is an involuntary and convulsive motion of the muscles which extend, or bend the hock; principally considered the superficial muscles, or the facia lying on the inside of the thigh, occasioning him to twitch up one, or both his hind legs, in a most remarkable manner. Strains and blows are the causes, to which this disease is generally attributed. I once was called to a Horse that was cast in a ditch, and we were obliged to employ ropes to extricate him. He had struggled very hard whilst in the ditch; but when released, he had the affection of string-halt in the leg that was underneath. A cure is seldom effected. I have known soap liniment well rubbed on in the inside of the thigh, to relieve the disease; but never saw a perfect cure. In some parts of the continent, it is considered a graceful movement, when in both legs.

CHAPTER XXI.

ON INFLAMMATION OF THE BRAIN, OR MAD STAGGERS; INFLAMMATION OF THE STOMACH, OR STOMACH STAGGERS; INFLAMMATION OF THE LUNGS, PULMONARY CONSUMPTION.

ON INFLAMMATION OF THE BRAIN, OR MAD STAGGERS.

Mad staggers is one of those diseases which affect the Horse but seldom, and very fortunate for the poor animal that it does not; for the pain arising from it must be dreadful. This disease, like many others, has acquired a variety of names, and constituting a variety of different diseases in former practice, though by nice attention in modern improvement, been nearly reduced to the two heads I intend to give my opinion of; that is. such disorders as principally affect the head, having their seat in the brain, or vessels leading thereto. In this description are included those that have been formerly distinguished under separate heads, of the old farrier; such as apoplexy, convulsions, epilepsy, stag-evil, phrenzy, or fever, &c., &c.; but as such distinctions, for one and the same disease, have been, and to this day in many counties yet prevail, I cannot help thinking the terms must be purely local, and for want of well educated veterinarians to lighten the darkness, and remove the gloom that has overspread the greatest part of this country, by the knights of the leather apron.

Mad staggers, or inflammation of the brain, may then be defined to be a determination of blood to the brain, occasioning considerable pressure on that organ, and also of the vessels leading to the brain. How far the pretended accuracy, formerly distinguishing one of these diseases from another, may be reconciled to modern comprehension, or generally credited, I know not; but confess, where the whole formation of judgment and decision is to rest upon the penetration of the observer only, and no information come from the patient, circumstances could, or can but very seldom combine to form so singular a distinction. Experience and observation may undoubtedly do much, in a collection of similitudes and probabilities, but never enough to ascertain the distinct, invariable causes and effects of diseases, where the most trifling difference is hardly acknowledged; more particularly when it is reconsidered that the cause of all these disorders is in the original seat of nervous irritability, the brain; or in those parts connected with, or dependent upon, its structure and purposes; except when they are understood to be symptomatic, or dependent upon some original remote cause; as the effect of bots, preying upon the stomach, or intestines; internal ulcerations, or complaints not immediately discoverable. These may sometimes happen.

but very rarely, to affect the frame with symptoms truly alarming.

Horses, upon the approach of any of those disorders, whose seat is directly in the brain, or nervous system, display in a considerable manner, a previous weakness and inactivity; seeming to move reluctantly, reeling, or staggering in their walk; frequently blinking with their eyes, as if vision was imperfect; consequently, feeling some awkward depression or uneasiness from the effect of light. They are also much averse to handling about the head, and are brought out of the stable with difficulty. In time, a visible tremor comes on; and, after reeling, or frequently turning round, if loose, they fall almost lifeless to the ground, having the perceptible power of breathing only; but that in a degree of violence and agitation. Horses affected with staggers, have a disinclination for food of all kinds. There is also a slight running of moisture from the eyes, which, if attentively observed, even in the very early stages, will be found inflamed, and somewhat flushed in colour. Hence that blinking appearance, as spoken of before. The nostrils also, may be observed redder than usual; but this is not always a true symptom. As the disease advances, the Horse appears impatient, and throws himself about in a most extraordinary manner, as though frightened at something; or he falls into a drowsy state, holding his head low, and resting it on the manger. Then, all of a sudden, he will commence throwing himself about again. If the disease should not be speedily alleviated, but continue for a day or two, the Horse will exhibit a kind of vacant stare, or watchfulness, the eyes appear set, as it were, in the head, his sight almost gone, his nostrils are expanded, his head raised as high as he possibly can, as if staring at the rack. The animal becomes now more furious and violent, dashes about the pavement in convulsive and insensible struggles; perhaps, falls; then suddenly rising again, to renew his violence.

Diseases originating in the most abstruse recesses of Nature, and that will admit such a complication of constructions, may proceed from a variety of *causes*, clearly comprehended; as, in all probability, they may likewise, from many that we are entirely unacquainted with. Among the former, is that cause originating in the preternatural increase of the velocity of the blood, instantaneously affecting the brain, as is too frequently found, in madly exceeding the bounds of humanity, and exhausting the strength and power of an animal, made by Nature sufficiently strong to bear almost every task the degeneracy or avarice of man could be supposed to invent. In corroboration of this circumstance of the premature deaths, occasioned by increasing the velocity of the blood beyond the limits prescribed by Nature, these causes may extend principally to post-horses, in the extreme heat of summer; and may be attributed to the impatience of travellers, or inhuman drivers.

To these, some (but very few,) of private property, may be added; being hard drove upon long and speedy journeys, and others, imprudently rode and improperly managed, during chaces of great length, in strong deep countries, with fleet hounds.

Others become the subjects of these disorders, from great irritation in the stomach and bowels; the powerful effects of bots in the intestinal canal; sharp and acrid medicines; a repulsion of any morbid matter from

the surface, without its being carried off by proper evacuants, &c. They are frequently known to attack very suddenly; at other times the approach is indicated by the symptoms before recited.

I shall now endeavour to point out the most rational method of *cure*, by correcting, or discharging the primary cause, which will be to allay the spasms, and to reduce the extreme degree of irritability, by strengthening the nervous system. To obtain this end, the first step will be, at all events, to draw blood; and, that in quantity according to the state of your subject. In cases of real alarm and danger, take from six to eight quarts of blood away at once; and I have found great relief in bleeding from the *jugular vein*, and the *thigh vein;* both at the same time. It causes a greater revulsion in the system, although it becomes absolutely necessary afterwards to stimulate and rouse the animal powers. As little can be done during the fit or paroxysm, in the mean time prepare a clyster of warm water, in which put a handful of salt, and give as soon as possible.

Should spasms, or convulsions prove so violent, that by a contraction of the muscles the jaws may become locked, or fixed for any considerable length of time, recourse must be had to nutritive clysters, that the constitution may be supported. Notwithstanding its inability to receive aliment by other means, there are several kinds of nutritive clysters, that may be easily and expeditiously prepared, consisting of broths of different kinds, which most houses have in readiness. Oatmeal gruel is an excellent strengthening clyster, in which a little starch has been mixed. These clysters give frequently, until you can safely administer a ball. If the mouth be not sufficiently open, that you can introduce your hand with safety, take one of the cordial restorative balls (*see* list of medicines,) and dissolve in about a pint of warm water, and carefully horn it down. This will rouse the system from the debilitating effects of the spasms.

If you find the Horse not relieved to your mind, but still keeps drowsy, and inclined to hang his head down, or bear against any thing, as it were, for a resting-post, immediately bleed again from the opposite jugular-vein, and also from the opposite thigh-vein, taking as much blood away as he can possibly bear. Then

Take	Tartar emetic - - -	1 dram.
	Hog's lard - - -	1 ounce.

Form into an ointment, and rub the whole at once on the Horse's forehead. This will occasion pimples to rise, and relieve the brain speedily.

Should any local paralytic affection, or contraction of the muscles, produce a stiffness, or inactivity upon any part; friction, with penetrating embrocations must be had recourse to; for, during the paroxysms of the disease, the Horse is so liable to locally injure himself, that it is necessary to use stimulating applications locally, to remove the bruises, &c., that he may have incurred; for which purpose

Take	Oil of tar - - - -	4 ounces.
	Oil of turpentine - -	2 do.
	Spirits of wine - -	2 do.

Mix, and apply to the parts affected, night and morning; nor must this be done with a careless hand; for it should be persevered in for *twenty minutes* at each dressing.

Horses that are of a full plethoric habit, when attacked with this disease should, as soon after recovery as they are able to bear it, be brought under a course of regular evacuations; such as are most applicable to their size, state, constitution, and condition. If they are inclined to fluctuating humours, or viscid heavy foulness, give one or two purging-balls, according to his strength, &c., as before remarked (*see* list of medicines). If purgative medicine should be considered too strong, give him alterative medicine, which will act much milder, and have a good effect. Give the Horse at the same time soft food, as bran mashes, or mashes with a little corn in them.

If the disease should have arisen from worms affecting the stomach, then give the mercurial purging balls (which *see* in list of medicines.)

INFLAMMATION OF THE STOMACH, OR STOMACH STAGGERS.

In treating of *stomach staggers*, there is more importance attached to this disease, than at first sight is thought of, and in consequence of which, so many Horses fall victims to the disease; few, or rarely any, recovering the attack. The disease, generally speaking, almost always proving fatal; and though many have boasted of being possessed of a remedy, and many cures have been said to have been effected by them, such cures have not taken place in what may be denominated stomach staggers. In examining Horses that have died of this disease, the stomach has been generally loaded with hard, dry food; so large sometimes is the quantity, that it is difficult to conceive how the stomach could have sustained the load without bursting.

The stomach staggers may exist in a great variety of degrees; for, it may go on until the stomach will weigh from fifty to sixty pounds; but, in such a case, I consider it to be of the worst description, and absolutely incurable. The same disease, however, though in a considerably less degree, occurs much more frequently than the public are aware of. It is often curable by simple means, and without difficulty; and yet often terminates fatally, through ignorance, or unskilful management. As the degree in which the disease happens is various, so are the symptoms diversified, and distinguished by a variety of names; they all originate, however, in the same cause, and that is indigestion. The name staggers, has been applied, when the disease exists in a sufficient degree to disturb the functions of the brain: but this does not happen until the vital power of the stomach has been impaired to a certain extent, by a continuance, or a frequent repetition of improper feeding; and this morbid state of the stomach is more quickly induced, when in addition to improper feeding, the animal is worked hard, and generally ill-treated. How often do we observe a great number of Horses confined the greater part of a market day, in the court or stable of a public-house, without food, and not suffered to eat until they return home, probably a distance of many miles, when they are permitted to eat as much bad indigestible hay, as their craving appetites may lead them to. Thus is a load of indigestible food taken into the stomach, at a time when its vital power has been diminished by fasting; but such is the power of this important organ, that it will resist for a time even such treat-

ment; and it is only by a repetition of such injuries, that at length it is rendered incapable of digesting sufficient food for the repairs of the body. That degree of exhaustion, or diminished power; or, rather that morbid condition of the stomach on which staggers depends, is seldom curable. If the animal does recover from staggers, the morbid state of the stomach is such, that unless he is afterwards fed in the most careful manner, he generally dies suddenly; and it is supposed to be of some other disorder. There is nothing, perhaps, does so much injury to the stomach as bad hay, except excessive exertion; and when these causes occur, as they unfortunately do in this country, the most formidable diseases are produced; and almost all of them depend on the diminished energy of the stomach.

The stomach is a muscular organ, and by excessive exertions of the body may become weakened, or injured, in common with all other muscular bodies; for, if the source of muscular power, that is, the brain, be impaired, the stomach will of course, participate with the other muscles in the effect.

But if we consider the important office of the stomach; that is, the preparation of food in order to form blood, and thereby repair the waste or wear, which all the muscles are constantly undergoing, what can be expected when it is supplied with food that contains but little nutriment, and requires its utmost exertions in order to be digested? The excessive exertions, in which Horses are commonly employed in this country, are sufficiently known; and I trust, require only to be reflected upon, to be put a stop to. Custom, I fear, has so far familiarized many Horse-proprietors to these cruelties, as to prevent them from viewing the situation of the Horse as they ought; and we frequently hear them boasting of their cruelly excessive exertions of the animal, as if the merit of his performance was due to them, and often for the sake of a small sum, but will completely exhaust his vital powers. The stomach-staggers, however, is not so common as it used to be. I have known farmers absolutely ruined by the disease; the disorder having continued among their Horses, until all of them have been destroyed. At present they seem to be better aware of the error of their treatment, and diseases among this class of Horses, are far less frequent than they used to be. A concurrence of the causes before noticed; that is, excessive exertion and improper feeding, is most common among post and stage-coach Horses; and it is here that diseases of the digestive organs are most frequently met with. Stomach-staggers, however, is not the symptom that occurs, it is one of a different description; that is, flatulent colic, or gripes. The condition of the stomach on which this depends, is exhaustion of its vital power; differing from that which produces stomach-staggers, not only in degree, but also in kind. In stomach-staggers, the power of the stomach is so gradually diminished, that the disorder almost imperceptibly takes place, and is rarely observed until it is incurable. In the other, the disease is more quickly produced, and therefore the effect is different. I have already said, that stomach-staggers is becoming less and less frequent, and I trust will continue to do so. The disorders and ill-treatment of post and stage-horses are daily becoming less, consequently removing the cause. Horses of this description are not so cruelly treated as they formerly were. So materially does the Horse contribute to supply the necessities, as well as

the luxuries of man, that he has a peculiar claim to his protection; and it is deeply to be lamented that an effectual law has not been established to enforce this claim; though the Society for the Suppression of Cruelty to Animals have done some good, they are not half aware of the cruelty that is daily practised on the Horse, even in the Metropolis alone. If Horse-proprietors would but reflect seriously upon the subject, they would be convinced; for it is a plain and obvious fact, that by feeding Horses properly, and working them with moderation, they are promoting their own interest in a most essential manner.

As in most instances this disease has terminated fatally, but that in consequence of medical advice not being called in early enough, and the disease suffered to go on until the animal is irreclaimable; and even if early made aware of the affection, the veterinarian is frequently baffled in his attempt of a cure, let his abilities be ever so great; for, if you administer medicine in the shape of balls, they become completely neutral, in consequence of the over-distention of the stomach, and the consequent inflammation set up; but I should by all means recommend a draught to be given as early as possible. Some writers have recommended a solution of aloes in large doses, but this I think quite contrary to good practice; for, though the grand object would be to remove the contents of the stomach as early as possible, aloes would be most likely to debilitate that delicate organ, and produce nausea, consequently it would be incapable of acting on its contents; for you cannot overcome the costiveness of the stomach and intestines, without acting on both, and that in a very different manner. To overcome the one, make a clyster as follows:—

Take	Common salt - -	8 ounces.
	Tincture of aloes -	4 do.
	Warm water - -	2 quarts.

Inject, after first back-raking, and hold the tail well down upon the anus, that the Horse may retain the clyster as long as possible. Repeat this operation until the bowels are quite empty. At intervals, rub on the region of the stomach

	Oil of turpentine - -	4 ounces.
	Olive oil - - - -	2 do.

Rub this well in; and should it not have the desired effect, repeat the quantity. At the same time give the Horse the following,

Take	Common gin - - -	1 pint.
	Tincture of myrrh -	2 ounces.
	Camphor - - - -	1 do.

First dissolve the camphor in the gin; then add the tincture. Give this new-milk-warm. If the Horse should not appear better in the course of an hour, repeat the draught. This will stimulate the stomach to a new action, in all probability, to get rid of its contents; the object so much to be desired. I have restored several cases by the above treatment, and if taken in time, I doubt of its ever failing. Every thing having passed off to your wish, you must administer good gruel frequently, but little or no hay, as that will tend to irritate the stomach in its weak state. Bran mashes, with oat or linseed meal mixed in them, will be good for him; but refrain from giving corn of any kind, until you are satisfied he is perfectly recovered, as the least irritating food may occasion a relapse.

ON INFLAMMATION OF THE LUNGS.

The disease, inflammation of the lungs, is one of the greatest importance the veterinarian has to contend with; it proving so frequently fatal. The disease formerly was not understood by the older farriers, and consequently, they administered hot stimulating drugs, by way as they conceived of driving the disorder away, which was generally the case—in death, until the establishment of the present Royal Veterinary College, and the indefatigable studies and means of its highly respected and talented Professor. The disease is now understood, and thousands of Horses that would have been doomed to the dog-kennel, have lived to follow the chace; saying nothing of the numerous roadsters and hacks, as well as draught-horses, that have lived double their time, from the well known knowledge and experience that have been diffused through the veterinary world within the last thirty years. However, in returning to my subject of inflammation of the lungs, there is a disease called *pleurisy* in the human subject; and this disease, consisting in an inflammation of the thin membrane covering the substance of the lungs, and being so intimately connected with the substance of the lungs, such as covering it all over, and the cavity of the chest, it has been thought to have been a disease of itself in the Horse; but such is not the case. The pleura of the Horse is seldom, or never the situation of disease. If the pleura should be diseased in the Horse, it is in connection with the substance of the lungs. Whenever the blood is prevented from circulating freely through the lungs, it is so important an organ, that it becomes the origin of several diseases. There is a something differing from the common air in the atmosphere exhaled from the lungs. This, at present, is an undetected poison, and will produce disease. After what I have said, the alteration of the structure of this important organ of Nature, shall occupy a little of our time.

Disease, it is well known, is not always a punishment, but is intended by Nature as a process to restore the animal economy; and Nature provides many more forces than one, to remove a portion of all kind of animals from the face of the earth periodically; for, if we were not thinned by disease, we should with numbers make each other uncomfortable; and thus, numbers are diminished by a *poison* being created. This law of numbers destroying each other, rules the vegetable kingdom also, which you have doubtless often seen in a turnip field. But, as Horses are not very numerous on this island, their present diseases must be produced from art; and so we find them become subject to diseases on coming under artificial treatment, and no disease more so, than inflammation of the lungs.

Many persons might say; and why is this? The answer I give is simply this; because Nature in her good gifts has supplied food for the lungs of animals of all descriptions, which we deprive them of; this food being the pure atmosphere, for which we substitute *impure air*, arising from close unventilated stables, the Horse's own dung and urine, bad stable management, &c. &c. Having described the nature of inflammation of the lungs, I shall proceed to the symptoms.

Of the symptoms of inflammation of the lungs, it is necessary to guard the practitioner against mistaking *pneumonia*, or inflammation

of the lungs, for catarrh, or that of the mucous membranes in contiguity, with which it may be confounded; though the experienced veterinarian will readily distinguish between the two. In the catarrhal epidemic, the extremities do not continue invariably cold; but are sometimes cold and sometimes warm. The distress of countenance is not so great; sore throat is commonly present; the breathing is less laborious, and the pulse seldom oppressed.

The cough in catarrh is generally deep, and very painful; a weakness, not corresponding with the violence of the symptoms, is very early seen in the complaint; and though the lining of the nostrils may be inflamed in catarrh, it is seldom so much so, if *pneumonia* be coming on, as to present a purple hue. The principal necessity which exists for making a careful distinction between the two diseases, arises from it not being found prudent in the catarrhal affection to push the bleeding, and other parts of the depleting system, so far as in the pneumonic; and also from the greater necessity of placing the Horse in a cool temperature in the latter, to what exists in the former. Inflammation of the lungs, has also by the inexperienced, been occasionally mistaken for colic; because the Horse sometimes expresses considerable uneasiness, and often looks round to his sides; in which mistaken cases the treatment generally pursued, has been such as to increase the disease. But, in colic, the Horse expresses acute pain; by turns he lies down and rolls, and then suddenly rises, stamping with his fore feet, or kicking at his belly with his hind legs; while, on the contrary, in *peripneumony* he never lies down, but stands stupidly quiet, except now and then, when he may look at his flanks; but without any of the indications of pain which colic forces him to. It may be added also, that the nasal membrane in colic remains unaltered in colour, unless inflammation of the lungs be at hand.

CAUSES.

The alternation of heat, with cold, is probably the most usual cause of this complaint. It was formerly considered that it could only be produced by a removal from a warm to a colder temperature; but it is now known that the sudden access of a warmer medium produces it also, though certainly not in an equal degree. Mr. Colman, I believe, thinks that exposure to simple cold, never produces the disease; and that, though turning Horses to grass without preparation may emaciate them, it never produces *peripneumony;* but this appears not borne out by experience, and has occasioned ill consequences. Human subjects, horses, cows, sheep, and dogs, are all more liable to coughs, colds, and pneumonic affections, in cold climates than in warm ones. The persons who slaughter Horses in London, are accustomed to expect a great number in the winter time, especially if severe and frosty, from the fatal effects of inflamed lungs. Hunting on a cold scent, with frequent checks, or travelling with a cold wind blowing against the chest; washing the legs and body with cold water while the Horse is hot; a sudden removal from a warm stable to a cold one. Any of these may occasion inflammation of the lungs, if great care be not taken; and, as has been remarked, the removal from a cold stable to a warmer one, or from grass to a warm housing, without preparation, may also produce it. In fact, so liable are Horses to affections of the chest from a change of tem-

perature, whether the change be from a warmer to a colder medium; or otherwise, from a colder to a warmer; that it is very seldom a Horse is brought from a dealer's stables, who does not, in a day or two, exhibit some cough. When a Horse is removed from a cold temperature into a hot one, it is evident that the hot medium is immediately applied to the seat of inflammation; and as hot air must tend to accelerate the circulation, therefore it is not difficult to account why it can produce the disease, and this more certainly if the heated air be less pure than that which the animal was removed from; when on the contrary the removal takes place from a warm to a colder situation, a similar effect perhaps also takes place; the cold air is immediately applied to the lungs, which may by its sedative properties, particularly if the change be very great, by this means be suddenly weakened. But it is not only by application to the immediate cellular substance of the lungs, through the medium of respiration, that cold acts injuriously on them. It more often exerts its baneful influence through the medium of the skin, with which these organs are united by a sympathetic and peculiar union, and which is liable to be at all times exposed to the vicissitudes of temperature; for both skin and lungs appear emunctores of the fœcal parts of the blood, and hence the sympathy between them is observed to be very great; and any thing that may prevent the exit of this fœcal matter, called *perspiration*, from the vessels of the skin, will throw much more of it on the lungs. When, therefore, in addition to these occasional causes, we consider that the lungs are very large, as well as very important organs; and that in an animal of speed they are peculiarly extensive in their surfaces, and extremely vascular in their structure, we shall be at no loss to account for their tendency to inflammation.

This tendency also seems much heightened in common with the proneness to other diseases, by a life of art; for in a state of nature, or one nearly approaching to it, they are seldom attacked. The cows even experience this increased tendency, arising from artificial habits, as is observed in those kept near London, and other great cities, where they are more artificially supported, and subjected to occasional housing.

The Cure of Inflammation of the Lungs: —The principal indications of cure are two; first, to lessen the increased vascularity or distension of the lungs, by bleeding; and next, to endeavour, by external stimulants, to change the diseased action; that is, by raising an external inflammation, we may hope to lessen the internal one; and it must be remarked, that as this disease is obstinate and quickly fatal, so the treatment must be active and immediate. The cure should therefore be promptly begun by bleeding, according to the age, size, and strength of the animal; regard also being paid to the time the disease has existed; for, when the treatment is commenced too late in the complaint, the bleeding cannot be carried to the extent that it may be in the early stage. As a general rule, it should be remembered, that bleeding in inflammation of the lungs, is never to be continued longer than it raises the pulse; that is supposing it to be previously in an oppressed state, which, in true *pneumonia* it usually is; and in every variety it is quick, and without fulness, even though somewhat hardened. More good is also gained by one bleeding within the first twenty-four hours of the com-

plaint, than from numerous repetitions of it afterwards. From a moderate sized Horse, five, six, or seven quarts, or even more, may be drawn; and should the symptoms indicate a necessity for it, particularly if the pulse rose on the first bleeding, in five or six hours take three or four quarts more; and as long as the breathing continues laborious, the extremities permanently cold, and the pulse oppressed, but rising on the flowing of the blood; so long the bleeding should be repeated to the amount of two or three quarts at a time, at intervals of six or eight hours. This is recommended under a supposition that the treatment commences soon after the attack; but if otherwise, and violent symptoms have existed thirty-six or forty-eight hours, the bleeding must be repeated with more caution, and the pulse most attentively watched; or the opposite extreme may be fallen into, and such debility succeed, as may produce the very event we wish to avoid, by hastening gangrene or effusion. It is of considerable importance to draw the blood quickly, by means of a large orifice, as directed under *General Inflammation*, and to suffer the blood drawn, to cool gradually without disturbance, by which the buffy surface will have an opportunity of shewing itself, and afford an additional indication of the propriety of persisting to bleed, or prove a check to its continuance. Immediately after the first bleeding, some active stimulants should be applied to the surface of the chest. Blisters have the effect of taking off the hair, which disfigures the Horse for a long time afterwards; and therefore their use is sometimes objected to. It is to be remembered, however, that they act by stimulating the parts not immediately affected, and thus prove a counter irritant; and that there is no specific virtue in one matter more than another beyond its degree of stimulating action to the part it is applied to. The degree of irritation necessary, must be proportioned to the degree of inflammation it is intended to counteract, by becoming a counter irritation too. (*See Blisters.*) If that be very considerable, the medicinal stimulant must be so likewise; and we know of none whose energy is great in this respect, that will not raise the cuticle, and separate the hair. Consequently, as those matters called blisters, act powerfully as stimulants, and particularly as they continue such action for some time, they should never be dispensed with. Whenever, therefore, the symptoms are at all urgent, proceed at once to blister the chest, and between the fore legs, and also from the sides behind the elbows; as it should be remembered, that actively blistering is the quickest mode of subduing the inflammation. The state of the bowels should be next attended to, and a gentle relaxed state encouraged; but not purging. To obtain this end, back-rake, and throw up a laxative clyster. (*See list of medicines*); but active purging must by all means be avoided. A little further on we will prescribe what internal medicines should be given. Mr. Coleman formerly recommended, after blistering or rowelling, that the Horse might be turned out into the open air, however cold, without other medical treatment than nauseating doses of aloes. Latterly he has recommended, and with very great propriety, a well ventilated box, with slight clothing on the Horse, with which I perfectly agree, taking care that the legs be well rubbed and bandaged, either with woollen bandages, or in default of which, with hay, or straw; and should this not have the desired effect of producing warmth in the

extremities, apply a blister to them, which will be found to be more efficacious. The muzzle, ears, and the whole of the head in fact, may be considered as an extremity; and as such should be likewise particularly attended to. The ears may be hand-rubbed, and the head clothed in a neck-hood; and then litter well up to the belly with clean straw. But it must at the same time be kept in mind, that the more care we take to promote warmth in the surface, and in the extremities, by clothing, &c., so we must be the more careful to counteract any tendency these means might have to encourage arterial excitement; and which, as before observed, is best effected by a cool and pure temperature of about fifty degrees.

For internal medicine in this disease, take the following immediately after the first bleeding:—

Take Aloes; Cape - - - 1 dram.
Digitalis - - - - - 1 do.
Nitre - - - - - - 3 do.
Mix with honey to form a ball.

And give every six hours, or oftener, according to the urgency of the case. In cases where cough is present, and troublesome, add to the former,

Liquorice powder - - 2 drams.

Should this not relieve the cough as much as desired, give the following:—

Linseed meal - - - 2 ounces.
Oatmeal - - - - - 2 do.
Warm water - - - 2 quarts.

Mix well together, and boil. Give this draught every six hours, until the Horse appears relieved. With regard to food, no particular anxiety need be manifested for the first twenty-four hours, during which time the less the animal eats the better, unless you can procure green food for him; this being more cooling and opening, should by all means be given, if possible; but in the absence of this, bran mashes may be allowed *cold*, with only a small quantity of hay. Corn should on no account be given, or the head steamed with hot mashes. As I before observed, we must abstain from producing purging, we must also carefully endeavour to avoid costiveness; the extremities also must be carefully examined as to their heat or cold, and every endeavour made to keep them as warm as possible. By steadily pursuing this mode of treatment for a day or two, you will perceive whether your patient is getting better or not. If the fever and inflammation appears to have quite left him, still continue the linseed and oatmeal gruel, in which once a day you may put,

Pul. gentian - - - 1 dram.
Sulphate of iron - - 1 do.

If the disease should occur in mild open weather, the Horse would be greatly benefitted by a turn to grass, for one or two hours in the warmest part of the day.

PULMONARY CONSUMPTION.

Pulmonary consumption may also be called chronic inflammation of the lungs. It is a disease that commences slowly, but almost always ends fatally. It frequently follows cold, or is a sequel of acute inflammation of the lungs. In these instances, the Horse for some time seems not to be affected with any disease, though the lungs are decidedly affected the whole time. He is, however, occasionally observed to be affected, and gradually, a short dry cough comes on; the

coat becomes also harsh, dry, and altogether unthrifty. As the disease advances, I have always distinguished a peculiar smell about such a Horse, both from his skin and his dung. At length the appetite becomes affected, and pus, mixed with mucous, is observed to be passed from the nostrils, which in the latter stages is mixed with lots of coagulæ; which escape by the mouth also, as well as the nose, in the act of coughing. In the still more advanced stages, the discharge increases, and is attended with an exceedingly disagreeable smell; the hair falls off in patches, the body wastes, and the complaint either degenerates into farcy, or glanders; or the animal sinks under the disease itself. If a Horse be destroyed in the early stages, the tubercles appear like knots, or kernels, dispersed through the substance of the lungs; they are sometimes smaller, or larger, as the case may be; mostly darker, but sometimes lighter than the surrounding substance. In later stages these are found degenerated into abscesses, and terminating with universal ulceration. When Horses are opened at this point of the disease, they are said to be *rotten.*

Horses affected with this disease, may do a considerable deal of work, such as slow draft work; with occasionally giving him one of the restorative balls (which *see* in the list of medicines); but a perfect cure is impossible; palliatives being the only remedies that can be made use of.

CHAPTER XXII.

DIGESTION AND INDIGESTION.

ON DIGESTION.

By digestion is meant, that process by which the food, or certain parts of it, are converted into a white fluid, resembling milk, named chyle. To render it fit for this process, which is performed by the stomach, it is necessary that it should be perfectly masticated, and mixed with saliva. Supposing then that the food is of good quality, and in sufficient quantity, a defect in the organs of mastication, a deficiency of saliva, or a want of vital power in the stomach, must render the process imperfect, and the chyle formed by it unfit for the purposes for which it was designed; that is, the formation of pure blood. Mastication is often rendered painful, and consequently imperfect, by a defect in the grinding teeth; that is, by keen edges, or sharp points being formed in the upper grinders, which wound the cheeks, and sometimes cause deep ulcers in them.

Horses that are constantly fed on dry food, and never allowed grass, are those in which this defect happens. The upper and under grinders do not meet each other horizontally, but have an oblique inclination inwards; and those of the upper jaw are more distant from each other than the grinders of the under jaw. By this arrangement, the food as it is ground, falls inward upon the tongue.

The inside of the upper grinders, when worn down nearly to the gum, as happens frequently in Horses of the above description, allows the corn to fall into the mouth, or some portion of it, before it is masticated, and this is generally swallowed unbroken. The Horse feeling sensible of this defect, tries to throw the wear upon the outer edge by an inclination and peculiar motion of the jaws, which the French express by the phrase "faire les forces." In doing this he often wounds the cheek with the upper grinder; which in this case, is always worn to a very keen edge. The cheek inflames and swells, and becomes still more liable to injury. In this way a permanent thickening of the part takes place, and not unfrequently, deep ulcers. From this cause a Horse swallows a considerable portion of his corn without chewing it; and such corn being indigestible, is always voided with the dung. This defect may be remedied for a time, by rasping the outer edges of the upper grinders, with a concave file made for the purpose. Whenever corn is found in the Horse's dung, there is reason to suspect the existence of this defect; but sometimes a Horse will swallow corn unchewed, merely

from eagerness in feeding. Filing the teeth does not, however, afford permanent relief; for, if a Horse is again fed on corn, the teeth soon wear to a sharp edge again, and the injury is repeated; and though filing off the sharp points prevents him for a time from wounding his cheeks, it does not prevent the corn from falling unchewed into his mouth, and from being swallowed in that state. There is not, however, so much difficulty in masticating hay, provided the animal is allowed sufficient time. It does not so readily fall into the mouth until it has undergone considerable mastication, and then it is more readily placed under the grinders again, by means of the tongue. The hay is at length masticated with great difficulty, and after being kept in the mouth a considerable time, is thrown out into the manger, rolled up like a chewed quid of tobacco. Such Horses are named by dealers, *quidders;* and unless fed upon bruised oats, or soft food, must be starved. In such cases the muscles of deglutition, or swallowing, are more or less paralyzed; so that if the animal is turned out, the grass will return through his nose, instead of being swallowed, and he will be starved to death. Horses that have defects in their grinders, should be fed with bruised oats, grains, bran, or other food that does not require mastication.

When a Horse is at grass there is a sufficient supply of saliva for the purposes of mastication, swallowing, and digestion; but when he is taken into the stable, and fed upon dry food, there must of necessity be a deficiency of saliva. The only method of compensating for this deficiency, and rendering the food as fit as it can be made for mastication, swallowing, and digestion, is to dip the hay in water, and make the corn quite wet. This should never be omitted.

There is one cause of imperfect mastication, however, which should not be permitted to happen in the stable, but often does happen; that is dentition, or cutting teeth, especially when a Horse is changing his grinders, which he does between the third and fifth year; not partially, as has been stated, for all the grinders are changed for permanent teeth. A Horse ought to be kept out during great part of this period; and if he is kept in, he should have soft food, when he is observed to chew with great difficulty. A want of vital power in the stomach, is a disease that exists in the Horse more frequently than persons are aware of, and depends wholly upon improper feeding, assisted however, too often, by immoderate work. By improper feeding is meant the quantity and quality of the hay that is commonly given. This injures the stomach, not only by its deficiency in nutritious matter, and the impure chyle generated from it, thereby leading the animal to eat a greater quantity than he otherwise would, but merely the distension which the stomach suffers, does it a serious injury; and by rendering respiration difficult, weakens the whole muscular system. For when a Horse is constantly fed in this way, not only the stomach, but all the large bowels are loaded, and the diaphragm is in a considerable degree prevented from performing its office.

ON INDIGESTION.

In my last article I endeavoured to explain the nature of *digestion*, it will now become a matter of course to say something of *indigestion*, the two first articles of this chapter coming under that head more immediately,

As we stated before, in the healthy state of the stomach, the animal's appetite is such as leads him to eat that only which is fit for the formation of pure blood. This food is grass, for he is certainly by nature a graminivorous animal. The Horse's stomach is remarkably small, and requires to be frequently supplied with food; therefore, in a state of nature, we find him almost constantly feeding. How great then must be the change which the animal suffers when brought into the stable, and what serious evils ought we not to expect, unless this change is gradually brought about, and his diet and exercise carefully attended to? When we consider for a moment in what manner he is generally treated, there cannot be any difficulty in believing that the stomach must of necessity be brought into a morbid condition. The labour he is employed in is generally excessive, the food he is supplied with is often deficient in nutriment which is natural to his stomach; for, even grain is not suitable, because not natural food; and we find that Horses which have always been kept in a state of nature will refuse grain, and require some time, and the stimulus of hunger, to be brought to it. Good hay will always be preferred by such Horses, especially when it has that fragrant smell, greenish colour, and herbage, which it ought always to have. But considering the use to which the Horse is applied, grain becomes a necessary diet for him, and if properly dispensed, is the best food that can be given him. Hay, when really good, such as will be described, and given in moderation, is a very suitable diet for the Horse, but requires to be assisted with grain, in a quantity proportionate to his work. Some grain should always be given, as without it, the quantity of hay necessary for his support would so distend the stomach, as to induce gradually, by a continuance of such feeding, a morbid or depraved appetite. As it is, the hay generally given to Horses, even that which is considered good, is so deficient in nutriment, difficult of digestion, and eaten in such immoderate quantities, that the laborious exertions required in the muscular structure of the stomach to extract what nutritive matter it does contain, is such, as must of necessity bring on a morbid or depraved appetite; and, what is of still greater consequence, if possible, an exhausted state of its sensorial power.

Wheat straw, when the reed has been carefully separated from it, is much better fodder for Horses than what is called middling or indifferent hay; but the daily quantity should never exceed four or five pounds. Grain must be more freely given in this case, of course, and considering the price of straw, this can well be afforded; but such a diet is far better than that commonly given to Horses in this country.

In France, wheat straw is very commonly employed as food for Horses; and their manner of distributing the diet of Horses, well deserves the imitation of the Horse-owners of this country. The daily allowance is given at three times a day, viz.; a moderate quantity early in the morning, a smaller quantity at noon, and the largest portion at night. So general is the practice in this country of giving Horses an immoderate quantity of hay, of giving bad hay, of distributing the daily allowance injudiciously, both of water and oats; of giving beans unbroken, of working Horses while their stomachs are distended with food, by which much mischief is done, and many fatal diseases brought on. So

general are those practices, that we meet with but few Horses whose stomachs are in a perfectly healthy condition. So numerous are the degrees of morbid condition of the stomach, between the healthy state and that extreme degree of derangement, when the appetite becomes depraved, inordinate, and even voracious; that it is difficult, if not impossible, to bring each of them under a distinct head. It will be sufficient for the purpose I have in view, to notice them, as they relate to the organs of respiration; that is, to treat of those diseases of the lungs and its appendages, which arise from a morbid condition of the digestive organs. These diseases are commonly known by the names of chronic cough, roaring, and broken wind. To accomplish this in a manner sufficiently clear and intelligible, it is necessary to give a concise description of the organs of respiration, and those of digestion.

The mouth, the tongue, the throat, and the passages to the stomach and lungs, are covered with cuticle, but of various degrees of thickness; so that the sensibility of the different parts is nicely adapted to the purpose for which they are designed. These purposes are: gathering the food, masticating it, moistening it with saliva, and swallowing it. The first is effected by the front teeth, the second by the grinders; the saliva is separated from the blood by three pair of glands; named, parotid, sublingual, and submaxillary.

The latter have always been described as lymphatic glands; but there is no difficulty in demonstrating that they secrete saliva, and their excretory ducts may be seen near the tonsils. The parotid glands pour out their saliva through an opening between tne second and third grinder, on each side, and the sublingual by two small tubular papillæ under the tongue; and it is by the motions of this organ that the saliva is necessary, not only to facilitate mastication and swallowing, but serves likewise a very important purpose in the stomach, being necessary to digestion.

The masticated food is placed by the motions of the tongue into the upper part of the gullet, or œsophagus, which is named pharynx. The pharynx is large, and capable of considerable dilatation, but soon contracts into a small, but strong muscular tube, named œsophagus. The part where the œsophagus begins, is so contracted as to have the appearance of a stricture; and it is here that the strong cuticular, or as it is commonly named, insensible coat, of the stomach begins. When the food gets into the pharynx, it is swallowed into the œsophagus, and from thence into the stomach, by the muscular contraction of those parts. There is a glandular cavity on each side of the throat, named tonsil, which secretes a mucous fluid, which is retained in the cavity until wanted by a semi-cartilaginous flap; this has been described as the opening of the eustachian tube; but this opening is situated immediately above it. The mucous fluid is forced out by the action of gaping, at those times when it is wanted. The tonsil is the part affected in strangles, and the matter formed in this glandular cavity passes down through the excretory duct of the submaxillary gland, inflames it, and causes it to become an abscess. This abscess is commonly, but erroneously supposed to be the seat of strangles. The Horse's stomach has nearly one half of its surface lined with that strong cuticular membrane which lines the œsophagus; it terminates abruptly, and by a fringe-like edge. It is on

this part that bots are usually found. Sometimes, however, they go from this part, and attach themselves to the sensible part of the stomach, properly so named; for it is endued with exquisite sensibility, and is one of the most important organs of the body; its office being that of digesting food, and so preparing it as to render it fit for forming blood. Much has been said of the gastric juice, as if some peculiar fluid were formed in the stomach for the purpose of digestion; and physiologists and chemists have been at considerable pains in investigating the composition and nature of this fluid; but their researches have always proved fruitless, and ever will; for the juice they have examined, is nothing more than a common mucous fluid, such as is found in the intestines and other cavities. In the Horse, digestion and chylification are performed in the stomach only, not by any particular juice that is formed there, but by virtue of its sensorial power, which it derives in common with all the vital organs; but in a more especial manner, from the *cerebrum* or brain, and from that part of the brain named *corpora pyramidalia*, through the eighth pair of nerves, or *par vagum*, as they are termed. It appeared necessary to go thus far into a description of the digestive organ; that is, the organs subservient to digestion, in order to impress upon the reader's mind the importance of the stomach in the animal economy; and to show how liable it must be to become diseased, when frequently distended with unwholesome food, which containing but little nutriment, requires its utmost exertions in order to be digested; and such is the hay often given to Horses.

CHAPTER XXIII.

INFLAMMATION OF THE HEART, OF THE BOWELS, OF THE LIVER, OF THE KIDNEYS, THE BLADDER, OF THE NECK OF THE BLADDER.

INFLAMMATION OF THE HEART.

Inflammation of the heart is a disease that rarely occurs in the Horse; but the disease does occur sometimes in conjunction with inflammation of the lungs. In such cases, a quantity of water becomes effused in the pericardium, constituting water at the heart. The symptoms of this disease are so very much like those of inflammation of the lungs, that it is frequently mistaken for that disease. However, this is rather an advantage than not so; for here the same remedies are truly applicable. Still, there is one symptom, that inflammation of the heart may be discovered from all others; and that is the rebounding noise the heart makes at every pulsation, which may be distinctly heard by any person standing in the stable, though unacquainted with the disease. Also, by placing your ear to the chest, you will find at every pulsation of the heart, the fluid in the pericardium making that undulating noise, so peculiar to this disease, that it is almost impossible with a little attention to mistake it. On examining the pulse at the usual place, it will be found hard and wiry, and occasionally to have a fluttering motion. This will at once bring to the mind of the practitioner the necessity of immediately withdrawing blood, and that not in a definite quantity, but as the pulse becomes affected; for if too much be taken, it will increase the debility which the Horse is labouring under. However, bleeding must be resorted to; and that as extensively as possible. After which, the bowels must be examined; and if at all costive, back-rake, and throw up clysters of warm water and salt, until the passage becomes free and open. Also,

Take	Solution of aloes - -	2 ounces.
	Glauber salts - -	4 do.
	Linseed meal - - -	1 do.
	Hot water - - - -	2 quarts.

Mix, and give every six hours. This will not only allay the irritation of the heart, but moderately open the bowels as required. Place the Horse in a loose box, or bay of a barn; and treat in other respects, as for inflammation of the lungs, which *see*, page 217.

INFLAMMATION OF THE BOWELS.

Next to inflammation of the lungs, inflamed bowels is the most frequent and fatal of the local affections of the Horse, and of which

there appears two distinct kinds; the one affecting their villous coat, or surface, and producing purging; the other attacking the peritoneal coat, and accompanied usually with obstinate costiveness. It is the latter that forms the subject of our present consideration; the former will be treated of hereafter. From an imperfect acquaintance with the art, it has been common for farriers to mistake inflammation of the bowels for spasmodic colic, and the error has commonly proved fatal to the affected Horse; for the "*comfortable things*," and *heating drenches*, given on such occasions, always increased the inflammation, and frequently produced gangrene. A careful distinction should therefore be made between the two, which may be readily done, by attending to the characteristic marks of each, as particularly detailed in spasmodic colic.

The Symptoms.—It usually commences by a shivering fit; to which succeeds heat of skin, restlessness, loss of appetite; the mouth being particularly hot and dry, and the inner membranes of the eyelids, and the linings of the nostrils, rather redder than natural. As the inflammation advances, the pain increases, so as to force the Horse to lie down, and get up again frequently; but, as the pain is less acute, he very seldom rolls on his back as in gripes. Sometimes, however, he kicks at his belly, or stamps with his feet; and in all cases he scrapes his litter or stall with his hoofs, and looks wistfully round toward his sides. The pulse is frequent; sometimes as quick as seventy, hard and wirey; but in this disease, which may easily be distinguished from the gripes or colic, in which case the pulse is scarcely ever affected; and even the breathing in inflammation of the intestines is not usually so laborious as we at first may expect, in consequence of the painfulness the belly is labouring under. In this, like most other inflammatory cases, the extremities are cold, while the surface of the body is often hot, but scarcely or never with any natural perspiration. The bowels are usually confined, and if any evacuation takes place, it is in hard, dry matter, and rather inclined to black. The urine likewise is made sparingly, and of a high colour; and a strong character of the complaint is a very early and excessive debility.

The causes are various; but they are generally dependent on the application of cold; as washing when hot, or plunging into a river. The drinking of cold water has likewise produced it, though more frequently this occasions spasmodic gripes. A long retention of the fæces may bring it on, as likewise hernia, or intus-susception, which is occasioned by one part of a gut becoming invaginated within another; it may also be produced by metastasis, or the translation of the inflammatory diathesis of another part, or of general fever, or by the communication by continuity of the inflammation from other parts, as I have often witnessed. Another, and not unfrequent cause, arises from flatulent colic, either neglected, or improperly treated, which I have many times seen degenerate into inflammation of the bowels under such circumstances. Calcular concretions have also brought it on.

For the Treatment.—Like most of the other inflammations of important organs, this requires a very energetic and early application of the remedial means; and which it may be remarked, must be here still more particularly prompt than in most other cases, as an in-

stance of recovery seldom occurs where the treatment has been delayed beyond the second day: indeed it often destroys in twenty-four hours. Bleeding is the first indication, and if the subject be young, large, and plethoric, six or seven quarts may be safely taken away; and should the symptoms continue unabated, the same may be repeated in four hours, to the amount of four or five quarts more; nor should even a third lesser bleeding be omitted at the same distance of time, if the inflammatory appearances have not become mitigated. The bleeding may be known to have a salutary effect by the pulse becoming softer and fuller, particularly if it shew a disposition to rise as the blood flows. Here also it is proper that the blood be abstracted quickly, and from a large orifice.

As soon as the first bleeding is over, proceed to back-rake, to remove any hardened dung that may obstruct the passage, and which if suffered to remain, would infallibly aggravate the complaint, and which indeed, in many instances, is the cause of it. The distressing stranguary that sometimes accompanies inflammation of the bowels, is also frequently as much produced by the pressure of hardened excrement.

It is not the dropping away of a few balls of hardened dung, nor the passage of some thin glairy matter, which shews that no obstruction exists; on the contrary, when these are present, a most obstinate costiveness may yet remain farther up in the passage; and a flow of thin fæces may escape by a groove, formed by the side of an obstructing portion of dung, as has happened. Unless, therefore, there be an evident free passage to all the fæcal matter, and that the excrement be wholly softened, it is always proper to rake; for it must not be lost sight of, that whether as a consequence or a cause, constipation aggravates the disease, and is always present.

Neither does amendment, seldom, if ever take place, until that be removed. It is always of consequence to bear in mind, that as the state of the bowels is such as not to render it prudent to allow of strong purgatives being given by the mouth; so the greater activity is required to empty them mechanically, and by the assistance of clysters, which should be thrown up very frequently. The next indication is to raise a brisk external inflammation over the belly, to lessen thereby the internal affection, and in this case, even the cantharides are hardly quick enough in their action; but a more speedy determination to the skin may be made, by first fomenting the belly with hot water for a quarter of an hour, and then by applying a large mustard poultice, farther liquefied with oil of turpentine, or with the liquid blister (*see* list of medicines), which may be spread on coarse linen, or a horse-cloth; or what is preferable, the fleshy side of a newly stripped sheep skin may be covered with it, and then applied close to the belly by means of flannel rollers, which will retain it in its situation. When this has remained on for three or four hours, if an evident abatement of symptoms have not taken place, proceed to blister in the usual way. It next becomes a consideration as to what remedies may be given by the mouth, which must greatly depend on the degree of costiveness present. In a case where the obstruction did not appear obstinate, I should recommend that castor and linseed oils be given united, six or eight ounces of each, shaken together, with a little gruel. When the bowels are more closely constringed.

Take Solution of aloes - - 2 ounces.
Solution of rhubarb - 2 do.
Good gruel - - - 1 quart.

Repeat the above every three or four hours, till full evacuation be obtained. Before the costiveness is overcome, we should be careful of increasing the distension of the bowels by much liquid given by the mouth; but when a passage is obtained, make about three quarts of good oatmeal gruel, and the same quantity of linseed meal tea; mix these well together, and keep constantly warm, occasionally horn a little down; when consumed, repeat the quantity. This must be the only food the Horse has to live on, until a decided amendment is apparent, when he may by slow degrees be brought into the use of his usual food; but this at first must be dealt out to him with a very sparing hand, fearing a return of the disease, in which case it almost always proves fatal. In case of the Horse being very restless, a loose box would be the most preferable place for him; or if situated in the country, where no such thing can be obtained, the bay of a barn, or even the floor, well littered down with straw, would be preferable to a stable or stall.

INFLAMMATION OF THE INTESTINES FROM SUPERPURGATION.

As the former affection consists of a phlegmonous inflammatory attack on the peritoneal covering of the intestines, this latter is usually an affection of their villous surface, the consequence of the administration of improper purging medicines, either as to quantity or quality, by which such a state of irritation is brought on, as ends in inflammation. It is always accompanied with purging, whereas the former has almost always costiveness connected with it; neither is the pain so acute in the latter, consequently the Horse seldom expresses so much uneasiness by rolling or stamping. The pulse is also quick and small, but seldom hard. If the symptoms of inflammation be very active; that is, if the pain approaches distress, if the extremities feel cold, and the pulse betokens much vascular action, three quarts of blood may be drawn: but unless these appearances exist in force, it will be more prudent to omit it. Stimulants should, however, be applied to the bowels, as in inflammation of the bowels; the clothing also should be warm, and means taken to keep up the circulation in the extremities by hand-rubbing and bandaging. The stable, also, in this disease should be kept warm, and give the following drink every four hours:—

Take Prepared chalk - - 1½ ounce.
Rice - - - - - - 2 do.

Boil the rice in three pints of soft water, until it is a complete *pulp*; then squeeze through a fine cloth, add the chalk to the liquor, breaking down the lumps, and give at a proper warmth. As before instructed, give every four hours. Should this not appear to relieve the Horse,

Take Laudanum - - - 1 ounce.
Gum Arabic - - 2 do.

First boil the Gum Arabic, in rather more than a quart of good oatmeal gruel, then add the laudanum, and give as before directed. During the exhibition of the medicine, continue to give clysters of rice and water, to be made as above directed.

INFLAMMATION OF THE LIVER.

The liver of the Horse is but seldom at first of itself affected with inflammation; though, when other great abdominal inflammations take place, then this often participates.

With regard to the symptoms of this complaint, they generally commence in appearances not very unlike a slight attack of inflammation of the bowels; but unattended with that rising up and laying down, which attends the latter disease. Still the Horse is apt frequently to turn his head to his right side, evincing in consequence considerable pain; also, if you press his right side with your hand, he will make a peculiar grunting noise, evincing pain; also, if you turn him round in his stall, to the right hand, he will do it with great difficulty, plainly shewing the pain he is labouring under. The extremities are generally cold, considerable heaving at the flank, the pulse is quick and hard, the mouth is hot, attended with a yellowness of the lining of the membrane covering the same; the nostrils and the *conjunctiva* of the eye also participate in this yellow tinge; these appearances being one grand rule to lead to the discovery of the disease the Horse is labouring under.

This disease is frequently attended with costiveness, and in consequence of the secreted bile not passing off in its usual way, becomes absorbed into the system; and hence that yellowness of the skin and finer membranes, I spoke of just now. But, occasionally in this disease, a morbid secretion is set up, and the Horse's dung becomes loose, remarkably black, attended with an exceedingly disagreeable smell. If the disease should terminate in violent discharges of the above-named black fœtid stools, the Horse frequently becomes a victim to the disease in about two or three days.

If the extremities are not invariably cold, and the weakness not extreme (which I am sorry to say is too frequently the case); but if the langour increase, and the extremities cannot be got warm, and if the breath be hot and disagreeable, these symptoms are decidedly against the recovery of the Horse.

For the cure of inflamed liver, we must first bleed to the full extent of the powers of the animal; and if thought to be necessary, repeat in five or six hours. Well blister the sides of the Horse's belly; if costiveness should appear, back-rake, and throw up clysters of salt and water, every three hours; then

Take Blue pill - - - - 2 drams.
Cape aloes - - - 3 do.
Form into a ball with honey;

And repeat every six hours, until it operates.

In those cases where purging has commenced, the bleeding should be more moderate and sparing, unless the inflammation should run high; in which case your discretion must be brought into action, for in such cases a repetition of it is less advisable here than in the former instance.

Take Linseed meal - - 2 ounces.
Oat meal - - - 2 do.
Catechu pul. - - 1 do.

Make into good gruel with three pints of soft water; and give morning and night. If the Horse should appear weak, and much debilitated, take the following:

Cape aloes - - - 6 drams.
Sulphate of iron - - 6 do.

Powdered opium - - 4 drams.
Blue pill - - - - - 6 do.
Form into a mass with honey;

And divide into six balls. Give one every second day.

INFLAMMATION OF THE KIDNEYS.

Inflammation of the kidneys is a disease that frequently attacks the Horse, and is one of that importance, that if remedial means are not early resorted to, mortification may take place; and of course, the death of the animal.

The symptoms of this disease are various: the animal for the most part being dull, the urine also is made in small quantities, and is the colour of porter; and sometimes bloody. As the inflammation increases, it becomes sometimes wholly suppressed. The animal stands with his hind legs wide apart, as if attempting to stale, and exhibits great thirst, and is frequently inclined to drink; but which must be guarded against. Diuretic medicine, of every description, must be carefully avoided, as tending to determine more blood to those organs than would be necessary. The legs are apt to swell greatly; the Horse on being moved in the stall, does so with difficulty, evincing great pain in his hind quarters. This disease sometimes arises from severe exercise, if aided by a heavy rider. Cold rainy nights will produce it, where the water lodges considerably on the region of the loins; also on suddenly being turned in a narrow stall.

For the treatment of inflamed kidneys, your principal sheet-anchor is bleeding the patient plentifully, to the amount of from four to six quarts; and if the inflammatory symptoms still continue for the space of four or five hours do not hesitate to bleed again. After the first bleeding, immediately proceed to back-rake, and clear the rectum out well; then throw up clysters of warm water, until the bowels appear to have a free passage. A blister over the loins might do good, though here it must be avoided, as the active principle of the blister lying in the Spanish flies, may become absorbed, and entering into the system, will do considerably more harm than good; therefore use the following ointment:

Take Tartar emetic - - 2 drams.
Hog's lard - - - 2 ounces.

Work well into an ointment, and apply well to the Horse's loins, night and morning, until pimples make their appearance; then desist. Tie a cradle round the Horse's neck, to prevent him biting the part. Clothe the Horse moderately, bandage the legs, and for litter give plenty of good clean straw. For drink, give good gruel frequently, in small quantities; feed with hay of the best quality, and moderately; give half bran and half oats, made moist with *cold water*. Also give the following every morning:—

Take Antimony pul. - - 12 ounces.
Brimstone pul. - - 4 do.
Cape aloes - - - 12 drams.
Mix with honey, to form a mass.

And divide into twelve balls. Give one every morning, first thing.

INFLAMMATION OF THE BLADDER.

The bladder may become inflamed through out its whole body, or the affection may be confined to the neck of it only; and as different symptoms arise, as either the one or the other of these are the immediate seat of disease, so we shall describe them separately.

Symptoms.—When a mucous membrane is inflamed, it ceases to secrete mucous. This takes place in the inflammation of the internal coat of the bladder, and when it ceases to secrete the mucous that was irritable, it is constantly endeavouring to rid itself of the irritating contents.

This complaint may be distinguished from inflammation of the kidneys, by what has been said with regard to that disease; and from inflammation of the neck of the bladder, from what follows.

As the inflamed bladder cannot long retain its contents, so there is a frequent evacuation of a small quantity of urine; and on passing the hand up the rectum, the bladder will be found hot and tender, but empty. The Horse is also commonly observed to have a disposition to dung frequently as well as to stale, from the sympathy of the rectum with the bladder. The fever is usually considerable, and the pulse is harder and fuller than natural; but as the disease proceeds, it usually becomes oppressed. Its *causes* may originate in the translation of fever; perhaps sometimes by cold, alternating with heat; and it has been occasioned in mares, by passing some irritating substance up the urethra, to make them horsy.

Sometimes inflammation of the bladder terminates fatally, in consequence of mortification; but if mucous be again secreted, there is every hope that all things may terminate well.

For the cure, bleed according to the height of the fever; and if no alteration takes place for the better, bleed again as the pulse may indicate; back-rake, throw up clysters of warm water, holding the tail down firm, to prevent their speedy ejection. However, if such should be the case, have ready plenty of hot water to continue the injections, as in this case they act as fomentations to the bladder; and in consequence greatly tend to relieve it For internal remedies give the same as in the preceding article.

INFLAMMATION OF THE NECK OF THE BLADDER.

Sometimes the neck of the bladder takes on inflammation alone; and this occurs more frequently to Horses than to mares.

It is to be distinguished from inflammation of the kidneys, because, in passing the hand up the rectum, the bladder will be found distended. This will also prevent mistaking it for inflammation of the body of the bladder. The frequent making of a little water will not, however, distinguish either of the foregoing complaints from this, as in inflammation of the neck of the bladder, there is sometimes a small quantity of urine evacuated at different times; for after the bladder is distended, there will be, by the force of the distension, a few drops now and then squeezed out. But in this disease, the frequent staling will not take place until the bladder be distended fully, whereas in the former disease, it will come on at the very first; and likewise in the latter case, the distended bladder may be felt even by the belly. Having described the nature of the disease, the treatment is so very much like the two preceding cases, that a repetition of them is here quite needless, and would be tedious to the reader.

CHAPTER XXIV.

ON MORBID POISONS.

Hydrophobia, or madness. This disease seldom attacks the Horse; but when it does, it arises from the bite of some other animal; such as a dog, or cat, that may be allowed to remain in the stable with the Horse.

I never saw but two cases of madness in the Horse, and those were frightful to behold. The first was a large bay carriage Horse, which occurred during my pupilage at the Royal Veterinary College. The symptoms that first made their appearance were, his refusing all kind of food and water; the Horse then was taken with a kind of shivering fit, after which he broke out into a profuse sweat, stared vacantly around him, began to be extremely restless in his stall: he was then placed in a loose box. No sooner was he placed there, than he began rolling and tumbling about, reeling and staggering from one side of the box to the other; biting at the manger and rack with the greatest violence; biting his own sides until they bled, raising his fore feet as high as he could. Indeed, the sight was too horrible to behold; foaming at the mouth; eyes glaring and glassy. From the agonizing torments the poor animal was in, we left him for a short time; but on returning to the box, found him on the floor completely exhausted; when he was immediately ordered to be destroyed.

The other case was that of a cart-horse, the symptoms of which was so very like the preceding, that it needs little or no description; the Horse having been shot after the attack had been on him about three hours.

The *Bite of venemous reptiles* frequently inflict fatal wounds; but I am happy to say, this country is pretty free from such enemies to man and beast. The adder is the only reptile that we have known to bite either Horses or cattle; and should such a case occur, and be attended with swelling,

Take Oil of turpentine - 2 ounces.
Olive oil - - - 4 do.

Mix and rub a portion of the liniment on the parts affected, morning and night.

Vegetable Poisons.—Of this class of poison we have only the yew-tree, that possesses any particular deleterious effects upon Horses; and I may say, when once eaten, the animal wastes away by degrees, until death puts a period to his sufferings.

Mineral Poisons.—It appears that the numerous minerals given in veterinary practice, are not of that poisonous nature that might

be anticipated from their name and properties, as when given to the human subject. Indeed, I never saw a mineral act as a poison in the Horse, though I am in the habit of using great quantities myself.

The stings of hornets and wasps are very annoying, and occasions the Horse an exceeding deal of pain and irritation. I have heard of a Horse being attacked by hornets, and stung until the inflammation occasioned by it proved fatal. The best application in such cases, is to apply vinegar to the inflamed parts, two or three times a day.

CHAPTER XXV.

ON THE FEET, AND THEIR DISEASES.

ON THE FOOT IN GENERAL.

I AM now come to that all-important part of our subject, "*The Foot of the Horse,*" which all veterinarians and sportsmen who have seen the anatomy of the Horse's foot, must acknowledge to be the grandest piece of mechanism ever formed by Nature. When all parts are in health, the unison of action of such an organic body will at once give sufficient occupation to the mind of the philosopher, the student, or even those lovers of Horses, the country gentlemen, who, were they to be well acquainted with the anatomy of the foot, would then have an opportunity of preventing themselves, the many errors committed by bungling farriers; and here I must beg leave to say a word or two in favour of my brother veterinarians. As for instance: the veterinarian is supposed to be proprietor of a *shoeing forge*, with several workmen; and above all, a *foreman*, to see that all *shall* be right. What is the consequence? A gentleman sends for the surgeon, and informs him that his Horse is ill-shod at his establishment, and he scarcely can ride him, he stumbles so. The consequence is, the surgeon orders him to his forge, and promises he will see and attend to the shoeing himself. He does so, and the shoes are taken off; and in all probability, being nailed on too tight is the simple case. This being attended to, under the master's eye, gives immediate relief, and the Horse is sent away with satisfaction. But somehow it happens, that neither foreman or any other of the workmen could discover this, until the master found it out. Now, if the master have any medical practice, how can he be in two places at once? Why the matter must be left to the foreman, who understands as much about the matter as the piece of iron he is working on; but in case of a repetition, the surgeon gets the blame; and in all probability, he stands a chance of losing an employer. Many persons would say, "How is this, the man has shod Horses for these twenty years, he ought to know?" The answer follows easily: "Does he know the anatomy of the Horse's foot?" "No; I am not aware that he does."

These I think are circumstances that ought to be taken into consideration, and let not the veterinary surgeon have all the odium when it is unmerited.

But to return to the foot of the Horse: it will not be necessary to advert to the anatomy of that important organ; my business is to point out its various diseases, with the best

means of cure, which I shall endeavour to do, and as corns are so prevalent and common, shall commence with that subject first.

ON CORNS.

The term corns having been fixed from time immemorial, I am obliged to continue it, though it be an erroneous one; therefore, to be thoroughly understood by my readers, I make use of the old term. A corn in the Horse originates in an injury done to one of the most vascular parts; is itself equally vascular, and instead of tending to increase the cuticle (*i. e.* the horn) over it, it derives its principal character from being inimical to every future growth of it. These very troublesome affections arise from injury done to the vessels of the sensible sole, exactly at the surface of union between it and the horny sole, whereby blood becomes extravasated within the angle of the inflexions of the heels; that is, between the outer crust and bars. Corns appear in every instance the effect of improper pressure, by which the sensible vascular sole becomes acted on between the horny sole and the heels of the coffin-bone. This disease is equally produced, whether the pressure arises from the horn of the sole, or the horn of the walls; and it is from the pressure of the walls of the heels bruising the sensible sole that corns are so common to contracted feet, and also to weak hoofs. It is also to the increased weakness of the inner wall and heel of the hoof, that corns are so much more frequent in the inner than the outer heel; and from the superior strength of the hinder heels arises their little liability to them. But though the contraction of the walls of the heels does often occasion the complaint, yet it is much more frequently the consequence of pressure of the sole, the very form of which shews that it never was intended to be thus acted on; for the crust meets the ground, and the sole recedes from it in every part. Consequently, whenever pressure does take place on the sole, it is unnatural, and produces injury. The general mode in which injurious pressure is applied to the sole, is either by an improper form of shoe applied, or by not removing the horn opposed to the seat of corns, or by neglecting to renew the shoes at proper intervals; and to one or other of these errors most corns may be attributed.

Bad shoeing operates in various ways, but in none more commonly than by the thickened unequal heel of the shoe, which is in general formed into a sort of clubbed end, that prevents its presenting a level surface towards the foot; on the contrary, a bulbous projection *indents* itself into the very part, as though purposely placed there to produce this injury. The custom also of making the seat of the shoe slant, or level inwards, is, I believe sometimes productive of corns; but the heel, for nearly an inch before its termination, should be made perfectly flat, and the same thickness as any other part of the shoe.

Neglecting to prepare the foot for the shoe, is also a fruitful source of corns; for that part of the horny sole which fills up the acute angle, between the crust and bars, the pressure on which is so injurious, is in a state of nature protected by the prominences of the frog and bars, as well as by the inclined direction of the latter; but as artificial habits alter the shape of the foot, this part becomes exposed; and, therefore, in preparing a foot for the shoe, this angular portion should be so pared as to remove it from contact with the iron, without weakening the horny covering

of the sensible sole. For so surely as this part becomes subjected to pressure for any considerable length of time, so surely extravasation takes place, and a corn is formed; and this more quickly when the heels are weak.

The third common cause, is the neglect of removing, or renewing the shoes at proper intervals. When a shoe has been long worn, the growth of the hoof carries it forwards, by which the parts originally opposed to the heels are carried beyond them, and now press on the sole, often becoming indented within the line of the crust, and producing a most injurious pressure. Sometimes also, either from the original form of the shoes, or by long wear, they become loose and "*springy*" at the heels, as smiths call it; in which cases gravel is apt to make its way between the shoe and the foot, and by the pressure of the heels during action, is indented into the substance of the horn; other gravel becomes received in the same manner, which presses the first still onward, till at last it meets the sensible part. As soon as it reaches here, inflammation ensues, and a very different complaint is formed to that of common corns; for in every instance of this kind, suppuration proceeds, and the matter unable to make its exit below, or sideways, forces its way upwards, and a small tumour appears at the coronet, which breaks, and discharges a purulent matter.

But the common effects of pressure from long-worn shoes, are the extravasation of a little blood; which on paring away the horn, at the angular point of the heel, or heels, appears as a black or red speck, as the blood has been longer or more newly thrown out from its vessels; and it may be followed with the paring knife to its source in the sensible part. If the injury has been considerable, this blood itself may irritate and produce suppuration, in a similar manner with gravel. But in general cases, this extravasation remains unchanged; and unless attended to, a weakened action of this part of the sole becomes permanent, and blood continues to be thrown out ever after, upon any occasional renewal of the pressure. In such cases, the horn itself over the part, proves a source of future irritation; and, therefore, Horses with old corns, only, go well when fresh shod and newly pared; for as soon as the portion of sole between the bars grows to a level with the surrounding horn, the sensible sole receives a fresh bruise, and lameness again appears. It is by contemplating this possible termination of corn, that the law has wisely considered every Horse with this complaint, as unsound.

Treatment of Corns.—When a corn first appears, it is not difficult, by proper means, to remove it completely; but when it has existed some time, the injured parts become weakened, and the diseased action of throwing out blood, instead of secreting horn, becomes familiar to them. As soon, therefore, as it is discovered, the cure should be immediately attempted; first, by removing with a fine drawing-knife, every portion of diseased horn around, and the whole of the extravasation likewise; avoiding, however, the wounding of the sensible sole underneath. Having done this, take a plegit of tow, and well moisten with compound tincture of myrrh, over which put tow sufficient to fill up the hollow of the foot; put on a bar-shoe, and secure the tow in the hollow of the foot by two sticks, laid across each other, and fastened underneath the edge of the shoe. It will act on the sensible sole, by destroying the unsound parts,

and by stimulating the remainder to a healthy secretion of the parts to produce new horn. Change the dressing every day, and be careful not to let the foot get wet In this way corns may be permanently cured, when not of too long standing.

But when the derangement of this part of the sole is become habitual and permanent, a *palliative* treatment only can be pursued. In the first place, the pressure of the horn must be guarded against, by a regular and frequent paring out of that portion between the inflexion of the heel; and if the hoof be very strong, and at all disposed to contract, the quarters also should be attended to, and not allowed to become too high, or too thick. I have also in very strong feet found the use of a short shoe sometimes of the greatest service; but to a weak foot, either a chambered, or a bar-shoe is preferable. When the weakness is very considerable, or the corn a very bad one, a bar-shoe is the most proper support, and should be constantly used; remembering in those aggravated cases, to remove occasionally all the surrounding horn likely to press on the injured part; at the same time, taking care not to let the frog rest continually on the bar of the shoe, or it may be apt to bruise it; and whenever such a Horse is shod, it is proper for the corn to be dressed with some active stimulant; such as tar, well rubbed in, and covered well with tow to keep the wet and moisture from it. By doing which regularly when shod, and about once a week also in the intermediate time, I have rendered Horses, before useless, able afterwards to work with comfort to themselves, and satisfaction to their owners. In slight cases of corn, the shoe proper to be used, is one of rather more substance than common, with the web a little wider than usual, and its width equal throughout; that is, as wide at the heels as at the toe. It should also extend to the termination of the heel, and no farther, and be well laid off the quarter, which is generally the inner one. This will allow the quarter to expand, and prevent in all probability a repetition of the pressure from the bone above. This shoe will afford ease and protection; future pressure must be avoided by keeping the seat of corns clear from offending.

ACUTE INFLAMMATION OF THE FEET.

Of all the definite and well-marked diseases of the Horse, this has been most mistaken among the old farriers, and the least noticed among the modern. In many works on farriery, it is not even mentioned; and in most, is little more than hinted at.

I am at a loss to account for this; seeing that it is so frequent a disease. It is yet sufficiently common to have been many times met with by every practitioner who has only a tolerable range of veterinary practice; and when so met with, it is, both in appearances and effects, too easily passed over, without forcibly impressing the mind. Common farriers, when this disease has come under their notice, have considered it to be a disease of the chest, and that in consequence of the Horse resting his fore legs; that the muscles and cellular membrane have become absorbed, and wasted away. Hence has arisen the name of chest-founder; and most of their applications were applied to the Horse's chest, instead of his feet. It frequently happens that metastasis takes place, or translation of fever from one part to another, as in inflamed

lungs, &c. The feet then become frequently affected, at the same time the lungs become relieved. In some cases obstructed perspiration will produce it, sudden alteration of temperature, standing a long time in the stable, especially if the stable be kept immoderately warm. The vessels of the feet not being able to bear the sudden alteration, distend; and inflammation of the feet becomes the consequence. In many cases it occurs prior to the Horse being attacked with symptomatic fever; both are frequently occasioned by long continued exertion, particularly on hard roads, with subsequent exposure to cold. Under such circumstances as those pointed out, inflammation of the feet may be confined to one foot, or two; or it may attack the whole four; but it is more common to the fore-feet.

When a Horse labours under inflammation of the feet, persons in attendance on the Horse cannot discover quickly the seat of disease; consequently, the Horse continues to get worse and worse, until a veterinary surgeon is called in; when he finds the Horse breathing with difficulty, and in all probability in a profuse sweat. Previous to which, the groom informs him, that he has been labouring under a severe shivering fit, the Horse frequently laying down, stretching out all fours, and groaning with the intense pain that accompanies the disease. The practitioner soon discovers the seat of disease from the peculiar method in which the Horse stands; he betrays a peculiar manner of shifting and lifting up his legs; standing, by drawing his hinder legs under towards his chest, to relieve the fore-legs from the weight that is naturally upon them. The practitioner will, however, be commonly saved the trouble of much discrimination; for he will in general cases not be called in, till the features of the complaint are sufficiently marked, by the utter impossibility to make the Horse remain on his legs. On the contrary, when forced up, he lies down again almost immediately, exhibiting every symptom of distress and uneasiness.

As soon, likewise, as the complaint has arisen to any height, the feet will be found intensely hot, and the pastern arteries pulsating very strongly; which alone would serve to mark the disease. There is sometimes some little tumefaction around the fetlocks; and when one foot is held up for examination, it gives so much pain to the other, that the Horse is in danger of falling. The poor beast groans and breaks out into profuse sweats at one time, and at others, is cold. His eyes are moist and red; and his whole appearance betokens that he is labouring under a most painful inflammatory affection.

In this state the complaint shews itself the first two, three, or four days, after which its effects are various. In the worst cases, when the symptoms we have stated have raged a few days, a slight suppuration of the hoof, at the coronet, may be observed; from which may be pressed a small quantity of reddish ichor, or thin matter.

This inflammation, however, is not sufficiently active to force off the hoofs, which have gradually become in a great measure imperfect, and sometimes deformed. This imperfect resolution may be known before its effects on the horn become apparent, by the very peculiar gait the Horse exhibits when taken out, and which once seen, can never be forgotten; for he throws his feet forward in a seemingly burlesque manner, and brings them down as oddly on the heel. In fact, he clearly shews that he has lost the proper sensibility of

his feet. In other cases again of imperfect resolution, the laminæ losing their elasticity and power, yield to the weight and stress of the coffin-bone, which becomes pushed backwards; and in its passage draws with it the anterior crust of the hoof, which thus falls in. The pressure also of the coffin-bone destroys the concavity of the horny sole, which, instead becomes convex, or pumiced, leaving a large space towards the toe, filled with a semi-cartilaginous mass, and which is not an unfrequent termination of inflammation of the foot.

But when the attack is not commenced with that extreme violence we have detailed, or when an early and judicious treatment has been adopted, the inflammation becomes easily removed, and in the end the animal will recover the use of his feet.

In treating inflammation of the feet, there is but one certain path to pursue; and that is, on first discovering the disease, to bleed largely, to the extent of six quarts, at least; and give cold bran mashes, and prepare your Horse as for a dose of physic (*see* list of medicines, where you can select a ball of any strength, according to the size or strength of tne animal.) The next object is to attend to the feet themselves.

After removing the Horse's shoes, pare the feet out nicely; *i. e.*, as much as they will admit; for that will not be a great deal, in consequence of the hardness of the sole, produced by the inflammation. This done, rasp round the foot and the edges of the wall, so that you may be enabled to lightly nail on a shoe when required. This being finished, bleed each foot at the toe, and that largely; now lightly nail on your shoes (after you have got sufficient blood from the feet), and place a plegit of tow on each orifice. Over all place a poultice of cold bran, made wet with water; and frequently have cold water squeezed over it from a sponge. In addition to which, apply to the fetlock-joint, what is now termed a "a swab" (to be bought of any of the saddlers); but in case this cannot be effected, take a piece of coarse woollen cloth, of sufficient width to go round the leg, and length to hang down over the hoof; these to be constantly kept wet with cold water. Sponge boots I do not approve of, and consider them to do more harm than good. They are apt to induce "thrush," or at least make the frog so rotten, that in mending one hole, you make another. The Horse should not be encumbered with much litter, unless it be behind, but very little for his forelegs to stand on, and that made wet with water. By this means he has an opportunity of cooling his fore legs as much as possible; and should he be inclined to lay down, which in the early stages of the disease he may, the litter being sufficient behind, will prevent him injuring his hips or his hocks.

Should the febrile symptoms not seem to abate so speedily as you had imagined, bleed again from the jugular, to the amount of four quarts. You will now have an opportunity of gently moving the Horse about, which will enable you to see whether there is any amendment in his feet. If so, continue the dressing as before; bearing in mind, that the orifice made in the foot, will occasion some degree of lameness, so that it must not all be taken for the disease.

But if lameness should appear to be greater, or not at all relieved, bleed in both plate veins, and abstract about two quarts of blood from each vein; but by no means think of blistering the coronet, though I know some practitioners are favourable to it. Give ano-

ther dose of physic, which is better in these cases than all the blisters in the world. By these cooling means of proceeding, you will soon perceive an amendment in your Horse's feet, and constitution too. This, like all other diseases of the feet, will require care and attention, after the Horse is got apparently sound; and you cannot effect this better than by giving him a month's run at grass with his shoes on, and frequently examining them, in order to see that all things are going on right. If, while at grass, the Horse should lose his foot-stopping, immediately on discovery, let it be replaced.

CONTRACTED FEET, OR THE NAVICULAR DISEASE.

Contracted feet, or the *navicular disease*, may require some little explanation, as probably the whole of my readers may not understand the modern term "navicular disease." Contracted feet is of older date, and very proper that it should be; for the "navicular disease" arises, nine times out of ten, or is occasioned by the former.

As it is not our province in this work to enter into a long physiological account of the foot, we shall explain those parts, and their effects only to our readers, that will be of immediate use to them, without hampering up their minds with a dozen pages of technicalities.

By contracted feet is meant when the horn of the crust lessens the natural size of the foot, so that it presses upon the highly sensible parts within, consequently occasioning pain and lameness. This occurs principally on the inner quarter of the crust, and that because it is the weakest, or thinnest of the two; and this punishing arising invariably from ignorance in man, though occasioning the most excruciating pain to the most useful animal in the creation; and all in consequence of *bad shoeing*. Other causes, however, there are, which will contribute to inflammation of the feet; such as too hot stables, and standing on hot dry straw, with little exercise to put their feet into action.

The navicular disease proceeds in a great measure from contracted feet; for as I observed before, as the horn of the crust pressed on the soft and sensible parts within, so the elastic parts became fixed, and the multiplicity of elastic parts contained within the hoof become diseased, in consequence of being squeezed up, as it were, in a vice; the coffin-bone becomes injured, the navicular bone more so; and not unfrequently the small pastern-bone.

Now the reason why the navicular-bone is more subject to disease than either the coffin or the pastern-bones, is in consequence of its attachments, and the work it has to do; for every time the Horse raises his foot from the ground, this bone ascends also, and descends when the Horse puts his foot to the ground; the flexor-tendon also being fixed into the coffin-bone, and the navicular bone immediately above it, the small pastern-bone working immediately above that, the whole of the weight of the Horse is thrown on to this bone. I ask, then, how can this bone perform its proper functions, when prevented by contraction of the horny box, or hoof, in which it is contained? Of course, any person of common capacity, will answer, "Never!" Hence arises the complaint, called navicular disease. I will further explain how the disease proceeds on its course, and then proceed further with the other divisions of this disease. I

mentioned that the small pastern rested on the navicular-bone; now, in consequence of the confinement of these bones, their action is not free, and the lower end of the small pastern-bone chafing against the navicular-bone, inflammation is set up, and the Horse goes lame. However, it unfortunately happens the poor animal is still doomed to (especially if a harness-horse) suffer until the inflammation runs so high, that the absorbents commence their work, by removing the fine membrane the navicular-bone is covered with, and absorb the gristly covering also. The inflammation still being kept up, the bone becomes affected, and caries, or mortification may take place; and then you have the navicular disease in perfection. A remedy for this we must endeavour to lay before our readers, so that they may prevent such a painful disease running to its full extent; for we would rather alleviate in the early stage of a disease, than botch up a Horse to please any one.

I have endeavoured to explain the nature of the two diseases, contracted feet, and their consequences. I believe I also said, that bad shoeing was their principal cause, and I still maintain this to be correct; though in going over our subject, we shall in all probability mention others of a minor nature.

The old fashioned method of preparing and rasping the feet of Horses, I may say, has occasioned more lameness than any one thing again; for what with paring the frogs away, and opening the heels, as it is termed, with scarcely touching the sole of the foot, was enough to produce contraction; added to which, the benefit of a very high-heeled shoe. These means, with a little thought, will immediately explain to the experienced Horseman, why the feet become contracted.

Owners of Horses are sometimes to blame in not having their Horse's feet pared often enough. If the Horse should wear his shoes rather light, they will let him go as long as six weeks without paring, and even longer; not thinking of the injury they are doing the foot, by its improper growth during that time. No man should let his Horse go, without removing the shoes, longer than a fortnight, and new shoes every month. You then have an opportunity both of examining and paring out the feet properly, and watching their progress, that they do not grow out of form; but the custom of nailing the shoes on so exceedingly tight, and particularly where the crust is not strong, must affect the feet, and prevent the ordinary expansion.

Shoes of a bad form are very hurtful, except it be for slow working cart-horses, and which are to be met with of all shapes.

Thick-heeled shoes are sometimes the cause of contraction, but I have seen thin-heeled shoes produce it, by constantly bearing too much on the frog; still a moderate bearing on the frog is highly necessary. But there are so many strange feet go through the hands of a smith, that it is next to an impossibility, unless he be a clever fellow, to know what kind of shoe to adapt generally.

I have read of authors wondering how it was, that farm-horses had such fine open feet, when they are the worst shod, and mostly with high calkins. Now, I think the matter is easily solved, and that is, their feet are kept open from pressure from below; for though they may have high calkins, and the frog considerably cut away, it is forgotten that the rough land they have to plough, or harrow, perhaps is in balls, the size of large potatoes, all acting as so many expanders, while the Horse

is going over them. Again, if the weather be moist, and the soil damp, this keeps the feet cool and moist; and, of course, easy of expansion.

Artificial heat has a great tendency to produce contraction, especially in hunting stables, where Horses are kept in the highest condition; also, in racing stables, where the Horses are kept on good dry litter, half way up their legs, and every hole and crevice stopped up to prevent the least air coming in, the heat that is consequently generated, dries up the hoof, and disposes it to contract.

Heat also, applied by the shoeing smith, will produce it, if not discontinued; for heat, as they apply it to the foot, has a different tendency during the actual time they are applying it, to the gradual *continued* heat of the stable. Now moisture has a direct contrary effect to heat, its application greatly tends to counteract the contractile disposition. It also softens the hoof, and enables the weight of the Horse to expand the foot; but sometimes, from the extreme thickness of the hoof, it will not even yield to moisture. In the natural state, it is well known that the hoofs must be accustomed to meet with considerable moisture, of which an artificial life prevents them enjoying. A Horse confined to the stable, frequently does not get his feet moistened once a day; but in a state of nature, half their time the Horse's feet are exposed to moisture, either from dew, or being immersed in rivers, or ponds. Farmers' Horses are much more benefited than many others, most of them being generally turned out, and in consequence less subject to this disease; though certainly the cutting away the frogs and bars more than is necessary, is the principal cause of contraction. Long standing in the stable will frequently produce it, and especially in case one foot happens to be lame; this will frequently become contracted, shewing at once pressure to be a preventative.

I have pointed out the principal causes of contraction, and its sequel, the navicular disease. I shall slightly touch upon the symptoms; then proceed to the treatment. The hoof, in contraction, frequently becomes lengthened, and the frog, instead of having that fulness seen in the natural frog, appears squeezed between the heels, as it is not unfrequently ruptured. All Horses' feet do not in contraction become lengthened, but where the heels are very weak, the inside heel may be observed, on standing immediately behind the Horse, to turn in remarkably sharp. When this is the case, Horsemen term it being *wired in*. Sometimes the contraction is principally perceptible round the coronet; but this arises when the disease is subsequent to inflamed feet, and the usual secretion at the coronet goes on, but an unhealthy secretion becomes set up; but this is not a common case, as contraction generally begins below.

The hind feet are seldom, or never very liable to contraction, and when that does take place, it is not attended with those serious consequences, as when the disease attacks the fore-feet, little attention being required to restore them.

Dealers' Horses are very liable to contraction, from being removed from the farmers' cooling pasture; then travelling, perhaps from one hundred to a hundred and fifty miles, and immediately placed in a hot stable. These Horses, if their feet are not kept moist, are sure to go lame in the course of a week's time. From the causes before detailed, contracted hoofs are almost always occasioned,

and the sole likewise generally concave; it is in general much thicker in substance also, which greatly adds to the pain usually felt in progression. From the great pain the Horse is in during his standing in the stable, he sometimes puts one leg before the other, the most painful one pointing under the manger. This by Horsemen is termed "*pointing*, or *fencing*," and is a sure sign of the disease. Such a Horse when going on the road, is always inclined to canter; for, if in the walk or trot, where one fore-leg is in the air at a time, it is more than ten to one, but the weight of his rider brings him down. Whenever, therefore, this is observed, however free from lameness the Horse may appear, such feet are diseased; and frequently on close inspection in these cases, one may detect a shortened step, and sudden drop of the knee, or fetlock joint, termed "*going feelingly*," as though the Horse was going on hot bricks, the proper sensibility seems lost; for such Horses, seldom or never step true, but always trip or stumble.

Nor can we wonder that lameness should be the consequence of contraction, when we consider how exquisitely sensible are the internal parts of the foot, and how completely they fill up the cavity, which being lessened, must subject the contained parts to pressure, between the hard substances of the coffin-bone, the walls, and sole. The inflammation frequently goes on to that extent, that a deposit of coagulable lymph between the laminæ takes place, and sometimes over the sensible sole, which in a great measure destroys the natural sensibility. This is called by the old farriers, "*numbness*" of the foot; but this is not the end of the matter, for the inflammation will extend to the bones and cartilages; and while the former throw out bony matter, the latter will become absorbed, and bone deposited to supply their place. This of course must produce great lameness and pain to the poor animal.

In giving my opinion for the treatment of contraction, it requires me to pause, as no general treatment can be used, but it must be subject to the kind of foot you have to contend with. Feet having taken on the disease, are of such great varieties, that a general prescription would not be of much use; but as I have undertaken the task, I will at once go into the treatment of contraction. I shall also not forget the methods adopted by the Royal Veterinary College. From what I have observed, contraction may arise from external as well as internal causes; consequently, in many cases we can only administer palliatives. Fortunately, however, where internal derangement has not taken place, although the pressure may be great, and considerable lameness ensue, still the ill effects are not of that lasting nature; for by enlarging the hoofs, the pressure may be removed, and the pain taken off. No means of course would be equal to a perfect cure, and consequently it would not be wise to recommend a tedious and expensive process, when a palliative mode ought to be adopted; but in the latter case, a perfect cure would follow a judicious mode of treatment, and therefore these circumstances would not deter from it. If the contraction has not been of a long duration, you may, by proceeding slowly and carefully, obtain your ends; and particularly if you can ascertain the cause of the disease, and there is every reason to believe the internal parts are not materially affected.

There have been, by many ingenious and

clever veterinarians, invented a variety of mechanical contrivances to remove contraction of the foot, but few of them are attended with permanent success, though in some instances they afforded temporary relief; but as soon as such plans were removed, the foot would contract much faster than before.

However, all these absurdities are now done away with, and a more simple and effectual one put in practice; and that is, by applying moisture, and having more regard to shoeing. In extreme cases the operation of neurotomy must be performed. In cases of contraction, take blood from the plate-veins; say two quarts from each. Give alterative medicines every other day. (*See* medicines.) Apply swabs, or woollen cloth, round the hoofs, as directed in the last article, to be always kept wet with cold water. Now you call in the farrier. Direct him to pare out the sole, so much as it may yield to the pressure of the thumb. Be careful he does not remove the bars, or any part of them. The frog likewise must not be cut away, except those ragged parts that may be injurious. Now let him take the rasp, and rasp down the heels until they are as low as the crown of the frog, if they will admit of it; if not, as close as you possibly can. This being done, place on an old thin shoe, with but one nail in the inside, so that it does not press on the inner quarter. Remove all bedding, excepting a little every other night, as the more he stands, the quicker will be the expansion. Give him cooling diet, such as half bran and oats, made tolerably wet; carrots, or clover, grass, &c., &c. Continue this treatment for a week, and watch the progress of it, and if the Horse should not be particularly lame, let him be exercised two hours, morning and night.

At the Royal Veterinary College, there is an ingenious contrivance to apply moisture to the feet. The floor is taken up where the Horse's fore-legs would come, and the earth removed, the paving is then replaced, and cemented, so as to be water-tight. The Horse then is led into this standing, where he remains a considerable time, up to his knees in water. This is one of the ingenious Professor's contrivances to apply continual moisture, adding pressure at the same time; for the moisture must be accompanied with pressure, or the end will not be answered. It is for that purpose I have ordered four hours' exercise per day in this disease. Many persons are fond of scoring the hoof at the quarter, with a fine drawing knife, so that it may have an hinge-like action; but this is of no service, without the application of moisture; the moment you remove which, the scorings become so dry, that they make the matter worse than it was.

We now come to the last resource, all others failing, which is the excising a portion of the pastern nerve, and termed *neurotomy*. This is the only remedy in extreme cases, which are then termed the *navicular disease*. For the mode of operating, I will describe when we are on the subject of operations.

GROGGY FEET.

Groggy feet, used to be by stable-men and grooms, and for a length of time was considered to be an inflammation of the laminæ; but since the anatomy of the Horse's foot has become known, it has been discovered to be an inflammatory action going on in the articulating cartilages and their membranes; also with the ligaments connecting the large and small pastern bones together, which have

sometimes been corroded, and in a very disorganized state, so that it frequently tends to a bony deposit, and eventually anchylosis, or stiff joint. I do not know of any treatment to be likely to relieve the parts, but firing, and repeated blistering. In this disease the Horse will go upon his toe, the joint immediately within the hoof being stiff. Many working Horses in London are affected with this disease, though it is highly disgraceful to see; the poor animals sometimes being so excessively lame, that they are miserable objects to behold.

PUMICED FOOT.

Pumiced foot, very frequently being the effect of inflammation and contraction, I have placed that disease to follow the two latter.

To define pumice foot, or we may say, a morbid secretion of the sensible laminæ, which forces the insensible hoof from the sensible laminæ covering the coffin-bone, so that a partial separation takes place between the two, and this but seldom, hastily; but the inflammatory attack goes on slowly and gradually. This you may notice, by the front of the hoof giving way, or falling in, receding from its usual obliquity; the sole also, at the same time, becoming nearly flat. This is the time the Horse begins to falter, and shew lameness, especially if going over newly repaired roads; when if he should tread on a sharp stone, it will be with difficulty he may save himself from coming down. From this curious disease, the Horse appears to secrete little or no horn, for the shoe to lay upon, which occasions these kind of feet exceedingly difficult to shoe; and still what appears strange, the sole becomes thinner and thinner; and at length bulges out, forming a complete convex foot. This convexity becomes greater, or less, as the disease is more severe. Large cart-horses are very subject to this disease, especially those used in large towns, and who are continually battering their feet on the stones; the irritating of which produces a slow inflammation, ending in pumice feet.

The pressure that the coffin-bone, thus displaced, makes on the fleshy sole, occasions sometimes an absorption of its own edges, but always an interruption to the healthy secretion of horn, which accounts for the diminished thickness of the sole, before noticed. The sole, therefore, being unable to bear the weight of the animal, as it would in a healthy state, loses its concavity, and yields to the altered form of the parts above it. The whole of the parts within become deranged in structure, as well as situation, the receding of the coffin-bone, which approaches the heels, and rests there, in an altered line of declivity.

Palliatives are the only means to manage these kind of feet with any degree of success; for a cure is impossible, as the parts can never be reinstated into their original form. Here, shoeing is your principal remedy, and I have known many pumice-feeted Horses work well for a considerable time, with proper shoeing. With regard to the shoeing, the thinness of the wall, or crust, must be paid particular attention to; also the sole being so exceedingly thin; in putting on, the greatest care is necessary, that no part of the shoe bears thereon. Most smiths are acquainted what kind of shoe is best for feet of this kind, it being rather a peculiar one. The framing of this shoe, is with an exceeding wide web, and made thick enough to be, what is called chambered out very much, almost covering the sole altogether. This is done, in order to prevent

stones, &c., injuring the sole of the foot. This shoe should be carefully nailed on, with more than the usual number of nails; but you must allow for the extra number in the size, as "*fives*," or "*sixes*," will be sufficiently large. This kind of shoe I have found to answer exceedingly well; but if not, I have used the following shoe:—Place on a bar-shoe; but shoulder it down at the quarters, so that it does not touch the crust, or heels behind. From this kind of shoe, I have seen great benefit arise. After having your shoe placed on, smear the sole and crust well, with the following:—

Take Alum pul.	- - - -	2 ounces.
Tar	- - - - -	3 do.

This application occasionally used, will harden the hoof and sole; for, moisture in this disease must be strictly avoided, and Horses so affected, should never be turned out to grass.

THRUSH.

Thrush is so well known to be a disease of the frog of the Horse's foot, that we shall not wade through a parcel of useless volumes for the origin of the name, though I believe it to be French.

However, to come to our point; thrush is defined to be a rupture of the cleft of the frog, from which is discharged a kind of fœtid, or ichorous matter, highly disagreeable and offensive. In fact, this complaint consists in a diseased action of the sensible frog; for, instead of secreting that elastic horny substance, composing the healthy frog, it secretes pus, which escapes out between the cleft of the horny frog.

Some consider this disease as of trifling importance, but I have seen it of the greatest consequence, and I would recommend my readers to be exceedingly cautious how they treat thrush with contempt, though almost every groom has a sovereign remedy for it; but he probably looks no further than the seat of disease, not thinking another affection of the foot is proceeding rapidly, as thrush will frequently lay the foundation for contraction in the foot, in which it may exist by the excitement of the parts around.

Thrush is frequently produced by moisture, and more especially if it be of an acrid tendency, as that of dung, urine, &c.; but in this case, the hind feet are generally the parts most affected, from the hind feet being more in the dung and urine, which at last becomes a source of irritation to the sensible frog; thus accounting why the hind feet are oftener affected than the fore-feet; but here is great danger, unless properly attended to, for it may produce grease and canker, if suffered to go on for a length of time. Contraction is a cause of thrush, by squeezing the heels together, until the rupture of the frog takes place; but it is not a general cause, as there are many contracted feet without thrush at all. The different actions of secreting organs is here made plain; the inflammatory action going on in sensible laminæ, increases the growth of horn, so that the frog never comes in contact with the ground; this of course promotes contraction, and the contraction ruptures the frog; and all for want of what? more *frog-pressure;* for as the frog is deprived of its natural *frog-pressure*, so will the heels contract, and so will the frog become decreased; consequently, diminishing the secretion of horny frog. A Horse, with an open thrush, or what is termed a running thrush, I do not consider safe; for a stone getting into

the cleft of the frog, will invariably bring the Horse down, from the great pain he endures from the foreign substance.

It has been argued by some very clever men, that thrush is purely local. This I must beg leave to differ from; for I have seen many cases, where it has been constitutional. As for instance:—Many Horses which have had thrushes, have had them stopped, the parts all dried up, and a clean foot brought to view. But, in a few weeks' time, examine his eyes, and it is more than ten to one but you find him *either blind, or going blind.* I have used all kinds of depletive medicine; also tonics; but all to no use. Therefore, how is it to be proved, that it is in no case constitutional? Now, if you are afraid of losing your Horse's eyes, I think you had better put up with thrush, which is easily again produced, by stopping the Horse's fore-feet with hot horse-dung, for a couple of nights. You will then have an opportunity of seeing the effects.

Thrushes are generally stopped with little difficulty; almost every astringent will stop the flowing of thrush. I have known them stopped with tincture of myrrh and tow; but I should not class this as a constitutional thrush but merely a local disease; and further, Horses, seldom or never, with such thrush go lame, until it be allowed to go on, and the inflammation in consequence induces contraction. Tar alone is a very good remedy for thrush. I have in general used the following:—

Calamine prepared -	1 ounce.
White vitriol - - -	1 dram.
Tar - - - - - -	3 ounces.

Mix well together; but before using it, the frog should be well examined, and all the decayed parts, sinuses, or wherever the disharge has made its way, must all be removed, so that the application may be thoroughly applied; it will also prevent a further harbour for dirt and moisture. The whole frog must now be smeared well over with the mixture; then take a plegit of tow, and well charge it with the mixture; then take a small piece of wood, which should be in your tar-pot, and force the tow to the bottom of the cleft of the frog, and into every other fissure or opening that may be, omitting none; the back part of the frog, where it joins the heels, sometimes have cracks in, anoint these also. To dress these feet neatly, great care should be taken that the tow does not hang out, as it may catch upon objects, and become drawn out; but to prevent this more effectually, take a good sized piece of tow, and place over the frog, and fasten it with two thin pieces of wood, laid across each other. If the case be a bad one, you must renew your dressing every day; but should it not be so, every second day; always observing the stoppage of tow, to prevent dirt and moisture getting in.

When a Horse is affected with thrush, in no case turn him out; for the night-dews, besides other liabilities to come in contact with moisture would inevitably undo all you have been doing. Hunters, that have what is called a summer's run at grass, rarely come up to stable, but some of them have got thrush, evidently from the moisture. The groom, probably, thinks this but of little importance at the time, though coming into a warm stable, &c., with such an affection, proves in a very short time that the foundation of contraction is laid.

A great many will assert, on this account,

that thrush is the cause of contraction. In the above case I would strongly recommend the bar-shoe, shouldered down from the quarters, or what is called Professor Colman's patent bar-shoe; specimens of which may be had at the Royal Veterinary College, London; or at most veterinary surgeons, in town or country.

ON SANDCRACK.

Sandcrack may be termed a division of the horny fibres of the hoof, in a direction from the coronet downwards.

These fissures, or cracks, are more common to the fore than the hind feet. When the hind feet are affected, it chiefly runs amongst cart-horses, and that not from the same cause as the fore-feet of other Horses. Cart-horses, with their immense high-heeled shoes, from the least irritability, are apt to rub one foot, or the heel of one foot against the front of the other, whereby occasioning a sore at the coronet, that will cause the hoof to split, and going downwards, become what is termed sandcrack. As the treatment of the cart-horse will be similar to that of others, we will go back, as hackney-horses sometimes are more troublesome.

In the fore-feet of Horses, the disease frequently attacks the quarters, as well as the front of the hoof. The cause of sandcrack, is chiefly brought on by a brittle state of the hoof; hoofs that are hard and dry naturally. It may also be brought on by injuries done to the coronet; such as stubs, bruises, &c.

The fissure, or cleft, is not always of the same depth; sometimes being of such a trifling a nature, as not to penetrate the horn, and occasioning but little inconvenience at first. This is the state to take sandcrack; that is, in its early stage; which will occasion the curative process to be much milder, and the disease brought quicker to a termination. At other times it goes through the horn, but does not divide any of the sensible parts underneath. However, neglect, and being continued at work, will commonly bring any case from the slightest to the most aggravated state. When the disease has completely penetrated, it then becomes a most painful affection, and produces extreme lameness. This pain arises principally from the edges of the horn pressing upon the soft parts, whenever the foot is put to the ground.

In treating sandcrack, it requires different methods, according to the nature of the disease. In the first place, having examined your foot well, moderately pare out the sole, and lower the heels, and put on a shoe laid off the quarters moderately (this is supposing the crack in front.) Your next attention must now be turned to the cleft or fissure. Examine this well, that not the least particle of dirt is remaining in it; but should there appear fungus or proud flesh, examine with your probe whether sinuses have been formed. If so, you must take a fine drawing-knife, and remove all horn that may cover them, and lay them completely bare, to prevent them going further. Then touch the fungus with lunar caustic, and fill the fissure up with tow, saturated in compound tincture of myrrh, first pouring the sinuses full (if there be any); then covering the whole with another piece of tow. After which bind the whole on with a piece of well tarred twine. Let this dressing be carefully applied for two or three days, when if the appearance of the fissure look as if going on well, take a firing-iron, and draw it across the fissure, top and bottom. This

will prevent its extending either way. Draw your lines almost to the quick, but not through. Now dress your foot again, binding well up, as before directed. On examining the foot a second time, if the parts do not suppurate, you will find them dry, and looking kindly in appearance. This being the case, take a fine drawing-knife, and pare down the edges of the fissure, being careful not to draw blood; and observe if there appears any oozing at the edges. If so apply a little of the solution of nitrate of silver to the edges, with the point of a feather; then proceed to dress the wound with tar, fill the fissure full, smear the foot all over with it. Have ready a plegit of tow, which place over all as before. Put on a bar-shoe, and lay it off well at the fissure, so that there may be no bearing. Now take your tar-brush, and apply all over the foot again. Repeat this dressing at least twice a week.

During the disease give the Horse eight or ten alterative balls. (*See* medicine.)

PUNCTURED FOOT.

Punctured foot is an exceeding common thing with Horses, and frequently attended with a great deal of pain and difficulty, and in some cases, with death. The under part of the foot is so continually exposed to sharp bodies of every kind, whilst travelling, and the injuries may arise from various bodies; such as nails, pieces of pointed bone, flints, pieces of glass, &c. Sometimes the heel of the shoe may be too long, and if accidentally the Horse should step on it, and partially pull it off, and a nail puncture the foot before you are aware of it; also the accidental puncture of a nail during shoeing, is one of the most frequent causes of it. Injuries of this kind are proportioned in their effect according to the parts punctured. A puncture through the fleshy frog, even to the vascular portion, is not so productive of such consequences, as apparently a more superficial opening made through the centre of the sole, which may destroy the animal. Whenever a puncture of sufficient depth to penetrate the bony connections, and synovia escapes, the parts should be carefully examined with a probe; and if the suppuration have not commenced, apply compound tincture of myrrh on a small bit of lint. This treatment, in a few days, will heal the wound. Do not forget to place a large plegit of tow over all, to keep out the wet and dirt.

If, however, this treatment has been neglected, and suppuration has taken place, immediately apply a bran poultice to the part affected, moistened well with gourlard water, morning and night, to be renewed every day, until a healthy secretion takes place, when dress as directed before, with compound tincture of myrrh. Should there be any thing like spongy flesh make its appearance through, touch it lightly with diluted butter of antimony, and put your dress over that. These simple modes of dressing you will find to have a much more beneficial effect than all the violent farago of caustics, so much in common use.

Sometimes deep posterior punctures may penetrate as far as the tendon itself, occasioning great pain and inflammation. If you make an early discovery of the accident, introduce a little tow, saturated with tincture of myrrh. If the inflammation be great, bleed from the plate-vein, and give alterative medicine (*see* medicine,) every second day. Should this not reduce the inflammation so quick as

desired, apply a bran poultice, as before directed.

The most usual cases of puncture, are those which arise from a wrong direction of a nail, during the operation of shoeing, in which it either presses on, or actually wounds the sensible laminæ. This is frequently known to the workman, but through idleness he will not draw it out again, or a great deal of injury might be prevented.

Were the nail immediately taken out, and a little tincture of myrrh poured down the hole, the smith might introduce a much smaller one, and all things go on well.

But if suppuration should proceed, the shoe must be taken off, and the horn that may have been covering the confined part, must be neatly cut away, and that to its farthest extent, detaching a portion of the fleshy part from the horny sole. Should it proceed upwards, and break out at the coronet, a lengthy job sometimes ensues ; but every means must be had recourse to, to prevent so unpleasant an affair. However, after having pared out the sole as directed, next take your probe, and ascertain if any other sinuses are formed. If not, proceed at once to poultice with linseed meal, in which has been well worked a large piece of digestive ointment (*see* medicines.) Repeat this every day, until you perceive the wound looking healthy. When such is the case, apply tincture of myrrh to the wound (first having placed on the shoe), and a large plegit of tow over all, fastened in with two pieces of stick crossed, as instructed in other applications for the feet. Five or six days may elapse before the discovery of the disease. When so ascertained, have the shoe taken off, and let the smith tap round the foot with his hammer; if the Horse does not flinch, let him try with his pincers, which will easily discover the seat of lameness immediately, when proceed as directed above.

ON OVER-REACHING.

Wounds about the coronet are very common to Horses, from one foot being set on the other. Hence it is called over-reaching, and generally occurs from a blow of the hind-foot against the fore-foot, wounding the edge of the coronet, or that part between hair and hoof; also if the pasterns should be long, and descend much when brought to the ground : I have known the hind-foot strike as high up as the *fetlock*, and make a complete sore ; but these are only to be considered as simple wounds, or rather as lacerations, or bruises. In no case let the old farriers dress the sores, as they invariably apply caustic remedies, which will make the matter much worse than before. First, with warm water and sponge, wash away every particle of dirt that may be in the sore, or around it ; then take a plegit of tow, and saturate in compound tincture of myrrh, and bind on with a linen bandage. Repeat morning and night, until well.

As I have given you a remedy for over-reaching, a preventative would probably be acceptable. Now this arises principally from the formation of the Horse ; it generally occurring with Horses having thick, upright shoulders, in which case they are from such formation partially deprived of the action of the fore-leg, and cannot throw it out in that bold action-like manner, as Horses whose shoulders are placed more oblique ; consequently, the hind-legs having more freedom of action, reach the fore-legs before he is able to get them out of the way, which produces the disease I am now writing of.

Now the method to prevent this disagreeable affection, is to have your Horse shod high before, which will assist him in getting his fore-legs on; and without calkins behind, which will a little retard their action, and make all four legs work in unison.

QUITTOR.

Quittor is one of the most troublesome wounds of the foot the veterinarian has to contend with; and this because it is frequently some time before it can with propriety be termed so. The wound must have existed some time, and a peculiar unhealthy state exhibits itself, the ulcerated surface producing a diseased secretion, which may spread considerably around, and in consequence other parts become diseased. The tracts we call sinuses, are not difficult to ascertain, when we see the foot depending, and we all know that matter is sure to find a deepened orifice, if possible; but when covered with horn, how is that to be obtained? why of course, the matter spreads itself amongst sensible parts, and they become diseased. Now, our principal care is to lessen all this, or in other words, to remove the irritation then existing. But if the injury should extend to the ligamentous and cartilaginous parts, their living powers being small, a very different complaint is formed, and sometimes a very tedious and troublesome disorder springs up, from the difficulty of forming granulations in parts with such few living powers.

Quittor may arise from pricks in shoeing, punctures, and over-reaching; but with draught-horses, the most common is from wounds, or bruises, inflicted by a tread on the coronet. I never saw this disease in the front of the foot, but it principally occurs at the quarters, in the neighbourhood of the lateral cartilages; though I have heard some say, the whole margin of the coronet is liable.

The great trouble of treating quittor, from its being so unpleasant a disease to contend with, has brought into use by the older farriers some of the most violent means, impelled to it by their erroneous views of its nature: the burning out with a red hot iron was one of their favourite plans; but now, I believe, that is nearly abolished. For my own part, I prefer the stimulating plan to all others.

A quittor, when it has taken on the ulcerative process, and the dead portions are thrown off by suppuration, the farriers would then say a *core* is come out. The wound then ought to be treated as a simple wound, or abscess; for farriers are too apt on these occasions, under the idea of assisting the *coring out*, to introduce strong stimulants. Reduce inflammation as much as possible, thin the surrounding horn; and if the matter appears to penetrate in a direct line, downwards only, make an opening in the hoof below; but in other cases merely dress in any mild way, either with a weak solution of sulphate of zinc, or compound tincture of myrrh. Put the Horse on bran mashes, and give alteratives. (*See* medicines.)

But when the complaint assumes the appearance of confirmed quittor, and not retaining the character of a simple bruise, wound, or abscess, we must look upon it now as an ulcer, composed of different branches or sinuses, or as the old farriers termed them *pipes*. Here the *coring out* system has been abundantly used. On some occasions of bad quittor, a portion of ossified cartilage has come away; and as this is by no means an

uncommon occurrence, farriers thought that a portion of offending bone, in every instance, was a part of the disease; and until they can produce a separation of a part of the lateral cartilage, which they consider when it appears, as the very "quittor bone," they sought for; and until this appears, they are not contented, but prolong the treatment to produce the desired end. However, we will proceed to our method of cure.

The first thing to be done, is to examine well with a probe the extent of the ulcer, with the number and direction of the pipes. Should one of the pipes run inward, and come in contact with a firm hard body, it is more than probable the bone is bare. Portions of the coffin-bone have been known to slough off; but I never knew a Horse recover when that has been the case. If the capsular ligament become ulcerated, and the joints exposed, such a case is a hopeless one, when the pipes run at the back of the cartilages; but when these take an inward direction, they produce a hopeless case. But if the direction of the sinuses be outward and downward, or backward towards the heels, the cure then may not prove difficult. The next object is to stimulate the parts to an healthy action as early as possible, and which may be done by introducing any of the following:—verdigris, or corrosive sublimate, finely powdered; butter of antimony, arsenic, solutions of potash, and lunar caustic. These are all excellent remedies for the disease. Prudence and humanity dictate we should use the mildest first. Therefore try zinc, powdered fine, and fill the orifice full, gently pressing it to the bottom of the wound; fill up to the skin nearly, and lay a bit of tow over the sore, then gently bind on with a bit of broad tape. Keep the Horse as quiet as possible; he must not be allowed to go out to grass or to work. Having laid down one part of the treatment of quittor, we shall give the other. Have the milder means too often failed, or were they not well attended to? Therefore you must make use of liquid stimulant, with which you will be able to reach all the sinuses. Tincture of cantharides, with turpentine, or a mild solution of caustic alkali, or the lunar caustic, introducing small plegits of tow, of which ever of the above you may select, or which may appear to agree best with combatting the disease. Should these also fail in producing the desired object, more active stimulants must be had recourse to; and to do which, mix about an ounce of tar with finely powdered corrosive sublimate, then take small pieces of tow, and impregnate well with the mixture; then place one of the plegits thus impregnated, at the end of your probe, and lightly press it to the bottom of the sinus. Do the same until you have charged every one; then fill up to the top of the orifice with the mixtures: be cautious when introducing your plegits, to use a light hand, and not do it by force. If the quittor should be what the farriers call *foul*, mix a dram of verdigris with the above. It would be well to thin the horn a little round the parts, as it will have a tendency to remove the pain that naturally must arise. Let the dressing remain in for two or three days, until sloughing takes place; if the parts look red and clean, you may naturally expect by simple dressings of tincture of myrrh the wound will heal, from its healthy appearance.

If unfortunately this should not be the case, you must proceed again in the same manner as before, until a healthy appearance is put on. During the application of these remedies,

do not forget to give alterative medicines every second day. (*See* medicines.)

ON CANKER.

Canker is one of the most obstinate and destructive diseases the Horse is subject to. Canker consists in the separation of the horn of the insensible sole from the sensible sole, from suppuration having taken place between the two. This troublesome disease may arise from various causes. One origin is from neglected thrush, in which the sensible sole participates with the inflammation of the sensible frog. Neglected grease will sometimes occasion canker. In both these cases it is frequently engendered amongst cart-horses, particularly in crowded places; for you will find more grease and thrush in large cart-horse establishments than any other; and if care be not taken in time, canker soon shews itself. It often arises from pricks; and when such is the case, and the flexor-tendon should become injured, in all probability *locked-jaw* may supervene. Treads, bruises, or bad corns may now and then occasion it. This disease seldom occurs in the fore-feet, clearly shewing that dung and urine are among the principal causes. Having enumerated the causes of canker, I shall now proceed to offer the treatment for this troublesome disease. Canker, in its appearance, you will find to be a formation of fungus, or proud flesh; which of course is an unhealthy secretion, and in appearance much resembles a cauliflower. Now, your first object is, to remove this to a level with the parts that appear healthy. This you will effect with a sharp scalpel. You will occasion considerable bleeding, but do not be alarmed at that. Have with you a bottle of butter of antimony (*see* medicines), and with a feather, touch every part of proud flesh, and between the parts. Now proceed carefully, with a probe, to examine what extent of sensible is separated from the horny sole; exactly to the extent of separation must the sole be nicely pared away, with a very fine and sharp drawing-knife; for the horny sole, once separated, never re-unites, but becomes a foreign body, and as such, injurious. Every portion of separated horn should be carefully removed; and mind also, this must be attended to at every future dressing. Again examine with your probe, if the disease has proceeded in any other direction. If so, they must be treated as above, by a careful removal of all detached parts; let these be cut away, neatly and evenly, and no rough edges suffered to remain.

By using the above means, the fungus may be removed; but mind, so long as any of this fungus continues sprouting, or growing, so long the cankered action is going on; before proceeding further, that must be completely done away with; for while that is the case, no secretion of firm horn will take place. If you perceive a secretion of thin horn, which will sometimes occur over many portions of the surface, this must be carefully removed at each dressing, until the application of caustic stimulants and pressure produce a healthy surface, and produces a proper quantity of pus only, and which finally end in good horn. After you have brought the whole of the sole to secrete good matter, sprinkle it with the following:—

Sul. zinc, finely powdered - ½ ounce.
Verdigris - - - - - - ½ do.

Or,

Blue vitriol - - -	1 ounce.
Alum - - - -	1 do.

Sprinkle either of these all over the sole, so as to lightly cover it; then lay a plegit of the finest and clearest tow on the whole; fill the whole cavity with other tow thickly over the bottom of the foot, fastened in with strips of wood, as before directed, crossing each other; this will keep up a firm and equal pressure. Now take a piece of coarse cloth or sacking, and wrap the whole well up in it. This will keep the foot dry, as nothing tends to increase the growth of proud flesh so much as moisture.

There is a great fault in not dressing cankered feet sufficiently often. Once a day they they ought at least to be dressed; but if the case be bad, they ought to be examined morning and evening. Trouble, in this disease, must not be noticed; for if the foot becomes neglected, the parts are much longer healing, and when healed are not near so firm, as if well attended to. Horses affected with this disease should never be turned out. In order to avoid moisture, the mild caustic plan of treatment, with the pressure of tow nicely fitted into the foot, will be found to equal any dressing, when applied with care. You should give alterative medicines (*see* medicines,) every second day.

FALSE QUARTER.

False quarter generally arises from one, or the other of the peceding diseases; in which, from the injury done to the coronary vascular ligament, at one immediate part, it can never afterwards secrete horn in a perfect line; but the break of interruption which first originated between the old and the new horn, continues to be propagated. Consequently, it is called false quarter; and it, of course, very much weakens the foot. Sandcrack is sometimes produced by it. The only remedy here, is continually blistering the coronet at the quarter, and shoe with a bar-shoe, well laid off at the seat of disease. You may dress the hoof with tar, or the foot-ointment (*see* medicines,) and keep as free from dirt as possible.

CHAPTER XXVI

ON THE HORSE'S TEETH

If my readers will refer to the introductory part of this work, they will see that it was not my intention to have made any further remark on the age of the Horse, having heard so many contradictory opinions, and such out of the way judgments, that I thought it would only be taking up the time of those who may wish to learn, without obtaining that end; but as some of my readers have wished it, I have had the annexed plate correctly engraven for this work only, with full explanation of each figure, which I deem to be perfectly correct.

The teeth are incontestibly the parts of the body, capable of furnishing the most certain indications of the number of years that the animal has lived; and the incisor teeth, in particular, are suitable for this purpose. They are indeed the only teeth that give correct ideas on the age of the Horse, throughout almost the entire duration of his life. The difficulty of examining the molar teeth, and the irregularity of their table, prevent our being able to obtain any result from the inspection of these teeth As to the tushes, (besides mares not being provided with them) the period of their protrusion varies much, as they do not rub against each other, but sideways, and across, they can only be considered as accessory means of judging.

EXPLANATION OF THE PLATE.

Fig. 1. The state of this end of a jaw marks four years and a half old. The Horse-dividers, newly shot out, are still quite fresh, and not as yet on a level with the nippers. The inner edge of the latter are still untouched, and lower than the external edge. The sucking corner-teeth are much more worn, and present only the extremity of the funnel.

Fig. 2. A Horse just closing up to five years old. The corner-teeth have a short time shot out, they are fresh and untouched; the nippers begin to lose the mark; the external edge of the dividers have undergone some wear; but the inner is nicked, as yet untouched, and lower than the outer.

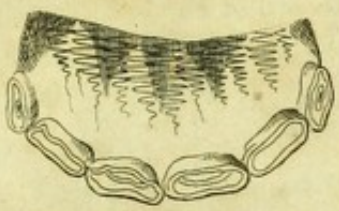
Fig. 3. This figure represents the age of a Horse, six years old. The nippers have lost their mark; the dividers have nearly so; but the inner edge of the corner-teeth are still untouched, and also slightly nicked.

Fig. 4. A jaw, in which the incisors mark seven years old complete; and the nippers and dividers have completely lost the mark; the inner edge of the corner-teeth is on a level with the outer, in consequence of wear.

Fig. 5. In this jaw of eight years old, all

AGE of the HORSE.

4½ Years Old



Coming 5 Years Old

6 Years Old

7 Years Old

8 Years Old

9 Years Old

10 Years Old

11 Years Old

12 Years Old

13½ Years Old

14 Years Old

15 or 16 Years Old

London. Published by W. Emans. Cloth. Lane. 1838.

the teeth have lost the mark, and the nippers begin to assume the oval form; the remainder of the funnel is close to the inner edge of the table of the tooth.

Fig. 6. This jaw belonged to a Horse that was eight years old off. All the incisors have lost the mark, and the septum of the root appears on the table of the nippers, in the shape of a small transverse zone, situate in front of the funnel, and quite close to the outer edge of the tooth.

Fig. 7. The end of a jaw, nine years old. The nippers are rounded, and the dividers beginning to assume that form; the remainder of the funnel of these four teeth is round, and quite close to the inner edge of the tooth. These same teeth exhibit the septum of the root, which is most prominent in the nippers.

Fig. 8. This exhibits a jaw of ten years old. This is merely the rudiment of the funnel in the nippers, as well as in the dividers, and the remainder of the central enamel touches the inner edge of the table of the tooth. The nippers and the dividers are rounded, and the corner-teeth present an oval form.

Fig. 9. From the state of the teeth of this jaw, it had attained its eleventh year. All its incisors are rounded, and only now carry a slight trace of the central enamel, which touches the inner edge of the table of the tooth, the septum of the root appears in all the teeth, and the remainder of the funnel is smaller in the nippers, than in the dividers and corner-teeth.

Fig. 10. In this jaw, which marks twelve years old, the nippers have lost the central enamel, and the septum of the root is rounded.

Fig. 11. This is aged thirteen years off; the nippers have become triangular, the dividers are also assuming that form, and the corners are still rounded. The septum of the root is rounded in the four latter, and is seen in the middle of the table. The tushes are very much worn.

Fig. 12. The Horse to whom this jaw belonged, might have been thirteen or fourteen years of age; the nippers are triangular, and the dividers are becoming so. The tushes are still more worn than in the preceding figure.

CHAPTER XXVII.

ON THE STABLE, AND ITS VENTILATION.

LOFTINESS is very desirable in a stable, and when it can be made from fifteen to twenty feet high, ventilation becomes a matter of no great importance. It should never be less than twelve feet high, and then some method of ventilation becomes necessary.

A chimney, or square opening in the ceiling, communicating with the open air, is the best method; or it may be made in the form of a dome or cupola, which would be more ornamental. The chimney need not be open at the top, so as to admit the rain; but should be roofed, and have lateral openings by means of weather-boards, as they are termed.

As to the admission of air into a stable, the usual means provided for that purpose are quite sufficient; that is, by windows. A stable, when properly paved, and kept moderately clean, requires only a shallow wide gutter; twelve inches wide, one inch deep. The best floor for a stable, by far, is hard brick; and next to that, lime-stone, not less than one foot square.

The floor of the stall should never incline more than one inch in a yard; and the inclination should be continued back to the gutter only. Some litter should always be allowed for a Horse to stale upon, which should be always swept away as often as is necessary. This, with a pail or two of water, thrown upon the floor, and swept off while the Horse is at exercise, will keep the stable perfectly clean, and free from offensive smells. The depth of a stable should never be less than twenty feet, nor the height, as I observed before, less than twelve. The width of a stall should not be less than six feet clear. But when there is sufficient room, it is a much better plan to allow each Horse a space of ten or twelve feet, where he may be loose, and exercise himself a little. This will be an effectual means of avoiding swollen heels, and a great relief to Horses that are worked hard. With respect to the rack and manger: the manger should never be less than eighteen inches deep; eighteen inches from the front to the back part; and two feet in length.

The rack may be with staves in the front, like a common rack; but it is better to have it partly closed in front. The back part of the rack should be an inclined plane, made of wood, should be gradually sloped towards the front, and should terminate about two feet down. Such a rack will hold more hay than ever ought to be put before one Horse. The advantages of this rack are numerous.

In the first place, the hay is easily put into it, and renders a hay-loft over the stable unnecessary; and this may be an inducement to the builder, to make it as lofty as it ought to be, and render other ventilation unnecessary. All the hay that is put into this rack will be eaten, but in the common rack, it is well known that a large portion of the hay is often pulled down upon the litter, and trodden upon, whereby a considerable quantity is often wasted. It prevents the hay-seeds, or dust from falling upon the Horse, or into his eyes; and what is of considerable importance, though seldom attended to, there will be an inducement to the groom to give the Horse hay in small quantities at a time, and frequently, from the little trouble which attends putting it into the rack.

The saving in hay that may be effected by the use of this rack is so apparent, that it need not be dwelt upon A great saving also may be made in oats, by so fastening the Horse's head during the time of feeding, that he cannot throw any of them out of the manger. If a Horse is allowed a peck of oats a day, and has, as he may have, one-eighth part of them thus saved, it will amount to nearly a peck in a week. There must not however, be a diminution in the Horse's allowance on this account. If my advice with respect to feeding be followed, he must have one peck of oats in twenty-four hours, but then he must not have more than from eight to twelve pounds of the best hay in that time, given at four, or three times at least.

In the rack I have now been describing, every ounce of hay consumed by the Horse, will be perfectly digested, and keep the stomach in health.

This kind of rack and manger, from being boarded up in front, will effectually prevent the litter from being kept constantly under the Horse's head and eyes, by which he is compelled to breathe the vapours which arise from it. It will also prevent him from getting his head under the manger as sometimes happens, by which means, not unfrequently the poll-evil is produced.

The length of the halter should be only four feet from the head-stall to the ring, through which it passes; this will admit of his lying down with ease, and that is all which is required.

The ring should be placed close to that side where the manger is, and not in the centre of the stall. The sides of the stall should be sufficiently high and deep, to prevent Horses from biting or kicking each other.

In post and waggon stables, where the stall is made for a pair of Horses, the manger will be placed at each end, and the rack in the centre. It will then be necessary to put one bar in the centre of the rack, on the top, from the front to the back part, to prevent the Horse from throwing out the hay with his nose. This I have lately seen absolutely necessary in a waggon stable. But in this case there was an unlimited quantity of hay allowed, and that often of a bad quality; which probably was the cause of the Horses throwing it out with their noses; but the cross-bar prevented them. The window of the stable should be at the south-east end, and the door at the opposite end. The window should be as high as the ceiling will admit of, and in size proportionate to that of the stable. In one of twelve feet high, it need not come down more than four feet, and will then be eight feet from the ground, and out of the way of being broken. The frame of the window should be

moveable upon a pivot in the centre, and opened by means of a cord running over a pully in the ceiling, and fastened by means of another cord.

With a window of this kind, in a stable of three or four Horses, no other ventilation will be required. A person never need be solicitous about finding openings for the air to enter when there is sufficient room above, and means for it to escape.

Where much light is admitted, the walls of a stable should not be white, but of a stucco, or lead colour, and better, if painted; for then they may always be washed clean with soap and water, as well as the stalls, rack, and manger; and this should be done once in two or three weeks, or a month at furthest. If the walls are boarded up to the height of about five feet, and this as well as the stalls, painted of a light wainscot colour, it will look extremely neat, and the under part of the wall will be kept drier, and look more comfortable. A stable should be lighted by means of an Argand lamp, suspended from the ceiling, and moveable. This will give a far better light, is cheaper, and more secure than any other contrivance whatever, except gas-light; and, if properly trimmed, will burn without a particle of smoke. Instead of having a large corn-chest in the stable, a handsome seat may be made at the back of the stable, extending as far as may be necessary. In this there may be partitions to separate the beans, or the bran; and places may be made to rest the arms upon, so that a gentleman may sit down comfortably in his stable, and see his Horses taken care of. A stable thus constructed, will be found conducive to the health and the comfort of the Horses, and will afford an inducement to the groom to attend to every little circumstance which may contribute to cleanliness. He will not allow the smallest bit of dung to remain swept up at one end of the stable, as it commonly is. The pails should be kept outside, and not standing about the stable, as they commonly are. If it be necessary to take off the chill from water, it is much better, and more easily done, by the addition of a little hot water, than by suffering it to stand in the stable; and while the Horses are at exercise, the litter should be all turned out to dry, and the brick-floor well washed, or swept out. A little fresh straw may then be placed for the Horses to stale upon. Litter, thus dried during the day, will serve again as well as fresh straw for the bottom of the bed, and be perfectly free from smell. The litter necessary to be kept under a Horse, that he may stale with comfort, and without splashing himself, is not considerable, and may be changed once a day. A great saving may be made in litter, by turning it out, and drying it, as I have described; and if a shed were built adjoining a stable, it may be done at all times, and may serve also to exercise and clean a Horse in, in wet weather. Neither dogs, fowls, nor goats, should ever be permitted to enter a stable; and dung should be kept at a distance from it. In speaking of the arrangements of the stable, it may not be amiss to notice what I consider a good contrivance in cleaning Horses; that is, to have two straps, one on each side the stall, about one yard from the head of it; by these the Horse may be fastened during the time he is cleaned, by which he will be effectually prevented from biting the manger or the groom; and being kept back in the stall, the groom will be better able to clean the front of his fore-legs,

chest, and neck; and be able to move round him. This is better than strapping him to the rack. When the common rack and manger are preferred, the rack-staves should be straight, and brought nearly down to the manger; and this may be done, without the necessity of a hay-loft, and the manger may be made deep and wide, as I have described it.

CHAPTER XXVIII.

OF OPERATIONS AND RESTRAINTS.

When it is necessary to perform any painful or unpleasant operation on the Horse, from his great power and strength to resist, it becomes of consequence as well for our own security, as that of the safety of the animal, to put such restraint upon him, as will enable us to combat with his struggles. Some Horses, like men, differ much in temper when undergoing any operation, and bear pain very differently to others; but it is always well to be guarded against the worst, and very few important operations should be attempted, without casting. As this is intended to be a book of information to those who are not immediately veterinarians, as there are a number of amateurs and experienced Horse-men, who frequently practise on their own Horses, and that rather skilfully too; therefore, my taking operations into consideration, is principally for their instruction, and if any thing can be gleaned from the work, the end is at once answered. Great care should be taken to be as humane as possible in all our operations, and prevent as much pain as possible; though at times severe means are obliged to be resorted to.

There are other restraints than the *hobble;* such as the *twitch*. This latter instrument is most frequently used by all classes of Horse-men; for there is scarcely, if any operation that is performed, but it requires the twitch; which no stable should be without. Still, if used with violence, it is apt to make a Horse more uneasy and restive than not; consequently, great care is required in using the twitch. The twitch-staff should be about thirty-six or thirty-eight inches long, with a small ring-bolt, driven firm into one end; then take a piece of sash-line, which put through the eye of the bolt; then tie the ends together, about six inches off the end of the bolt; cut off all superfluous cord, and you have a twitch.

Most persons, and especially the inexperienced, guard only against the hind feet; but they will find that a blow from a Horse's fore-foot, if properly directed, will come with terrible force. Therefore, in all operations, blindfold the animal, and the more so, as by that he becomes particularly intimidated; nor will he often strike without being greatly irritated.

Another kind of instrument, principally used by smiths, is what are termed *barnacles*, which is is a kind of clam, with a guaging-ring to regulate its tightness, and is sometimes

applied to the Horse's ear at the time of shoeing. It is, I believe, at times used for the Horse's nose; but not without the Horse being first blindfolded. Sometimes all may be done that may be wanted, by an assistant holding up the opposite leg. With regard to holding up the hind leg, always have one hand fast hold of the point of the hock; the Horse cannot move then without giving you plenty of warning; and should he feel inclined to kick, you will be enabled to get from him without danger. It is highly necessary these precautions should be attended to, for two reasons; the one, to prevent any accidents that the operator may be liable to; and the other, that you may avoid suspicion from those around you, that you do not know your business.

There is another restraint, called the side-line; and though very simple in its nature, one of exceeding great use, and is now become very general. Many veterinarians use only the side-line, considering that to be quite sufficient for both man and Horse; but this I cannot agree with; for if the Horse make a sudden plunge, it is ten to one he comes down all together. It consists of a hobble-strap, and about six or seven yards of rope, about the size of a man's thumb, and what is termed a neck-collar. To make use of the side-line properly, you should use a roller made on purpose, with several rings on the pad part, both on the sides and top, to answer your convenience. Well, all things being ready, put on your roller, then slip your neck-collar on, down to the Horse's shoulder; now, with a small strap, strap the neck-collar to a ring of the roller. By these means, if the Horse should by chance hold down his head, the side-line does not get shifted (which it would do, if fastened round the neck alone). Now buckle the side-line on to the fetlock on the side you are going to stand on, pass the line or rope through the Horse's legs, and through the neck-collar, take it back, after giving it one turn round the collar to the fetlock; do the same there, then come home again to the collar, where make fast. You may do what you please with your Horse after this confinement; *i.e.* on the side the line is on.

Hobbles are used when you are desirous to cast a Horse, and one hobble-leather is placed on each fetlock, each leather having what is termed a D ring attached to it; one ring and leather being fastened to a long rope, very supple, but strong, and about an inch and a quarter in diameter. Now, in putting the hobbles on, observe which side you want to cast your Horse on; if it be on the off-side, place the rope-hobble on the near fore-fetlock, then buckle the three others on, then take the end of the rope, and hand it to an assistant to thread the off-fore-foot D ring: Let him pass the rope to the off-hind hobble-ring, then you receive it, and pass it through the ring of the hind hobble of your side; then carry your rope up to the near fore-foot again, and put it through the ring there; which ring must be considerably larger than any other, because there is double the quantity of rope in it. (All this time, mind your Horse has been blindfolded.) Now, having your proper strength ready, desire them to pull steady, and together; then you place your hand against the Horse's ribs, at the same time pushing him, when he goes down easily. There is a plan used at the Royal Veterinary College, of one person having a piece of webbing fastened to the roller, who stands at the opposite side, and gives a smart pull, just as the Horse is off his

legs, which quickly brings him over. I do not disapprove of this plan, for I think it may prevent accidents. By following the above directions, the Horse may be said to be more let down than thrown.

The moment the Horse is thrown, the rope must be fastened with what is termed a half-hitch, in which a small pad of straw is inserted, by which means the rope is drawn much tighter. The person at the head must mind and keep that secure: for all the efforts to disengage himself are first begun by endeavouring to get his head at liberty, so that he may raise his fore parts. Place plenty of straw underneath his head, so that he may lie as easy as possible. Be careful also that the Horse should breathe freely when down, and that no more time be wasted in the operation than is absolutely necessary, as many Horses struggle the whole of the time, and are very tedious, and exhaust themselves very much.

BRONCHOTOMY.

Bronchotomy is an operation performed on the bronchia, or wind-pipe, in bad cases of strangles, or when tumours exist in the throat, which threaten the animal with suffocation; or if an apple, potatoe, or a piece of carrot has slipped into the œsophagus, &c.

The operation of tracheotomy is not of a difficult nature, and consists in making a longitudinal section through two or three of the rings, occupying about an inch square, that may be taken away from the front of the cartilaginous substance. A flexible tube should then be introduced into the opening, and retained there as long as possible.—This operation has been performed in cases of roaring; those who performed it thinking the obstruction much lower down than it is.

ŒSOPHAGOTOMY.

The œsophagus may be divided purposely, in cases of strangulation, from the obstruction of too large a ball, an apple, or from the accumulation of dry bran and chaff, which sometimes takes place in greedy horses.

NEUROTOMY,

Or the nerve operation, spoken of some time back, now comes under our notice to describe the performance of. We also stated that the operation was performed for diseases of the feet, principally of such as are dependent on a contracted form, or otherwise altered in the form of the hoofs, (excepting the pumised hoof.) The nerves having been long known as the medium of sensation, many cases of lameness in the feet occur, which render Horses useless, principally from the pain and tenderness consequent on the pressure of some parts of the foot, long since altered by disease but which are not now actively engaged in a disorganizing process.

Where there is reason to expect considerable disorganization of the internal parts of the feet, such as ossification, or total absorption of the articular cartilages, or diseased alteration of the bones within; the horny box, or where inflammation of the laminæ may have wholly destroyed their sensibility, or where the mucous capsules have from disease ceased to yield any, or but a partial supply of synovia, in all such cases it cannot be expected to restore the mobility of anchylosed parts, nor can it restore the lost organization, but even in such cases, when morbid processes are not actually going on, but seem stationary, and

the animal is rather suffering under the effects of former than of present disease, this operation has, by rendering the animal less susceptible to the pain of pressure, enabled him to move and exert himself with more ease to himself, and benefit to his owner. But when violent inflammation is in the foot, I should say that must be removed, or attempted to be removed, before the operation ought to be performed.

Sometimes it has happened in such cases, by removing sensation and rendering the animal willing to exert himself more than the state of the parts will allow, that great aggravation of the disease has frequently followed. I believe it has never been found to answer in the disease called pumise foot; the operation there, is particularly hurtful. Neither should I recommend it in any disease of the foot, until I had tried every other means without accomplishing some good; should I not succeed with other applications, I then should not hesitate in immediately performing this operation; in others, according to circumstances, with the exceptions before insisted on. Neurotomy has been found to render many Horses with contracted feet, and otherwise foot-lamed, not only useful, who were before nearly useless, but it has rendered them nearly as perfect in their mode of going as ever. Some have hunted, many have made excellent roadsters, and all have been fitted for carriage work of every description.

The importance of this operation, though great in veterinary practice, is in some measure removed, when attended with misfortune afterwards. This I should imagine might arise from the inflammation not being properly subdued at the time of performing the operation, so that the disease still went on, with all its consequences. However, for my own part, I prefer the high operation to the lower one, as I have seen less ill consequences arise from it Some veterinarians prefer the lower one. Now for ring-bone, the lower one should never be practised. One reason for my preferring the upper operation to the lower is, that after the operation, the end of the nerve frequently draws itself up, forming a bulbous end; and this coming in contact with the joint, the Horse goes as lame as ever in the course of a few days. What is the consequence? why the high operation is obliged to be performed, and the Horse is immediately upright. If a similar formation manifests a disposition to attach itself to the higher part of the nerve, in this mode of operating, it becomes protected by the tendon, and nothing further is heard of it; for where no lameness returns, there is reason to suppose that the disease is overcome.

I mentioned before that the importance of neurotomy, was in some measure lessened by misfortune afterwards.

Whilst I was practising in Devonshire, a very large proprietor of Horses, and the mail-contractor, had the misfortune to lose a Horse, by both hoofs coming off, and which was not discovered until the Horse arrived in the hotel-yard. He evinced not the least lameness during his journey, and to my own knowledge, he was driven by one of the most humane men who ever sat upon a box. Another instance occurred to the same gentleman, and by the same coach; on taking the Horses off, one of the leaders appeared to go stiff before, thinking it was a slight inflammatory action of the foot, the Horse had his feet and legs bathed in hot water. On the morrow, however, he could not move his fore-feet in

the stall, and of course a more minute examination was required; on doing which, the bones were heard to grate together at the large and small pasterns. In consequence, the Horse was immediately destroyed, and both large and small pasterns were fractured in an oblique direction; one of the specimens the owner presented me with.

DESCRIPTION OF THE PLATE, SHEWING THE HIGH AND LOW OPERATIONS.

This plate of the nerve operations, shows the two methods that have been commonly employed in performing the operation of neurotomy. It is of the greatest importance to observe, that the nerve should be divided with a very sharp knife. I always use the neurotomy knife which you must be careful to keep in good order. Some operators use curved bistorys and scissors, which are superfluous. When the division is made with scissors, that part of the nerve may become numbed, and then it is that the bulbous lump forms, much to the disadvantage of the Horse as well as the operation.

DESCRIPTION OF THE FIGURE.

A represents the Horse's leg taken off a few inches below the knee, and also the foot removed.

B the situation for the high operation.

C the nerve running behind the artery.

D the artery.

E a blunt-ended needle armed with whity brown thread to take up the nerve with: the reason it is blunt is, to prevent injuring the artery.

F the two tenaculum employed to shew the parts; the one on the left hand represents the operator's finger drawing back the skin; the right hand one, the finger of an assistant, whilst the operator inserts the armed needle under the nerve. Then proceed as before described.

G the situation of the low operation.

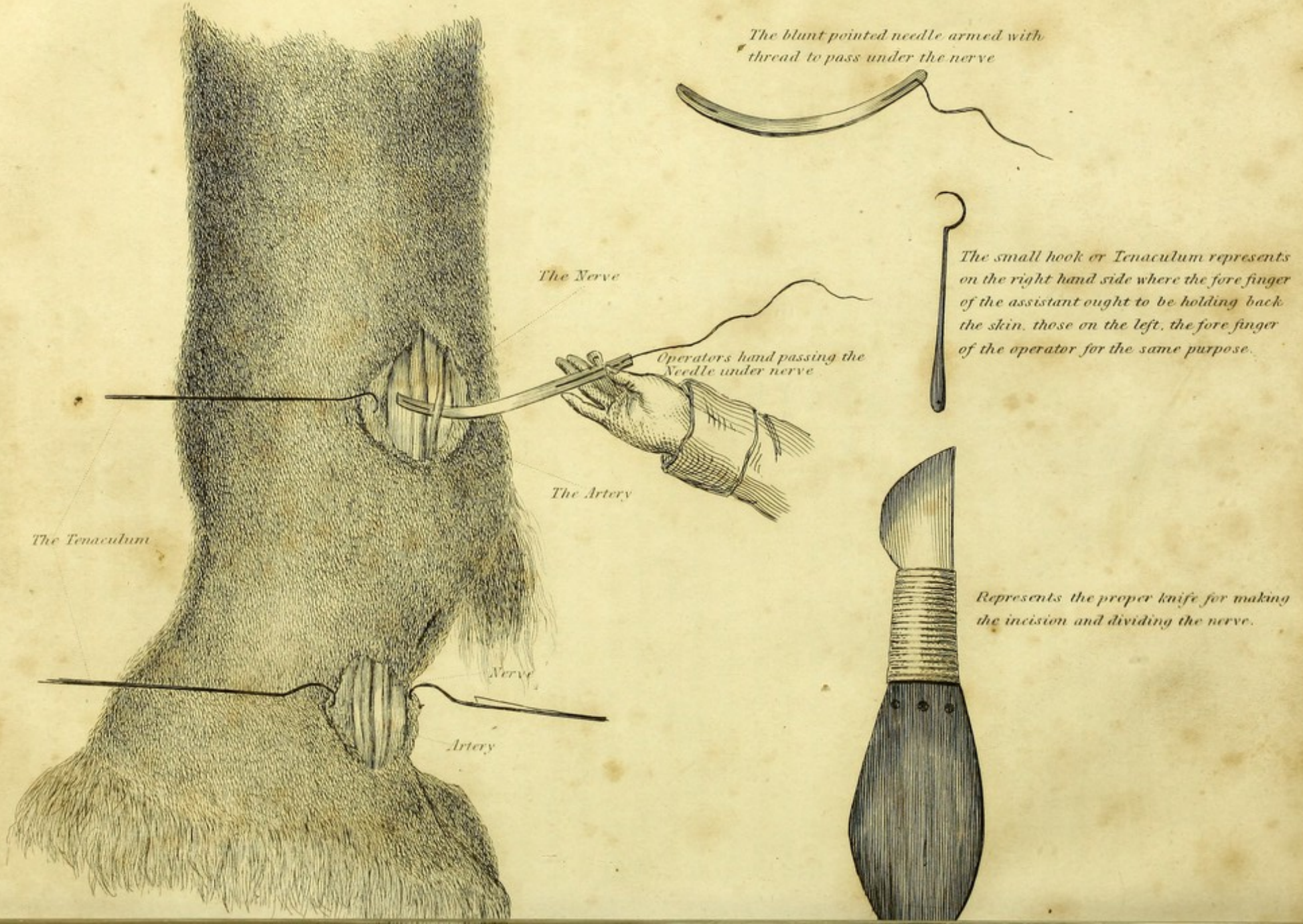
I remarked that I preferred performing the high operation, or even a little higher than the one marked in the plate. For when performed in this part, the nervous communication with the foot is more completely cut off, and the cicatrix is quite out of the way of being struck with the other foot.

In this part the nerve lies rather deeper, especially on the inside of the leg, than it does nearer the fetlock-joint; but there is no difficulty in finding it, by carefully dissecting away a little cellular membrane. Three quarters of an inch of the nerve is quite enough to be cut away, and the incision of the skin need not exceed one inch. After the nerve has been cut out, the wound should be closed by one stich, and a linen bandage applied, moistened with cold water, which let remain on for a day or two, when remove, and dress, with compound tincture of myrrh, and tow dipped therein. Apply the bandage again.

MODE OF PERFORMING THE OPERATION.

The first thing to be done is to cast your Horse in the most convenient and easy place you can select. Let the leg you first intend to operate upon out of the hobbles, and fasten a piece of webbing round the pastern, to be held firm by an assistant; the leg resting on a bundle of hay, or straw, to raise it up for the convenience of the operator. All things being thus ordered, the hair must be clipped close off the part you intend operating upon, whether it be for the high, or the low operation. Then have a bucket of water and

THE NERVE OPERATION
or Neurotomy.



sponge, and your own assistant close to you, to hand you what instrument you may require; also to be ready with the sponge in case of profuse bleeding, which is sometimes the case, and confuses the operator, unless a wet sponge is handy to take up the blood. You now feel for the pulsation of the artery, which will readily be recognized. Then cut down a little posterior to such pulsation, still keeping your finger on the artery. Well, when you have made your section, about an inch completely through the skin, now lay your knife down, and open the orifice with your thumb and finger, and have it sponged, and you will see the nerve running immediately behind the artery, but perfectly white. Then, introduce your blunt-ended needle, under the nerve, and draw it through as far as convenient. When, after finely dissecting the cellular membrane from the nerve, you may divide it as high up as your section will admit. This will occasion a violent struggle with the Horse; but you may dissect as far down as you think proper, and excise what quantity of nerve you like, and he will make no resistance whatever. The skin should be now drawn neatly together, and place a stitch or two in it, and dress as before described. On removing the bandage, after the first day or two, dress with compound tincture of myrrh. Small plegits of tow, dipped in this mixture, and applied every day, will soon occasion the parts to heal.

It may be clearly seen, that the motive for using the nerve operation, is to relieve pain. Stallions, with pumiced feet, suffer greatly from pain; and we may be quite assured, where such is the case, it unfits them from getting healthy progeny. After the nerve operation they have proved healthy and vigorous. Mares also, who from the same causes, have ceased to feel the periodical cestrum, or horsing, after the operation have resumed their fecundity; therefore the operation is not only beneficial in removing lameness, but bodily pain and lameness, arising from other sources.

ON DOCKING.

Docking is an operation performed almost on all Horses, excepting the racer or the cart-horse; both of which are allowed to enjoy Nature's gifts without any curtailing. Still, we cannot but say, that from the improvement which docking makes in our hackney-horses, it is not likely that it will fall into disuse, as some operations have altogether. But the excessive docking that some Horses suffer, I think preposterous; such as those travelling between Birmingham and Bristol, belonging to the Messrs. Ashmores. The docks of these Horses do not extend three inches; the sight of which is truly disgusting. Some men will still argue, that a short dock will strengthen a Horse. How this is to be reconciled I do not know; for I think if such were the case, the racing-stables would long since have adopted short docking. I cannot think that the blood that would be necessary to support a long dock, if diverted into other channels, would at all strengthen those parts by the means of a short one. For myself, I am no advocate for the short dock; neither do I approve of docking colts, almost as soon as dropped, as at all beneficial to the future growth: for I should imagine, early docked colts would have less hair on them, than when docked at a more matured age; as the irritation occasioned by docking in these young animals, make them apt to rub their tails against any

thing they may come near to; consequently, either making the hair very rough, or rubbing it off altogether. I perfectly agree with those who advocate the cause of a longer dock than was fashionable some years ago; for hunters especially, and some of our roadsters, and carriage-horses, were docked truly ridiculous, however "knowing" it may have been thought to look. The length of the dock must be left to choice; about nine inches is the general length left now-a-days. When the length has been determined on, the long hair should be fastened back from that part, while about an inch or two below it should be shorn clear from surrounding hair. Apply the docking machine to this part, first finding a joint, and the dock is removed at one stroke. Various means have been adopted to stop the bleeding; but none in my opinion is equal to the actual cautery, which if mildly applied, answers every purpose, without after trouble. Simple as this operation may appear, the old farriers make a dreadful fuss over it; and what with burning the Horse's tail half-off, and their rosin besides, it becomes a matter of wonder that the Horse escapes the disease locked-jaw, which frequently supervenes on docking, and the violence used afterwards; and I have also seen mortification follow the operation.

The bleeding would scarcely ever prove fatal, and seldom injure the Horse, therefore there is little necessity for cauterising; but if the bleeding should continue, all you have to do is to take a handful of flour, and apply it to the end of the dock, and draw all the long hair down over it, and tie as close to the dock as possible. This will soon plug up the ends of the arteries, and stop the bleeding.

Many persons are very fond of elevating the tail, with an idea that the Horse will carry a much superior one, if done so. This is all nonsense, and at the present day ought not to be noticed. If lock-jaw should make its appearance, immediately operate anew, without restraining the blood at all, as its loss will be both useful and necessary in such a case. Administer large doses of opium, or if the mouth should be so much closed, laudanum in gruel must be given frequently; say, an ounce at a time; of the opium, four drams.

If it should put on a gangrenous appearance, apply oil of turpentine to the part, several times a day. Hot applications between applying the turpentine, will also be of great service.

NICKING.

The practice of nicking Horses is now almost out of date. There is little doubt it originated from large fine Horses carrying their tails "*tucked in*," as it is termed, and which would tend to reduce the value of the Horse much; except when he happened to be under excitement, then he would carry his tail erect enough, so that the ingenuity of man thought of nicking, for in the natural state the depressing muscles of the tail are stronger than the erecting ones, and it was to overturn this, and to give the balance of power to the erectors, that the operation of nicking became practised.

With nicking, the same as castration, a favourable time of the year should be selected for it, and that I should recommend to be the spring, when the weather is not too hot or too cold; for in cold weather the granulating process may become stopped, and in very hot weather, locked-jaw sometimes is likely to supervene. The modes of securing the Horse

for the operation, are various, according to the modes of the day such means were invented. The break, or trevis, was a favourite mode of the old practitioners, but now completely done away with. A strong rail, or leaping-bar, across a stall, was another means; but these only by grooms and Horse-dealers. Most veterinarians are in the habit of casting the Horse for this operation, and I have always done so myself; for I consider the more secure and safe you can make the Horse, the less time is taken up in the operation, though Horse-dealers are sometimes very expert at performing this operation standing; still I prefer the more secure way.

The Horse being properly secured, I shall describe the mode of operating. Have your twitch ready, which place on the Horse's nose; have ready two bundles of straw or hay, and then raise the Horse's feet, so that he lays on his back; prop him up in this position with the hay or straw, by placing a bundle on each side of him. I should have mentioned that previous to casting the Horse, the hair of the tail ought to have been plaited, and when at the end, neatly turned back and bound firm with wax-end. Now take your nicking knife, which is double edged, which makes it more convenient and prevents the trouble of turning. The mode of making the sections must be left to the discretion of the operator; always make your sections in the middle of a tail-bone, not at a joint; this will easily be discovered by the prominences rising at either end of the bone. This should be carefully attended to, otherwise the most serious consequences may arise.

It is sometimes the practice with some veterinarian surgeons, to make a section through the integuments only, beginning at the roots of the hair on one side, and carrying it across the bellies of the muscles; then doing the same on the other side; and lastly, making these sections meet by a light and careful division of the integuments only, on the median lines of the tail. Such is not only a very cautious, but a proper mode for young hands, and is also consistent with good practice; but it is apt to take up more time than older and more experienced practitioners are willing to devote to it.

The first section should not be nearer in the smallest Horse, than two inches and a half; and in full-sized Horses three, or three inches and a half, as the centre of the tail-bones may indicate. In Mares, one section *less* than a Horse, is admissible. The most expert operator will, however, find it prudent when the sections are made, to examine them carefully, that they are all equal in depth, and have divided the depressor-muscles completely.

Should any difference appear in these respects, and should such unequal division be allowed to remain, the operation will be incomplete, and the Horse would in all probability carry his tail awry. Added to which, any portion of the muscle being left undivided, would tend to prevent the others from retracting, and might also serve to promote a reunion of them. Having satisfied yourself that the sections are all complete, the bleeding that ensues, need not be considered of consequence, nor will it shew itself until the tail is relaxed. Now look to the ends of your tendons, and with a sharp and strong pair of scissors, snip off the projecting ends thereof; enough will always protrude to be taken hold of with the forceps.

The removal of these ends will not only separate the attachments of the muscles fur-

ther from each other, which, if re-united, would of course frustrate the operation; but their removal greatly facilitates the healing of the wounds.

The section being thus completed, proceed to restrain the hœmorrage, which is done in various ways. By some, by means of strips of cotton, tow, hemp, &c.; which, twisted, and inserted into each nick, are separately tied on the back of the tail. In my own practice, I generally take a piece of lint, or a plegit of tow, and introduce into each section sufficient to fill it up, over which I place linen strips, long enough to tie on the back of the tail, which were then tied sufficiently tight to restrain the bleeding. Should the bleeding, however, continue to be more than was anticipated, place another rather broader linen bandage over each section. It becomes necessary now to carefully watch these bandages, that they do not create too much heat and inflammation in the tail. Should this be the case, and the bleeding not stopped, take a sponge which has been dipped in cold water, squeeze the water on the top of the tail several times a day. This will cool the parts, and tend to stop the bleeding, too. When perfectly satisfied on this point, you may loosen your bandages a little, and if all things look favourable, let the tail remain until the morning, when snip the bandage at liberty.

Many persons differ in their mode of after-dressing the sections. Some prefer lint only; others lint, with the mild digestive ointment, and a bandage over all, in both instances. There is one advantage in dressing with the digestive ointment (*see* medicines,) and that is, it is apt to promote the suppurative process, while the other is not. By promoting suppuration, there is more chance of avoiding locked-jaw; but in the first dressing, nothing promotes the healing process so much as dry lint; watching the wounds, that they be kept from dirt and fungus, leave them to heal of themselves, without any application but the bandages.

Were a nicked tail left to itself, there is no doubt but the divided muscles would again unite, and the tail be carried nearly as it was before; therefore, to keep the divided end apart, it is necessary that the tail should be suspended, until the parts become cicatrized, and such junction prevented. In former days, a cushion, or pad, was formed, and fixed to the Horse's rump, by means of buckles and straps, and the tail fastened back to this pad.

The Irish nicked Horses, you may always discover from any other; for there they break the last joint, so you will always see an Irish nicked Horse, with a peculiar curl-up at the end of his tail. This is the cause of it.

The modern mode of suspending the tail is by double pulleys, and are not only simple, but are capable of being easily rectified or regulated at your pleasure. The apparatus consists of two pulleys, to be fixed to a beam, or joist in the stable, as wide apart as the stall the Horse is to be placed in; the wheels of these are to be made sufficiently large to admit of a kind of roller (similar to one used for window-blinds,) and about a foot, or foot and a half longer than the stall is wide. Another pulley, corresponding to the two others, runs loose on the roller, with this addition; that instead of having an end to fasten up any where, there is a larger wheel, but made only wide enough for the suspension cord to run on. This done, the end of the line must be made fast to the Horse's tail, by means of first having introduced a good strong

skewer through the plait, and double at the end of the tail. Then take another pulley, one end of which is to be fastened to a beam, or joist, immediately behind the Horse, and as far back as possible. Now, the line you fastened to the pulley on the roller, pass over the one just nailed up; to the end of this line you must suspend your weight. By this pulley being in a right line with the centre of the stall, the Horse is in no danger of having his tail grow aside; but if you should perceive the animal have a tendency to rest on one side the stall more than the other, take a bundle of furze, and nail against the side of the stall he may be so inclined to bear against, and *vice versa*. The weight for the first day or two, should not be more than will keep the tail straight; then by additional weight, elevate the tail a little from the horizontal line, advancing every two or three days, until you have acquired the height you wish to go to: but never go to the perpendicular, or erect position. The elevation, however, ought to depend on the height we wish the tail to be carried in future. The carriage of the tail should therefore be examined every two or three days; keeping in mind, that after it has altogether done with the pulleys, it frequently droops a little.

I have now given you a description of the apparatus requisite in performing the operation of nicking, and the method of performing it; it only remains for me to mention the treatment, and food the Horse ought to have.

With regard to giving the Horse exercise, during the time the tail is in pulleys, this I should say was decidedly wrong, and which would cause the Horse great and excruciating pain on being placed in them again. It would be very like tearing open an old wound. But there is a means of keeping the Horse in health, without exercise, by giving him an ounce of nitre in his water, two or three times a week, and an alterative powder (*see* medicines,) every day in his feed, which should be half bran and half oats, made moderately wet, so that the powders might easily adhere to it; not sloppy, that the medicine can run off.

There will require some attention with regard to the tail, to prevent the hair coming off; but this will happen in some measure, take what care or precaution you may. At the end of about seven or eight days, take the tail out of the pulleys, and unplat it, then carefully comb it out, and apply a little hog's lard to the roots of the hair; when make fast again. This should be done every five or six days; and it is the only and best means to keep the hair on, though as I before mentioned, you cannot prevent some from falling off.

Now the only things to be mentioned are the casualties attending the operation of nicking, the principle of which is inflammation. This may run so high, as to produce mortification, locked-jaw, &c.; but as we have before treated of these specifically, there is no necessity of a repetition, as they will be found under their separate heads.

CROPPING.

Custom has nearly abolished the practice of cropping. Still circumstances may occur to render it necessary; such as one ear becoming blemished; therefore, at the makers of surgical instruments, we always can obtain a sort of curved clams, called cropping-irons. Into these, one of the ears is introduced, and the upper part is cut off at one stroke, with a knife of sufficient length. The portion cut off

will serve as a guide for forming the other crop. A young practitioner is apt to be alarmed at the retraction of the skin from the cartilages; but the exposed edges disappear in a few days. Horses often continue for a long time very shy about the head after cropping; consequently, both bridle and halter should be used without a forepart or fronting, till the ears are quite well. The bridle should also be made to unbuckle on one side from the bit, so that the head-stall may be dropped on, without the hand being raised to pass over the ears. This will naturally operate in dissipating the customary shyness that otherwise so long remains, and which is never wholly lost, if force and cruelty be afterwards used; therefore, gentle means will be always found to be the best.

BLEEDING.

Bleeding is the next article that comes under our notice, and is practised by several modes. Blood is sometimes taken from the arteries. If the trunk be considerable, it may be punctured, but must afterwards have a ligature passed around it. If it be less considerable, it will be sufficient to divide the trunk of the vessel, which having emptied all its ramifications, recedes by its muscularity within the integuments, and stops the bleeding. The temporal artery is occasionally opened on both sides. These arteries may readily be detected at three or four inches below the root of the ear, in a line with the nostrils. The angular artery is sometimes opened in inflammation of the eyes.

Bleeding at the toe also abstracts blood from both veins and arteries. In drawing blood from the foot, it should not be done in the ordinary way of paring down the marginal line, with part of the sole, but the sole only, as close to the marginal line as may be; then take a fine drawing-knife, or strong lancet, and puncture the vein running round the margin of the foot, which from the great vascularity of the foot, the blood will flow copiously.

With regard to instruments used to let blood, the common blood-stick and phleme, and a variety of lancets, are all to be seen at Mrs. Long's, High Holborn, instrument-maker to the Royal Veterinary College. The lancet, I must confess, is the most surgical-looking instrument; but I prefer the phleme, especially for country practice, where you have necks of all thicknesses to contend with; for I have seen some practitioners make one puncture through the skin first, then another through the coats of the vein; and without some experience, the vein is also apt to be altogether missed, in attempting to do it by a lancet. Let your lancets and phlemes, whichever you may make choice of, be always clean, and highly polished; and, after bleeding, care should be taken to dry them, and examine their points.

Blood is most frequently taken from the jugular vein, though other superficial veins there are, from which blood may be taken with advantage, such as the plate and thigh-veins.

The proper place for bleeding at the jugular vein, is about two inches below the branching off of that vein, towards the head. To perform the operation, the principle thing is a steady hand. If your intention is to bleed on the near side, take your phleme in your left hand, grasp it with your finger and thumb, then with your middle and third fingers raise up the vein by carrying your hand the back-

ward way of the hair; the vein being raised as high as you require, strike the phleme with your blood-stick in the centre of the vein. Let your assistant receive the flowing blood in a bucket, whilst you replace your tackle, and prepare, with a pin and tow, to bind up the orifice. This being done, let a wet sponge be applied, and remove the blood.

In abstracting blood, it should be an invariable rule never to let it fall on the ground. A bucket is generally the usual utensil for receiving blood in. By chance you sometimes meet with a graduated can, in well regulated stables, and exceedingly useful it is; as then you have a certain measure, by which you can regulate the quantity of blood you wish to take. You will frequently find you take much more on the graduated principle, than if you trusted to chance. As for example: in a large Horse, with a strong attack of inflammation upon him, on the first bleeding the recovery mainly depends. You are here working in the dark; for it will be next to an impossibility to ascertain what quantity of blood is taken, without some measure for a guide.

In all inflammatory affections, it is important to draw the blood from a large orifice, and as quickly as possible, though the general system may be weakened from hastily drawing blood; but the disease gives way to such treatment much quicker than if blood was drawn from a small orifice.

There are two kinds of blood-letting, what is termed *local and general.*

Local blood-letting is abstracting blood as near to the part affected as possible; and a few ounces thus abstracted, frequently does more good than if you took a quart from the system generally.

General bleeding is that, wherein the system at large partakes of the operation, depleted by the stores more immediately derived from the heart.

Blood-letting, in veterinary practice, is very important. The amazing quickness with which some diseases run their course, and which appear to be only arrested by blood-letting, is in many instances to be considered as our only sheet-anchor; and therefore is so much resorted to in most fevers, and those internal inflammatory affections, to which the Horse is so exceedingly liable. Blood-letting is also important as a criterion of the state of the disease, certain appearances of the abstracted fluid presenting certain indications which act as a guide for our future treatment. Indeed, if it were not from a knowledge of the different states of the blood and the pulse, we should be liable to be in continual error; therefore, the state of the blood in health, as well as in sickness, should be well attended to.

ON PURGING.

Purging, it is well known, is produced in the Horse, in order to renovate him, and to bring him into condition; and though it may be treated so lightly by a great many persons, still purging is a very important matter, especially when we read of the number of race, and other Horses, that annually fall victims on account of the bad management they receive during the time of their physic. Though almost every groom, with that self-conceit, which so distinguishes this class of persons, declares he can put a Horse through his doses of physic as well as any man. But were you to ask him how the medicine acts, or if things do not go on quite so well as expected, he is

completely puzzled, and does not know where to look for an answer, to explain the meaning of cathartic, or purging medicine.

Cathartics, or purging medicines, act by stimulating the intestines to a more frequent evacuation of their contents; they also increase the matter so expelled; and, under some circumstances, they alter the quality of it too. This being the simple operation of purging, it is evident how many erroneous notions are entertained relative to it.

Purging is used to reduce swelled legs; but no purge will act on the legs immediately; for it cannot in the first instance remove fluids from any other parts but the stomach and bowels. Ultimately it may remove the fluids from other parts to make up the deficiency, and thus the legs become lessened.

Notwithstanding there are certain peculiarities of constitution generally, and certain states of the alimentary canal, which particularly render this process very salutary to the Horse, and which are essentially necessary to keep him up to that standard of condition, which is now the pride of every gentleman and sportsman; still, purging has its limits, and if carried too far, which it frequently is by many "would be knowing grooms," until it ends in the death of the animal, let his value be ever so great. I have here to complain of training-grooms in general. They will rarely allow a veterinary surgeon to come into their stables; and why is this? Does the veterinary surgeon not know his practice? or does he know too much? One, or the other must be the case; or why allow a man perfectly ignorant of anatomy or pathology, to have the medical care of so great a property as noblemen are possessed of in the shape of Horses? However, it is not my province to dictate to the world; it is only a matter of opinion, but having gone through the whole task myself before my apprenticeship to a veterinary surgeon, I think my experience at least may qualify me to form a just opinion. However, the world is made, and we must get through it in the best manner we can. But to our subject.

There are various uses to which purgative medicine becomes applicable, but may generally be arranged under such as are given as a remedy against an existing disease; those exhibited as a preventative against a probable one also, are greatly used for promoting a certain state, called condition.

Cathartics are most beneficially used against inflammation, or almost all diseases of increased action, except of the alimentary canal. By increasing the waste of the watery parts of the blood, it tends to deplete the system, and to lessen arterial action. In active inflammation it greatly assists bleeding, and in others, it is superior to it, and can be advantageously employed, when that cannot be with propriety attempted, as in fevers possessing a low or putrid character; for as such appear to be often dependent on some morbid change within, or some morbid combinations formed by the biliary fluid, which purging acts particularly upon; so that its advantages here are striking. In plethoric cases, which produce serous deposits in the legs, &c., as in Horses just removed from grass, &c., we depend on purgatives for their removal. In pursive, thick-winded Horses, physic not only prevents further accumulation, but also stimulates the absorbents to take up some of the existing deposit. In dyspeptic cases, in hide-bound, in lampas, and others, arising from the deranged functions of the

stomach, mild purgatives act in the most salutary manner.

In the removal of worms also, they act most beneficially, by ejecting them, and the nidus in which they are lodged also.

As preventatives, purges are extensively employed; also when Horses are taken from grass, or the straw-yard, and are at once removed into a heated temperature, with clothing and full diet. Were it not for bleeding and purging, but particularly the latter, we should find all the consequences of plethora shew themselves soon after; as hide-bound, surfeits, swelled legs, cracked-heels, opthalmia, and not unfrequently, inflamed lungs also. Here, and in all similar cases, purgatives find a vent for the superabundant blood formed.

It is another fact, which serves to exemplify the want of analogy between the action of purgatives on the Horse, to those on the human subject; that when an emaciated Horse is removed from hard work, and harder fare, at once to rest and a full diet, that so far from his condition being improved, unless he be prepared for the change by previous purging, his skin becomes fixed, his belly still more and more tucked up, and his hair will often actually fall off. But the same change, when accompanied by a judicious use of purgatives, operates so much to his advantage, that a few weeks brings forth a new animal, as it were.

Physic is also most beneficially given at particular seasons, as at the spring and fall, to obviate the effects of the contradictory state into which Horses fall at those times; being then apparently weak and emaciated, yet at the same time suffering from increased arterial action, employed in working the periodical change in the constitution. At these times, two or three mild purges will stimulate the defective digestion, remove morbid accumulations from the bowels, occasioned thereby, and by a sympathetic effect between the skin and alimentary canal, they will assist in the change of the new hair for the old.

Purgatives are given to promote condition. —If their tardiness of action altogether shut them out from any other medicinal use, yet their beneficial influence in producing condition, would of itself render the subject important to all those connected with Horses. If, likewise, they excited only the condition we require on the young, the robust, and the already lusty animal, it would excite little surprise, and the method of action would be clear; but when we know that they equally promote it in lean emaciated Horses, even without apparent disease, it requires an intimate acquaintance with the requisite functions, and his animal economy, to enable us to account for the fact. In such cases we give mild doses only, which prove a valuable stimulant and tonic to the stomach and bowels, thus promoting their digestive powers, and consequent capability of separating more organic moleculuæ from the ingesta. They also stimulate the sluggish biliary and pancreatic secretions, which are so necessary to a healthy digestion and formation of chyle, from which alone the strength and bulk can be augmented. Luxury and refinement have introduced an artificial state of condition beyond that; simply, a healthy functional state.

Such condition is not only necessary to bring the animal up to our present ideas of beauty, but also to enable him to undergo exercises, which in a state of nature were not expected from him, as hunting, racing, &c., &c. To promote this state, purges are indispensably necessary, and it is from this view that the

subject of physicing derives its popularity with the mere horseman; though we have shewn that it derives no less consideration under every point of view, connected with the well-being of this valuable animal. In promoting condition, purgatives not only act favourably on the digestive organs, but their beneficial influence extends to the other solid and fluid parts of the body also; by their means the watery parts of the blood are removed, by which the absorbents become stimulated to take up all the interstitial fluid interposed between the moving masses, as well as that distributed within the cellular membrane, by which means the strength is augmented, and the weight of useless matter diminished. The unnecessary adeps, or fat of the body is also removed by the same process, which allows the muscular fibres to be more rectilinearly placed, and to approximate in their action, by which a great increase in their power is gained. It is thus that physic draws up the belly, and hardens the flesh. The lungs also are enabled to act more advantageously by the agency of physic, their capacity being greatly increased by the absorption of incumbering matter, either solid or fluid. In this way, the wind as well as the strength, is increased by perfect condition.

The abuse and danger of purgatives.—Salutary as is the operation of purgatives on Horses, judiciously managed, and properly timed; yet hurtful in the extreme, and often fatal are the consequences brought about by an ignorant employment of them when not proper, and an erroneous mode of managing them when they are. In all inflammatory affections of the stomach and bowels, cathartics must be highly injurious, except in inflammation of the bowels, when the obstruction cannot be overcome by any other means. They are almost equally hurtful in inflammation of the lungs; and it is probable, from the powers it calls forth in the Horse to produce purging, occasioned by his structural peculiarities, that in all great visceral inflammations, active purges should be admitted with caution. In farcy and glanders, purgatives seldom do other than harm; and in chronic affections, attended with great debility, they are only admissible in some peculiar instances, specified in the treatment of such diseases. Physic is hurtful, however, principally from the frequency, and quantity sometimes given. Grooms suppose that every ordinary case requires three doses of physic; the reason for which, many have humorously given:—"The first being intended to stir up the humours; the second to set them afloat; and the third to carry them off."

To very young Horses, and to delicate feeders, the giving of three doses of physic must be attended with most injurious consequences, and such as they cannot recover from for months; sometimes never. In such cases, one or two very mild doses are all that is required, or ought to be permitted; and it is doubtful, without some "foulness," as it is termed, or rather extreme fulness and plethora be apparent, whether in ordinary cases, two moderate doses be not all that is necessary to ensure the condition of saddle and carriage-horses. It is an unfortunate prejudice, engendered by ignorance, and kept alive by obstinacy, "that to do much good with physic it must be very strong." I have many times been told by grooms, that the dose of physic I had given, could not be strong enough, for it had not purged the Horse more than fifteen or sixteen times. In many cases, these know-

ing gentlemen are not satisfied, unless a Horse have from twenty to thirty evacuations. Superpurgation has destroyed hundreds of Horses, and it has irreparably injured thousands. Extra purging debilitates the Horse more than the human subject, probably from a lax state of bowels being more common in man, owing to the presence of both cystic and hepatic bile, as well as a dependent situation. It is hardly possible to conceive a more deplorable object, than a Horse under the action of an enormous purgative. The liquid aliments escaping almost involuntarily from a red protruded anus, excoriated with the violence and frequency of the dejections; the belly drawn to the flank, cold sweats bedewing the frame, appetite totally lost, and the strength so abject, as to leave the animal hardly the power of tottering from one stall to another; and yet to this state does the brutality and ignorance of an infinite number of the old farriers doom the Horses of their employers to. The number and strength of the purgative doses, are not the only evils also to which the Horse is liable, from improper purgation; the articles used, are likewise often of an injurious nature. Frequently, with the coarsest aloes, the groom's prescription directs gamboge, which greatly increases its drastic qualities. Neither, indeed, are these gentry, or indeed some practitioners, so attentive to previous preparation as they should be.

A powerful dose of physic given to a Horse at hard work, and full keep, without previous mashing, hurries the hardened fæces forwards, until it forms them into an impenetrable mass; inflammation ensues, and on the third day the Horse is found dead, and swollen immensely. In hot weather, inflammation supervenes on physic, when at all too active, and dysentry is a very common consequence of summer purging. When good physic has been properly given, it has been often rendered injurious, and even destructive, owing to the carelessness of persons attending on the Horse. Cold water at these times must be avoided; the doors must not be left open, or a sudden chill may bring on inflammation of the bowels; also immoderate exercise must be carefully avoided, and only such given as will make the Horse comfortably warm, and then immediately bring him into the stable.

Of the articles used in purging of Horses.—A great discrepancy of opinion prevails on this head also; but if the distinction between laxative and purgatives be maintained, it would tend to reconcile these contentions. There are numerous articles which simply relax the bowels, *i. e.*, slightly increase their peristaltic motion; but very few which produce active purgation. Of the former; bran, calomel, neutral salts, castor, linseed, and olive oils, are the most usual instances; but it must be confessed, that with the exception of bran, all the others occasionally fail. There are some other medicines which act on the bowels, but are not to be depended on as purgative medicines. The most proper we shall enumerate, and will place them at the latter end of this work.

The purgative of Horses is, almost in every instance, aloes. Much difference of opinion exists on the preference due to the various kinds of aloes; nor can we ever arrive at a just conclusion on this subject, until we unite a conclave of *honest* druggists, both wholesale and retail, from whom alone something like a knowledge of the various sorts can only be expected. However, for all large Horses, I should decidedly use the Barbadoes aloes for

purging; and for small thin animals I would recommend the Cape aloes. But never attempt to purge either large or small Horses, without first relaxing the bowels with bran mashes.

The quantity of aloes requisite for purgation, is also very various, and must depend upon the animal's customary food and constitution. This is a matter not to be wondered at; but is a strong reason against leaving the management of purgation in ignorant hands. Some Horses are exceedingly difficult to purge, whilst others are easily affected. Old Horses generally require more than younger Horses to purge them, and if at hard meat, it makes much difference in this respect, it requiring more to purge such Horses, than others softer fed. These facts serve to shew the extreme necsssity of prescribing a very moderate quantity as the first dose for a Horse, with whose constitutional peculiarities we are unacquainted. The requisite quantity is also greatly dependant on various other circumstances. Horses fresh from grass, purge with a much less dose than Horses long stabled, and to Horses used to bran mashes as daily food, a moderate quantity only is requisite; while in other instances, by mashing three times a day for several days, we may make four or five drams do the work of eight. This shews the extreme importance of previous mashing, particularly in weakly Horses, and also in such as have been previously accustomed to much hard food. Form also influences the quantity requisite; a thin, narrow-chested, lank-sided Horse, will purge more readily than a circular deep-carcassed one. It may be considered, therefore, that the quantity required to purge Horses, both prudently and effectually, range between five drams and ten; the extent of which range will serve to shew that something more is requisite than a blind acquiescence in any acknowledged receipt, or invariable form. Thus far as regards the account of aloes generally; we shall presently advert to them again particularly. For the formation of physic-balls, and the quantities required, *see* list of medicines at the end of this book.

When it is thought proper to give mercurial physic for worms, or skin affections, two drams of calomel may be given the night previous, in a mash, first mixed with a tablespoonful of flour. This, by lying all night in the Horse, may perhaps assist its efficacy, particularly in case of worms; and the aloetic ball may be given the next morning; recollecting at the same time, that it should be something less strong, on account of the calomel already given. In giving physic, the intestines should always be prepared for this operation by bran mashes, and which should be given two or three days previously; nor indeed should the physic be ever administered until the stools present some appearance of softening. The first dose given to every Horse, with whom we are not well acquainted, should be a very mild one; for, as we have before remarked, that some Horses are so much more easily purged than others, it becomes us to use this discretion; and if the dose does not operate, it can do no harm, though it is often most erroneously supposed to do so.

Exercise is of the greatest importance in physicing; but, as I before stated, the attendants must be cautious not to trot or gallop. Brisk and continued walking is all that ought to be allowed. The importance of exercise is by no means sufficiently considered. Half

the quantity of any cathartic, with plenty of walking exercise, will operate nearly as much as a double dose without; so that the degree of purging may be always regulated nearly to our wish, which is a very desirable circumstance. When physic does not work kindly, the exercise should be repeated at short intervals (say two hours,) until it does; and then it should be altogether omitted, as it would fatigue. Chilled water must be given, as it is particularly necessary to observe, that ample dilution of the bowels is of the utmost consequence to ensure physic working kindly. Entice the Horse, therefore, to drink by every means; and on no account forget the necessary precaution of giving him pure water from a perfectly clean pail. When it is either smoked or greasy, it cannot be expected that an animal possessing the delicate palate of a Horse, will drink. During the working of the physic he should be kept warm, both by the stable and by clothing; and he must be exercised (if in winter) in clothes proportioned to the cold.

When a purge is to be given, proceed as follows:—After having fed the Horse with bran mashes, for a day or two previous to the one in which you intend giving the ball, give the purge to him the last thing at night, keeping him warm. In the morning when you come to the stable, offer him warm water, or chilled, but not cold. If you take your Horse out to exercise immediately, the medicine, in all probability, will operate in the course of twenty minutes, or half an hour. When such is the case, immediately go home and give the Horse a handful of the best sweet hay you can procure. This will recruit his spirits, and he will then be able to eat his mash, which give him in about an hour after. You must now desist from exercising the Horse, until the physic is what is termed set, when you may feed in your usual way, until you give another dose. Why I recommend giving the Horse his medicine at night, is in consequence of their sometimes becoming griped; this generally happening in the night following to giving the medicine in the morning part, and no person being present, the Horse may be dead in the morning, occasioned by inflammation of the bowels; but if you give the medicine as directed, at night, then you have the following day to watch him, taking advantage of any thing that may occur.

It occasionally happens, that notwithstanding every attention, physic will not work on the second day; in which case, let nothing tempt the practitioner, as has been done, to give another dose immediately; for it sometimes happens, that purgatives will not act until the third day. But when a case occurs of non-purgation, always wait until the third day, when, if no symptoms of purging appear, either let the Horse rest altogether for two days longer, and then give him rather a stronger dose; or commence by giving him a quarter of the original dose every six hours, till it purges; giving him mashes, exercise, and warm water, as before directed. Let it also be remembered, that it is erroneous to encourage liquid purging to twenty, thirty, or more dejections. No good attends this practice. I never wish any Horse I may have to physic, to have more than from twelve to thirteen liquid evacuations. All beyond this, weaken the intestines, and injures the Horse.

In the usual course of physic, on the next day after the operation of the purgative, the fæces will resume nearly their former consistency and shape, when the physic is said to be

set. If it, however, continues to operate with nearly the same violence as on the day before, it must be regarded as *super-purgation*, and recourse must be immediately had to the treatment already directed for that disease. If otherwise, the Horse may now return to his former habits, giving him corn at first rather sparingly, with moderate exercise; and in five or six days from the physic setting, if the operation has been only ordinary, a *second* dose may be given, which is commonly required to be a *little* stronger than the first. After this, with the same caution, if it be deemed necessary, a *third* dose may be given, which is usually considered a course of physic; but the number of doses ought, as before pointed out, never to be under the arbitrary direction of custom, but should be regulated by existing circumstances.

FIRING.

Firing is performed on Horses for two purposes; one for the forming a permanent bandage, which it does, by destroying the elasticity of the skin, and lessening its surface; the other, that of raising an active inflammation, and thereby exciting absorption. Sometimes it is used to answer one of these purposes only; and sometimes it is performed to promote both conjointly.

The Arabs fire the joints of their young colts to strengthen them; by the constant bandage the cicatrix forms to the part. Some English breeders of blood-horses have done the same; but the practice is rare. This is an instance where firing is performed for the first purpose.

In splints, spavins, and ring-bones, firing is used as a strong stimulus to the surrounding absorbents, to remove any extraneous substance lately deposited; hence the osseous matter, so hurtfully thrown out, which forms such swellings, becomes swallowed up by these vessels, and is thus removed. These are instances where firing is used, principally to promote external inflammation, thereby to relieve a more internal one. But even here, the future pressure, occasioned by the cicatrix, is an assistant, and often a principal one, to the removal of the adventitious deposit.

To increase the original inflammation, or to keep it up, it is common in these cases to apply a blister over the firing. In enlargements after violent strains, we fire the legs both to excite the absorbents to remove the deposit of coagulable lymph; and also, by straightening the skin, to act as a permanent bandage on the part for the future. The various cases in which firing is considered necessary, are dispersed through the body of the work; and it would be unnecessary to enumerate them here. It need only be at present noticed, that as it is a painful operation, so it should never be resorted to but when absolutely necessary for it; and the more so, as it leaves a permanent blemish. As blisters act in the same way, except that they leave no permanent bandage; so, when absorption only is required, repeated blistering will often supersede the necessity of firing, and as they can be applied as often as we wish, so, as a promoter of absorption merely, they are greatly to be preferred in many instances. On the subject of blistering immediately after firing, different opinions are entertained.

A morbid sensibility, or rather an artful affectation of feeling, induces some to blame all which does not square with the popular

outcry. My life has been devoted to the amelioration of the miseries of the whole brute race, and I am the last man that would inflict one *useless* pang on them; but when, by a momentary addition to their present suffering, I could abstract years of future pain, I would not court popularity by joining in decrying all painful operations.

When it is of consequence to keep up the irritation in future, or even to increase it at the present, which we dare not do by deeper firing, or by lines too near each other, then blistering *immediately* after is admissible. Such cases occur in long continued enlargements, ligamentary, or osseous diseases; but when firing is applied to four *stale* extremities, or even to two, which present only the ordinary appearance of disease, it is not only unnecessary, but it is wantonly cruel; and what, perhaps, will be more deterring, it is dangerous also, and has proved destructive.

The mode of firing differs according to circumstances. The general mode adopted at the Royal Veterinary College is in straight lines, up and down the course of the hair, or in perpendicular lines; the reasons for this are well known. If it be applied as a bandage, in no direction can it corrugate the skin in so effective a manner, as the lines drawn inversely to the action, as well as the enlargements of the parts. As the principles of the firing-iron have become so known, it would be ridiculous to say farther on that part of the subject.

I think I mentioned before, that there were several methods of firing; I should also have remarked, that there are also several kinds of irons required, of various shapes. The principal are, the *searing-iron*, for the tail: this iron is probably called into request more than any other. Then the *budding-iron*, for touching cavities, and searing farcy-buds. There is also the common firing-iron, the iron to remove lampas, and some others, according to the particular purpose for which they may be required. To practitioners these are all pretty well known, and all should be tolerably thick at the back to retain the heat; and when used, should only be heated to a dull-red heat.

When performing the operation of firing, care should be taken to have a piece of board near you, to rub the edge of the iron on. This will prevent its getting too sharp, and cutting through the skin; the iron also by this means becomes cleaned from all scales, which would be a very great interruption to the operator, if he had no means of speedily removing them. If you have a forge establishment of your own, there will be no difficulty in determining where to heat your irons; but if you have to perform the operation in the country, you will find some little difficulty; but this, though it may take up a little more time, it would be better to put up with, than to shew any thing like a fastidious disposition; for country practice has a great many difficulties which cannot be avoided, and which may be removed with facility in a town.

Firing is not the simple operation many persons are inclined to think; for, if you penetrate the true skin, you produce a wound with great inflammation and ulceration, leaving also a bad blemish. To prevent this, if the iron be made very hot, you must pass it quick and light over the parts; then as it gets cool, you can draw more at your leisure; and if the parts should not be level, you will be enabled to touch lightly those over again, in order to make your work look well. Ring-

bones, or old spavins, require the most severe firing; but sometimes without success. I have in that case fired a second time, which in many instances has had the desired effect. In all cases of firing, the hair must be closely clipped off the parts, for the smoke arising from burning the hair, is apt to confuse the operator.

I have heard of some operators chalking out the lines first, but must confess I never saw such a practice. After you have completed your firing, apply mild blister ointment lightly on the parts. From what I have said above, relative to firing as a remedy in bony and other enlargements, which require time to become absorbed, or the inflammation to be removed, it frequently happens that persons having had their Horses once fired, are in such a terrible hurry for them to get well, that by putting them to labour too soon, they frequently produce lameness again in its worst form. It is from this cause I advise firing a second time, which will be generally found to answer.

ON BLISTERING.

Blistering is an operation of great utility, and when attended with care, it is as safe a one as can be performed. It acts more as a local blood-letting, if care be taken to lance the vessicles, as they may arise; or if not quickly removed, the serum may become again absorbed, and the surface restored by a slight effort of inflammation, without having the desired effect; they become more like what is called *sweating-blisters*, because the cuticle, or scarf-skin does not become raised; but when by continued irritation, by denuding the skin, or by rupturing the vessels, the cutis becomes exposed, suppuration succeeds, and the part becomes thoroughly blistered.

The salutary action of blisters depends first on the stimulus they give to the absorbents, and next on the inflammation they excite, proving a counter-irritant to some other part. Blisters act in the removal of injurious deposits, as enlargements arising from strains of the back-sinews, or ligaments; sometimes they do good when applied to spavins or splents; but should either of the above be of long standing, stronger applications must be had recourse to, or the milder blisters used, and repeated every day. Mercurial ointment, well rubbed in on any bony excrescence, for a day or two previous to applying the blister, will greatly tend to promote the absorption of the offending parts.

In inflammatory affections, we find blisters of great importance, acting as counter-irritants; for it appears singular, that two inflammations seldom exist in the neighbourhood of each other; therefore, when such an affection has taken place in any part, and we wish to remove it, we raise an artificial inflammation in the neighbourhood by means of blisters. Therefore, in inflammatory affections of the lungs and bowels, &c., it is proper to blister the chest, belly, &c., by which means the inflammatory action may be removed from the vital organs, to parts of less importance; for if you blister a Horse affected with inflamed lungs, either in the chest or belly, and if the blister does not properly rise, the Horse from debility will die; consequently shewing that the system requires rousing, though inflammation is going on so strong. The blister ointment generally ought to be bought at the druggists, as it is sometimes made of such an irritating nature, that the poor Horse is put to

the most excruciating pain imaginable, when we well know that the blistering property lies in the cantharides only.

Before you apply a blister, the hair should be cut off as close as possible from the part, and around it. The blister ointment should then be well rubbed in for ten or fifteen minutes, on which thorough application of it, its operation mainly depends. Having done this, smooth the hair downwards, and spread a little more ointment on the surface, with a spatula. If you have occasion to blister the pasterns and fetlocks, apply a little hog's lard to the hollows of the heels. This will often prevent grease or troublesome sores from forming, from the discharge of the blister falling on these parts.

Another caution is, that when a blister is acting, the litter should all be removed from under him, lest the straws tickle and irritate his legs so much, that he may not only attempt to gnaw them, but strike them against the manger, or one against the other; to prevent which the Horse must be tied up to the rack for at least two days, when the principal irritation will by that time have left him. But one thing, particularly mind, never blister a Horse without putting a cradle round his neck; it will prevent him biting his legs, or attempting to do so. Cradles may generally be had at most turners' shops; or should you be obliged to make one, take eight or ten pieces of broom, or mop-handles, and cut into lengths of about two feet long; make holes in both ends, so that you may thread them with a piece of strong cord, and then fasten them around the Horse's neck. The Horse then becomes effectually prevented from biting or tearing himself. If once blistering does not answer the purpose you anticipated, and you determine to blister again, you must first wash off all scurf, with soap and water, that may have been left by the first, before you apply the second blister. When it is intended to turn a Horse out after blistering, care should be taken that all the parts are healed, or flies, dust, &c., may get into the sores, and become exceedingly troublesome.

Sweating blisters are generally of a milder nature than others, and in consequence frequently applied. *See* blistering liniment.

THE

MODERN SYSTEM OF FARRIERY.

PART III.

CHAPTER I.

ON TRIMMING.

Many gentlemen, who are exceedingly attached to Horses, are also fond of performing some minor operations themselves; and in no way so much as trimming the Horse. It frequently fills up a leisure hour in the morning, and there is a self-gratification in being able to perform this operation themselves; and I have known some gentlemen so celebrated for squaring a Horse's tail, that they were frequently invited to perform that operation for many distant friends; consequently, I thought it would not be inapt to introduce the best method of performing the operation in the most gentlemanly and skilful manner.

Trimming, which I consider the principal part of the groom's business, and what every one who has the care of Horses, should qualify himself to perform, as it is allowed to embellish and set a Horse off to much advantage. Many Horses are exceedingly troublesome to trim, and require most extraordinary means to be adopted, in order to accomplish it; such as are shocking to relate. I have known large sums of money given to trim such troublesome Horses. I am of opinion they were made so, from the improper methods taken with them at first, by those who had not patience to coax, nor ability to accomplish by compulsion, and therefore made the Horse desperate, without being able to effect their purpose. Most Horses have such a dislike to be trimmed, particularly about the head, that few stand without the twitch, and if they stand tolerably quiet with that, it is as much as can be expected; but if with a little coaxing, it can be done without, it will be the better. There is great care, skill, and judgment required in trimming: care, that you do no injury by the unsteadiness of the Horse with your scissors; skill, that you may not disfigure him by scoring, notching, and the like; and judgment, to trim him in that style, as will

be most proper and advantageous to his appearance.

Begin then with the head, first, with the fore-top; you are to cut only that part on the forehead, which is in the way of the front of the bridle and stall-collar, cutting it away close and smooth; next clip away that part on the poll, where the head-stall of the bridle, or stall-collar comes, being mindful to clip as little towards the neck as you can avoid; for, if you clip beyond where the head-stall of the bridle comes, you will disfigure the neck. You next come to as difficult a part as any, which is trimming out the ear; and few Horses will stand quiet, without being pinched with the twitch.

Good workmen will make shift with any sort of tools, and bad ones blame the tools for their own awkwardness; nevertheless, handy tools are to be preferred. The scissors, for trimming ears, will be the most handy if narrow in the blades, the points not too pricked; but should cut well at the points. Begin with clipping the inner part of the ear, not cutting near the edges, till you have got the long hair on the inside cleared out, and then gradually approach to the edges, drawing the outside skin of the ear back, that you may not clip so near as to leave the edge of the ear bare, which you would do if you did not take that precaution, and which would shamefully disfigure the ear. The outside skin of the ear is very loose, and as you hold it with the left hand, while you clip with the right, you are apt to draw it so forward, that it deceives you; for you suppose you are not clipping near the edge, but when you let go your hold, you will perceive the edge bare; and this must be continued, or the ear will appear in scallops or notches, so that much care must be taken to guard against this error. When you are near the edges, you cannot be certain where to cut while you hold the ear, you must frequently let go, to notice if you have cut far enough, carefully avoiding to take too much at a time. Having clipped to the edges of the ear, and no farther, the outside hair will stand projecting beyond the edges of the ear, quite even and regular, if you have been careful to clip it so.

At the bur and root of the ear, a deal of long flossy hair grows, which must be partly clipped away; that on the inside you must be careful not to leave in scores and notches, leaving the singeing to accomplish, what the scissors cannot so well effect. You finish with the scissors, by clipping round the edge of the ear the hair that projects, cutting it all round, so that you preserve the exact beauty and shape of the ear; being mindful not to notch, or cut the back hair, so as to shew the roots of the under hair, which will be a disfigurement. Much at the root of the ear must be left for singeing, the scissors will only score it.

You next clip all superfluous hair about his face and beard, which grows like a cat's whiskers; some under his eyes, about his nose, lips, and beard, cutting them as close as possible. Rough Horses, lately come from grass, and coarse-bred Horses, have a quantity of superfluous hair growing very thick under the thropple, and about the throat; this must be removed by the scissors. In the parts least in sight, be mindful to score as little as possible; for it is a difficult task to clip without scoring, and the hair is of that quality and thickness, that you might broil the Horse, before you could singe the scores out; therefore the greatest care must be taken to score as little as possible.

The fore-legs are the next which present themselves; the legs are sure to be particularly noticed, and consequently must have all pains taken with them. Thorough-bred Horses, kept in the stable, and properly groomed, seldom require trimming about the legs, as all superfluous hair rubs off with their dressings; but when lately taken up from grass, a little long hair will appear on the back sinews, and on the fetlock-joints, which may be taken off, by using a little powdered resin between the finger and thumb, which will remove the hair with great ease to the Horse, and facility to the person trimming. Cut the hair that was so compressed, to any length you please, which will leave no scores; and if properly done, it will scarcely be perceived that they have been touched. The coarser the breed of the Horse, the more superfluous hair will be found on the legs, and within the pastern; and where it is abundant, it must be removed with the scissors, beginning next the heel. Clip the hair out clean within the pastern, and under the fetlock-joint. The adjoining part must be nicely tapered, that the sudden break from short to long may not appear, which it otherwise would in scores. For this purpose, put a comb under to raise the hair, and cut in such a manner as to leave the outer hair the longest, whereby the mark of the scissors may not be seen. The soft spongy piece of flesh, at the back extremity of the pastern-joints, may be pared down, if necessary, with a sharp knife, and the hair next above left in such a manner as to conceal it, being nicely tapered off, so as to resemble the legs of a thorough-bred Horse. The hair, up the back sinews, must be raised with the comb, and cut in equal lengths, tapering the hair next the bone towards the sinew, in such a manner that no breaks or scores may appear, the hair next the back sinews being left the shortest.

Horses, like men, are not all equally straight. Some Horses are a little bent at the knee, and where this happens, the hair within that joint must not be clipped too close, as it would make that defect appear more conspicuous, and trimming is to make the Horse appear to advantage; therefore, care must be taken to conceal all the defects you can; but where the legs are straight, all the flossy hair within that joint may be removed, carefully minding to leave no scores with the scissors. Round the coronet of the hoofs the hair should be clipped, making it regular and even. The four legs being thus trimmed, there only remains the tail for the further operation of the scissors, as no scissors is ever to touch the mane, unless the mane is hogged.

Fashion and fancy are ever wavering, and the Horse's tail and ears have been always subject to changes, agreeably to the taste of the times. At one time, a switch tail; at another, a full bushy tail; then a blood tail; and several others; and now, a short switch tail, about a foot and a half long. I suppose that each of these fashions will again prevail at one time or another; therefore I shall notice each of them.

The switch tail requires no cutting; the long hair left on the tail after the end of the dock was broken off, was pulled underneath, and at the sides, with an iron instrument, made for the purpose (but now seldom to be seen but in the carter's stables,) till they tapered it to a point, leaving about eight inches below the dock.

There was much reason in this tail; for since Nature had accommodated the Horse

with a tail, to cast the flies off, and fan himself with, man only took off the extremity which he found annoyed him, when the Horse switched it about in hot or dirty weather, and left the Horse all that could be allowed, so as not to incommode himself.

The bushy tail was allowed to preserve all the hair possible; and holding the tail to that elevation in which the Horse usually carried it, the scissors were employed to cut in a perpendicular direction, within about half an inch of the end of the dock. Scissors were made purposely for this business; the first sort were made nine inches long in the blades, to reach to the top, without the hand putting the hair out of place; but afterwards it was found more convenient to have the haft of the scissors bent like the gardeners' shears, with which they square the edges. There is much art and ingenuity in cutting these tails truly square, leaving both sides of equal length, and leaving no projections or hollows at the end.

The brush tail was suitable to those Horses, that from being well nicked, carried their tails high, and bent upwards; these tails were cut, rounding in such a manner, that when they were up, they resembled the hair of a brush; and much ingenuity is required to cut them true and even.

The blood tail has been much in vogue for many years, and I think is as becoming as any. This requires the least art or ingenuity in cutting. You have only to comb the hair out, and holding it together with your left hand, you cut the ends off square, at a proper length, generally about three inches below the end of the dock; then combing the tail out, hold it up, and correct any irregularities you may perceive. The hair of the blood Horse's tail is generally thin, and of an easy flowing nature; so that the tail cut in this manner is very becoming.

The thin tail is a mean representation of the blood tail; for half, and inferior bred Horses have fuller and more bushy tails than blood Horses. Hence, to bring them to some resemblance of the blood tail, they pluck the under hair to thin it, and by that means make it appear like a thin ragged tail. The ends are squared as the blood tail.

Thin-tailed Horses have been remarked in general to be good ones; whether the fashion was brought up to convey an idea of goodness, or to make them resemble blood Horses, I cannot determine; but the difference is easily discovered, and I think they should be denominated ragged tails. There only remains now to pull the mane, and singe. First, comb the mane thoroughly, laying it very smooth and even. Then begin at the top, and taking hold of a few of the longest hairs at the points with the right hand, separate them from the other hair, by shoving the comb up. If you have hold of no more than, if bound together, would be about the thickness of a straw, twist them round the back of the comb and pluck them out. Then combing the mane down again, take some more and pluck in like manner, till you have reduced that part to the thinness and length you wish. Then proceed in like manner down the mane, and make all alike, repeatedly combing it out. Should you perceive any irregularities, correct them, but not with the scissors. Hairs left longer than the rest, must be plucked, not cut. The fore-top is a great ornament, and should be left long, so that it will tuck under the bridle, and reach three or four inches below; the extreme ragged points

may be taken off with the scissors, so that it is left thin at the points; but not squared, to be thick and bushy. Singeing now finishes the trimming business. Rough Horses, newly taken from grass, usually want much singeing all over, there being long downy hair projecting beyond the rest of the coat, which can only be taken off at the present by singeing; for it would be some time before the daily dressings would bring it off.

Begin with the head. For this purpose you have a candle with a large wick. A shoemaker's candle, that is made with two wicks, is best. The long downy hair which projects beyond the rest of the coat, may be singed to a level with the coat; these you will find in some parts more abundant than in others. The outside of the ears will have some; much also at the root, or bur of the ear. The candle must not continue long in a place, or it may burn the Horse; therefore, where there is much to singe off, you must rub the singed place, let it cool, and apply the candle again; but not to continue it so long as to blister the skin. The places that require the most singeing, are at the root of the ear, the thropple, about the throat, and adjoining part of the neck. On the other parts the long downy hairs will singe down at the first touch; but the places where I have named, where the hair is thick and long, you must wipe the singed part off, and repeat it several times, minding not to burn the Horse, which the thickness of the coat will prevent, unless you keep the candle in one place an unreasonable time, of which you must be careful. Putting your hand over the eye, you singe all the light straggling hairs you perceive about his eyes, brows. forehead, cheeks, beard, and the like. Where there is the least hair, you must be most careful not to burn; but the thropple and throat want many repetitions, the hair being so abundant and thick, that frequent wipings must be resorted to, to see that you do not singe irregularly.

The head and throat being singed with the candle, the residue of the body is singed with straw. For this purpose you draw out some long clean straw, taking as much in your hand at a time, as about the thickness of three fingers, and lighting one end, pass the flare or flame, from one place to another, beginning at his neck. Be careful not to singe his mane; proceeding from thence to his chest, shoulders, breast, and every part where you perceive long and downy hair projecting beyond the generality of the coat, minding not to make your blaze too large, nor continue it too long in a place, particularly where there is but little hair, as under the flank, and within the thighs, &c. Then giving the Horse a good wiping, and brushing over completely, finishes his trimming.

I have to observe, that Horses having been kept for a time in the stable, and properly groomed, have not these long downy coats, and consequently will not require singeing all over the body. The beard, the ears, mane, and tail, are generally all that a blood Horse requires to be trimmed when he is kept in the stable; but coarser Horses will require the heels and other parts to be trimmed, though the coat may be kept so fine as not to require singeing. I have observed some Horses are troublesome to trim. The means usually taken in addition to the twitch on his nose, or sometimes on the ear, are to gag him with the halter, put through the mouth, and over the ear, so that the more the Horse struggles, he gags his mouth and pinches his

ear. To keep the legs still, while you are trimming him, a person should hold up one, while you trim the other. If a hind leg, a side-line may be put on to draw up the leg you are not trimming. These are the usual expedients, but should only be put in practice when the Horse cannot be coaxed to stand without them. The most resolute and troublesome Horse to trim I ever saw, was secured in a stall with two strong halters, the one put on in the usual way, the other as a gag through his mouth. With these he was turned about in the stall, and one halter was tied to each stall-post so tight, that his head was confined in the middle, in such a manner that he had little or no liberty to move it in any direction. The consequence was, the Horse made one resolute effort to extricate himself; but finding himself secured, and the gag punishing him the more he struggled, he was cowed, and submitted to be thus held, while trimmed.

Plenty of litter in the stall is advisable, as it may prevent accidents in the Horse's struggling.

CHAPTER II.

GENERAL OBSERVATIONS ON THE HORSE, ETC.

HAVING finished the treatment of diseases in the Horse, as well as his general management in the stable, we shall proceed with more pleasure in writing upon him in his natural state, than when tortured by disease.

When we contemplate the beauty and majesty of this noble animal, a religious feeling runs through our frame, and no purer devotion can exist in our minds, than when beholding this specimen of the work of God!

Of all the animals in association with man, the Horse occupies the most important rank. He seems made to be caressed and loved. Without him half the happiness of man would be banished. It is not only in his luxuries that he is to be considered; but in his very necessities. Whether it be to till the soil for the nourishment of his master, or to perform the longest and most painful journeys, still he is the ready and obedient slave of man. His full eye beams with pleasure at the sight of his attendant, and his big heart throbs, and often even bursts in the fulfilment of his master's wishes. On the course, and in the chase, how often do we behold him with life quivering at his very nostrils. The elephant is strong—the ox is laborious—but neither are so fitted for the companion of man as the Horse. Look at his symmetry—his large veins—his fine skin—his limbs delicate, though strong—his expanded nostrils, when struggling for fame on the course. In battle, still the protector and friend of man—dauntless and animated amidst the thunder of the cannon. But common language fails in doing justice to him. There is no description of the Horse equal to that of the inspired Job. He says:—

"Hast thou given the Horse strength? Hast thou clothed his neck with thunder? Canst thou make him afraid as the grasshopper? The glory of his nostrils is terrible. He paweth in the valley, and rejoiceth in his strength. He goeth on to meet the armed men. He mocketh at fear, and is not affrighted. Neither turneth he his back from the sword. The quiver rattleth against him, the glittering spear and the shield. He swalloweth the ground with fierceness and rage: neither believeth he that it is the sound of the trumpet. He sayeth among the trumpets ha! ha! and he smelleth the battle afar off, the thunder of the captains and the shoutings."

Job was a native of that country from which our English breed of Horses has been so much improved by the importation of Horses from the desert. How poetical is his description of the Horse.

While looking into the book of Job for the above quotation on the Horse, we noticed also his description of the wild ass, as being an animal of great speed, so foreign to the present state of our domestic breed. It recalled however to our recollection having seen an account which equally corroborates the truth of Job's remarks upon the ass, as well as those of the Horse. We shall present it to our readers, because we think it a curiosity in itself, as we much doubt from what we have seen of the breed in this country, even if we could obtain a cross from it, it would add much to the speed of those patient but often persecuted animals. It is perhaps only in his indigenous and wild state, that such speed and energy would ever take place. The extract we make is from "Porter's Travels in Georgia," and runs thus:—

"THE WILD ASS.

"The sun was just rising over the summits of the eastern mountains, when my greyhound Cooley, suddenly darted off in pursuit of an animal which my Persians said from the glimpse they had of it, was an antelope. I instantly put spurs to my horse, and followed by Sadak Bey and the mehmander, followed the chace. After an unrelaxed gallop of full three miles, we came up with the dog, who was within a short stretch of the pursued, and to my surprise, and at first, vexation, I saw it was an ass. But on a moment's reflection, judging from its fleetness it was a wild one, a species little known in Europe, but which the Persians prize above all other animals, as an object of chace, I determined to approach as near to it as the swift Arab I was on could carry me. I happened to be considerably before my companions, when at a certain distance, the animal made a pause, and allowed me to approach within pistol-shot of him. He then darted off again with the quickness of lightning, capering, and sporting in his flight, as if he was not blown in the least, and that the chace was his pastime.

He appeared to me to be about ten or twelve hands high; the skin smooth like a deer, and of a reddish colour; the belly and hinder parts partaking of a silvery grey; his neck was finer than that of a common ass, being longer, and bending like a stag; his legs beautifully slender; the head and ears being large in proportion to the gracefulness of his general form, and by them I first recognized that the object of my chace was that of the ass tribe; the mane was short and black, as was also a tuft which terminated his tail; no line whatever ran along his back, or crossed his shoulders, as is seen in the same species with us."—"Who hath loosed the bonds of the wild ass, whose house I have made the wilderness, and the barren land his dwelling: he scorned the multitude of the city, neither regardeth he the crying of the driver; the range of the mountain is his pasture," Job.

But to return to our subject:—the Horse too often ends his life by our ill usage. His carcase becomes the food of other animals, and his skin, even his poor skin is in constant demand for the important branches of manufacture, conducive to the comfort and happiness of man.

An animal to whom man is under so much obligation, one might suppose would be

treated at least with kindness and respect; it is not enough for us to cure diseases, we should endeavour by humane conduct towards the animal to prevent them. If we could but establish humane consideration in the breasts of men towards the brute creation, we should do more for the poor Horse than the whole of the veterinary establishment.

THE INCUMBENT DUTY OF MAN TO PROMOTE THE COMFORT OF THE LOWER ANIMALS.

Having established the claims of the Horse to the gratitude of man, we may ask how have they been requited? An enquiry into the treatment of this noble animal would, we fear, disclose that kindness was the exception, while cruelty was the general rule.

We do not wish to appeal to the passions, and to mislead by declamation; but we would ask,

Have brutes any rights?

Have they any claim upon us for good usage; or were they only created for our convenience, and to be abandoned to our cruelty, or to our caprice?

If power be conceded to be the origin of right. If the superiority of intellect which man possesses, has enabled him to make the brute creation his slaves, and that having enslaved them, he has a right to the full exaction of their services; still, the mode in which those services could be most advantageously exacted should be the guide of his conduct to them; and when we have linked ourselves in society, the manner in which their services may be rendered most valuable to the community, as well as to individuals, should be the guide of action; and then comes the question, Will mild or cruel treatment, moderate or murderous exactions of service, care or neglect, regulated conduct or wild and unfeeling caprice, best conduce to our obtaining all we can enjoy from the subjugation of the inferior creation?

While we are perfectly willing to admit that man has the dominion given to him by a Superior Being over the brute creation for his use and his comfort, yet the moment he abuses that power by cruelty and oppression, as a sentient and intellectual being, he becomes responsible to their Creator, who will not be regardless of the sufferings of his inferior creation.

But there are men who are perfectly regardless of every thing but their own interest, or would sacrifice an animal to the wantonness of arriving only half an hour sooner to the end of a journey. It will not be expected that any thing we could say, would have much effect on men so heartless; but we believe much mischief may have arisen from thoughtlessness and want of consideration, or to the want of knowledge of the powers of the Horse, scarcely suspecting that animals have feeling.

But if we place the animal only in a selfish point of view; if we value not his feelings, but look upon him only as a machine, divested of blood, bone, and muscles; if such were the fact, then would the machine be treated with more tenderness than the noble Horse, because the machine, though made by man, once put out of order, requires the attention of a skilful artist, and consequently the expenditure of much money. Money is of more consequence than animal feeling.

Then treat the Horse as you would your machine, tenderly. Recollect that the living machine whom you treat with more contempt and disregard than a wooden machine, made

by man, has nerves, blood—as sensitive as your own—as "fearfully and wonderfully made," and is the production of the same mighty power as yourself!

It would need no laboured detail to show that in the treatment of our quadruped servants, that humanity and interest might go hand in hand; that the advantage which we derive from our slaves would be commensurate with the care we took to put them in a condition to labour; to maintain them in that condition; to give them the disposition willingly to exert themselves for us; not to tax them beyond their natural powers; to restrain our own occasional ill-temper, which would lead us to transgress the rules which self-interest had established, and which might gradually form in us a habit of passion or cruelty inconsistent with these rules; to restrain deviations from them in others, and for the same reason, lest habits should be formed inconsistent with the general interest, and bad example should give them extension; and by degrees to associate with this principle of interest the aid of eeling, a ffeeling honourable and pleasing, aye, and beneficial too; the feeling of humanity.

It is melancholy to reflect that with a large paid church establishment, the moral feelings of Englishmen towards the lower creation of animals are in a more degraded state, than, we believe, in any other nation. We wish we could arouse the clergy, whether voluntary paid or otherwise, to denounce from their pulpits this barbarous and national disgrace, and that through the influence of their immediate hearers, it would extend to the lower grades of society, and extirpate for ever those abominable cruelties towards the Horse, which no man of humanity can witness even in the streets of London, without his feelings being lacerated to the quick.

We allude particularly to those abominable nuisances Cabs and Omnibusses. [We object not to the use but the abuse.] We behold daily racing in the crowded streets of London, as perilous to its perambulants as it is cruel to the Horse. Good God! if a list of the killed and wounded were published that have fallen martyrs to these villainous drivers, in the last ten years, it would form an army. Who are to blame? we say the Legislature—the Government—"salus populi suprema lex."

It is no satisfactory answer to me, when I expostulate with an omnibus driver, as to his senseless, mad, and dangerous career, to be told that Mr. So-and-so's omnibus is coming up, and if he does not get before him, he will be driven off the road.

If private speculations of this nature are allowed to take place detrimental to the safety of the public, it then becomes the duty of Government to provide such restraints, as shall guarantee its safety, or in the failure of those restraints, take the whole responsibility on itself, by appointing such officers as shall ensure safety to the public and free the noble animal from those exorbitant and unjust demands upon his strength, which constitute cruelty.

It may be considered presumption in the writer of this article to propose any plan for the adoption of the Legislature that would effect an alteration so devoutly to be wished for, as the prevention of cruelty to the Horse, as well as to provide for the safety of the inhabitants of this great metropolis in putting down racing or violent driving.

If asked for his opinion, however, he should be about as laconic in his replies, as the sailor

who when asked what he liked best, said rum ; the next thing best, rum ; the next, rum !

If asked what was the best remedy to adopt, we should reply humanity ! the next, humanity ! the next, humanity ! Could we but introduce humanity among the drivers of our Horses, there would be no law necessary for the prevention of cruelty. But the poor Horse ! that noble animal (the most generous of all quadrupeds), from time immemorial, has been cursed with the association of man, of the lowest grade, and whose cruelties towards him, as well in the stable* as on the road, the knowledge of which sickens the heart of a humane man, and makes him regret to belong to the species.

But we are aware, however our indignation may be aroused by perpetrators of such atrocious cruelty, that the way to reform them is not by abuse ; if we could convince them that a Horse has feelings, and that they would go and sin no more, our right hand of fellowship should be extended to them; and we could almost answer for a general amnesty from the Horse himself, who has been so long the object of their tyranny and oppression.

The way to improve a man is to teach him self-respect. An enlightened man will make allowances for those who have not received the same advantages as himself; and will distinguish between ignorance and sheer barbarity. The humane servant has often been compelled to perform, under the mandate of a cruel and imperious master, on pain of dismissal, acts of cruelty towards the Horse, which has made his very soul shudder. How many jockeys have received orders to win, it even the entrails of the Horse should drag on the ground, with the threat of dismissal if they did not*.

If then to establish humanity would be the greatest protection to the Horse, how desirable would be its culture. We know it can only be done effectually by the kind and fostering hand of education. We have heard much of the march of intellect, and are very willing to believe it is in progression. The working classes have their institutions, from which they may obtain the most important results ; but the culture of the affection and duty of man towards the lower creation of animals in this country, we cannot but think has been deplorably neglected. It is true we have some honourable exceptions, we have a Society for the Prevention of Cruelty to Animals, the promoters of which, in their attempts to vindicate the rights of humanity, have more often met with ridicule than assistance. It is rather to isolated individuals that we are indebted for the struggle of obtaining humanity to animals, than to a generous sympathy in its favour ; and it is with pain we come to the conclusion, that in England there is an apathy and indifference towards the brute creation, which ill accords with a nation, in many other respects, remarkable for its high character and generous feeling.

If the drivers of Horses, however, have been generally divested of feeling, and of the

* It often happens that when a horse is lame in one foot, he will favour it by standing on the other; and in order to disguise this lameness, it is no uncommon thing to pare away the sound foot till they come to the sensible sole, and by introducing glass, or some hard substance in it, it becomes as painful as the other. Thus both feet being equally painful, with a whip at his extremities, lameness is not discovered.

* Mr. John Lawrence relates having had a conversation with a jockey, who bitterly cried, and who assured him, that he was compelled either to punish the horse in the way he did, or be ruined by leaving his place.

lowest grade, unworthy of the sacred charge entrusted to them—for sacred we believe the charge of animals is, possessing blood, nerves, and as conscious of pain and agony as ourselves; and if men, totally ignorant of their duty to animals, and often to themselves, be employed, it is not to be wondered at, that excesses of all kinds will be committed.

We confess we do not think this subject unworthy the consideration of the Legislature, if by elevating this employment to something like respectability, we should be encouraging candidates of a superior grade, who, possessing sobriety of conduct, and intelligence sufficient to know the relative duties of man to beasts, would treat the animals committed to their care with kindness and consideration.

We wish not to make any unjust or sweeping conclusion against all the present drivers of public conveyances; on the contrary, we know there are many, who do credit to their occupation. On the long stages, they are, we believe, all sober men, and if they commit excesses by driving too fast, it is rather owing to the present system of coaching, than to any wicked or cruel propensities of their own. A drunken man would be incapable of holding a situation on the road a single week, and it has been within our own experience to have noticed the sobriety of the present drivers of stage-coaches compared to what they formerly were.

The cruelty practised by coach-masters on the road, arises too often from competition, the heaviest purse driving off the lighter one. It has been during these struggles that Horses have been compelled to run their stages at the rate of fourteen or fifteen miles an hour. The general fast state of travelling and the desire of passengers to be speedily at their journey's end, however, has been the principal cause, and that, like most other luxuries, without any regard to the feelings and misery of their producers.

Is there to be no latitude placed to the exertions of the Horse? Is there no scale of space that we could limit the Horse to for his hour's work, without cruelty; or that would be fast enough with safety to the passenger, and within the capability of the powers of the Horse, without straining him?

It is we believe within the memory of the present generation that mail-coaches were first established. They were considered to be the fastest and most respectable mode of conveyance. Competition has, however, enabled the public to travel quite as fast, and at a considerable less expence than the mail. So far, so good. If the other coaches were limited to go no faster within the hour than the mail (which, indeed is a fast pace), we think it would be productive of good, and prevent those constant struggles to get first. It would be fixing the maximum of rate, and placing every proprietor of coaches on the same level. Indeed, we think, that if Government had the controul of all coaches, by appointing the guard as in the mail, it would create a uniformity of the rate in travelling, which might be beneficial to the Horse.

At this time, when rail-roads are taking the coaches off in many districts, it might be a favourable opportunity of making alterations which might be uniform, and curtail, if possible, some of those severities under which the Horse labours.

But the crying evil is in London, with omnibusses and cabs. Those ponderous caravans (omnibusses) when first used in London, had three Horses; they now only use two. Two Horses now trot and stagger up Holborn

Hill, Blackfriars' Bridge, and other metropolitan hills, with little allowance made for their acclivity, punishing the poor animals, and distressing their wind; when perhaps only the difference of five or ten minutes' delay in the journey, might have enabled the horses to have performed it with comparative ease.

The French must have noticed our barbarous treatment of the Horse; for they say, "England is a hell for Horses." It is true, they accompany this censure of us by a compliment that "England is a paradise for women." The French are too polite to speak such a home-truth without flattering us a little on the score of our behaviour to the softer sex. We much doubt, however, whether this will be allowed by the French ladies themselves; for we can not forget the triumphant tone in which a Parisian lady finished half-an-hour's badinage with us, when she exclaimed "the empire of woman is in France." Her manner and the seeming conviction of the truth with which she uttered it, prevented on our part any replication. There may be some difference, however, between dominion and paradise; though we think we know some ladies who would not acknowledge it to be paradise without it.

We think it a great national disgrace to be said "England is a hell for Horses." It is a verdict of barbarity against us; and the justice of such a verdict cannot be denied by those sons of England, who, however they may regret such imputation, feel that it is too true, and the only reparation they can make for the disgrace of so severe a stigma, is to strenuously exert themselves, and endeavour to erase it from the catalogue of England's crimes.

It has been in England, where the most crying barbarities have been inflicted against the lower animals. Cock-fighting, dog-fighting, bull-baiting, bear-baiting, &c., have been till within these few years, the general sports of the lower order of Englishmen, and encouraged too often, even by the presence of the aristocracy. The Legislature has, however, succeeded in making these sports penal; and has placed them, with the Horse, under protection. It is, however, to be hoped that the morality of the nation is still on the increase, and will second the enlightened views of the Legislature, so that in a little time, we may speak of such barbarities as the crimes of other days, and that the cruelties at present practised upon the Horse will be prevented, from a proper feeling and consideration to the animal, rather than to any police restraints.

We have thought that licensing public drivers might prove some restraint to careless and violent driving. That if a man obtained a recommendation for steadiness and sobriety, (no others should be licensed,) it might be the means of weeding or taking away the worst characters from the box, as well as to shew them the necessity of reforming their habits; as without the qualification of sobriety, they should not be deemed worthy of public employment.

Now we cannot but think that this plan would guarantee some security to the public. The driver's residence would be known, and he would be held responsible for any improper conduct, which would prevent the present collusions so often practised by proving an *alibi*, which in old Weller's opinion (and he was a coachman) was the best defence that could be offered. We, however, look upon it only as a restraint, conscious of the difficulty of proposing any thing which might not meet

with objections. We know also that the box has become the profession latterly of members of some distinguished families, which we hope may tend to redeem the profession from the low grade in which it has been generally considered, and by these means improve the treatment of the Horse.

We know and feel perfectly convinced, however, that humanity must pervade in the public mind more generally than at present, before the Horse will be emancipated from those unnecessary cruelties which at present reflect so much dishonour on our national character.

At the students' dinner of the Veterinary College, which Sir W. Blizzard presided at some years ago, he gave a sentiment which should never be erased from the memory of those who heard it, and should be perpetuated to future generations; because it is founded on the principles of justice and enlightened philosophy. "Remember, gen'lemen (said he) that your reputation and success must be founded on the UNION of SCIENCE and HUMANITY!"

We shall give also the opinions of an able writer, whose knowledge and abilities seem to us particularly to qualify him for the task he has undertaken (and whose sentiments so strictly coincide with our own) the protection of the Horse, from the cruel and barbarous treatment he receives from the hands of the medical students of the Royal College of Veterinary Surgeons. It is deserving of the most serious consideration.

"The object of our profession is to mitigate or remove the pains and diseases of those who have, although our slaves, common feeling with us. Can we honestly, heartily, successfully, employ ourselves in this, if we do not sympathize with them; if we do not love to see them happy, and contemplate their sufferings with regret? Can the brute who regards them as mere machines, devoid of rights, placed without the pale of justice, created merely for our purposes, and to be sacrificed without crime to our caprices; can he, by possibility, so identify himself with his profession as to neglect no opportunity to mitigate pain, and to spare no exertion to increase enjoyment? This is the duty, and ought to be the pride and the pleasure of every veterinary surgeon. Regard to reputation, and sense of duty to our employer, are powerful principles of action; but there is another as powerful, which the scenes we daily witness, and the means by which we live, should form and establish—sympathy with the feelings of our patients. What! with the feelings of brutes? Yes! brutes as we call them, but who possess, in common with us, attention, and memory, and imagination, and reason, and ideas of reflection, and feelings of gratitude, and truth, and duty; in fact, all whose intellectual and moral powers differ from ours not in kind, but merely in degree.

"Dare we trace the education of the veterinary surgeon so far as humanity is concerned? See him at the College attending a necessary but severe operation, jostling and wrestling with his fellows for the best view; execrating the struggles of the agonized animal, and mocking its groans; not one expression of commiseration heard from a considerable proportion of the spectators; not one calculation how far a part, at least, of the torture may be saved, consistently with the object of the operation; the loud laugh and the ribald joke drowning the voice of the operator; or the operator himself, when not too much

annoyed by the shameless indecency of the scene, pausing in the midst of his work, and joining in the laugh. We have sometimes thought that if a stranger were present at this unnatural exhibition, he would imagine that we were training for purposes of brutality, and not of humanity; and be very cautious how he entrusted a valuable and generous animal to our tender mercies: and sure we are, that scenes like these are more calculated to train us to become butchers than surgeons; and hence, in a great measure, it is that so many of our operations are performed in a butcher-like and unprofessional manner. We are aware that one of the most important requisites in a surgeon is perfect self-possession; and that the feelings of the patient should, for a moment, merge in the important object of the operation; but this is different from those exhibitions in which there is no previous comparison of suffering and advantage, and no subsequent commiseration. It cannot be denied, that circumstances do sometimes attend the operations of veterinary surgery, which would meet with universal execration in the theatre of the human surgeon: the inevitable consequence of this on the mind of the young practitioner has not been sufficiently calculated; or rather, the error has been, that we have not felt ourselves bound to regard the feelings and the sufferings of the quadruped.

"A more protracted residence at our places of veterinary tuition, by bringing young men of superior stations in life, and better previous education, will, by degrees, correct these principles and habits, which too much characterise, and yet disgrace the groom and the smith.

"Practice alone, founded on anatomical knowledge, can give expertness in operation. The human surgeon practises first on the dead subject; and his instructor or his senior, standing by, can explain the reason, the importance, or the danger of every step. The veterinary pupil has advantages far superior to those which are enjoyed by the student of human surgery. At the knacker's he finds a constant supply of dead subjects, and he procures them, or the parts he wants, at a cheap rate. But this does not satisfy him—he, *vox faucibus hæret!* with fewer operations generally to perform, and still fewer of importance, practises on the *living* subject. A knot of pupils go to the knacker's; they bargain for some poor condemned animal; they cast him, and they cut him up, and torture him alive. They perform the nerve operation on each leg and on each side; they fire him on the coronet, the fetlock, the leg, the hock, and the round-bone; they insert setons in every direction; they nick him, they dock him, they trephine him: when one is tired of cruelty, another succeeds; and, at length, perhaps they terminate his sufferings by some new mode of destroying life. Did the Coopers, the Greens, the Brodies of the present day thus acquire precision and judgment; or, if they had, would they not have been supposed to have been qualifying themselves for the office of familiars at the Inquisition, rather than of humane surgeons? would they not have been detested while living, and held in lasting execration when dead? But these operations on the living subject teach the youngster how to accommodate himself to the struggles of the animal; how to feather his lines with mathematical exactness, and to acquaint himself with the true colour produced by the iron when it has seared the skin sufficiently deep! Would not one or two operations on the real patient

have given all that would be necessary, without engaging the conservators of the health and enjoyment of the Horse in the function of demons; and giving them an indifference to suffering and a callousness of feeling, which taints the whole course of their after practice?

"That school wants reform which by the dearth of operations that are committed to the pupils tempts to the commission of atrocities like these. Every pupil, after having been compelled to operate once, or twice, or thrice on the dead subject before the Professor, should, in his turn, be called on to operate on the different cases which are brought to the College. Under the immediate inspection of the Professor there could be no danger to the patient; and one operation, every step of which was guided and directed by the Professor, would be more useful to the student than a hundred at the knacker's yard; but according to the present system, nearly all the operations are performed by the Assistant-Professor and the Demonstrator; and the pupils are permitted only to look on. Some alteration is here imperiously required."

The above article contains such humane and correct advice to the veterinary student, as well as to the profession generally, that we think we are doing a duty to humanity in laying it before our readers. There is contained in it the practice of students towards the knacker-horse, the cruelty of which it is impossible to reprobate too much. We must repeat it; it shall stand by itself, without a sentence before or after it.

"A knot of pupils go to the knackers; they bargain for some condemned animal; they cut him up, and torture him alive! They perform the nerve operation on each leg and on each side; they fire him on the coronet, the fetlock, the hock, and on the round-bone; they insert setons in every direction; they nick him, they dock him, they trephine him; when one is tired of cruelty, another succeeds; and at length, perhaps they terminate his sufferings by some new mode of destroying life!!!"

Good God! It is useless to comment on this barbarity. There it stands in all its native enormity. This is the gratitude shewn to a noble and generous animal, who has been worn out in the service of man; perishing, perhaps, by inches; and at length tortured by painful experiments, to see how far cruelty could go, before life became extinct!

This is a Christian country, and how often do we arrogate to ourselves that humanity is its consequence; and with what disdain and contempt do we speak of other nations not under the same ban. Let us look, however, with respect upon those nations, when although not acknowledging the same creed, teach us how to behave to animals, and to feel that faith alone is not sufficient either to make or prevent good works.

As a pleasing contrast to the behaviour of our own countrymen, we copy with great pleasure the following account of the manner in which the Turks treat their animals. It ought to make us blush.

TURKISH HUMANITY TO ANIMALS.

Much is said of the humanity which Mussulmen display towards animals. A singular proof of it occurred during this siege (of Athens). Finding them suffering from thirst, the besieged lowered a number of asses, &c. into the hands of the enemy, choosing rather that they should live in the possession of the

infidel than perish miserably with themselves. It is even more singular, that two of these animals were actually preserved alive to the end of the siege: their owners had probably some private supply of water, which they preferred to share with beasts rather than with their dying brethren. When the Greeks first obtained the possession of the town, they commenced a terrible persecution of the storks, driving them from the chimney tops and old ruined columns, where they had enjoyed, under Mahometan protection, so many centuries of hereditary security. The sight of this barbarity is believed to have enraged the Turks even more than the destruction of their houses and the violation of their mosques."—*Waddington's Visit to Greece.*

The morals and generosity of the Turks have been frequently alluded to by modern travellers. The comparison made between the modern Greeks and Turks, are by no means flattering to the former. We recollect Byron compliments the Turks in taking his bills with little or no sacrifice to him, while the Greek merchant was both huckstering and expensive.

In finishing this chapter, a great part of which has been dedicated to the cruelties practised on the Horse, we can assure our readers, that it is not our intention to inculcate any morbid sensibility, or to pretend to any affectation of kindness more than is necessary for the protection of the Horse. We feel quite assured that we have a right to the services of all animals, and our object has been only to call the attention of man to distinguish between the uses and the abuses. Our desire is to inculcate that humanity, which, as rational and intellectual beings, we ought to exercise towards the lower creation. They have the same right to a kind and considerate treatment from us, as we have in return a right to their services. Let us then adopt a mild and conciliatory conduct towards them; and, instead of cruelty and harshness, treat them as companions and friends—

"That mercy I to others shew,
That mercy show to me"

CHAPTER III

EARLY HISTORY OF THE ENGLISH HORSE, IMPROVEMENTS OF THE BREED, ETC.

We now proceed to give a concise history of the Horse, and to trace the improvement of the indigenous breed of this country to its present exalted state. It will show that our efforts have been crowned with the most decided success, and that our English Horses are vastly superior to the parent stock to which we have been first indebted for their improvement, whether in size, strength, or speed.

EARLY HISTORY OF THE ENGLISH HORSE.

The early history of the Horse in this country is involved in too much uncertainty to speak of with any precision; but it is said that they were comparatively small in size, and of a wild and uncultivated form. At a very remote period, lost in the obscurity of ages, the Horse was probably introduced into this island. Whether he was, or was not indigenous to it, previous to those vast organic changes by which the whole of our globe and its inhabitants was at some time visited, the rapid advances in the science of geology may perhaps at some future time determine. It is said Cæsar found the British Horses regularly harnessed to the war-chariots; but it is supposed likely, that after England had advanced from barbarism into a tolerable degree of civilization, the use of the Horse was principally diverted to domestic purposes, because our insular position made the ocean the great arena of our warfare, and which tended to lessen the importance of cavalry until the breaking out of the civil wars.

Unfortunately we are without any authentic records of the state in which the breed of the English Horse was found, beyond, comparatively speaking, a recent date. We know almost nothing of it before the Commonwealth. With the Restoration comes the merry monarch, who set racing going again, which had just lived a fitful season during the reign of the first Charles. At this period (with the exception of a few Arab stallions and mares of a most uncertain lineage introduced during the last reign,) the description of Horses to be met with in Great Britain consisted of the aboriginal race, similar in its characteristics to the Irish "Clib," and Scottish "Shelty," of the present day; the ponderous Norman war Horse, and the unwieldy Flanders mare, used by the nobility to drag their state coaches and to carry the pillions upon, which our buxom

great-grandams were wont to jig behind their burly masters. It would be easy to trace all the variations of the Horse known in this country by the very significant names of "half-bred" from these three sources. Of course we look for them no further back than the first introduction of Arab and Persian blood, and we find them the produce of the stallions of those countries crossed with the English, Norman, and Flanders' mares. Thus from the first descended the old English hunter, shewing all the cross-made, hardy frame work of his dam, the blood-like head and flat sinewy legs of his sire. The roadster from the same sire was the produce of the second class of our native mares. As distinct classes, probably no specimens of either are now to be found, their descendants constituting the endless ramifications of the real cocktails, the machiners, hacks, and all the tag-rag and bobtail, by which the drudgery of town and country is performed.

CARRIAGE STOCK.

The Clevelands, and the powerful blood-like carriage stock, bred in Yorkshire, and other northern counties, came from the best of the Norman mares, crossed by the Arab only, the Persian blood being considered less likely to throw stock combining symmetry and substance.

THE CART BREED.

The cart breed was the cross between the Norman stallions, and the largest of the Flanders' mares, a race substituted in latter years for the pack-horse (bred probably from our own breed and Norman Horses), when the improvements in roads enabled the adoption of wheel-carriages for the transit of merchandize to supersede the conveyance by back loads. Thus the aboriginal blood, dwindled and impoverished by an uninterrupted course of breeding in-and-in, by the introduction of fresh seed, became renovated and invigorated; the common consequence of such change, whether in animal or vegetable life.

It speedily became obvious to all who were engaged in breeding cattle of every description, that vast advantages resulted from the CHANGE OF BLOOD, and hence arose the practice of hiring the males of various kinds from distant districts for the season, a custom to which, as much as the improved methods of treatment, we owe the excellence of every species of our live stock. Perhaps, it is hardly necessary to observe, that to the difference of soil, is to be attributed such variation in the latter breed as have now settled into distinct classes. But to return to the foreign blood, whence by mixing it with our, and such as was already domesticated among us, we have derived the most useful sorts of our stock, we find the thorough-bred Horse, purely and essentially, an alien.

THOROUGH-BRED HORSES.

Taking the middle of Charles the First's reign, as the date of the introduction of the Eastern Horses into this country, it allows us just two centuries for the manufacture of the English thorough-bred breeds, in its form as it is found here, and here only. To preserve it in its purity, Arab and Persian mares were also imported at the same period, their produce then, as now, being considered and treated purely with reference to the turf, as its ultimate destination. The cross between the Arab stallions and the native mares, was held as the fittest for the field—strength, with

a little breeding, enabling any thing on four legs to canter from day-light to noon, alongside the long-eared, short-legged harrier, or beagle of that day.

In the reigns of Henry the Seventh and Eighth, and on the cession of the long continued contest between the two Roses, government shewed a particular anxiety to promote and extend the breeding of Horses; but by arbitrary regulations and restrictions, not well calculated to answer the ends proposed. The ancient prohibition to export Horses, particularly stallions, it is said, remains yet upon our statute book, although from its antiquity and impolicy, it has long since remained a dead letter.

In the reigns of Elizabeth and James, a considerable number of writers appeared on the subject of the Horse, and of Farriery. Blunderville, the earliest now known, and one of the ablest of them, describes the generality of Horses in the reign of Elizabeth, as either weak or sturdy jades, adapted only to draw; with, however, some indeed very creditable exceptions. As an example he states the fact of a Horse having travelled for a wager eighty miles within the day. The great breeders of the country (he says) had been accustomed to import the following races for the stud, "The Turk, the Barbarian, the Sardinian, the Neapolitan, the Jennet of Spain, the Hungarian, the high Almaine (German), the Friezland, the Flanders, and the Irish Hobby." Nevertheless, in those days Horses could not have been very numerous in England, since the Queen experienced the utmost difficulty in mounting two or three thousand cavalry.

Throughout these early periods, as in modern times, riding on horseback, and trying the speed of their Horses, was peculiarly an English diversion. The country sports of hunting and hawking are of very ancient date; and our old chronicles furnish us with accounts of the constant diversions in Smoothfield (Smithfield), then an extensive plain, where the citizens of London matched and raced their Horses; the superior orders joining with the citizen in these sporting and amusing competitions.

The peculiar English system of breeding the Horse, essentially and usefully different from any other country in Europe, had an early commencement; but as might well be expected was confined to the superior, chiefly to the sporting classes. This system has been gradually and progressively improved to the present time; during which we have produced specimens in every variety of the animal, bordering on attainable perfection; such, however, it must be acknowledged, have been, even in our latest and most vaunted periods *raræ aves* sufficiently scarce; and our numbers of scientific and judicious breeders have at no period formed the majority. The average, however, of English Horses, has possessed a fair proportion of the English principle. Hence their continued demand for foreign studs.

This national principle of Horse-breeding consists in matching the Horse and mare in respect to size, substance, blood, and a certain conventional symmetry, so as to obtain a form in the foal, in which may subsist a union of strength and ability for labour, with the powers of activity and speedy progression. We proceed on the principle that generally, and subject to the natural and unavoidable dilemma of exception, "like produces like." So said, and so found that renowned cattle-breeder, Bakewell.

As we imported foreign Horses, invariably

improving upon those models, so we originally imported the art of farriery and veterinary science from the schools of Italy and France, improving upon them likewise. In the early periods above quoted, the farriers of note, and the riding-masters in England, were generally Italian and French. Those, indeed, were sufficiently barbarous and unenlightened; our native artists inconceivably so, when the length of time is considered, through which their art had been in universal practice in all its branches.

There is we should think still one breed of Horses, which may be considered aboriginal in Great Britain, and if the attempt should be ever made to improve their size, must soon again degenerate, from the nature of the soil which they inhabit. We allude to the Shetland ponies. The description of these astonishing little animals almost exceed belief; they are less in size than the Orkney Horses, for some will be but nine, others ten hands high, and they will be thought big Horses if eleven; and although so small, yet they are full of vigour and life. Some not so high as others often prove the strongest. There are some which an able man could lift up in his arms; yet it is said they will carry him and a woman behind him eight miles forward, and as many back. Summer or winter they never come into a house, but run upon the mountains, in some places like flocks; and if at any time in winter they are straitened for food, they will come from the hills when the ebb is in the sea, and eat the sea weed (as likewise do the sheep). Winter storms and scarcity of food brings them so low that they do not recover their strength till about the 24th of June, when they are at their best. They will live to a considerable age, as twenty-six, twenty-eight, or thirty years. They will be good for riding at twenty-four; especially they will be vigorous and live longer, if they are not put to work until they are four years old. Those of a black colour are judged the most durable. The pied often prove not so good. They have been more numerous than they are now. The best of them are to be had in Sanston and Easton; also, they are good in Waes and Yell. Those of the least size are in the northern isles of Yell and Unst. The coldness of the air, and the barrenness of the mountains on which they feed, and their hard usuge, may keep them little; for if bigger Horses are brought into the country, their kind will in a little time degenerate.

After viewing these little shelties, which are almost of as much importance to the cotter of that district, as the fleet Arabian of the Desert is to his master, we feel lost in admiration at the wisdom of that Power who has adapted animals just to suit the situation in which they can render the most serviceable assistance to man.

As the Arabian breed of Horses has been the principal source of improvement to our stock, any account of him in his native districts, will prove interesting.

THE BEDOUIN ARABS OF THE DESERT AND THEIR HORSES.

So many contradictory and romantic tales have been propagated about these Arabs, that we consider the following faithful narrative of an eye-witness, M. de Portes, Equerry to his Majesty the King of the French, must be acceptable to our readers.

The arrival of an Arabian horde in the Desert is a very extraordinary sight. First appear a few horsemen on their mares, sweep-

ing along like the wind, armed with long lances, encircling in a gallop the place where they intend to halt, and each individual chooses a particular spot according to his own fancy; and immediately drives his lance in the ground, and fastens his mare to it as a sign that he will pitch his tent there. Now a great many are coming up, some on Horses, but most on camels, and in the distance a formidable army is seen marching up, *pele-mele*, very fast. These are the Arabian families and the gross of the tribe, with their tents, baggage, and camels; some of these animals carrying women or children, others tents and furniture, and an innumerable lot following quickly on foot. Those conveying the families are accoutred according to the wealth of the owner. That of the Cheick, whom I saw, carried a sort of palanquin in the shape of a canoe, placed at length, and open in front to direct the animal, containing three or four women and as many children in a state of nudity. Each family now takes the direction for the lance, which they well know, and in a few moments afterwards a town appears to have been built. Naked children are running about and gambolling in the water wherever they can find a ditch.

The camp is pitched without the least regularity, only the tent of the Cheick is in the centre, and distinguished from the others by its larger size; they are all made of camel or goat skins, without elegance or neatness, fastened by two poles of six feet height. The interior is divided by a carpet, one half for the women, the other for the men, and to receive strangers. The furniture consists of a few carpets, straw or reed mats, which serve as a bed, (some of the poorer sleep on the bare earth only covered by a *habas*,) the most necessary utensils for cooking, such as a pot of metal, a large metal or wooden plate, a cup of zinc or wood, out of which they all drink without being cleaned, a coffee-pot of copper, and a cask fabricated of camel skins.

Their toilette is as simple as their cooking utensils: the men wear a long wide shirt until it actually becomes rotten, nor do they take it off but at night, when they lay on it, only covered by a *mechlas* of coarse wool; and go barefooted. The Anaze's Arabs, however, shew a little more elegance: they never leave their tents unarmed; their weapons consist of a sword, a bad gun, and a lance; or axes, hammers-in fact of anything with which they may destroy life.

The women wear a long shift of blue linen, a black veil, drawn in a knot under the nose, and gently falling down on their body; they often let it fall to shew a large ring drawn through the right nostril and fastened with a chain to the temple. They are fond of shewing their lips, painted with blue colour, and they have many figures engraved on the chin, cheek, nose, and neck. They never leave their tents uncovered: they are above the middle stature, walk nobly and gracefully; their black eyes are very beautiful, and appear larger as they paint their eyelids; their nose is well formed, but the remainder of their faces is disfigured by many different marks. Their hands and arms are always handsome, but their feet are rather wide, never having been compressed by shoes.

The children walk about naked, the boys only wearing a tightly laced girdle of leather round their bodies. I inquired after this custom, and was told it made them strong and fast runners, nor did they require so much food: the men also wear this belt. They were

all fine children, and I did not see a single one deformed: they are very hardy, fight the whole day, are exposed to a burning sun without injury: they exercise with the lance, and in wrestling.

The women direct the household in the kitchen, and weave and spin the cloth, but the kitchen affairs do not take up much of their time, for though these people are very voracious if an opportunity offers, they mostly live on meagre fare, which rarely exceeds a pilau of red rice with melted butter. During the dinner, sour milk, dates, honey, duphte, &c., is now and then added. The women are obliged to grind the corn, done by clumsy hand-mills. The bread is baked upon iron plates, and resembles a flat cake. Lastly, their duty consists in fetching the water, which is only to be procured but at times at a great distance. I don't think, however, they have much trouble about washing, for both sexes are alike indifferent as regards cleanliness, indeed most disgustingly so.

They are very superstitious, and much less religious than the Osmanlys: many, however, observe the Ramadan, and they pray in company, ranged in one line, with a priest at their head, who makes the most horrible grimaces. Their wealth consists of camels and horses, but no cows—in a few herds of sheep and goats, which yield them milk and butter; they also use camel's milk. The number of camels is very considerable: many possess ten, twenty, and upwards; and their Cheick Donechy owned three hundred, of which they annually sell a great many to the Turcomans, who, during my sojourn in the Arab camp, purchased about two thousand at the rate of two hundred, and two hundred and fifty Turkish piasters a-piece. The evening return of the camels to the camp affords a singular sight to an European—from five to six thousand, followed by their young ones gambolling along the barren ground like goats, and these clumsy looking animals chase and frisk about like gazelles.

This Nomadic people no doubt possesses the finest race of Horses known to us; but such a mass of nonsense, such erroneous and romantic stories have been promulgated, that it will be very difficult to enable the reader to see through the mist of untruth: I shall, therefore, content myself by stating plain and and true facts.

The Arabian Horse in general comes from Nedgit, and they are commonly called Nedji. A more noble race is called Koenlan, divided into five different families, or noble Cherifs, which five races, as the legend goes, originated from the five Blessed Mares of the Prophet, and are named Tonaisse, Gilphe, Manegine, Sedie, and Seclawe. Besides these, there are a number of other families too difficult to enumerate. I must own there are *no* certain signs by which one can ascertain whether a Horse is Nedgedi or Koenlan, for I have conversed with many intelligent Arabs, and they all assured me they could not distinguish them unless the origin of the dam was known to them, and for that reason they kept their mares unstained by the leap of an inferior stallion, which is considered one of the principal sins in the Koran; and this command of their religion they at least follow to the very letter. If by chance the contrary should happen, the Bedouin does not value the foal the least, and however handsome and promising it may be, he will part with it for a mere trifle. If a Koenlan mare is stinted to a Nedgedi stallion, the foal is a Koenlan; but if

only to a Genesidek, the foal also is only Genesidek ; and a foal only of a Nedgedi mare by a Koenlan stallion is Nedgedi, and for that reason you will meet amongst the latter, though an inferior race, many Horses at least as handsome as the first, and even the Arabs cannot distinguish them without knowing the dam's race.

The Arabs have no Stud Book as is generally asserted, nor do they call together a number of witnesses when the covering act is performed, or when the foal is born : all this is false ; for I often have had opportunities to observe a leap in the night, where scarcely any, and but casual witnesses were present. They choose the best Horse amongst their own or neighbouring tribe for a covering stallion, which travels about, as in Europe, and it is very difficult to purchase him, at least during the covering season—the Horse serving three mares daily at about one Spanish dollar each, and travelling from tribe to tribe, at times to a great distance. They allow them to cover as early as two years old, and frequently the mares are not older : it happens, however, that not unfrequently they are worthless at three or four years old. Stallions, mares, and foals all graze together.

The Arab generally rides without a bridle : a halter, with a nose-band covered with iron like a cavesson, serves him instead ; and in lieu of a saddle their noble coursers have only a piece of wadded linen with two napes for stirrups fastened on their back ; and they seldom have the hind feet shod, as in many parts of Germany.

The many scars, from firing, seen in almost every part of the Horse, have been done on purpose, for they know no other remedy for man and Horse, and even young children are covered with them. Many of their Horses—even two year old ones—are disfigured by scars above and beneath the fetlocks, which at first I took for splents, but originate from the iron manacles by which they are fastened to prevent them being stolen ; for during the whole of the day they remain out grazing, and at times leave the camp for a considerable distance : but at night every Arab has each animal before his tent, ties one of their legs, and having only three to dispose of they cannot run far.

The Anaze's Horses I found a much inferior race, and I cannot recommend them for use in European studs.

The Arabs are indifferent about the formation and shape of their stallions : if he runs well, is of the proper origin, and has no *superstitious* marks, they use him as such, and would put him without hesitation to their best mares ; whereas, the most splendid stallion, if his origin is doubtful, and the marks ill-favoured, would not get the worst mare ; and I shall speak of their superstition—the Evil Eye—hereafter. In candour I must own, that though the stallions may possess great faults in their shape, they at the same time have extraordinary qualities, for as soon as they are mounted, all defects vanish : it would be almost impossible to detect any, so noble is their appearance. I saw many stallions with ugly hind-quarters, the tail put on very low ; but when mounted, they carried their tails erect, so that one doubted whether it was the same Horse. A few of the finest Horses had the appearance of English thorough-breds, but were much more active and pleasant to ride, when broken in a little in the European fashion ; for, raw from the Desert, not knowing bridle or spur, which latter is never used

by the Arabs, they walk terrified on any pavement, and can only with difficulty be got into a trot, as they jump out of a walk into a full gallop, and stop as suddenly; but being very docile, they are easily broken-in properly.

I have already stated that the five principal races are said to originate from the five favourite mares of the Prophet, and these only deserve the name of Koenlan, and are mostly met with at Bagdad and Orfa. Those at the Euphrat are taller and stronger, but their muscles are not so finely drawn. Some European judges prefer the Nedgedi to the Koenlan, as one often finds amongst them finer Horses with extraordinary qualities; but the Oriental prejudice always returns to the Koenlan, as their race is bred more in and in, just like our race-horses. It is difficult to say with any sort of certainty whether a Horse is Nedgedi or Koenlan: the former have somewhat of a Roman nose and high forehead: a true Koenlan, with a genuine certificate, has a nose drawn inwards like a jack or pike, large eyes, wide nostrils, a broad front, and a beautiful head. One may buy without difficulty a stallion; but an Arab seldom parts with a mare, and, if pressed by necessity, they manage as follows. First, the price is agreed upon: the purchaser then begins to use the mare, and the first and second foal is delivered to the seller, who, if he likes, has the right to deliver in return one foal for the dam. These conditions often vary, for at times the owner will not sell above a fourth of the mare, which in the Arabian language is called purchasing one foot.

Aware that none of our readers are likely to visit Arabia for the purpose of purchasing Horses, as a better breed may now be had at home, I shall omit giving the particulars of the different tribes of Cheicks of the Desert, of those who may be trusted, and those who are regular cheats, and likewise the translation of the superstitious belief of the Arabs, who are very loth to shew their Horses to strangers from fear of the Evil Eye, and never omit to pray the great Macha Allaa; and if a Horse falls ill after such a visit, they immediately call in a sort of wizard, and who, talking some cabalistical words, breaks an egg on the front of the patient, who, nevertheless, generally dies, and the wizard then gravely says, "God ordained it so," or "it was written so." But a French Veterinary Surgeon at the same time thought proper to administer physic, which saved his Horse, whereas that attended by the Arab died in spite of the egg, the magical words and the golden ring. Some of the prophecies of Mahomed are sheer nonsense, particularly those about colour: others coincide with observations of the present age. If Mahomed actually was inspired by Allah, our wives would do well never to permit their husbands riding Horses who carry the tail on one side, as they are sure to be soon repudiated; and maidens ought to be in awe against bachelors on stallions with white spots on the thighs. Such nonsensical revelations, if known before, might have saved a great deal of money to some European purchasers: they are kept a great secret by the Arabs, but have been translated by Mr. Bandon, Dragoman to Lady Stanhope.

This (the most modern) account of the Arabians and their Horses in the desert, will throw a doubt on former statements which have been implicitly relied on as genuine. The announcement of their not keeping a stud-book, which was supposed by us from the seeming accuracy and detail of pedigree,

which their certificates possess, would have been an object of the first importance to them. Yet, upon reflection, we see no reason to doubt the truth of their not keeping stud-books, as from the care and superstitious reverence in keeping the breed spotless from any foreign taint, their certificates may possess generally the truth, without keeping a register for every individual.

We shall proceed to enumerate the variety of Horses under their different appellations. For example:—the racer or running-horse, the cock-tail racer, the hunter, hack, hackney road-horse or chapman's horse, the cob, the lady's horse or pad, the coach and chariot-horse, gig-horse, charger and troop-horse, the slow draught or cart and dray-horse. In sporting language, the term Horse indicates one uncut, or a stallion. Gelding has ever been a common and familiar term. A Horse below thirteen hands (four inches to a hand) in height, is styled a poney; above that height, and below fourteen hands, a gallow-way. The cob, refers to a truss, short-legged nag, able to carry any weight. The pack-horse has long since disappeared from among us. The cock-tail, a new term in the slang of the inferior turf, indicates a racer not thorough bred. The welter horse, a term of long standing, but of unknown derivation, points to either racer or hunter, master of the highest weight. The designation thorough-bred belongs to the racer of pure Arabian or Barb blood; and the term is likewise applicable to the Horses of other nations of the South East. A nag, in which the show of blood predominates, is called blood-like, or a blood-horse. The degrees of blood in an English Horse are thus expressed, half-bred, three-parts, and seven-eighths bred. The first, or half-bred, being the produce of a racer and a common mare, or *vice versa* (the last cross not so frequent, nor deemed so successful); the second of the racer and half-bred, and the third of the racer and the three-part bred mare. This last may, and has raced capitally, as in the case of the Yorkshire black Horse, Old Sampson, which about eighty years since beat all England. Several other similar examples of successful seven-eighths bred racers, have occurred at various periods. Perhaps no instances have ever occurred, of a three-part bred Horse saving his distance in running two miles with thorough-bred racers.

The Horse and Mare, in a course of nature, are capable of procreation at a very early age, but not with the prospect of their best produce. The rule in this case necessarily depends on the convenience of the breeder; the procreative faculty, with both Horse and Mare, remains to a very late period of their lives, more especially with the Horse, some individuals having been successful stock-getters at upwards of thirty years of age. Four years is generally the earliest period, whether for Horse or Mare. Indeed, unless from particular circumstances, the Mare is seldom put to the Horse, until she has passed some years of labour, or has become accidentally incapable of it. It is probable that the excessive labour which they endure in this country has curtailed their length of days; and that under more favourable circumstances, both their age and their services might be greatly prolonged. Racing and cart colts are put to light labour at three, and even at two years old; but saddle and quick draught Horses are incapable, that is to say with safety, of the usual labour, until five years of age. From the excessive and cruel system of labour adopted, against all

feeling and conscience, in this country, Horses are torn to pieces before their tenth year.

Horses do not arrive at maturity until they are seven years old, according to the opinion of Mr. Clark; but scarcely any are allowed to complete their fifth year before they are employed in the hardest labour, except among experienced sportsmen, who do not consider a Horse fit for their use until he is six years old. During the fifth year he is employed by them in moderate work upon the road, or in riding to cover.

If Horses were used with moderation, there is no doubt but that they would last till they were nearly twenty years of age before they might be called old. It is, we believe, among naturalists, a general calculation that the life of an animal lasts three or four times the length of his coming to maturity, therefore the natural age of the animal would be nearer thirty years of age than twenty. Mr. John Lawrence states that he saw at Dulwich, two Horses, one forty-eight, the other fifty-four, both capable of doing light work. They were the property of his friend, the late Edward Brown, Esq., who had the portraits of both Horses placed in his parlour. This will be a memento for posterity, to learn what moderation in labour, and kindness will perform. It gives us great plesaure in recording the name of this gentleman, who must have been an enlightened and humane master and benefactor to the Horse. That friendship should exist between these two gentlemen will be readily believed; for if one had been the private, kind, and benevolent master to the animal, so had Mr. John Lawrence been the public strenuous assertor of the rights of the Horse, through a longer period than is allowed to most men; and his memory will be embalmed in the grateful recollections of the humane, for his continued struggles to obtain a mild and considerate treatment to animals of the lower creation.

It is painful to behold the crippled state of many young Horses, which shews the excessive exertions they must have undergone at a very early age. The Horses of mail and stage-coaches, post-chaises, &c., afford numerous examples of this. We often find the Horses that have been thus sold as coach or post-horses, are those of superior shape and action, of high spirits, and have perhaps distinguished themselves as hunters, or in matches against time, or in trotting-matches; and being considered unsafe to ride, from their crippled state, are consigned to coach-work, where they are kept upon their legs by the severity of the bit, and the frequent application of the whip. The proportion of lame Horses in this country, compared to those in France, is perhaps as ten to one. This the French veterinarians seem to attribute to their superior mode of shoeing; but, in our opinion, shoeing has nothing to do with it. The peculiar frequency of incurable lameness, or founder, in this country, is entirely owing to immoderate work.

Many men consider that if they but feed their Horse luxuriously, they cannot get too much work out of him; but feeding him well is no excuse for working him unfairly, nor is there any advantage in it; for, although we may thereby render him capable for a time of wonderful exertions, we shorten his life, and interrupt his period of service, by bringing upon him various diseases. We should recollect that the power of the stomach is limited, and so is that of the muscular and nervous systems; so that if we make an unfair

demand upon them, and it is answered, their power is the sooner exhausted. Under circumstances of great exhaustion and debility, rest is the only real and natural cordial to be depended on; but, unhappily, this is too little attended to, and the poor animal is driven off his legs, and comes to the knackers long before his natural period would require, if only treated with care and humanity.

The conventional form of the Horse, as to the great essentials, may be held referable to every variety; for example, the head should be lean, *argutum caput*, neither long nor short, and set on with somewhat of a curve; the throppple loose and open; the neck not reversed (cock-throppled), but rather arched; the loins wide and substantial, more especially should the back be long; the tail not drooping, but nearly on a level with the spine; the hinder quarters well spread, as a support to the loins, and as a security against the approach to each other of the pasterns in progression, from which results cutting them with the hoofs; the hinder legs should descend straight, laterally from the hocks, as a preventive to the defect styled *sickle-houghed* or hammed; at the same time, the curve from the hock should be to the degree that the feet may be placed sufficiently forward to prop the loins, and that the Horse may not be said to leave his legs behind him; the muscles of the thigh and fore arm should be solid and full, though some Horses are heavy and overdone by nature in those parts. The Horse, of whatever description, should not be *leggy*, and, of the extremes, short legs are surely preferable. The canon or leg-bone, below the knee, should not be long, but of good substance, and the pasterns and feet of a size to accord with the size of the Horse; the hoof dark, feet and frog tough, heel wide and open; the fore feet should stand perfectly level, the toe pointing forward in a right line, else the Horse will knock or "cut in the speed," however wide his chest; in plain terms, he will either strike and wound his pasterns, or his legs immediately below the knees, or both; the feet standing even, the Horse being equal to his work, will seldom, perhaps never, knock or cut, however near the hoof may approach. A full, clear, azure eye.

Such are the requisites of form, whether for the racer or cart Horse. For the hack, hunter, or racer, there are certain other requisites of form and quality; the chief of which to be quoted are the deep, backward-declining, and as it is called, the *counter* or coulter shoulder, well elevated forehand, deep girthing place, with sufficient racing blood to give lightness, action, and fineness of hair and skin. This description applies with perfect aptitude to the hunter, which should have moreover great strength of loin and fillet, and should not be high upon the leg. Nor is any addition necessary for the running-horse, but greater general length, which is the usual result of full or thorough blood. As to our coach horses, such is the modern rage for speed, that our mails and stages may well be said to consist, in a considerable degree, of racers and hunters; and our private coaches of hunting-like Horses on a large scale.

In regard to the natural and peculiar form of the slow draught Horse, he carries his substance in a round, full, and horizontal mode; his chest is wide and full; his shoulder rather round and bluff than deep, and its summit, the *apex* or top of the forehand, not high and acute, but wide. Such form seems best adapted to the collar, and to enable the

animal to draw, propel, or move forward, heavy weights; we, nevertheless, daily see numbers of first-rate draught Horses with deep flat shoulders. It used to be held, that a low shoulder facilitated draught; and such was the form of the old Suffolk *sorrel* cart Horses, the truest and most forceful pullers ever yet known; they were the only breed, collectively, that would draw *dead pulls*, that is to say, would continue repeated pulls, going down upon their knees, at an immovable object; for example, a tree. This, draught Horses in general, even the most powerful and the best, as the writer has witnessed, cannot be brought to do, with whatever severity; at the second or third pull, *gibbing*, as it is called, and turning their heads, as if to point with their eyes, towards their failing loins.

The following singular account of an animal between a bull and a mare is so well authenticated, that we cannot have a doubt of its truth. It shews the possibility of a cross from an animal, so dissimilar and discordant, as it would seem to us, and the knowledge of which may act as a caution in preventing the possibility of such another occurrence by keeping both animals separate.

Mr. Gload, Veterinary Surgeon, "says, some time ago I was at Greenwich, and my curiosity was excited upon hearing that a monstrosity was then exhibiting, partaking of the peculiarities of the cow and Horse. The animal seemed to be about fifteen hands high (a mare, if I dare call her so), of the commonest description, and three years and a half old. The most striking peculiarities were in the tail, hips, head, breast, and off fore leg. The off fore leg, from its singularity, claimed my first attention; and I was induced to examine it with great care, as, at first sight, I suspected it might have been the result of disease. The shoulder-blade and the humerus seemed to be shorter and more upright than usual, and the latter bone was thicker, and turned very much outwards. This leg was, in every respect, similar to a cow's; but the similarity was still more evident when I descended to the foot. There were two hoofs, with separate joints, and a natural secretion between them. There was no sign of a frog, but the animal trod upon her heels, and used the foot precisely as a cow. I walked her round the stable several times, and it was really ludicrous to observe the difference in the manner of progression between the two legs. The colour of the hair on the body seemed to present a strange mixture between that of both animals; but it was long, soft, and loosely attached. The head had a very curious appearance: it seemed to be broad at the poll, and the ears were very large, and rounded, and turned backwards and inwards, and covered with long shaggy hair. The lower part of the face projected very much on each side, giving a width very dissimilar to the face of the Horse. There were six incisor teeth in each jaw, but very unevenly distributed; and they seemed to partake much of the mixed character. The breast was wide and hung down, strongly resembling the dewlap. The body, neck, and near fore leg, resembled those of the Horse. The hips, tail, and legs above the hock, were exactly similar to those of a cow. The spinous and traverse process of the ileum projected very much, and the pubis stretched backwards, giving that great prominence of the bones of the ischium always so observable in a cow. The sacral processes did not project, and the tail did not arch over the pubis, as in the Horse, but seemed to fall more abruptly: it

was shaved nearly to its tip, where was left a tuft of hair, which was frizzled, and very like that of a cow. The tail felt very fleshy, and at its base the skin was loosely attached; and the vagina was without colour, and hung down as in a cow. The patellæ were very thick and large, and the hinder extremities, above the hock, were totally dissimilar to a Horse. The mammæ were not very large, nor was the udder unnaturally distended. At this time I related the facts to many veterinarians, and among others to Mr. Sewell.

"A short time since I called upon Mr. J. Skilt, V. S., at Southwark Bridge, and he informed me that he had seen the skeleton of a very strange animal at the knacker's; and wished me to go and examine it with him. I did so; and was much surprized and pleased once more to have an opportunity of surveying the monstrosity I have just been describing; and I am enabled to add the following particulars to my previous description of her:—The occipital and pterygoid processes are large, and the former very broad and projecting, and differing from the triangular-shaped process of the Horse. There are no signs of horns. Just above the three anterior molars on each side is a large projection, similar to specimens of disease wherein the teeth have still remained in their sockets. The three first molars are perfect cow's teeth. The ileum and pubis are laid nearly flat, as in the cow. The number of ribs and vertebræ are the same as in the Horse. All the joints seem to be unusually large. The greatest peculiarity is, however, in the off fore foot; and I am sorry that, from the tenacity of the knacker respecting it, I am obliged to be very concise in my account of it. Articulating with the lower head of the large metacarpal bone is another, altogether shorter and broader than the large pastern of the Horse, and cleft nearly to its middle; and, articulating with each division, are the remaining small bones of the foot. There are two hoofs, separately joined, with a natural secretion between them; but they have grown enormously since I saw the animal alive. The knacker imformed me that he did not perceive any thing in the stomach different from that of the Horse. Any gentleman who wishes for more information can examine this, and many other curious specimens, at Winkley's Yard, in Fryer's Street, Borough. The only history I could learn of the animal was, that the owner had purchased her from the breeder, who stated, that her dam, when very old, had been put out on Finchley Common with a bull; that no horse could have access to her; and that this very singular animal was probably the offspring of the mare and the bull."

The rail-road from London to Liverpool being now nearly, if not quite finished, has driven almost all the coaches off the road. Whether coaching ere long will revive again, seems a matter too problematical to prophesy upon; although we know it is the opinion of some dragsmen that such will be the case. Perhaps the wish is father to the thought; for it cannot be agreeable for any man to be compelled to give up his employment, and it may be very natural for him to indulge a hope that it may yet return. He expects that the expences of the rail-road will be too absorbing to leave any profits, which he says a little time will soon show, and the project will be abandoned in disgust.

We have just given the conversation we have had with one of the dragsmen who had been put off the road, without being made a convert to his opinion; for we know that

in many public companies, though the original proprietors may have been ruined, yet the project has still flourished; and we suspect this will be the case on the present line of road between London and Liverpool. The branches from the populous towns will join it, and rail-road travelling will become the general mode of travelling, while stage-coaching will be the exception.

It then becomes a question how much the breeding of Horses may be affected by it. The consumption of Horses by stage-coaches, must have proved immense; so much so, that it does not seem unreasonable to suppose but that it may limit the breeding of Horses in the same proportion as the demand for them has ceased. This powerful element of nature (steam) controlled by the hand of man, has had the most important results. However paradoxical it may appear, it has made England, in effect, half as large again, while it has reduced her to one-third of her former size. In six hours it will enable passengers to arrive from London to Liverpool, thus annihilating space; and by taking some thousands of Horses off the road, will leave the land that found food for them, to be cultivated only for the use of man.

The use of steam will have the same effect, we know, in whatever country it may be employed, that of diminishing space; but it is in England only where the rapidity of the execution will be unrivalled, and projects so gigantic, have scarcely been conceived before the genius, skill, and capital of this country have forced them into maturity.

It may be an assumption only that the breeding of Horses may be limited in this country, for we are not sure that they may not still be bred for exportation, as they have been much sought for lately on the continent; and although there may be some opinions afloat among ourselves that our racing breed requires invigorating by new blood (of which we shall speak more at large in its proper place), yet, from late demands for English Horses abroad, they seem to be held in high estimation.

The rate of coach-travelling in this country has excited almost as much wonder among ourselves as it has amongst foreigners. It is within our own recollection that the time the coaches took in going from London to Coventry was nineteen hours! Since then there has been almost as much difference between the coaches of that date, as to speed, as between the rate of the present coaches and steam. It must not, however, be considered that the Horses had a sinecure of it; for the roads were not then in the present state of repair, and in wet weather, some of them might be half-axle deep or more. A retrospective view of the roads for coaches within the last thirty or forty years, would prove an interesting article to the juniors of the present day. We avail ourselves of a description by a talented man of the state of the road between London and Parkgate, the principal place of that day where passengers landed from Dublin, before Holyhead became the regular station for the Dublin packets. It is as follows:—

When I was a school-boy, Parkgate, in Cheshire, was the port whence the Dublin packets sailed: there were a few at Holyhead, but there all the principal intercourse between the countries was effected. At that time probably not one craft of any description passed in a month between Dublin and Liverpool. Upon the arrival of a packet at Parkgate, the passengers made their way, as they could best

to Chester, diverging thence to the several places of their destination. I believe there might be a stage of some kind or other that undertook to deposit people within some limited time in London, plying for public hire; but the manner of accomplishing the journey was most usually by means of post-coaches. These carriages were supplied by a person of the name of Paul, of the White Lion, who was celebrated at that period all over England for the magnificence of his stud. With him it was a hobby, and must have been a very expensive one. He kept no colour but greys, and of those he had always from thirty to forty pairs in his stables. I can well remember what splendid cattle they were—his boys wearing black velvet caps, gold bands and tassels, and yellow silk jackets. He built his own carriages, dark brown, lined with scarlet morocco—doing the whole thing upon a scale that we find with no post-master of the present day. A party of six, with one or two servants, would contract with Paul for a set-down in London. He sent with them one of his own carriages, with its team of greys, and postillions: they accomplished the stages as arranged every day, probably of five and twenty miles each, and at the end of eight or nine days found themselves in the Metropolis. With this fashion of travelling commenced my experience of the Road, having made my first visit to Babylon the Great through the agency of one of these long jobs. At a later date I can call to mind, on an occasion of being sent for home in the Midsummer holidays, sticking fast in the middle of the turnpike road between Whitchurch and Malpas—the latter certainly no misnomer. This antecedent of M'Adam was a desert of red sand, quartered by cart-wheels to the depth of two or three feet; and as the phaeton in which I made my journey ran upon wheels of about half the diameter of those by which the ruts had been formed, of course we were let in up to the axles, where we were anchored. This took place in the nineteenth century!

In thus describing the state of our public roads at a period so little removed from our own time, I am to be understood as alluding to their general fitness for the purposes of intercourse. No doubt very long before the commencement of the present century many of the leading lines from the Metropolis, for a circle of from twenty to fifty miles around it, were far advanced towards their present excellence; but were a journey of two or three hundred miles was to be performed, it went a small way in the matter of expedition that the first sixth-part of it could be accomplished at eight miles an hour, where the remainder could with difficulty be done at a better speed than four. When the use of carriages first began to supersede the old method of transporting men and merchandise upon horseback, it became absolutely necessary to devise some plan for forming a solid surface upon the bridle-ways of sand, which offered as little support to a wheel as a fallow to the coulter of a plough. Hence arose the system of paving the centre of the turnpike roads, so generally adopted in most of the midland counties, and of which many specimens are still in existence, more particularly in Cheshire and Lancashire. With the heavy wagons, and their slow pace, while the great reduction in the draught upon this pavement effected a vast saving in horse-flesh, the roughness of the surface was felt as no inconvenience. The gentry, in their coaches suspended from flexible C springs, passed smoothly over them;

and as it was almost the universal fashion to drive from the saddle, accompanied by outriders, the servants also escaped dislocation. But there was a class of devoted wretches for whom no such good luck was found, and who, in an honest effort to procure their daily bread underwent the agonies of an earthly purgatory without any parallel in a Christian land. When Mr. Palmer first bestowed upon us the convenience of mail-coaches, as might be expected, he committed a few small oversights: among these were the coachmen's boxes, that were without springs, and were constructed upon the common principle. The consequence was, that the seats upon which they were destined to perform their avocations were pieces of pine, or other obdurate plank, supported upon standards springing from the beds of the fore-axles. These "devils' sedans" were covered with a tanned bull's hide, to which, as a material for incubation, granite is as an air cushion. Old Dan Herbert, who for the last ten years of his life drove between Chester and Birkenhead, and as a very superior sample of the Old School will be remembered by many a reader of these pages, was on the Holyhead mail from Chester to Stafford in those *hard* times for dragsmen. For better than five and thirty years Dan was a most communicative coachman, and withal had an ambition for saying smart things. In one of our conversations upon the bumpings of his early education, I asked him how his constitution could have supported such inhuman exercise, and whether it had not proved fatal to men less robust than he was? "Why, Sir," was his rejoinder, "it was well enough when once we got used to it: but I assure you the case-hardening was no joke: some died under the operation, and some did not; but there never was a man who tried it that it did not make him think of his *latter end*."

The epoch from which we may date the rapid advance in improvement as regards every department of the Road, is coeval with the system of remodelling our highways upon the plan of Mr. M'Adam. That the scheme of road-making which bears the name of that gentleman was not of his invention, all who have travelled in Scotland and Ireland must have known. Still we are indebted to him for its introduction into this country, and for many judicious innovations by which he brought it to its present perfection. As the facilities for locomotion improved, so did the appliances to aid it.

The call for increased speed upon the commercial roads was met about twelve years ago on the Birmingham line by the appearance of three "Tally-ho's," now distinguished as "The Patent," The Independent," and "The Eclipse." Looking at the time they have been at work—their chronometrical regularity for half a score years—their pace, and the style in which they are worked through the country, and not at the ends alone, we shall hardly find any thing altogether more complete than this trio. Awful forebodings attended their starting: their speed was pronounced suicidal, and the waste of human life that was to result from it fearful to contemplate. It is a singular fact that the only fatal accident I recollect occurring to any of them was the death of poor Peck, the guard, who was killed but the other day by a fall off his coach while it was standing still.

In the way of fast-work, however, combined with the fashion in which it was done, certainly the *pas* must be given to the coaches which were put on the Brighton Road the

season before last, by Mr. Israel Alexander. I never heard but one opinion of them expressed by such as possessed experience in the coaching business, coupled with a wonder, how, by having all England to choose from, it was possible to get together such a lot of Horses. On that road poor Stephenson had taught them that public travelling and elegance were to be combined; perhaps his idea upon that head was too *recherche*. Taken all in all Alexander's "Criterion," with a certain (then) Noble Marquis for dragsman, was quite the most correct specimen of a stage-coach that has ever come under my notice. Of course, a vast deal of money was sacrificed during the short reign that this concern ruled the roast.

HORSES IN ANCIENT TIMES.

There is, we believe, pretty good evidence for supposing that, even at the time of the Trojan war, Horses were but rare animals in Greece, and were possessed only by princes or great men, who employed them, not for the purposes of husbandry or draught, but for the ornamental displays of war and chariot-drawing, as the proud and distinctive accompaniment of royalty alone. In Judea, Horses were, till the days of Solomon, very rare. Egypt is always described in the Old Testament as the land of Horse. The earliest notice of the Horse is in the book of Genesis (chap. xlvii. 17,) where Joseph is said to have given the Egyptians "bread in exchange for their Horses." In the very minute enumeration of the cattle stores of Abraham, Isaac, Esau, Laban, Job, &c., in the Book of Genesis, though there is a superabundance of other quadruped property, no mention whatever is made of Horses. Neither in the fourth or tenth commandments are Horses noticed with the other working animals. In the enumeration, however, of the Egyptian cattle-property affected by the murrain, Horses are mentioned in precedence of the rest: "Behold the hand of the Lord is upon thy cattle which is in the field, *upon the horses*, upon the asses, upon the camels, upon the oxen, and upon the sheep," Exod. ix. 3. In like manner, in the excellent and very particular description given by Theocritus of the quadruped stock of Angias, the Child of the Sun, who lived in the Peloponesus, Horses find no place. Even during the Trojan war, these animals were only in the retinue of princes, and were always associated with cattle, or with the glorious forthcoming of kings. Accordingly, we find that in all the first descriptions of that animal, and particularly in that sublime and all-surpassing one in the Book of Job, he is depicted with beauty and majesty, as the war-steed alone. Homer speaks of him always with dignity and admir tion; and it is apparent, that, in his conceptions, an additional respectability is conferred upon his princes and his war-grooms, by the title which he bestows upon them of "horse-tamers" and "horse-whippers," a contemptible commendation, according to our ideas, associating, as we inevitably do, these epithets with the persons and mean employments of grooms of the stable and horse-jockeys." The ancient poets and ancient people must have connected, however, beauty, majesty, and sublimity, with their idea of that animal; not only from his noble shape and gallant appearance, but from his singularity, and consequently high price; his being the friend, as it were, and attendant of princes; his being the terrible, yet graceful, accompaniment of war; and his being never seen, as in our modern times, degraded to the

familiar, yet far more beneficial purposes of draught in our streets, and husbandry in our fields. A modern reader, therefore, must enter somewhat into the sentiments and feelings of antiquity, in order to perceive the beauty or propriety of Theocritus's comparison of Helen to a Horse, or of Solomon's likening his love "to a company of Horses in Pharoah's chariots." The light in which the Horse is thus considered as an ornament of royalty, or an appendage of war, not only ornamental, but efficient, is explanatory of many passages, not only in the Old Testament, but in the Greek and Latin Classics. In the Psalms of David,

> "A Horse for preservation is
> But a deceitful thing."—Psalm xxxiii. 17.

And in Eccles. x. 7, "I have seen servants on Horses." In Deuteronomy, chap. xvii. 16, Moses forbids the Israelites, in the event of their electing from among themselves a king, to allow him "to multiply to himself Horses," and thereby foster a lust of dominion and belligerent propensities, at the same time also creating, what the Lawgiver wished much to prevent, too frequent a communication with Egypt. Egypt was undoubtedly, in the most early times, the great breeder of Horses: the Old Testament proves it by many references. At Jacob's funeral in Judea, there came forth from Egypt "chariots and horsemen a very great company." The Hebrews were pursued into the Red Sea by Egyptian Horsemen; Horse and rider were there overwhelmed. Solomon, several centuries afterwards, obtained all his Horses from Egypt. With this testimony concurs the account given by the Greek writers; according to them, Sesostris (or Sesonchosis, as others write his name,) was the first who taught men to tame Horses and to ride them. In Solomon's days the price of a single Horse from Egypt was 150 shekels, which according to Bishop Cumberland's calculation of the shekel *, is about 17*l.* 10*s.* of our money; a great sum in those times. In the days of Xenophon, 600 years later than Solomon, the price of a good Horse was about 50 danks, or 27*l.* 12*s.*; at least such was the price paid by Senthes, the Thracian, to Xenophon, for the steed whereon he rode during his retreat from Babylon. Next after the Egyptians, the Assyrians became the celebrated cavaliers of the ancient world. These people are repeatedly alluded to by the Jewish prophets, not only as excelling in the beauty of their Horses and skill of their Horsemen, but also in all the showy apparatus of equestrian garniture. Their proficiency, however, in this branch of the military art, took place long after the Egyptians had invented and brought it to some degree of perfection, which the Medes, Assyrians, and Persians, possessing more gold and silver, from their more enlarged empires, decked and bespangled more with blue, with purple, and with gold, "clothing their Horsemen most gorgeously." Persia became latterly most renowned for its Horse-riding. Xenophon declares that, before the age of Cyrus, Persia had, from its want of wealth, or the mountainous character of its soil, no Horses; but that, after his time, from the personal example, and encouragements, and recommendations of their king, every man in Persia rode on horseback: so much so, indeed, that it is understood that the very name

* If we take Xenophon's valuation of the shekel, as containing seven and a half aboli, as stated in Lib. I. of his Expedition of Cyrus, it makes the price much less, about 6*l.* 5*s.*

of Persia, by which ever afterwards their country became known, was taken from PERESH, a word in Chaldee and Hebrew, signifying a Horseman. Immense numbers of these animals were reared in the plains of Assyria and Persia. We read in some author of no less than 150,000 feeding on one vast plain near the Caspian Gates. The Nysæan Horses, which the kings of Persia used in their expeditions, were celebrated as the finest in the world. In Greece, the art of riding Horses, and most probably the arrival of the Horse himself, did not long precede the Trojan war. The story of the Centaurs, semi-human Horses and semi-equine men, as Ovid calls them, warrants the inference that Horses then first made their appearance in Thessaly, if not in Greece. These people lived about a century before the Trojan war; for Chiron, who was their chief, was the preceptor of Achilles. As the poor Mexicans at the first appearance of the Spanish cavalry ran off in a fright, conceiving that man and Horse were but one animal, so the people of Thessaly fled, panic-struck, at the sight of the double-shaped, incomprehensible monster that charged them. It is almost certain that these Centaurs were a tribe of Pelasgi, or emigrants from Phrygia, and the southern shores of the Euxine Sea, which were occupied at an early period by a colony of Egyptians, planted there by Sesostris in his Phrygian and Scythian expedition. Confirmatory of this derivation is the Grecian tradition, as recorded by her antiquaries, that Phylere, the mother of the Centaurs, cohabited with Saturn in the Philyreis, an island near the southern shore of the Euxine; and that from that island she emigrated to Thessaly, and the mountains of the Pelasgi. In this way one might amuse himself by attempting to trace, even from the few data afforded by history, the circuit by which Horses, with the consequent art of equestrian exercise, passed from Egypt, the original and central riding-school of the world, into Greece and into Europe. From Egypt they passed into Assyria and Persia; from Assyria to Cappadocia, Ammazonia, and Pontus, countries where Horses were most reared and most admired; and, as the most admirable objects in animated nature, offered up as sacrifices to the sun; from Pontus they passed with the streams of westward-rushing population, to Phrygia and the southern banks of the Propontis; and from thence, with "Horse-taming" Pelops and the Pelasgi, they migrated into Thessaly, and confounded with their novel and terrifying appearance, the simple and aboriginal inhabitants, to whom "the Horse and his rider" seemed a monster outlandish and inscrutable! It was not customary in these ancient times to shoe Horses with iron, according to modern practice; so that a strong hoof, "hard as brass" and solid "as the flint," was reckoned one of the good qualities of a steed. In oriental countries, the dryness of the roads rendered this fortification of the hoofs less necessary; the muddy ways and miriness of the ground's surface in the north of Europe, we suppose first caused and confirmed the practice. Hannibal's cavalry, which were principally Numidian, lost all their hoofs in the miry and embarrassing march through the marshy ground between Trebia and Fesulæ. The Horses of the ancients had no saddles, no stirrups; and the Numidian Horses had even no bridles; but their armour and their trappings must have compensated for those deficiencies by their gorgeous and extraordinary splendour.

WILD HORSES OF SOUTH AMERICA.

The wild Horses which exist in the extensive plains of South America, are descendants of those introduced by the Spaniards. In the province of Cumana, there are great numbers of wild Horses in the forests. They go in companies, generally to the extent of five or six hundred. They occupy the great savannas, where it is difficult to disturb or try to catch them. In the dry season, they are sometimes obliged to go two or three leagues, and even more, in search of water. They set out in regular ranks—four a-breast. Five or six scouts precede the troop by about fifty paces. If they perceive an enemy, they neigh, and the troop stops; if avoided, they continue their march; but if any one dare to march across their squadron, they turn on him, and crush him under their feet. No foe is capable of withstanding their attack. They have a regular chief, who marches between the scouts and the squadron—a kind of adjutant, whose duty consists in hindering any individual from quitting the ranks. If any one attempts to straggle, either from hunger or fatigue, he is bitten till he resumes his place. When wild Horses are feeding, should any stragglers be threatened with an attack, by a particular signal, which they all understand, they close into a dense mass, and trample the assailant to death. When an attack is resolved upon, their leader shows the example; and if he consider a retreat necessary, he gives the signal, and it is instantly obeyed.

WILD HORSES OF NORTH AMERICA.

Herds of wild Horses, the offspring of those which have escaped from the Spanish possessions in Mexico, are not uncommon on the extensive prairies that lie to the west of the Mississippi. They were once numerous on the Kootannie Lands, near the northern sources of the Columbia. They are not known to exist in a wild state to the northward of the 52d or 53d parallel of latitude. The young stallions live in separate herds, being driven away by the old ones, and are easily ensnared by using domestic mares as a decoy. The natives are acquainted with the Spanish American method of taking them with the *lasso*. Major Long mentions that "Horses are an object of a particular hunt to the Osages. For the purpose of obtaining these animals, which in their wild state preserve all their fleetness, they go in a large party to the country of the Red Canadian River, where they are to be found in considerable numbers. When they discover a gang of Horses, they distribute themselves into three parties, two of which take their stations at different and proper distances on the route, which, by previous experience, they know the Horses will most probably take when endeavouring to escape. This arrangement being completed, the first party commences the pursuit in the direction of their colleagues, at whose position they at length arrive. The second party then continues the chase with fresh Horses, and pursues the fugitives to the third party, which generally succeeds in so far running them down, as to noose and capture a considerable number of them." The domestic Horse is an object of great value to the Nomadic tribes of Indians that frequent the extensive plains of the Missouri, &c.; for they are not only useful in transporting their tents and families from place to place, but one of the highest objects of the ambition of a young Indian is to possess a good Horse, for the chase of the buffalo—an

exercise of which they are passionately fond. To steal the Horse of an adverse tribe is considered to be nearly as heroic an exploit as killing an enemy on the field of battle; and the distance to which they occasionally travel, and the privations they undergo on their Horse-stealing excursions, are almost incredible. An Indian who owns a Horse scarcely ever ventures to sleep after night-fall, but sits at the door of his tent, with the halter in one hand, and his gun in the other, the Horse's fore-legs being at the same time tied together with thongs of leather. Notwithstanding all this care, however, it happens very often that the hunter, suffering himself to be overpowerd by sleep for a few moments, awakes from the noise made by the thief galloping off with the animal.

CAPTURE OF THE WILD HORSE.

Captain Hall, in his Travels in Mexico and Peru, describes the manner in which the *gaucho*, or native of South America, takes the wild Horse:—He first mounts an animal which has been accustomed to the sport, and gallops over the plain, in the direction where the wild herd are, and circling round, by degrees, gets near to one of them; and as soon as he has approached sufficiently near, the lasso is thrown round the two hind legs; and as the gaucho rides round a little on one side, the jerk pulls the Horse's feet laterally, so as to throw him on his side, without endangering his knees or his face. Before the Horse can recover the shock, the rider dismounts, and, snatching his *poncho*, or cloak, from his shoulders, wraps it round the prostrate animal's head. He then forces into his mouth one of the powerful bridles of the country, straps a saddle on his back, and, bestriding him, removes the *poncho;* upon which the astonished Horse springs on his legs, and endeavours, by a thousand vain efforts, to disencumber himself of his new master.

THE HORSE IN HIS NATIVE STATE.

To have an idea of this noble animal in his native simplicity, we are not to look for him in the pastures, or the stables, to which he has been consigned by man; but in those wild and extensive plains where he has been originally produced, where he ranges without control, and riots in all the variety of luxurious nature. In this state of happy independence, he disdains the assistance of man, which only tends to servitude. In those boundless tracks, where he runs at liberty, he seems no way incommoded with the inconveniences to which he is subject in Europe. The verdure of the fields supplies his wants; and the climate that never knows a winter suits his constitution, which naturally seems adapted to heat. His enemies of the forest are but few, for none but the larger kinds will venture to attack him; any one of these he is singly able to overcome; while at the same time he is content to find safety in society; for the wild Horses of those countries always herd together.

FRENCH HORSES.

In France, Horses of the Bretagne breed are strongly made, and have generally black hair, or brown bay; and good legs and feet, with a hardy mouth, and a head short and clumsy. The Horses of Franche Comte are said to have the legs of tigers and the belly of a hind; but they are short and thick, and of the middle size, being much more proper for drawing than riding. The Horses of Gascony are not unlike those of Spain; but they

are not so handsome and active. The best Horses come from Limosin; they have a strong resemblance to the Barb, and like them excellent for the chase; but they are slow in coming to perfection: they are to be carefully treated while young, and should not be backed till they are eight years old. Normandy furnishes the next best; which, though not so good for the chase, are yet better for war. Besides these, there are the Horses of Poitou, &c., all differing from each other in some essential degree; for France, in its great extent, has various breeds. Great exertions have been made in that country to cope that animal against those of England. The Emperor Napoleon used every means to procure some of our best blood ones; and he imported largely from Arabia. But all efforts have hitherto proved unavailing, notwithstanding the French nobility have gone so far as to procure English grooms and jockies to manage their Horses. The beauty, strength, and fleetness of the English Horses, are still unapproachable. At Waterloo the charge of our life-guards proved irresistible. We have seen quite as fine-looking men in the French army as in our own; but their Horses are very inferior.

SPANISH HORSES.

Spain was early celebrated for a breed of fine Horses. These took their rise in the Moorish barb, when that Peninsula was subject to that people. When Rome was at its highest splendour, the Horses of Calpe were in high repute. Calpe, the modern Gibraltar, is situated at the south-western extremity of Spain, opposite the Barbary coast; and from thence Horses were imported: hence the origin of the genettes. The Spanish Horses are well made and handsome, as well as very active and nimble; they have good eyes, handsome legs and heads, docile, and are easily managed.

GERMAN HORSES.

The German Horses were originally from Arabian and Barbary stocks; nevertheless they appear to be small and ill-shaped; it is said also that they are weak and washy, with tender hoofs. There are, however, some exceptions, as there are some studs, in which particular attention has been paid, as well as to their breed and management. The Hungarian Horses are excellent for the draught as well as the saddle. The Hussars, who use them in war, usually slit their nostrils; which is done, as it is said, to prevent their neighing; but, perhaps, without any real foundation. The cream-coloured breed of Horses used for the state-carriages of the Court of England, come from Hanover.

DANISH HORSES.

The Danish Horses are of such an excellent size, and of so strong a make, that they are preferred to almost all others for the draught. There are some of them perfectly well shaped; but this is but seldom seen, for in general they are found to have a thick neck, heavy shoulders, long and hollow back, and a narrow croup; however, they all move well, and are found excellent both for parade and war. They are of all colours, and often of whimsical ones, some being streaked like the tiger, or mottled like the leopard. Ten or twelve years ago there was an importation of some Danish Horses in London, which were considered to have good action, and to be very serviceable Horses.

SWEDISH HORSES.

To the list of the Horses most usually known in Europe, may be added those of Sweden. The Swedish Horses, in general, says Mr. Lloyd, in his "Field Sports of the North of Europe," are small, though hardy, and capable of considerable exertion; their manes and tails are usually left in a state of nature; they are seldom cleaned, and when in the stable, even in the most severe weather, are rarely littered down. This treatment of their Horses arises as well from ignorance as neglect, on the part of the peasants. In saying this, however, I am willing to admit that many of them are almost as fond of these animals as if they were their own children. The average price of a good Horse of the description I am now speaking of, may be taken at from five to eight pounds.

PEDIGREE OF AN ARAB HORSE.

The following pedigree of an Arabian Horse, which was purchased in Egypt during the war against the French, by Colonel Ainslie, was hung round the neck of the animal:

In the name of God, the merciful and compassionate, and of Saed Mahomed, agent of the High God, and of the companions of Mohammed, and of Jerusalem. Praised be the Lord, the Omnipotent Creator.

This is a high-bred Horse, and its colt's tooth is here in a bag about his neck, with his pedigree, and of undoubted authority, such as no infidel can refuse to believe. He is the son of Rabbamy, out of the dam Labadah, and equal in power to his sire; of the tribe of Zashalah; he is finely moulded, and made for running like an ostrich. In the honours of relationship, he reckons Zaluah sire of Mahat, sire of Kallac, and the unique Alket sire of Manasseh, sire of Alsheh, father of the race down to the famous Horse, the sire of Lahalala; and to him be ever abundance of green meat, and corn, and water of life, as a reward from the tribe of Zashalah; and may a thousand branches shade his carcass from the hyæna of the tomb, from the howling wolf of the desert; and let the tribe of Zashalah present him with a festival within an inclosure of walls; and let thousands assemble at the rising of the sun in troops hastily, where the tribe holds up under a canopy of celestial signs within the walls, the saddle with the name and family of the possessor. Then let them strike the bands with a loud noise incessantly, and pray to God for immunity for the tribe of Zoab, the inspired tribe.

CHAPTER IV.

OBSERVATIONS ON THE HORSE.—SUPPOSED DEGENERACY OF THE RACING BREED OF THIS COUNTRY, ETC.

We cannot but call our readers' attention to the highly important consideration of the deterioration of our racing blood. The subject has for some time occupied the serious contemplation of the sporting world; some supposing it may arise from the fashion of the present mode of breeding for length of stride, and for short races, which may be easily altered by our present stock, without proceeding to the necessity of employing fresh blood to invigorate it; while there are others who insist that nothing less than a national establishment will prevent our Horses (once so celebrated,) from becoming sorry jades.

The English Horse is so identified with the glory of the country, that we could not look upon any one as possessing patriotic feelings, who could witness without a sigh the degeneracy of our Horses; and there is no tax which we would pay with the same pleasure, as to prevent it, if it were necessary.

There is at the present moment one circumstance, however, which places us in a novel situation in respect to the Horse, which time only can develope. We allude to the effect that rail-roads may have upon the breed of Horses in this country. It is a well-known fact, that many spirited coach-proprietors have given almost hunters' prices for their cattle, and that there was a regular demand for Horses of any size for the use of coaches; this traffic having in a considerable degree ceased, it will become a matter for consideration whether there will be any stimulant for breeding, sufficient to carry it on with profit and spirit, or will it be abandoned, and treated with indifference?

In the event of such a calamity, we confess we should hail a national, or any other establishment which might have the effect of preserving to us our present breed of Horses. We will not say the time may not come, when the Legislature may be called upon to devise some plan to prevent the degeneracy of our Horses, if needed, because we feel convinced that that, or any other measure would be resorted to, to prevent what would be considered, a national misfortune and disgrace.

We observe there are two opinions upon this subject; but fearing there may be some truth in the degeneracy of the racing blood, although not, we hope, to the extent entertained by the projector of the National Establishment; yet it is important that the truth should be enquired into, that if true, remedies may be adopted for the cure.

If we admit for the sake of argument, that our Horses of the present day are neither so

durable, or possess the speed of an Eclipse or a Childers, does that follow that the breed has become degenerate? Are the circumstances in other respects so exact, as we have no other alternative but to place it to the score of degeneracy? Has the racing blood of this country so intermixed and assimilated, as to produce the inconvenience and the opprobrium of good breeders; in short, has our racing blood arrived to that pitch of relationship, which constitutes what is called breeding "in-and-in?" Is the management of racers now as formerly?

Both Eclipse and Childers, were six years old, we believe, before they raced; and at the present day, they race at two and three years old. Is it to be expected that Horses worked at so tender an age can be durable? We only ask whether the difference of management between running Horses at five or six years old, and two or three, may not account at least for their want of durability?

As Government is called upon to move out of its ordinary track in order to influence the quality of our Horses, by a NATIONAL ESTABLISHMENT, we shall quote the Author's views of the course to be taken in furtherance of such a plan:—

A National Establishment should commence its functions by obtaining from the east a considerable number of well-selected ponies. The better portion would be found to possess much natural speed, stoutness under severe exertion, with limbs and feet peculiarly adapted for moving rapidly on a hard surface. It would be puerile to bring from so great a distance such ill-shapen and attenuated creatures as those now usually imported under the name of Arabians; or to employ persons to purchase who have not had experience of the best Horses under severe exertion. They would search in vain amongst Oriental Horses for those properties which are acquired under a system of continued selection. Looking only for natural qualities, they should select animals as nearly in a state of nature as they could find them; having good symmetry, a full amount of muscle, and whatever natural speed the best animals of the best race are found to possess.

When brought home a further trial should be made. In this we should be content with a degree of speed which is natural, and an amount of structural power as nearly natural as could be procured. The offspring of these small Horses should be tried in each succeeding generation; and we should be satisfied for a few years to see the natural speed of the race gradually augment; retaining only for breeding such as went through their trials satisfactorily.

It would be folly to buy Horses of large structure in the East; such would be found to have less speed than the small ones, while factitious structure can be given here with only too much facility.

Whenever the public shall become alive to the deteriorated condition of our saddle-Horses, and anxious to obtain such as are more useful, the first step must be a recurrence to nature for those properties which art has destroyed. It has been shewn that, in the absence of fresh blood, the elongated skeleton of the modern racer can only be shortened by a process which would render him a starveling. The character of the whole race has been reduced in this respect to a common level. Some individuals may be more compact than others, but all have lost something which fresh blood only can restore. If we rear them at a reasonable ex-

pence, their growth is stunted—if on rich grass, they lose their speed. Whether we try to renovate this exhausted race, or substitute another, the objects we seek are a more compact form and greater vigour; and these can only be found in Horses which are nearer to a state of nature. So long as individual differences in a race enable us to correct individual defects, we may dispense with fresh blood, but no longer.

A National Establishment having selected Horses from amongst a fine race, distinguished from their companions by their symmetry, their natural speed, and full amount of muscles, should carefully observe how far the artificial properties afterwards given to the race diminished its natural ones. A mass of facts would after some years be obtained and recorded, calculated to throw for the first time a steady light on the distant, as well as proximate, consequences resulting from factitious causes. These facts are not likely to be collected under any system less permanent and comprehensive than one under the controul of a National Establishment. Its stock should be divided into two portions; both should be placed under the influence of continued selection for speed and stoutness; but one should be maintained at a structure as nearly natural as possible. With such conflicting properties as speed, vigour, and great structural enlargement, a reserve of more natural animals cannot be dispensed with. The enlarged portion of the stock should again be divided into two classes, one being kept for breeding, the other for working; the size of the former should be allowed to become as large as is required to enable it to produce animals sufficiently powerful for working; every effort should be made to keep down the stature of the breeding animals to that point which suffices, by the aid of rich food, to produce working animals sufficiently powerful; increasing the stature of the race as little, and that of the individuals as much as possible. In breeding Horses of the best race it might be found desirable to have one portion of less speed, but more muscular, than the other, in order to meet that variety of demand which exists in a highly civilized nation. There should be a certain amount of foreign blood in the Horses of our heavy cavalry; but foreign Horses, having a degree of speed which is incompatible with much muscular power, are not so well calculated for heavy cavalry as Horses with less speed, but with more muscular and constitutional power. *Mambrino*, *Sweetwilliam*, or *Sedbury*, were better fitted for producing proper stock for cavalry than *Sharke*. This animal was more advanced by art than the earlier Horses as respects speed; but he was not so well calculated for enabling us to produce powerful saddle-Horses. If a foreign race is to assist in the production of our heavy cavalry Horses, it must possess as much structural power as can be combined with a sufficiency of action, vigour, and power.

The natural qualities of the Horse are found nearest perfection when they are in a condition the least removed from one of nature. Artificial structure is obtained by rich food, and artificial speed by continued selection. The course of the breeder is easy so long as it is in one direction; that is, in advance. When, however, the form of a whole race has become deteriorated, the symmetry which is lost can only be recovered by going back to nature. A National Establishment would, in this case, renovate the enlarged portion of its stock by having recourse to the animals whose

stature had been little enlarged. Such an institution should ever be at work preparing smaller animals by means of trials, and continued selection, for being crossed when required with that enlarged portion of its stock which from time to time became deteriorated. The smaller animals, until wanted, should be kept in a state of nature as nearly as possible. They would thus retain their vigour while acquiring all the advantage derivable from continued selection; they could be maintained at the least possible expence; at one which the sale of the annual draughts would nearly or wholly repay.

If a new race were to be formed, under the system we have now recommended, capable of running long distances, and carrying considerable weight without distress, premiums might be again granted to the winners of certain tasks upon the turf. To attempt to make modern racers run longer distances, or carry more weight than at present, would be both cruel and useless. A National Establishment undertaking to form a new race of foreign Horses could not be said to succeed, unless it supplied the country with Horses as swift, stout, and powerful as the earlier racers. Knowing accurately the powers of the new race, it could point out the nature of the running for which premiums might properly be granted; and great tasks might again be performed on the Turf, without any of the cruelty which attends the present running. How far bounties can in future be made to influence the proceedings of the Turf, by competing successfully with heavy stakes, can only be ascertained by experience.

The stallions whose stature had been adequately enlarged in the Establishment for supplying the demand of the farmers in the great breeding counties should be let out under strict regulations, or maintained by the Establishment in those counties in a condition best calculated to preserve their vigour. Mucilaginous food and other expedients had recourse to by private individuals to make the animals very fat, should not be resorted to; the stallions of a National Establishment should make their way to public favor by the goodness of their stock. No Horse should leave the Establishment as a stallion labouring under any essential defect. If a public Establishment supplied the breeding counties with the best class of stallions at a cheap rate—bred within its own precincts—a limited number of the best class Horses for different purposes, allowing the parents and their offspring to be freely inspected, the public would be enlightened by example; and, becoming gradually accustomed to see the best forms, would no longer be satisfied with bad ones.

In determining on the utility of some such plan as that proposed, the reader will do well to ask himself the following questions. Is there a strong disposition in every fine race of the Horse, whose structure has been enlarged by unnaturally rich food, to become either coarse or weedy? Are the means adopted on the Turf to prevent coarseness more than palliative? And are not some of them objectionable? Is it not better to recur to nature, when art has disposed a domesticated race of Horses to coarseness, than to such a palliative as that of breeding on one side from old parents? Is not this substituting weediness for coarseness? If we adopt a system under which both coarseness and weediness are avoided, by recurring when necessary to fresh blood, we should be able to rear and work Horses at the least possible expence. Under

this system any essential loss of vigour would be instantly repaired by the most economical means. In maintaining vigour in a race of Horses without coarseness, we should have laid the best foundation for giving to it those artificial qualities which result from annual trials, and continued selection.

It is in our power to modify greatly the acquired as well as the natural properties of Oriental Horses; but we cannot combine the highest degree of transient speed with the compact skeleton and muscular power displayed by the earlier Horses, and required when great distances are to be traversed, or much weight to be carried.

The practical utility of our Author's plans and speculations may create doubt in some minds as to the propriety of their adoption to the extent of his views: we trust, however, that they will stimulate inquiry, and be productive of all the benefit the most sanguine may anticipate. It is a subject of vital importance and of grave deliberation. We earnestly recommend an attentive perusal of the work, not only to our readers, but to all engaged in the breeding of, and traffic in, Horses.

We hear of much despondency expressed that the breed of Horses will leave us, and that its advantages some of our Continental neighbours are of opinion will not long remain with us: they are fully aware of the source whence we derive this superiority, and are in consequence endeavoring to establish Races on the English plan, which together with a more careful selection of stallions and mares than they observe in England, will very soon, they say, enable them to excel us; and they anticipate a day, not very distant, when the English must send to the Continent, if not for speedy, at least for sound Horses. This hint about soundness may be worth attention, but for the rest there can be little to apprehend.

The following account for the demand of the racing blood of this country, would, however, make it appear that in foreign countries the English racehorse is still held in great estimation, whatever may be the opinion of Englishmen themselves.

England, where during the last century the improvement of her breed of Horses has been cultivated with unwearied zeal and a lavish expenditure, is now reaping a golden harvest in return for her enterprise and spirit. Purchasers arrive from the four quarters of the globe. America has taken up the speculation with an ardour worthy the scion of "the old country." Louis Phillipe, although no Sportsman, and an enemy to the Turf, as a national amusement, still felt the importance of encouraging the breeding of Horses in France upon a better principle than that of crossing the Flanders mare with the Norman stallion. With the view of turning the attention of the French farmer to a new source of rural industry, the Royal Breeding Stud in Normandy is now conducted upon a scale of which we have no example in this country. Their stud of stallions is enormous; and when such Horses are found in it as Lottery, Cadland, Pickpocket, Juggler, Dangerous, Teetotum, Mameluke, Young Emilius, Cleveland, and an endless *et cetera*, it will be seen they have gone the right way to work. These Horses during the season are sent all over the country.

Germany has purchased largely of our best blood: Holstein, Belgium, Denmark, and Russia have bought from us: but no purchasers come to the English market who evince the talent and spirit of the Americans. In one

year, one buyer alone, from Virginia, took from us Shakspeare, Emancipation, Rowton, Margrave, and Merman. France, at least under its present administration, will never be a vent of any consequence for our Racing Stock, *as such:* their Government will import our stallions, and encourage the speculation in others, as the means of introducing a better description of Horse for general use, particularly for their cavalry; but they will not offer, by the gift of public money, any inducement for the introduction of race-horses in that country. The Duke of Orleans is passionately fond of the Turf, but he will not give prices such as will procure first class runners from England, because there are no Stakes that warrant such a speculation.

But we have no fear of France rivalling us in the breed of Horses, so long as we have the law of primogeniture, and so long as France is without it. The expences of the Turf will never be supported in France in the same way as in England on that very account. In a country like France, where property is so divided, and in a country like England, where money is in such masses—the Turf being a luxury as well as pleasure—becomes the employment of the nobility of the land; the law of primogeniture preventing the division of estates, secures at once the experience and the means of perpetuating the breed of Horses of the first quality, from generation to generation; and this is the cause of our superior breed of Horses.

In fact, France does not want it; comparatively speaking, she has very few customers for thorough-bred Horses, they would rather be an encumbrance than useful to her. Beyond the army and the Court, there are not many Frenchmen but that would be content with a moderate priced Horse; and would rather avoid, we believe, the extra care and attention which a higher-bred animal might subject him to. The French, as far as our experience goes, are an economical people, not likely to encourage any expence which they possibly could do without; and therefore are perfectly contented with their present breed of Horses. There are no hounds kept in the provinces, because there are no primogeniture estates of twenty thousand pounds a year to support them; there are no subscription packs, for the same reason, as there is no private one; property is so extensively divided, that if it secures comforts, they are satisfied, and are too wise to embark in any thing which they deem extravagant. There is no encouragement to stimulate the breed of hunters, and the breed of blood horses will, we suspect, remain in the hands of the French Government, rather than be taken up by private breeders.

We avail ourselves of the following description of two breeding studs, which will confirm the above obervations, that the breed of our Horses is derived from the watchful care and experience of the most wealthy of our nobility and men of fortune:—

Within a few miles of Thetford in Norfolk, and almost adjoining each other, are situated two of the most celebrated breeding establishments in England—Riddlesworth and Euston—the former the seat of Mr. Thornhill; the latter of His Grace the Duke of Grafton. The proudest feature in the social condition of the land we live in is, that the promotion and support of objects of National importance, which everywhere else is looked upon as the business and peculiar province of the Government, here either originates in individual

enterprise, or is the result of public spirit, supported by private wealth or influence. Two Princely instances are those before us. There a National business (it is such in fact, because no other country possesses the material, or the knowledge of its use,) which from its nature is not suited to the merely professional man, is conducted with all the care and skill that could be brought to bear upon any undertaking solely embarked in for the purpose of a profitable return. It is this public spirit, not some newly discovered Philosopher's stone in political juggling, but an inheritance descended from father to son through generations of social order and rural uprightness, in which we read the true interpretation of England's prosperity, and the recipe by which alone other lands may hope to resemble her.

This stud consisted (in 1836) of thirty mares. In loose boxes were some of Mr. Thornhill's yearlings about to be sent to Newmarket. A bay colt, by Emilius, out of Mercy, attracted considerable attention on account of his size; he was a Horse in all but the name. Some Russians who lately visited Riddlesworth, absolutely refused to believe it, till they looked into his mouth. The second was a chesnut colt, by Sir Patrick, out of Mangle Wurzel, with size and substance for a four-year-old. The third a bay colt, brother to Mendizabel, by Merchant, out of Misnomer's dams. These three yearlings averaged fifteen hands two inches high each!

As far as the example of these yearling colts go, there can be no cause for suspecting degeneracy, for with their immense growth, they had substance as well as height, one of which might be taken for four years old. If these splendid and gigantic animals had had justice done them, they would not have been put to severe work before five or six years old; yet they were going into training at Newmarket, directly. Where there was so much strength and substance developed at so early a period, surely it cannot be unnatural to suppose that if time was given for the consolidation of those powers, instead of racing them at two years old, we should not have to deplore the want of durability in our racing-stock. If we sin against Nature, however, we must take the consequences; for we can never do that with impunity.

It may be interesting here to draw a comparison between the English racer, and the parent stock as to the difference in size. The difference no doubt arises principally through the stomach, from the superior kind of food which it may receive, which thus increases the structural economy of the animal. To illustrate this, we believe, that if the large Friezland Horse were sent to Shetland, and it did not die in the seasoning, it would degenerate in time to the size of the present Shetland poney; whilst on the other hand, if the Shetland poney was removed to the succulent and nourishing pasture of Friezland, its size would become proportionately augmented, and would in the end become (the representative of what it fed on) a large bulky animal. It has been remarked that very small Horses are stronger in proportion to those of a larger make; this may be true, and yet it may be perfectly necessary to improve their size for our own convenience. It would be impossible to have the hardiness of the Shetland poney and the speed of an Arab united in the same individual, and to gain speed we must be content to sacrifice the hardiness of the northern poney for that of superior speed and size. It is well known that the eastern Horse requires

more care and attention in the stable than the commoner breed of Horse in this country, and in consequence of that is more fitted for a gentleman's than a poor man's stable. If then the racer has been made through the stomach a more powerful animal than his ancestor; if his speed be superior; if the English stock be at one year old fifteen hands two inches high, and of substance sufficient to be taken for four years old, we see here no cause to suspect degeneracy. We know, however, we are speaking of a very superior stock of Horses, both as to breed and management, and we do not wish to affirm, that the generality of racers by any means possess the same substance as these. We shall proceed to give a description of two of the most beautiful Arabs ever seen in this country, by a gentleman who well knows what a Horse should be. They were a present from an Eastern Prince, the Imaum of Muscat, to his late Majesty William the Fourth, which will show the difference, in a most striking manner, of the present breed of English racers to what they are derived from, which must prove both curious and interesting to our readers.

"The first that was shewn to me was a black stallion, standing fourteen hands three inches high, branded M on the off-quarter. This Horse is the most esteemed of the two, this colour in Arabs of the highest class being rarely or ever met with. Years, I was given to understand, were consumed in selecting the pair sent to his Majesty, and no limit put upon the price. Great as the difficulty has ever been to convey a just idea of the Horse with the pencil, to put upon paper words to effect such a purpose, is ten times a more hopeless affair. The first impression that the sight of this little unpretending animal made upon me was anything save in accordance with my anticipations as I entered his box. The issue was precisely such as we experience in contemplating a highly-finished picture; the more you gaze upon it, the more its beauties are developed. In this country we are by no means familiar with the Arab; many have not even seen one: I do not even think above a score have come within my own notice; but I must say, that if the portraits with which every Sportsman is acquainted of the Darley or Godolphin Arabians be faithful delineations of the animals they profess to represent, the whole model of the Arab Horse, as I have seen it, differs *toto cælo* from them. Here I had before me one, selected by a Prince whose subjects have ever been celebrated for trafficking in the purest blood of the Desert: I could not doubt his claim to legitimacy. I have said his height is fourteen hands three inches; his form so angular that at the first glance it seems to defy all claim to symmetry. The whole character of shape and bearing is closely allied to that of the deer. When you come to a minuter examination of the parts, individually, then you are convinced how pure the fountain must have been whence such blood was obtained. The head of this Horse can be likened to nothing but exquisitely chiseled marble; there is literally *no* flesh upon it; it is marble too to the touch. The eye is small, but clear to transparency; the cheek-bones are prominent; and there is a fixedness about the ears that helps you to think you are really looking upon the work of the sculptor. The jaws stand very far asunder; the nostrils are large and high; and the wind-pipe is of an extraordinary size. The neck is light, and set on similar to the deer's: the shoulders more fleshy and upright than suits our taste; but

below the knee the legs are perfection: you find quite as much bone as in the largest sized English blood-horse, and the tendons are in your grasp like iron. His carcase, without being very full of substance, is round and tolerably deep; his quarters what we express by vulgar. His thighs are very thin and sinewy, his loins narrow, the hocks perfectly clean, and slightly inverted; he is what we call 'cat-ham'd.' The tail is well set on, the dock small, the hair fine and scant, giving it the appearance of a mule's, more than that of a Horse. His shanks are short, and hard as adamant, the pasterns flexible, the hoofs singularly hard, but healthy, and the feet open and roomy. You read his temper in his eye; he is a light-hearted animal, without the slightest taint of vice.

"The other stallion, a bright bay, is described almost in the same words. His head is less perfect, and his bone smaller, but his quarters are fuller and more softened down by the swell of the muscles. His back, which, like the other, is rather inclined to be hollow, is not more than eight or ten inches from hip to shoulder: I never saw a poney's so short. His height is as near as possible the same as the black; in middle piece he has the advantage. They were both brought out for me, and I saw them in all their paces. In their action, as in their lean spare forms, you detect nothing superfluous: it is quiet and graceful, and entirely without any expression of exuberant exertion. Utility is the characteristic of the Arab Horse. I can imagine them going for days together without fatigue: Nature intended them, and she has fitted them for endurance. The impression of their extraordinary speed was long a vulgar error, which is now fast exploding. No Arab that ever trod the sand could live in company with an English race-horse, weight him for inches, or after any fashion you will: with the size of a galloway you cannot have the stride essential to great velocity. Speed, regular and long sustained, no doubt they possess: our blight of degeneracy is yet unknown to the Desert-bred. Before I part with these Horses, I cannot but regret that one or two of the mares at Hampton Court were not put to them. Surely nowhere could the experiment have been so properly made. That their stock in the first or tenth generation could compete with Emilius or Sultan no one supposes: still they are chrystal streams, fresh drawn from the spring whence it is acknowledged we derived the fertilization of our Turf. If only to trace its progress, it might be a useful lesson, probably a guide of great importance."

In giving the description of these two very extraordinary high-bred Arabians, selected by a Prince who spared no expence, and brought from his own dominions, which is a country also renowned for the breed of Horses, we cannot but suppose these Horses to be of the very highest caste, and to be perfect gems (if we may be allowed such an expression in speaking of Horses) of their kind.

The gentleman to whom we are indebted for the description of these two beautiful small Arabs, says that there is no resemblance whatever between them and the portraits of Godolphin and the Darley Arabians. This, no doubt, is very true; for they were Horses of considerable size and power, and their immediate descent became racers, and to whom the English breed of racers is so much indebted to, that under the head of the English racer, we shall have much to say.

We shall return to the stud at Riddlesworth, in order to show the nature of this almost princely establishment, although only in the hands of a private English gentleman, which is one example that sufficiently indicates how, and to whom we are indebted for the superiority of the English Horse.

The Mares were in two fields, the main body immediately facing the Stud-groom's house, and not many men have such a prospect from their windows.

We now introduce our readers to the sires of the three yearling colts, who averaged fifteen hands two inches high. The following is the description of an accomplished Sportsman who visited them in 1836 :—

I now followed my very obliging conductor for a visit to the Stallions. Their boxes, each with a large walled yard attached to it, are close to his dwelling-house, around which lie also various commodious houses for the Young Stock when it is first taken up, previous to being taken away by the purchasers, or sent for training to Newmarket. The Stallions all lie out; that is to say, their boxes are left open, and unclothed, and untouched, they have the run of the yards night and day till generally the second week in December. They are then shut up, groomed, and put into condition preparatory to the approachiug season. The first I saw was Merchant, by Merlin (shot at Riddlesworth two years ago on account of his broken leg) out of Quail by Gohanna. He is a powerful, short-backed chesnut Horse, and his stock have shewn well. He is a favorite at Riddlesworth, probably on his sire's account, Merlin having ever been high in Mr. Thornhill's estimation.

Next to him came St. Patrick, by Walton, his dam by Dick Andrews. This is a very fine looking chesnut Horse, hired, as I have before stated, I believe, from Mr. Dodsworth. He is light topped, with a good deal of the character of Actæon about him: his frame is beautifully moulded; his legs, which have tasted the iron all round, well under him; fine withered, deep gaskined, with thighs and quarters quite perfect. He is short in the pastern, a quality pronounced by most men as demanding praise, but as little esteemed by me as its opposite, long.

In the post of honor, the dwelling nearest to himself, Tyler introduced me to the steed whose own performances, and those of his descendants, place him without any parallel in the annals of the British Turf—Emilius, by Orville out of Emilius by Stamford, grandam by Whiskey out of Grey Dinmont. "And this," said I, "is Emilius!" as a rough-coated animal, with an eye like a star, came snorting up to me. He was quite *en deshabille* to receive company, as it was evident he had been recently indulging in a roll among the mire of his exercise-paddock. The moment I laid my hand upon his shoulder, he stood still, looked complacently upon me, and, notwithstanding his having been surprised a little *mal-apropos*, accorded me a reception quite in keeping with his acknowledged *high breeding*. Taking this Horse as the standard of perfection of the English blood-horse of the Nineteenth Century, I will state, as well as I can, the result of a very careful examination of him, and thence draw such inferences as are relevant to my present purpose. He is now in his sixteenth year; his height over 15 hands 2 inches, about the present year's average size of his yearling stock. In color he is a rich blood-bay (when in his spring form), with four black legs. He is all over sound, and without blemish,

save in his off fore leg, with which there has been something amiss below the knee. Probably the most skilful anatomist would fail in discovering one point of his symmetry faulty. This latter phrase may require explanation: what I mean by it is, that although his frame should be pronounced perfect, as it is; that in its symmetry, the harmony of each part with the whole, the fitness and relation of every point for its assigned function, defies criticism. You see before you a form moulded for speed and strength, as the imagination of the most experienced painter would pourtray it. We know that he was swift and strong—let us see if his physical development agrees with the idea affixed by the eye for power. "Tyler," I inquired, "have you a morsel of string? Never mind," seeing that he was going to procure it for me at his house. I removed my watch-guard. "Ah!" said he, seeing the use to which I was about applying it, "you are going to measure his leg I see: well, I have not seen such a thing done since the time that His late Royal Highness the Duke of York was staying at Riddlesworth. The Duke, I remember, came one morning, and took the size of Merlin's near fore-leg just under the knee, and its circumference was full nine inches and a quarter. Now, Sir, I like Emilius's leg much the best: it is shaped, as I call it, *like a fiddle, with the strings standing well out from it*, the way that a Horse's muscle and sinew should do." Having carefully taken my admeasurement of his near leg, the off one being a little thick, I marked it, and placed it in my pocket-book. It is now before me, and gives the circumference of this celebrated Horse's leg exactly eight inches and a half. I need hardly remark that the apparent advantage on Merlin's side is easily explained, if his limb was rounder, and consequently less oval than that of Emilius. This would give him, however, no actual superiority, the shape of the bone and sinew of a Horse's leg (the sole supplies the power) being an oval, shallower of course, as it extends from bone to muscle. My memory does not serve me at the moment as to the sum, which, in his zenith, Eclipse (taking the price of his last moiety for the criterion of the whole) would have sold for. Mr. Thornhill, I was given to understand, refused eight thousand pounds for Emilius. Allowing for the difference of money, Eclipse would have fallen very short of such a figure as that.

Nothing can be more characteristically English than the Establishment at Riddlesworth. Tyler, the Stud Groom, is an honest, obliging yeoman, with his mind on a level with his calling. He has been six and twenty years in his present employment, and the stock which has been produced, and reared during that period under his superintendance and care, is the best evidence of his fitness for such occupation: I spent a few minutes in his cottage, and it was just the head-quarters in which I should have expected to find him. Everything was scrupulously neat; all the comforts that his condition could require were there in abundance; and the elegances were in perfect accordance. The walls were decorated with the most celebrated feats of the white and scarlet. There was Sam winning the Derby in 1818; Sailor, victorious for the same Stakes in 1820; a fine plate of Orville; and one of Herring's admirable likenesses of Emilius. In front of his dwelling runs a sparkling stream, and just beyond it was a moving Zoological Panorama, such as no Lord in the land can shew.

Having given a description of the Riddlesworth Stud (as it was in 1836,) to support our assertion that the breed of our Horses is indebted to the law of primogeniture for its excellence; as it is the cause of combining the experience as well as the wealth, from generation to generation. Indeed, the breeding of the racer may be said to be entirely in the hands of the nobility and gentry of England; and from which circumstance we see the less necessity for introducing any national establishment in this country for the breed of Horses.

In France there is not the same cause as in this country for fostering and encouraging the breed of Horses, and therefore it becomes incumbent on the French Government to take the management of procuring such a stud of stallions as may improve the breed of their Horses, at little or no expence to the French farmer. Napoleon used to send a stud into the different provinces of France, and we recollect seeing one at Auch, the capital of Gascony, in the year 1814. It is true Napoleon at that period had abdicated, but it was the continuation of his system. It consisted of Horses of various countries, the Arab, Barb, &c.; but one was there which attracted our attention the most, not expecting to see any animal of his description, an English thoroughbred Horse, standing, we should think, full sixteen hands high. He was called Romulus, and was said to be above thirty years of age. He had all the appearance of age, having lost his flesh; but there was his eye and noble forehand, which indicated both dignity and high breeding. There was nothing to resemble him; the other stallions were full of flesh and pretty; but the English Horse, for size and speed, never could appear to more advantage than when in such company; they certainly were handsome and beautiful to look at; but Romulus had the same appearance of nobility and dignity over his tribe, as Kemble in Coriolanus would have had in comparison with a common actor.

We have said that it is the duty of the French Government, as well as it is to the interest of France itself, that assistance should be afforded to the French farmer to improve their breed of Horses; for there is very little capital employed in farming there, and it would interfere too much with the farmer's financial economy to give two or three pounds for a stallion to improve his breed of Horses.

We have before spoken of the division of property in France being very minute; and in Gascony you will find most of the farms very small, cultivated chiefly by their proprietors. We have been in many of these patriarchal abodes, where in many instances you will find the great grandfather surrounded by a portion of his descendants at the same fire; for here the daughters brought their husbands home; and it was a pleasing sight to see them all engaged in one general interest and pursuit; the young girl handling a dung-fork and filling the cart with as much animation and zeal as her brothers. We thought of England! Of Goldsmith! his "Deserted Village!" We viewed the large broad hand and the hale complexion of wholesome labour! We turned our thoughts to Manchester, its cotton-factories and the thin, palid, emaciated appearance of its inhabitants! We never felt the contrast so strong between the happiness of agricultural employment, and the misery of manufactures, where in a heated atmosphere hundreds are congregated together, as at the time we witnessed the harmony and happi-

ness of the Gascon farmer. We do not say he is wealthy; for we believe it might puzzle him to raise in money one hundred francs; but he has a cellar of wine, a barn with some wheat, a cow, pigs, and a poultry-yard; we might say, a field; but we believe not much ready money, but he has money's worth sufficient to keep him and his household well; hence the necessity of supplying him with a superior kind of Horse for his mare, which otherwise he would be compelled to go to his next-door neighbour for. It is therefore a wise and patriotic act for the French Government to send studs of stallions into the different departments of that country.

Since the period to which we have alluded, we should think the breed of Horses may have in some degree improved in France, as a tolerable sprinkling of English mares would have been left in that country by the army of occupation, and a peace of more than twenty years' duration, has enabled, no doubt, the French Government to avail itself of all opportunities to improve their breed of Horses. It is therefore natural to suppose that in another war her cavalry and artillery may be better horsed than heretofore. Beyond the wants of the army, and the few wealthy inhabitants, we don't think there will be any inducement to breed blood-horses. Hunting is by no means a popular amusement in France. The Revolution took away the game-laws, and the rights of the Seigneurs; nor would the present race of French farmers submit very quietly to witness their fields traversed by dogs and a field of horsemen; therefore, we do not suppose that there is any probability of any hunters being wanted beyond the royal chases.

England is therefore so differently situated in consequence of the law of primogeniture, to France, that what may suit one country, and in its effects might be beneficial, to the other might be considered a nuisance. A farmer, in England, surrounded by the squierarchy of his neighbourhood, and partaking of the joys and amusement of the chace, thinks nothing of the damage which a field of Horsemen and dogs might do to his corn-field, believing he may regain the damage done to his fields by their encouraging the demand for Horses; of which he is himself the breeder. However, if he does complain, and there is reasonableness in the demand, there is always wealth enough; and we believe liberality enough, to indemnify him for any damage he might sustain on account of the hunting establishment; consequently he becomes a partner and preserver of the sport, in protecting the foxes, so essential to the amusement of the chase, and is looked upon as a favourite of his aristocratical neighbourhood, which insures to him respectability, as well as promoting his own interests.

In France, where comparatively speaking, there is little disproportion of wealth, it would be, we believe, impossible to create any hunting establishments that would be of a nature sufficiently large to be an encouragement for superior bred Horses. As to breeding Horses for the Turf, we believe there will be very few studs of thorough-bred Horses kept; though racing certainly has commenced near the capital with some success, yet it is premature to say the course will become sufficiently popular to create any great demand for them. Looking then at France, in this view, we do not think she will take the palm of breeding the best Horses from us. Neither do we think it necessary for France; if she obtain a

good breed of Horses, it is sufficient for all useful purposes, without straining after that, which without inordinate wealth, might prove an incumbrance.

We shall now finish our remarks upon the deterioration of our English blood, and shall trust to its renovation from those hands which have already brought it to such perfection; doubting that it would be in better hands, even if a National Establishment was to be formed.

As a proof that our coachmen of the present day have not deteriorated, but improved, we copy the following:

LEAVES FROM THE JOURNAL OF A MODERN WHIP.

July, 183 .—Got up with a cursed headache; Port too strong—must cut it, and try the Claret in future. By the bye, I rather think they cleaned me out last night! Let me see. Ah! only half a dozen "bob" left in my purse. Mem, to be more careful in future, and not to play when Bob is of the party. Soon dressed; looked in the swing glass; don't think my toggery amiss. Wonder what the Dragsmen of the Old School would have said to such a turn-out! Buckskin trowsers, buff waistcoat, bird's-eye handkerchief, smart brown coat, Wellington boots, and light white tile! instead of yellow top-boots, greasy cord breeches, heavy long coat, and dog's hair-hat! But I've no time to lose. What a bore to have to get up at such a gothic hour! A lucky dog is Bob Masters, to be two hours later. I've half a mind to cut the concern altogether if my governor does not change the time. But I must be off. So, after snatching a kiss from my pretty Mary's ruby lips, I ran down stairs, and soon found myself at the office in Piccadilly, and just in time to see my drag pull up.

"Why, Bill," I said to my horsekeeper (who always brings my coach from the City), "you've put that 'miller,' the Doctor, on the near side: never mind, I'll try him to-day. I say, let out the off-hand leader's bearing-rein a hole or two: aye, that will do."

Just then an old lady with a fat lap-dog, grey with age, and hardly able to breathe from overfeeding, called me to the coach-door. "Pray, young man, are you the coachman?" "Yes, Madam; can I be of any service?" "Any service!" cried the dowager; "yes, to be sure you can! that person in the corner refuses to let me take this little darling (alluding to the ugly brute she held in her arms) into the coach: now I beg, Mister Coachman, that you will insist on his allowing the little beauty to accompany me in the inside." "Why as to insisting, Madam, it is, I assure you, quite out of the question; and even had I the will and power to do so, perhaps the Gentleman might be disposed to play off the old joke." "What old joke, man, do you mean? I know nothing of jokes:" and from her vinegar look I dare swear she did not. "Why, Madam, a Gentleman in a similar case, on a Lady insisting on making her dog an inside passenger, purchased a little *pig* to accompany it."—"A *pig!* Sir! a *pig!*" "Yes, Madam, he declaring, that as the Lady had a taste for one species of four-legged animals, he had for another. Perhaps, then, as this Gentleman may have such a taste, you will allow the Guard to take charge of the little *beauty!*" Whether it was the fear of the pig, or my flattery of the brute, had the effect I cannot tell; but, much to the annoyance of my fellow-servant, the cur was handed over to his tender mercies; and as I afterwards heard Jem Blowup cursing the creature most ener-

getically, I fear Pet had but a rough journey of it.

Settling the dog dispute took up so much time that I only had an opportunity of getting my bill right, but I was soon on my box, and bowling away at the rate of ten miles an hour. We were but light, and before we got the first stage I had time to see what kind of passengers we had. Jem had in the basket a young fresh, rather good-looking lass, whom he seemed to be "nuts" upon, and an old grey-headed man and his son, regular "yokels" in appearance. Behind me sat a Quaker, in a broad brim, reading the last number of the Mechanics' Mag.; beside him a tawdry dressed, but not ill-looking young woman, evidently going on speculation to a watering-place, and very anxious for the safety of a wagon load of band-boxes, &c. which lumbered the roof of the coach. Besides her was a stout ruddy Sporting grazier, whose time was pretty equally divided between his fair but frail companion and the splendid team that was taking him in such style over the ground: on the box was seated a quiet gentlemanlike man, who you would swear dressed in the country in "long black gaiters and kept tame rabbits." Such were my companions.

"Friend driver," said the Quaker (after we had gone about a dozen miles), touching me on the shoulder, "thy vocation will soon be over, and I am sorry for thee; for thou appearest to be a quiet, shrewd, and well-ordered young person, though somewhat too gay in thy attire." "What, Sir!" I replied; "I am not aware of having given offence to my employers, and I have driven this drag for some years." "No, no, friend! thou misunderstandest me. I did not allude to thy conduct, for that, I doubt not, is well pleasing to thy masters; nay, verily I myself was well pleased in the way thou didst contrive to manage the old woman in the conveyance, who men call Lady Blueskin, in the matter of her dog, by the apt story of the pig; although I do not think the scarlet-coated individual behind me approveth thereof." "Then why, Sir, may I ask, should I lose my situation, as your words would imply?" "Why, friend, art thou not aware that the rail-road, of which such talk has long been, when completed, will drive thee from thy seat? but if thou likest, as I know friend Fillbubble, one of the Directors, I will recommend thee (on thy making thyself master thereof) to the situation of stoker." "Stoker!" cried the grazier; "dang it, what's that?" "Stoker!" half exclaimed the gay-dressed damsel. "Stoker!" repeated I; "pray, Sir, what may that be?" "Stoker, friend," replied the Quaker, "is the name given to the individual who attends to the fire of the locomotive engine, to regulate its speed, as thou dost that of thy horses." "And, in fact, I suppose, Sir, stirs it up to a gallop to make up lost time?" "Thou art not far wrong, I confess, although I think gallop can hardly with propriety be applied to the velocity of an engine." "Why not, Sir? When we say the water in the kettle boils a gallop, it would, surely be more correctly applied to the speed of a carriage: and though I thank you for your good wishes, I hardly think I shall avail myself of your kind offer of service on the rail-road." "Nay, friend, I would not press thee on this head; and verily I should almost regret to see one who handles his reins so well, stirring up a fire like a man-cook."

The grazier, who by this time seemed interested in the conversation, and who, I found afterwards, had been on the Liverpool and

Manchester rail-road, now asked the Quaker, as he "seemed to know all about them kind of outlandish concerns," why they did not give them Christian names, and not call them Plutos and such like; or, at any rate, why not give them the names of wonderful men, as the Duke of Wellington, Lord Lyndhurst, &c." "Of a surety friend I cannot inform thee; but, peradventure, it arises from the idea of propitiating the Heathen Gods; for my own part, I would rather they were called after individuals whose names are honoured and revered, as Franklin, William Penn, &c., or even living persons of fame, such as Friend Pease, Bowring, and others, whose objects are the well-being of mankind."

By this time we had arrived at ——, where we lunched, and I had to take back the up-coach. On wishing my passengers a pleasant journey, the Quaker put a shilling into my hand, and, on my declining it, saying that I took no fees from the passengers I drove from Town, he said, "Well, friend, I bid thee farewell, for verily I believe thee to be a conscientious man, as well as a skilful driver, for thou hast brought us safe and speedily hither, and canst even refuse money, which truly is a very difficult thing for any of us to do: and remember, if thon should'st change thy mind in regard to the matter of the stokership, call on me, and I will assist thy views." On this he handed me his card, and mounting to his place, he and his companions were soon out of sight.

I should almost have been glad to have gone through with them, though the load was light; but when I thought of my engagement to go to the play with my little wife, to see my favorite laughter-loving Mrs. Nisbet, visions of Quakers and steam-engines were soon put to flight, and I was glad to see a full load, which was a far better thing than any promised promotion to the stokership of the "new safe and fast engine, Joseph Pease."

On starting, I found my passengers in the midst of a violent altercation, in which the names of Peel, Melbourne, Wellington, O'Connell, the Bishop of Exeter, and the joints of the tail, taxes on knowledge and on soap, working out of the Reform Bill, &c., &c., were strangely mixed together, and, as I make it a rule on such occasions (and they are many) to say nothing, I had but a disagreeable drive, particularly as at one time, in the heat of debate, they nearly came to blows to determine whose arguments were the strongest. But as sweetest pleasures end the soonest, so the greatest annoyance must cease at last; and my arrival in Piccadilly relieved me from the noise of angry voices, and gave a higher zest to the quiet enjoyment of the evening.

BREAD FOR CATTLE AND HORSES.

The French frequently feed their Horse with bread, and various other attempts at economy are practised out of the common management of feeding them with raw corn, which, no doubt, may be beneficial. We recollect seeing an account of a team of Horses, at Liverpool, whose corn was always boiled, and the water afterwards given them to drink. This was said to nourish them at much less expence than the common method of feeding them.

It is equally necessary to seek for economical food for cattle as for man. To lessen the consumption of food by cattle without injuring them, is to save so much for the benefit of man. Many neglected grapes, plants growing in marshy ground, the tender leaves of different

trees deprived of their resin by infusion, chopped straw, &c., are substances and resources which may be usefully employed. But would it not be more advantageous and more salutary to prepare their common food? Would not the conversion of grain into bread be as beneficial to animals as to man?

Trituration, steeping, and baking, correct, evolve, and perfect the nutritive qualities of grain; may not these preparations be as useful for animals as it is to the human race? But may not such preparation be rather an additional expense than a saving? Certainly not, if it is true that cattle will consume much less, and will thrive better on it; and this experience has proved. It would be difficult to contend that animals will not fare better on food which has been subjected to a salutary process; the mixture of salt in their bread will render it more wholesome, and that salt is very efficacious mixed with or thrown into their usual food. In regard to economy, it has already been proved that salt cake is a cheap and excellent food for sheep; and in Sweden, oat bread is used for Horses, and is found much cheaper and more salutary than the simple grain. It may be remarked that Horses always pass some part of the oats they have eaten whole; their stomachs labour much to digest food, some part of which is entirely lost, and is even dangerous to them. Oats ground and baked would not occasion these inconveniences.

Experience has proved in Sweden, that one ton of oats makes 480 loaves, on which a Horse may be better kept (at the rate of two loaves a day) for 240 days, than if he had had six tons or even more of raw oats. The husk of the oat remains mixed with the flour: the weight of the water used in making the dough is gained, and a great deal of water is necessary. With a given quantity of wheat flour, *without the husk*, a quantity of bread is made for the use of man, weighing more than the raw grain *with the husk*. On the other hand, a less weight of bread than of oats should be given to Horses, because the bread is more nourishing, especially if rye be mixed with the oats. We have remarked, that with salt the bread will be more wholesome and nutritious. It has been calculated in Sweden, that after all expenses have been taken into consideration, a great saving is effected by feeding the Horses on bread made of oats and rye. The Swedes never give hay, without mixing it with two-thirds of chopped straw, and adding bread broken up. The better to preserve this bread, it should be made in the shape of cakes; and if it be prepared like biscuit, it will keep very long without losing its nutritive qualities.

How is it that, in making bread for cattle, roots have never yet been generally employed? Wild plants and seeds containing starch, would also furnish materials. Good bread for cattle may be made from the farinaceous parts of the horse-chestnut, acorns, mandragora, dog's grass, &c. These substances may be used in the composition of bread for cattle, together with potatoes reduced to powder.

In all agricultural experiments, we must never allow ourselves to be discouraged; creatures accustomed to a particular diet, will sometimes refuse a superior one, for that to which they are habituated. It should be frequently presented to them, and before long they will relish it. Why should not leaves, chaff, straw, heath, fern, &c., reduced to powder, be mixed with this bread? Beet-root, or potatoes and flour will serve as a

vehicle for all these substances. Experience will quickly show the proper quantities for producing bread of a good consistence.

AFFECTION OF THE ARAB FOR HIS HORSE, ETC.

An Arab and his tribe had attacked in the Desert the caravan from Damascus with complete success, and the Arabs were occupied in packing their booty, when the horsemen of the Pacha of Acre, who had come to meet the caravan, rushed suddenly on the victorious Arabs, of whom they killed a considerable number, and made the others prisoners; and having tied them with cords, took them to Acre, as presents to the Pacha.

Abon el Masseh, the hero of this story, had received a ball in his arm during the engagement, but as his wound was not mortal, the Turks had tied him upon a camel, taking his horse also with him.

The evening of the day of their approach to Acre, the party encamped with their prisoners upon the Mountain of Saf hadt. The legs of the wounded Arab were tied together by a leathern belt, and he was laid near the spot where the Turks slept. Kept awake during the night by the pain of his wound, he heard his horse neigh among others picketed round the tents, according to the Eastern custom. Recognizing its voice, he could not resist the desire to go once more to the former companion of his life. He crawled with great difficulty, with the help of his hands and knees, and reached his steed. "My poor friend (addressing him), what canst thou do among these Turks? thou wilt be imprisoned under the roof of a kan, with the Horses of an Aga or Pacha. The women and children will no longer bring thee the camel's milk, or barley, or doura in ther palms. Thou wilt no more course the desert like the wind from Egypt. No more wilt thou divide with thy chest the refreshing waves of Jordan. O that if I remain a slave, I could render thee at least free! Let me try! There, go! return to our tents, tell my wife that Abon el Masseh returns to it no more, and lick the hands of my four children."

Thus speaking, Abon had gnawed with his teeth the goat's hair which had served to fasten the Arab Horses, and the animal became free; but seeing his master manacled and bound at his feet, the faithful and intelligent creature was taught by instinct what no language could have told it. He bent his head, seized his master, and taking him up by his teeth by the leathern girdle round his body, set off in a gallop, and carried him to his tent. Arriving there, and throwing his master on the sand, at the feet of his wife and children, the horse expired from fatigue.

The whole tribe wept his loss—poets sang his merits, and his name is constantly in the mouths of the Arabs who inhabit the country about Jericho.

We have ourselves no idea of the degree of attachment and intelligence, which the habit of living with the family, of being caressed by the children, fed by the women, and encouraged or chided by the voice of the master, adds to the natural instinct of the Arabian Horse.

By his breed the animal is more intelligent and tame than those of our climates. It is the case with all the animals in Arabia. The climate or nature has given them more instinct and companionship with man than in Europe.

SYMMETRY.

The French veterinarians have taken great

trouble to ascertain the proportions which the different parts of the body should bear to each other, in order to discover the relative magnitude of the head, neck, trunk, and limbs, which ought to be found in the best constructed frame. If only one particular figure, and one set of proportions, were consistent with strength and activity, it would be of some benefit to make ourselves acquainted with those geometrical proportions; but in order to show that the perfections of Horses cannot be determined by any general rules, we have extracted a part of Monsieur Saint Bel's observations on the proportions of Eclipse, compared with that of the French table.

1. In that table the Horse should measure three heads in height, counting from the fore-top to the ground: Eclipse measured three heads and a half.

2. The neck should measure but one head in length: that of Eclipse measured a head and a half.

3. The height of the body should be equal to its length: the height of Eclipse exceeded his length by about one-tenth.

4. A perpendicular line falling from the stifle should touch the toe: this line in Eclipse touched the ground at the distance of half a head before the toe.

5. The distance from the elbow to the bend of the knee should be the same as from the bend of the knee to the ground: these two distances were unequal in Eclipse, the former being two parts of a head longer than the latter.

This summary comparison shews that the beauty of a Horse cannot be absolutely determined by general rules, but must ever be in relation to a particular species.

Nature is herself the source of all that is ingenious, amiable, aud beautiful: she laughs at systems manufactured by man, who views objects only through his own medium; and a little attention to her laws will convince us that, even in the same breed, individual varieties are endless in number, and great in degree, without any diminution of activity or strength.

CHAPTER V.

EARLY HISTORY OF THE ENGLISH RACE-COURSE, RACE-HORSE, ETC.

We now come to speak of the English Racer, and of the Course, which has been so long the peculiar pursuit and amusement of the English people. We shall proceed to give an early account of the Course, which will enable our readers to draw a comparison between the present and the olden time :—

RACING.

It has been customary, says a Chester antiquary (the elder Randal Holme, one of the city heralds), time out of mind, upon Shrove Tuesday, for the Company of Saddlers of Chester to present to the drapers a wooden ball, embellished with flowers, and placed upon the point of a lance.

Mr. Lysons, in his "Magna Brittania," mentions some old articles of a race for two bells among the Corporation records, the earliest date of which was 1512.

This ceremony was performed in the presence of the Mayor, at the cross in the Roody, an open place, near the city; but this year, 1540, continues Holme, the ball was changed into a silver bell, valued at three shillings and sixpence, or more, to be given to him who shall run the best and furthest on horseback before them on the same day, Shrove Tuesday.

In 1610, Mr. Robert Ambrye or Amory, ironmonger, Sheriff of the City of Chester, at his own cost, did cause three silver bells to be made of good value, which bells he appointed to be run for with Horses, "upon St. George's day, upon the Roode Dee, from the new tower to the netes, there torning to run up to the watergate, that horse which come first there to have the beste bell; the second to have the seconde bell for that year, putting in money and shuerties to deliver in the bells that day twelvemonth." The other bell was run for on the same day upon the like conditions. These trophies were taken to the Course with much pomp and ceremony. Chester races are now held the first week in May, which comes as near the original time (old St. George's day) as possible.

These bells were denominated St. George's Bells, and in the last year of Jas. I. (1634-5,) John Brereton, inn-keeper, Mayor of Chester, first caused the Horses entered for this race, then called St. George's race, to start from the point beyond the new tower, and appointed them to run five times round the Roody; and

according to the younger Randel Holme, he who run the last course, or trayne, received the bell, worth eight or ten pounds, and to have it for ever, which moneys were collected of the citizens for that purpose. By the author's having added that the winner of this race was to have the bell for ever, is implied, that it had been formerly used as a temporary mark of honour by the successful Horseman, and afterwards returned to the corporation: this alteration was made April 23, 1624.

Sir Thomas Chaloner, who wrote in the early part of Elizabeth's reign, mentions Henry VIII. as a great admirer of horses, and of his having imported some from Turkey, Naples, Spain, and Flanders to improve the breed.

John Northbrook, a puritanical writer, in the reign of Queen Elizabeth, who, though very severe against cards and dice, interludes, and other idle pastimes, allows of horse racing, a proof that it was no uncommon amusement at that time, when it was considered as a liberal pastime, practised for pleasure rather than profit, without the least idea of reducing it to a system of gaming. It is ranked with hunting and hawking, and opposed to dice and card-playing, by an old Scotch poet, who laments that the latter had, in a great measure, superseded the former; and Commenius says, at this day, 1590, tilting, or the quintain, is used instead of horse-races, which, adds he, are grown out of fashion.

Antecedently to the reign of James the First, trials of speed were not practised as at the present day; nor were any horses kept solely for the purpose of running at stated seasons. It is, however, certain that this comparative mode of ascertaining the goodness of Horses was not only, previously to this period, known but that private matches were made between gentlemen, who, relying on their own skill, rode themselves.

Soon after the accession of this Monarch, who was "inordinately attached to the sports of the chase *," public races were established; and particular Horses becoming known for their swiftness, their breed was cultivated, and their pedigrees recorded with the greatest exactness. Now it was that they were trained expressly for the purpose, attention being paid to the quantity and quality of the animal's food, physic, sweats, and clothing: the weights, also, which seldom exceeded ten stone, were rigidly adjusted. Camden says, that most of the celebrated races in the kingdom were called Bell Courses: hence originated the adage, "He bears the bell." In this reign, the value of English Horses began to be duly appreciated; many were purchased and exported to France.

Sir Simon D'Ewes, in his Journal, speaks of "a Horse-race, near Linton in Cambridgeshire, in the reign of James the First, at which town most of the company slept on the night of the race."

Gatherly, in Yorkshire; Croydon, in Surrey; Theobald's, on Enfield Chase, when the King was resident, were the spots where races were run. This King (James I.) bought an Arabian Horse of Mr. Markham, and gave 500*l.* for him. He was the first of that country which had ever been seen in England. The Duke of Newcastle mentions him, in his

* This sylvan Prince, whose sporting dress was of the forest-green, with a feather in his cap and a horn by his side, "in the most advanced state of his age and imbecility, when unable to sit on horseback without assistance, contrived to pursue the chase by being laced or tied up in his saddle."

"Treatise on Horsemanship," to have been of a bay colour, a little Horse, and no rarity for shape; he was trained, but disgraced his country by being beat in his races by every Horse that ran against him.

Butcher, in his Survey of Stamford, informs us, that a concourse of noblemen and gentlemen meet together in the vicinity of the town, in mirth, peace, and amity, for the exercise of their swift-running Horses, every Thursday in March. The prize they run for is a silver gilt cup with a cover, of the value of seven or eight pounds, provided by the Alderman for the time being; but the money is raised out of the interest of a stock formerly made by the neighbouring nobility and gentry, the well wishers to the town.

Races were held at Newmarket the latter end of Charles I., although the Round Course was not made till 1666.

In this King's reign, races were run in Hyde Park, as appears from a comedy called the Merry Beggars, or Jovial Crew, 1641. "Shall we make a fling to London and see how the spring appears there, in Spring-Garden and in Hyde Park, to see the races, horse and foot?"

At this epoch, however, the country was distracted by scenes which were brought too closely to the feelings and bosom of every man to allow of attention being paid to subjects which can alone be prosecuted with effect in periods of tranquillity.

Burton, in his "Anatomy of Melancholy," mentions Horse races as "the disports of great men, and good in themselves, though many gentlemen, by such means, gallop out of their fortunes."

On the restoration of Charles II., the great patron of the turf, this sport, so congenial with the habits and manners of a free people, revived. The glory of Newmarket, long obscured, again shone in meridian splendour. The palace, as it is now called, erected by James the First, and which had fallen to decay during the Civil Wars, was rebuilt for the better accommodation of the Merry Monarch, who personally attended, and not only gave public rewards, but kept and entered Horses in his own name *; shedding by his affability, like William the Fourth at Ascot, a lustre and dignity on the anxious pursuit over which he presided. When his Majesty resided at Windsor, races were held in Datchet Mead: he also occasionally visited other places where Horse races were instituted—Burford Downs, in particular, as may be inferred from the following doggerel verses, written by Matthew Thomas Baskervile, about the year 1690.

> Next, for the glory of the place,
> Here has been rode many a race:
> King Charles the Second I saw here,
> But I've forgotten in what year;
> The Duke of Monmouth here, also,
> Made his Horse to sweat and blow;
> Lovelace, Pembroke, and other gallants,
> Have been venturing here their talents;
> And Nicholas Bainton, on Black Sloven,
> Got silver plate by labour and drudging.

To this Monarch, also, we are indebted for the breed of our present race of running horses. With a view to the improvement of our native stock, the Master of the Horse (by some said to have been Sir Christopher Wyvill, and by others Sir John Fenwick) was sent into the Levant to procure Horses and mares for breed-

* Oct. 10th, 1671.—"After dinner, I was on the heath, where I saw the greate match run between Woodcock and Flatfoot, belonging to the King and Mr. Eliot, of the bedchamber, many thousands being spectators: a more signal race had not been run for many years."—*Evelyn.*

ing: the mares thus procured, and also many of their produce, have been styled *Royal Mares.* Dodsworth, though foaled in England, was a natural Barb. His dam, a Barb mare, was imported at this period, and was called a royal mare. She was sold by the Studmaster, after the King's death, for forty guineas, when twenty years old, in foal (by the Helmsley Turk) with Vixen, dam of the Old Child Mare. Dodsworth covered several well-bred mares, as appears by various pedigrees.

At this time, too, the prizes run for became more valuable: instead of bells, pieces of plate were substituted, as bowls, cups, &c., usually estimated at one hundred guineas each; and upon trophies of victory, the exploits and pedigrees of the successful Horses were most commonly engraved, whence, perhaps, much curious information might be obtained.

During this reign Plates of different value were given in various parts of the country, and which were generally advertised in the London Gazette.

William the Third frequently visited Newmarket; and Queen Anne kept race-horses, and entered them in her own name. Her Majesty's brown Horse, Star, won a plate at York, July 30, 1714, at *four* four mile heats, the Friday preceding her death, which occurred on Sunday, August 1. George the First (1720) discontinued the Cups, and ordered One Hundred Guineas in specie to be paid to the successful competitor.

We have given the early history of the Course, sufficient to shew those who were unacquainted with its commencement, who were its supporters in its infancy, and by what progressions it arrived to the state of receiving the King's Plate.

We now come to the still more important part of this work, by selecting those Sires of the Turf, from whom our racing blood has derived its celebrity. We shall, however, before speaking of these individual Horses separately, say something of the Racer generally.

The race-horse, like the game-cock, the bull-dog, and the pugilist, are England's peculiar productions, unequalled for high courage, stoutness of heart, and patience under suffering. Now prize-fighting, cock-fighting, and bull-baiting, being out of fashion, it becomes a question with us, whether these distinctions will be allowed us after the next fifty years. We care not much about it, if even these distinctions should leave us; not that we are indifferent to the hardiness of our animals, whether biped, or quadruped; but it cannot be a question but this very hardiness has been productive of great cruelty. We recollect, early in youth being taken to a place in Staffordshire, to see, as a curiosity, a bear-bait. On arriving at the house where the bear was kept, we were invited in, and much to our astonishment, lay a bear and a bull-dog, cheek by jowl, before the fire. The man enquired if we had brought any dogs with us. On being answered in the negative, he said it was all one, he would find a dog. Poor Bruin was brought to the stake, and his late seeming friend, and companion, was led to some distance from the bear, and set at him. The dog attacked his old friend with all that determined ferocity belonging to his instinct, and pinned the bear. On remonstrating on the cruelty of the treachery of suffering the bear to be attacked by her late seeming friend and companion (for the bear seemed to make little or no resistance, as if she had confidence in the dog's not hurting her) and allowing the

poor bear to be so ill-used. The bear-guard (blackguard, if you will,) exclaimed, "the bear isn't hurt; dug's got no teeth; knocked 'em out wi' chisel." True enough it was, the dog had not a single tooth left!

Cockfighting has always appeared to us a most wanton and cruel sport. Pugilism has brought sufficient disgrace upon itself, never we hope, to rear its head again. The cruelties of the race-course, arising from the severity of punishment administered to Horses, sometimes by jockies, no man of any humanity can defend. The Turf has, no doubt, been in many instances degraded by practices which are indefensible; still looking upon it in a national and general way, it is of immense importance in supporting and maintaining the character of the English Horse.

THE RACE HORSE.

The term thorough-bred, in Britain and Ireland, indicates the Horse to be either a remote or immediate pure, unmixed descendant of the South Eastern courser, Arabian, Barb, Turk, Persian, Syrian, Egyptian, or of the neighbouring countries; the preference for antiquity and purity of racing blood being always due to the produce of the Arabian and African deserts.

The modern English race Horse resembles most the Arabian, in the general outline of his figure, his limbs, the form of his head, and in his countenance; but from the great care and high keep which he has enjoyed in this country through so many descents, he is of far greater height and bulk and equally superior powers. Art is the handmaid and improver of nature; and notwithstanding the boasted speed of animals in the natural state, there is no doubt of the superiority of the trained courser. Thus the British race Horse, even at an equality of size and power to carry weight, is far more swift and more stout, in the turf phrase, more lasting, than the natural courser of the desert of the oldest pedigree. Such is the universal experience from trials in this country, and such would in all probability be the result, were the rival Horses taken young, and trained and tried upon an equidistant and neutral soil. This opinion may not altogether coincide with the sentiments of those, who have been accustomed to read and swallow without investigation, those proper supplements to the Arabian Nights, relations of the speed and extent of the journies performed in a given time by Arabian Horses: a little aid may be given to the judgment of these gentlemen, by the suggestion, in the desert, are no mile posts, no clocks or watches, wherewith to measure time, no clerks of the course to start the Horses, nor judges to drop the flag at the ending post; but that the jockey himself is often the only spectator and detailer of his Horse's performance; and that in all the Eastern writings, ancient or modern, exaggeration is the predominant figure.

In the early periods of the turf, recourse must have been had for racers to foreign Horses, and to the bastard breeds, as they were then styled, or mixtures between foreigners and the lightest native breed of the country. Spanish jennets, the descendants of Barbs, were trained: in short, any well-shaped nag with good action in the gallop, was deemed a racer.

The idea of thorough-breed and its peculiar qualities, had not then taken place, but was afterwards gradually and experimentally developed. The mild climate and gramineous soil of this country, always congenial with the

nature of the Horse, were found highly to improve in size and powers, the progeny of the Horses of the South; and thence, aided by the systematic care of our turf breeders, has arisen the British race Horse, in the state of beauty, symmetry, and perfection, which we now witness; and the superiority of which, all the world acknowledges and admires. This species had probably arrived at perfection, above a hundred years since, in the instance of Flying Childers, as the speed of that wonderful animal has never been exceeded; nor does it seem within the experienced powers of Nature that it ever should.

From that period, the greatest attention has been paid to pedigree, and to preserving the racing breed pure and unmixed. Accidental mixtures there certainly have been, for such are upon record; but they have been comparatively few, mere drops of common, in the grand stream of pure and high racing blood. Such crosses have been occasionally apparent in the form and qualities of the produce, perhaps for several generations; but they have been obliterated by time, and are not discoverable in the remote descents. Within the above period, but not very lately, the phenomenon has now and then appeared of a Horse not thorough-bred, proving a winning—even a capital racer. But such exceptions will not induce experienced Sportsmen to infringe the general rule, by breeding from, or training Horses for the course, which are not thorough-bred. The same rule holds, however anomalous it may seem, with respect to foreign Horses of the purest blood, from which our thorough-breed is derived. None of them, and the experiment has often been repeated, whatever be their age, size, or condition, are able to contend upon the course, from a race of one hundred yards, to one hundred miles, with their relatives and brethren in blood, the race Horses of this country.

The first James, our first sporting monarch, also, purchased of a Mr. Markham, a merchant, an Arabian Horse, at the very considerable price of five hundred pounds.

The ill success of this Horse brought Arabians into such disrepute, that we read of but few in the scanty annals of the Turf, until the reign of Queen Anne, the last of the Stuarts.

THE DARLEY ARABIAN.

Early in the reign of Anne, and which forms an epoch in Turf history, the famous Darley Arabian was imported. He was sent from Aleppo by Mr. Darley, a merchant there settled, who procured him through his connections, from the Arabian deserts; and he is one of those few Horses, on the purity of the blood of which we can have a certain reliance. Hence the consequence to a turf breeder, of having a portrait upon which he can depend upon, to illustrate those proportions of excellence, which this Horse possessed. It is said the only portrait of him has never been published, but remains in the mansion of his former master. That he was the sire of that racer of deathless fame, Flying Childers, and that his blood has since invariably proved the most valuable for the stud, form the best evidence of its purity, and that the land in which he was bred, is the native soil of the genuine courser. The Leedes Arabian was cotemporary with the Darley, and it is sufficient for his fame as a stallion to say, that he was the sire of Old Leedes.

The great success of Mr. Darley with his Arabian, turned the current of fashionable

opinion among our English Sportsmen, so much in favour of the Horses of that country, that it became a common inducement to style all Horses imported from the Levant, Arabians, whether or not they might have been really such, or Persians, Syrians, Egyptians, Turks, or Barbs. This has occasioned notable confusion and uncertainty, but it has been experienced, that the Horses of all those countries are endowed with the properties of the race Horse in certain degrees, and the blood of our English thorough-bred Horse is derived from a mixture of all those, although doubtless the blood of the Arabian and Barb predominates.

THE DEVONSHIRE, OR FLYING CHILDERS.

Childers, a bay Horse, somewhat upwards of fifteen hands in height, was foaled in 1715, the property of Leonard Childers, Esq. of Carr House, near Doncaster, and sold, when young, to the Duke of Devonshire. His pedigree was as follows:—he was got by the Darley Arabian, his dam, Betty Leedes, by Old Careless; his grandam, own sister to Leedes, by Leedes' Arabian; his great grandam by Spanker, out of the Old Morocco mare, Spanker's own dam. The Sporting reader will notice the near affinities in this pedigree. The history of this celebrated racer is so well known, and has been so often repeated, that a few items of it will suffice. Mr. Parkinson, who was likely to be well informed, has said that Childers was first used as a hunter, and that in the field, both his high qualities and his headstrong, if not vicious disposition, were first discovered. He was, however, void of any taint of restiveness. It is probable, that, like Eclipse, he did not start on the course, until five, perhaps not until six years old, when he beat all the Horses of his time, at whatever distance. He was never tried in running a single mile, but the measured and attested performances since, of far inferior Horses, leave not the shadow of a doubt of the ability of Flying Childers, to run a mile within one minute of time! Carrying nine stone two pounds, he ran over the Round Course at Newmarket, three miles, six furlongs, ninety-three yards, in six minutes and forty seconds, when he was judged to move eighty-two feet and half in one second of time. He likewise ran over the Beacon Course, four miles, one fourlong, one hundred and thirty-eight yards, in seven minutes, thirty seconds, covering at every bound, a space of twenty-five feet. He made a spring or leap of ten yards, upon level ground, with his rider on his back. As we remember, about 1778, O'Kelly caused the stride of his grey Horse, Horizon, one of the speediest sons of Eclipse, to be measured, and the extent was reported to be twenty-seven feet. Childers, as a Stallion, ranks far higher than his great competitor Eclipse. In that capacity, perhaps, no English bred Horse can compare with him, as to essentials through length of descent; as a Racer, certainly but one. He died in the Duke of Devonshire's Stud, in 1741, aged twenty-six years.

THE GODOLPHIN ARABIAN.

The Godolphin Arabian was imported into this country, about five and twenty years after the Darley Arabian. They were the most celebrated and valuable for their blood and high form, as stallions, which have yet appeared, and are the source of our present best racing blood. There are sufficient reasons, however, for the supposition, that Lord Godolphin's Horse was in reality a Barb. The public has been in constant possession of the

true portrait of this famous Horse, so remarkable and striking in his form; which is not the case, to the regret of all true Sportsmen, with respect to the Darley Arabian, of which there now exists, if it yet do exist, but the solitary original picture, at the old mansion of Mr. Darley; the possessor having, it is reported, returned no answer to an application some years since, for leave to take an engraving of it for the public satisfaction.

The portrait of the Godolphin Arabian by Stubbs, gave rise to some unfavourable criticisms by his brother artists, in respect that the elevation of the Horse's crest was excessive, indeed, totally out of nature; and it was asserted that the painter must have drawn upon his imagination, in order to deck out a Horse with such a lofty and swelling forehand.

Now, looking at the Godolphin Arabian, a Horse that has been of so much importance in the improvement of the breed of the racing stud, it is an object of great regret, that the portrait of such a Horse should be received with a cavilling spirit, or at all as a matter of doubt. We regret, for the sake of posterity that there should be Horses of such undoubted reputed excellence, as the Darley Arabian, as well as many others, of almost equal note, without any portraits to enable us to judge of their make and personal appearance. In the present day, however, we have artists who seize with avidity the occasion of taking the portraits of celebrated Horses, and it is not to be expected that any doubt of a likeness will take place in future, as was in the case of the Godolphin Arabian.

It is but justice to Stubbs, however, to say, that the late Rev. Mr. Chafin who had seen the Godolphin Arabian frequently, vouches for the correctness of this picture.

This Arabian's fate seems to have been as chequered as that of many other public characters, and he has been indebted as much to accident for the development of his powers, as some of our heroes of the sock or buskin have. So little was he valued in France, that it is said he was actually employed in the drudgery of drawing a cart in the streets of Paris. Mr. Coke brought him over from France, and gave him to Williams, master of the St. James's Coffee House, who presented him to the Earl of Godolphin.

This noble Horse, though elevated from the drudgery of drawing a cart in the streets of Paris, to the stud of a British nobleman, whose name the Arabian afterwards bore, was nevertheless placed in a secondary and degrading situation, by becoming teazer to Hobgoblin, a stallion in his Lordship's stud, which Horse was so ungallant as to refuse making any advances to Roxana, and she was in consequence put to the Arabian, and produced a colt foal, the famous Lath, the most elegant and beautiful, as well as the best racer of his time.

The Godolphin was fifteen hands in height, of great substance, of the truest conformation for strength and action, bearing every indication of a real courser—a Horse of the desert. His colour was entire brown bay, with mottles on the buttocks and crest, excepting a small streak of white upon the hinder heels. He was imported into France from some capital or royal stud in Barbary, whence it was suspected he was stolen.

This Arabian was said to have been foaled in the year 1724. He died in 1753, having been considered the most successful as a stallion of any foreign Horse before or since imported.

ECLIPSE.

Eclipse, fully master of sixteen stone, was bred by the Duke of Cumberland, of Culloden memory, and foaled during the great eclipse in 1764, whence the name given him by the Royal Duke. He was got by Marsk, a grandson, through Squirt, of Bartlet's Childers, out of Spilletta; she was got by Regulus, son of the Godolphin Arabian, out of Mother Western, which mare was got by a son of Snake, full brother to Williams's Squirrel, her dam by Old Montague, grandam by Hautboy, out of a daughter of Brimmer, her pedigree not preserved.

Eclipse had several full brothers and sisters; Hyperion, afterwards Garrick, Proserpine, Briseis, and others, but none of them racers of any high form.

This famous racer, together with Flying Childers, whose names are familiar to every ear, stand proudly aloof, to this hour, from all possibility of competition. Eclipse, in his form, constitution, and action, seemed to comprehend every excellence for the course—a vast stride, with equal agility; no Horse ever threw in his haunches with more vigour and effect, and they were so spread in his gallop, that a wheel-barrow might have been driven between his hinder legs.

Of his speed too much cannot be said, but we have no rule by which to judge of his stoutness or game, since no cotemporary racer was able to run for a moment by his side, far less able to try his power of continuance; and if it be said, that he contended with middling Horses only, the two or three capital ones that met him, having passed their prime, it must be remembered that those Horses he distanced, and probably could have doubly distanced. The jockeys never held him, the Horse always running according to his own will, yet never swerving from his course, and always pulling up easily enough at the ending post. O'Kelly was yet apprehensive that he might at some time break away; and when the Horse ran over the course at York, with twelve stone, which he was judged to have performed in eight minutes, a number of men were placed at the ending post, with the view of stopping him, in case the jockey should be unable to pull him up; a precaution which proved entirely useless. He never felt the whip or spur on any occasion.

The only cotemporary which was supposed to have any pretensions to contend with Eclipse, was Mr. Shaftoe's famous Horse, Goldfinder, by Snap, a beautiful and long-reached brown Horse. He was never beaten, and would have met Eclipse, to run for the King's Plates in the following year, but that he broke down in the October Meeting, at Newmarket. The speed of Eclipse was never timed by the watch, unless in running over the course at York, a fact never clearly ascertained.

Immediately previous to Eclipse running for the King's Plate at Winchester, 1769, Mr. O'Kelly purchased the half share of him, for six hundred and fifty guineas, of Mr. Wildman, the sporting sheep salesman of Smithfield, who had a stud, and trained race horses, near Epsom, Surrey. Afterwards O'Kelly purchased the remainder for eleven hundred guineas.

About the year 1779, a noble Duke, or some sporting member of his family, demanding of O'Kelly how much he would take for Eclipse, the reply was—"By the Mass, my Lord, and it is not all Bedford Level that

would purchase him." Old Jack Medley, of the Sporting Coffee House, declared that he heard O'Kelly ask, with singular gravity, the sum of twenty-five thousand pounds down, an annuity of five hundred pounds on his own life, and the annual privilege of sending six mares to the Horse, as the price for Eclipse. O'Kelly affirmed, that he had acquired upwards of twenty-five thousand pounds by Eclipse.

The Eclipse colt, when a yearling, was purchased by Mr. Wildman for seventy-five guineas, on the decease of the Duke of Cumberland, at the sale by auction of his Royal Highness's stud. Marsk, the reputed sire of Eclipse, subsequently on the New Forest, covered country and forest mares at half-a-guinea each. The same Marsk, which afterwards, being the property of Lord Abingdon, covered at one hundred guineas a mare, and was advertised, in succeeding seasons, by the noble breeder, at two or three hundred guineas a mare. Wildman had a friend in the old Duke's stud, from whom he obtained a hint of the superior form of the Eclipse colt; but making the journey in haste, he did not arrive until the sale had commenced, and his object had been already knocked down at seventy guineas. Appealing instantly to his watch, which he knew to be a correct time-piece, he found the hour had not arrived by several minutes at which the commencement of the sale had been publicly advertised, and thence firmly insisted there had been no lawful sale, and that the lots knocked down should be put up again. The knight of the hammer, well aware of the resolution and pecuniary weight of Mr. Wildman, very prudently offered him the chance of any lot he should chuse. Eclipse was put up again, and Wildman purchased the yearling Eclipse at an advance of five guineas.

Eclipse, for what reason has never been published, did not appear upon the Turf, until he was full five years old, when he was entered at Epsom for the Maiden Plate of fifty pounds. There can be no doubt but that his trials at Epsom had been watched, as the odds at starting were four to one in his favour.

O'Kelly was doubtless well aware of the goodness of this maiden Horse, by the large sums he then betted at such considerable odds. In running the second winning heat, the whole five Horses were close together at the three-mile post, when some of the jockies used their whips; Eclipse was quietly jogging on at his moderate rate; when alarmed by the crack of the whips, he bounded away, and notwithstanding his jockey held him back with all his force, not one of his competitors could save his distance.

In running over the course at York, in the following year, 1770, for the Subscription Purse, against Tortoise and Bellario, two first rate racers, but aged, Eclipse took the lead: and the jockey being unable to hold him, he was more than a distance before the other Horses at the end of two miles, and won the race with the utmost ease. At starting, bets of twenty, and in running, one hundred pounds to a guinea, were offered on Eclipse. On a certain race, O'Kelly betted five and six to four, that he posted the Horses: that is to say, named, before starting, the order in which they would run in. When called on to declare, he named—"Eclipse first, the rest in *no* place," and won his money, Eclipse distancing all the rest; being distanced, they were consequently, in a sporting sense, in no place.

Eleven King's Plates, the weight carried for all of them being twelve stone, one excepted, ten stone, were won by Eclipse. In twenty-three years, three hundred and forty-four winners, the progeny of this transcendant Courser, produced to their owners the sum of 158,071*l.* 12*s.* various prizes, not included. The characteristics of the Eclipse racers were speed and size, and many of them bent their knees, and took up their feet in the gallop, with extraordinary activity. If few of them were stout, still fewer of them wanted honesty, a restive or swerving Horse being seldom found of that blood.

The eye of Turf science is directed in the portrait of Eclipse, to the curve in the setting on of his head, to his short fore-quarter, to the slant, extent, and substance of his shoulder, the length of his waist, and breadth of his loins; to the extent of his quarters, and the length and substance of his thighs and fore-arms. Although a strong, he was a thick-winded Horse; and, in a sweat or hard exercise, was heard to blow at a considerable distance.

Eclipse first covered at fifty guineas; afterwards at twenty guineas, being stinted to fifty mares, exclusive to those of his owner; ultimately, at thirty guineas.

In 1788, his feet having been neglected, he was removed from Epsom to Cannons, in a four-wheel carriage, drawn by two Horses, his groom being an inside passenger with him, the old racer and his attendant taking the necessary refreshments on the road together. Eclispse died at Cannons in the following year, on February 28, aged twenty-five years; and, according to the precedent of the Godolphin Arabian, cakes and ale were given at his funeral. His heart weighed thirteen pounds.

The uncertainty in Eclipse's pedigree arises from the circumstance that his dam, barren in the previous year, was in the next covered by both Shakespear and Marsk; but came to Marsk's time. There was a strong resemblance, however, in Eclipse, to the progeny of Shakespear, in colour, temper, and certain peculiarities of form.

Mr. John Lawrence, who was well acquainted with Eclipse, says:—"Never, to the eye of a Sportsman, was there a truer-formed galloper in every part; and his countenance and figure as he stood in his box, notwithstanding his great size, excited the idea of a wild Horse of the desert. His resolute and choleric temper was well known; and although he held a very familiar and dumb converse with us over the bar, we did not deem it prudent to trust ourselves alone with him in his apartment; he was nevetheless very kind and friendly with his groom."

CHAPTER VI.

MEMOIR OF THE OWNER OF ECLIPSE.—OBSERVATIONS ON THE TURF, ETC.

MEMOIR OF DENNIS O'KELLY, ESQ.

In giving an account of this extraordinary gentleman, the owner of Eclipse, as well of many other noted racers, we are indebted to Mr. John Lawrence, who says:—

"Dennis O'Kelly, Esq., died either a captain or colonel of the Surrey Militia. He was a true Milesian, and of that naturally-privileged class, born for gentlemen, although not gentlemen-born. He possessed that kind of talent, industry, patience, and assurance, which are generally sure to promote a man's views of rising in life—it was Whittington and his Cat, O'Kelly and his Horse. Of his genealogy we profess to know nothing, or the precise period at which he left Ireland, and found his way to this country to seek his fortune. Nor is it important to determine, in what character he made his appearance in London, whether as a chairman or a waiter; but we knew the man personally in his prosperity; and, in our mind's eye, we now behold him as he stood, the oracle of the betting-ring, on Epsom Downs, in the year 1779—a short, thickset, dark, harsh-visaged, and ruffian-looking fellow, wearing an old round hat and short, striped Orleans coat. Through this unfavourable exterior shone the ease, the manners of a gentleman, and the attractive quaintness of a humourist. We saw him converse with the *gentle* and the noble of this and other countries, with the *tournure* and decorous confidence of gentility, and could not help admiring the man, who from the lowest beginnings, had, by mere dint of talent and diligence, elevated himself to such a height of fortune, in the meanwhile, having qualified himself to enjoy his property with so good a grace. He was a good and kind master to both men and horses; a hearty and social friend, keeping a plentiful table at Clayhill, and giving the choicest wines. His usual summons for the desert was—'John, bring us the apples,' (pines). His servants used to retail with much relish his Iricisms and quaint sayings.

"It has been said that he was a liberal and punctual paymaster; but in all probability, there may be something to detract from this account, and such is the uncertainty of the human character, from the favourable part of *our* statement likewise. We have heard that O'Kelly, as well as his *betters*, who mortified him with a persevering refusal of admission into their clubs, was occasionally long and largely in arrear with his jockies. This might happen in consequence of runs of ill luck, and

having very large outgoings in so expensive a concern. O'Kelly almost by himself, filled a middle rank between our Sportsmen of the Aristocracy and the professional betters; and although it may be presumed, he was not a man overladen and depressed in his career by scruples, his character, as a man of the Turf, in all probability, would not suffer in comparison with the highest of that class. We have not, nor is it likely we shall again soon, see his like.

"For the first spoke which O'Kelly put in the wheel of fortune, he is said to have been indebted to his connection with Mrs. Charlotte Hayes, to whom he was afterwards married; a lady of high note in her day, and of the highest consideration in her line. His nail in fortune's wheel was finally clenched by the purchase, first by the half, afterwards of the whole of the Race Horse, Eclipse. The most painful diurnal and nocturnal attention to the business of play, and the devotion to that end, of a genius and temperament singularly calculated for it, enabled him to make this purchase, and likewise the more heavy one of the estate at Epsom, where, upon the Downs, and on the verge of the course, he built a suite of stabling, replete with every convenience, for the purpose of breeding and training the Race Horse."

O'Kelly died about 1779, leaving a considerable fortune acquired upon the Turf, to his nephew, with the condition, as it had been generally understood, that he never engaged in Horse-racing; which condition, as our convenient laws both make and cut off entails, and as a memento to testators, was afterwards avoided.

Though O'Kelly may be considered generally as a keen and knowing Sportsman, which most undoubtedly he was; yet his predilection for some of his Horses, because they were got by Eclipse (and no man we can admit had greater cause for prejudice), made some of his cotemporaries say was an illustration of his want of judgment. Young Eclipse was a Horse of this description. He never merited this splendid name bestowed upon him, being a Horse of no pretensions whatever; and yet this, and another of somewhat the same description (Boudrow, we believe,) were once his chief favourites. It had, however, been discovered, that the produce of Eclipse ran too generally and exclusively to speed: and that in toughness and continuance, they were greatly surpassed by their competitors on the course, the stock of King Herod and Goldfinder.

In observing on the general character of Eclipse's running, we cannot but remark, that it was impossible to make a tool of him, if even it had been desired or intended by his owner. He was no Horse that could win a race to-day, and be beaten on the morrow by a Horse of inferior powers. He seemed to have made up his mind to be always a winner, and resisted all the attempts of his jockeys to force him to accommodate his pace to that of his opponents. He took the lead and gallantly maintained it, in spite of all opposition. Had we all Eclipses on the course, we should not witness the finesse we so often do on the course, at the present day.

KING HEROD.

King Herod, descended by his dam from Flying Childers, was of the highest reputation, both as a Racer and a Stallion; indeed, stands among the first, if he be not really the very first of the latter class, in modern times. He

ranks decidedly before Eclipse, some of Herod's stock being not only among the most speedy, but the generality of them, the stoutest and best constitutioned Horses the Turf, at any period, has produced.

King Herod was a bay Horse about fifteen hands three inches high, of great substance, length, and power, and fine figure. He was bred by old Duke William, and foaled in 1758. He was got by Tartar out of Cypron. There was another Tartar got by Blaze, but Tartar the sire of King Herod, was got by Croft's Partner, one of our most famous Racers and Stallions, out of Meliora by Fox, and she was bred from a line of stout and true runners. Partner, grand sire of King Herod, was foaled in 1718; he was a chesnut Horse, of great power, exquisite symmetry and beauty, and immediately succeeded Flying Childers, as the best Horse at Newmarket, giving weight to, and beating those of the highest repute, over the course. He was got by Jig, (no pedigree of dam) son of the famous Byerley Turk, his pedigree through a list of highly reputed progenitors, concluding with the well known Old Vintner Mare. Partner died in 1747, aged twenty-nine. Cypron, King Herod's dam, was got by that powerful and capital Racer and Stallion, Blaze, a son of Flying Childers, and sire of Sampson, Scrub, and others; that Blaze, of which the Yorkshiremen affirmed, that even half-bred mares would breed racers by him; out of Sir William St. Quintin's Selima, a black mare and true runner, got by the Bethell Arabian, and boasting in her lineage, Champion, the Darley Arabian, and Old Merlin. King Herod's pedigree consists of the oldest and purest blood.

Herod, like Childers and Eclipse, did not start upon the Course, until five years old. He never ran any where but at Newmarket, Ascot Heath, and York, and always over the course, or four miles, stoutness or game, and ability to carry weight, being his play. He ran five times for a thousand guineas each race, and won three of them. His losing the two, might be on account of reasons which now and then occur upon the Turf. The last race he won was against Ascham, a curious one, from the circumstance of two aged Horses carrying feathers, five stone seven, and six stone. He had previously burst a blood vessel in his head, whilst running the last mile over York, for the Subscription Purse, against Bay Malton and other. He won several matches for five hundred guineas, and a Sweepstake of three hundred guineas, nine subscribers.

The fame of this Racer as a Stallion, in the Turf Register, is truly splendid. In nineteen years, namely, from 1771 to 1789, four hundred and ninety-seven of his Sons and Daughters, won for their proprietors, in Plates, Matches, and Sweepstakes, the sum of two hundred and one thousand, five hundred and five pounds, nine shillings, exclusive of some thousands won between 1774 and 1786. Herod was the sire of the celebrated Highflyer, bred by Sir Charles Bunbury, which was never beaten; and which, like his sire, had a great stride, and game was his best. Herod also got some of the speediest Horses of their day, as, Woodpecker, Bourdeaux, Anvil, Hammer, Sting, Adamant, Plunder, Quicksand, Rantipole, Whipcord, and many others. Tuberose, Guildford, and Latona, were rare examples of the family stoutness, and Laburnum was an excellent and useful racer. The list of brood mares got by Herod is extensive indeed.

King Herod first covered the property of

Sir John Moore, Bart. at ten guineas. In 1774 his price arose to twenty-five guineas, at which it remained till his death, which happened May 12, 1783, in the 22d year of his age. He was so shamefully neglected in his latter days, and his body so encrusted with dung and filth, that, it is said, the immediate cause of his death was a mortification in his sheath. Many much later instances are known of covering Stallions neglected in a similar way, and a famous son of Herod, exhausted by excess of covering, died after three days protracted agonies. George IV. when Prince of Wales, formerly allowed the breeders of the vicinity to his residence in Hants, the use of a well-bred Stallion gratis, excepting the groom's fee of a crown. The consequence of which was, the exhaustion of the animal. So many mares were sent that it was impossible for Nature to support the continued demand for one indivdual to perform, with any chance of a successful progeny. The Horse often covered, or attempted to cover, twelve mares in one day. The stock of which animal was the most wretched, puny, spindle-shanked animals to be imagined. Facts like these should be published, and kept alive in the memories of those who may wish to profit from this information.

BLEEDING CHILDERS.

Bleeding Childers, so called from his frequent bleedings at the nose, afterwards called Young Childers, and finally Bartlet's Childers, was full brother to Flying Childers. He was never trained, but proved a superior stallion even to his brother; and the high character in that respect which we have awarded to the elder brother, we intend as divisible between the two. The Hampton Court Childers, sire of Blacklegs, was son of the Devonshire Childers. There were in all, six nearly contemporary racers and stallions of the name of Childers.

JUPITER.

Jupiter was a son of Eclipse out of the Tartar mare, which, by the same Horse, also bred Venus, Adonis, and some others runners of inferior note. Jupiter was fifteen hands one inch high, and like most of the sons of Eclipse, of great bone and substance. He had also a considerable, if not a capital share of that speed which characterized the Eclipse blood. Speed was his best, to make use of the old Turf phrase, and he had enough of it to enable him to win at Lewes, at three years old, the eight hundred guineas, a mile race, against six others; and the same year, at Newmarket, a mile race also, one thousand guineas, beating seven others; and three hundred guineas, at Newmarket, from the Ditch-in (upwards of a mile and half) beating eight others. He never won a four mile race, or, as it is called, over the course, and broke down in 1779, being five years old, at Newmarket, in the October Meeting, running for the Weights and Scales Plate of eighty guineas, over the B. C. or Beacon Course of four miles.

No longer able to serve his proprietor upon the course, but the date of his services, in all probability, curtailed by that injudicious severity of training to which our grooms are so infatuated, Jupiter was consequently withdrawn in the following season to the Breeding Stud.

It is melancholy to consider how many good Horses have been sacrificed to over-training. It is surely better to leave some superfluous

flesh, than run the risk of training so fine, as to debilitate the constitution of the animal. It would be also more wise very often to substitute walking exercise, than severe training, immediately before the match comes on. It is essential that rest should intervene before any extravagant demand is made upon the powers of any animal. Without such care it is not to be wondered at that Horses should break down in racing.

MARSK.

The brown Horse, Marsk, foaled in 1750, and so named from the place where he was bred, was the property of John Hutton, Esq., of Marsk, Yorkshire, who afterwards disposed of him to his Royal Highness the Duke of Cumberland, was got by Squirt, son of Bartlet's Childers, out of the Ruby mare, which was from a daughter of Bay Bolton and Hutton's Black Legs—Fox Cub—Coneyskins—Hutton's Grey Barb—a daughter of the Byerley Turk, from a Bustler mare. This is one of our highest bred pedigrees, going back to the reign of Charles I. In the year 1750, the Duke made an exchange of a chesnut Arabian with Mr. Hutton, for the colt, which his Royal Highness afterwards named Marsk.

The history of Marsk, like the Godolphin Arabian, was highly eventful, and distinguished by alternate depression and elevation. The fitful tide of life, seems equally to affect the quadruped as much as the biped part of the creation; as the history of Marsk, as well as of his sire, will show.

Marsk must be deemed a capital racer, since he beat Brilliant; but he was an uncertain Horse. Being in low estimation as a stallion, in the Duke's stud, he was sold at his Royal Highness's sale at Tattersall's, to a farmer for a trifling sum, and in 1766, as has been before observed, covered country mares and foresters, at half-a-guinea; when Mr. Wildman finding his intelligence respecting the Eclipse colt correct, thought it advisable to get into his possession the sire of such a colt, and purchased Marsk of the farmer for twenty pounds, who professed himself happy to be well rid of a bad bargain.

Of Marsk's subsequent advance in fame and price as a stallion, we have spoken of before under the head of Eclipse.

Marsk has been styled the "Prince of Horses," and his fame will be handed down to as late a posterity as the fame of his late princely owner.

It is sufficient to say that, beside so many other racers of high reputation, he was the sire of Eclipse, Shark, Pretender, Honest Kitt, Masquerade, Leviathan, Salopian, and Pontac.

Shark won sixteen thousand and fifty-seven guineas, in matches, sweepstakes, and plates; beating the best Horses of his day, at their own play, whether speed, or stoutness.

Marsk seems to have had the caprices of fortune imparted to him as an inheritance from his sire. Squirt, after running with great repute, became a stallion in Sir Harry Harpier's Stud, who esteeming him of no worth, ordered him to be shot.

As the huntsman was leading him out to the dog-kennel, he was begged off by the stud-groom; and afterwards got Marsk, Syphon, Prat's famous old mare that bred Pumpkin, Maiden, Purity; with many others.

Syphon got Sweetwilliam, Sweetbriar, Tandem, Daisey, and others.

These curious and interesting facts, which might be greatly multiplied, surely cannot fail of having certain effect upon the minds of

those, who breed and train Horses for the course. Shark was taken from this country, for the paltry sum of 139*l.*!

The gentleman who writes under the name of Nimrod says:—The greatest stake on record, depending on a single heat, was 5,200 guineas. This was won by Dorimont, a Horse, four years old, the property of the Earl of Upper Ossory, at Newmarket, in 1776. This fortunate animal, the Bay Middleton of that day, also won for his noble owner, the same season, in matches and sweepstakes, eight other races, making the sum in hard cash, of 7,899 guineas, and the Grosvenor Stakes and Clermont Cup. The grand stakes already made to be run at Goodwood, in 1839, has twenty-three subscribers at 300 sovereigns half forfeit: 6,900*l.* if all run, but 4,000*l.* at the least.

EARLY STATE OF TRAVELLING.

In a former part of this work, we alluded to the state of public travelling by coach, and the state of the roads, about the beginning of the present century. We shall now take a more retrospective glance, which will trace the commencement of the use of carriages, as well as an account of some feats of pedestrianism, which necessarily must have been the means of communication antecedent to the making of roads. Our ancestors then, instead of communicating by post, were obliged to use running footmen, whose extraordinary performances rival, we suspect, the Barclays and the Turners, of our more modern times. In referring to the olden time of travelling and the present, our bosoms swell with triumphant satisfaction at the immense improvement which has taken place, so honourable to us as a nation, and which proves at once our industry and our scientific attainments. Watt has not toiled in vain. His invention of the steam engine has been adapted to all purposes. The genius of England has adapted it to ride on the bosom, or to stem the billows of the mighty Atlantic. The steam engine is the means of civilization; it has united the metropolis of the empire with the smallest of its isles, and is the conductor of commerce, which adds so much to our comforts, as well as to our wealth. In fact, fifty years ago, the men, the most advanced in knowledge, and the most sanguine in the expectation of realizing improvements, would be overwhelmed with astonishment at the advance of the arts and sciences of the present day. To illustrate the inconvenience which our ancestors must have suffered, and to make the present generation feel grateful for those altered circumstances, we shall proceed to speak of by-gone times.

In Scotland (says that useful and talented periodical, Chambers' Journal,) they had a class of officials called running footmen, of whose pedestrian powers many surprising examples are noticed by tradition. For instance, in the Duke of Lauderdale's house, at Thirlstane, near Lauder, on the table-cloth being one morning laid for a large dinner-party, it was discovered that there was a deficiency of silver spoons. Instantly, the footman was sent off to the Duke's other seat of Lethington, near Haddington, full seventeen miles off, and across hills and moors, for a supply of the necessary article. He returned with a bundle of spoons in time for dinner.

Again, at Hume Castle, in Berwickshire, the Earl of Home had one night given his footman a commission to proceed to Edinburgh (thirty-five miles off,) in order to

deliver a message of high political consequence. Next morning early, when his Lordship entered the hall, he saw the man sleeping on a bench; and, conceiving that he had neglected his duty, was about to commit some rash act, when the poor fellow awoke and informed Lord Home, that his commission had been executed, and that, having retured before his Lordship was stirring, he had only taken leave to rest himself a little. The Earl, equally astonished and gratified by the activity of his faithful vassal, rewarded him with a little piece of ground, which, to this day, bears the name of the *post rig;* a term equivalent to the postman's field, and an unquestionable proof, as all the villagers at Hume devoutly believe, of the truth of the anecdote. The custom of keeping a running footman did not cease amongst noble families in Scotland till the middle of the last century.

The Earl of March, father to the late Duke of Queensberry, and who lived at Neidpath Castle near Peebles, had one named John Mann, who used to run in front of the carriage, with a long staff. In the head of the staff there was a recess for a hard-boiled egg, such being the only food taken by Mann during a long journey.

Next to the pedestrian feats of our predecessors, were their equestrian performances. The pedestrian was almost independent of roads; and hence the brilliancy of his feats. The rider was not just so independent; but still a rough way was of less consequence to him than to a wheeled vehicle. Hence it arises that some journies performed on horseback in former times are not much less wonderful than the above examples of rapid walking.

Horsemen of the present day would think it no mean feat, we suspect, to perform on horseback one hundred miles a day; yet this undertaking appears insignificant, compared with the account of the rapid travelling of the messenger who conveyed to Edinburgh the death of Queen Elizabeth.

Queen Elizabeth died at one o'clock of the morning of Thursday the 24th of March, 1603. Between nine and ten, Sir Robert Carey left London (after having been up all night), for the purpose of conveying the intelligence to her successor James, at Edinburgh. That night he rode to Doncaster, a hundred and fifty-five miles. Next night he reached Witherington, near Morpeth. Early on Saturday morning he proceeded by Norham across the Border, and, that evening, at no late hour, kneeled beside the king's bed at Holyrood, and saluted him as King of England, France, and Ireland. He had thus travelled four hundred miles in three days, resting during the two intermediate nights. But it must not be supposed that speed like this was attained on all occasions.

When we consider the state of the roads at the period at which this performance took place, it must be considered an astonishing feat of hardihood.

At the commencement of the religious troubles which happened in the reign of Charles I., when matters of the utmost importance were debated between the King and his northern subjects, it uniformly appears that a communication from Edinburgh to London, however pressing might be the occasion, was not answered in less than a fortnight. The crowds of nobles, clergymen, gentlemen, and burghers, who at that time assembled in Edinburgh to concert measures for opposing the designs of the court, always dispersed

back to their homes after dispatching a message to King Charles, and assembled again a fortnight thereafter, in order to receive the reply, and take such measures as it might call for. And even till the last century was pretty far advanced, the ordinary riding post between London and Edinburgh regularly took a week to the journey.

In consequence of the inattention of our ancestors to roads, and the wretched state in which these were usually kept, it was long before coaching of any kind came much into fashion. Though wheeled vehicles of various kinds were in use among the ancients, the close carriage or coach is of modern invention. The word *coach* is Hungarian, and the vehicle itself is supposed to have originated in Hungary. Germany certainly appears to have taken the precedence of the nations of Western Europe in using coaches. They were introduced thence into England some time in the sixteenth century, but were, after all, so little in vogue throughout the whole reign of Elizabeth, that there is no trace of her having ever used one.

Lord Grey de Wilton, who died in 1593, introduced a coach into Ireland, the first ever used in that country. One was introduced into Scotland, we rather think from France, about the year 1571. It belonged to the famous Secretary Maitland of Lethington, who, during the horrid civil war between the adherents of Mary and those of her son James, made a journey in that vehicle from Edinburgh Castle, which he was holding out for the Queen, to Niddry in West Lothian, for the purpose of holding a consultation with some others of her friends; the first time, it is believed, that a close carriage was ever used in Scotland.

Fynes Morison, who wrote in the year 1617, speaks of coaches as recently introduced, and still rare in Scotland. For a long time, these conveniences were only used by old people, who could not well bear riding. The young and active despised them, as tending to effeminacy, and as not being so quick of movement as the horse.

The Duke of Buckingham, in 1619, first used a coach with six horses; a piece of pomp which the Duke of Northumberland thought proper to ridicule by setting up one with eight. Charles I. was the first British sovereign who had a state carriage. Although Henry IV. was killed in a coach; the only one, by the way, he possessed; his ordinary way of appearing in the streets of Paris was on horseback, with a large cloak strapped on behind, to be used in case of rain.

In Scotland, previous to the time of the civil war, coaches were only used by persons high in the state. When the Earl of Roxburgh, an aged minister, was endeavouring to appease the Covenanters in 1637, he was pulled from his coach in the High Street of Edinburgh, and maltreated. He who in old age adopted this effeminate kind of conveyance, had, in youth, ridden in armour at the Raid of Ruthven, so that one man's life may be said to connect in Scotland the period of rude warfare with that of luxurious comfort. It is very curious to find that the same sort of complaints now made by persons interested in coaching, respecting the introduction of steam locomotives, were made when coaches were introduced.

Taylor, the Water-Poet, complains in the reign of Charles I., that large retinues of men were now given up by the great, since they had begun to use coaches. Ten, twenty,

thirty, fifty, yea a hundred proper serving men, were transformed, he says, into two or three animals. The old wifical thinkers of that day were as much concerned about the fate of the discharged men-servants, as the twaddlers of the present are distressed about the needless Horses. It is further very amusing to find Taylor, in his antipathy to coaches, complaining that their drivers were all of them hard drinkers.

Till 1564, the only mode of travelling, equivalent to that by stage-coaches and locomotive carriages in the present day, was by the strings of Horses led by the carriers. It is these caravans that Falstaff and his friends are described by Shakspeare as attacking at Gadshill.

About the year just mentioned, the long waggon for goods and passengers came into use—the waggon of Roderick Random and Strap, and which still, we believe, in some degree continues to flourish, notwithstanding all the more lively vehicles that have recently sprung up.

Stage-coaches originated less than a century later, and were for a long time confined to the great lines of road throughout England. One for the short distance between Edinburgh and Leith was started in 1660; but there were none for distances to which the term stages could be applied till 1678. That from London to Oxford in the reign of Charles II., required two days, the space being fifty-eight miles. That to Exeter (168¼ miles) required four days.

In 1703, when Prince George of Denmark went from Windsor to Petworth to meet Charles III. of Spain, the distance being about forty miles, he required fourteen hours for the journey, the last nine miles taking six. The person who records this fact, says that the long time was the more surprising, as, except when overturned, or when stuck fast in the mire, his royal highness made no stop during the journey.

In 1742, stage-coaches must have been more numerous in England than in Charles the Second's time; but it does not appear that they moved any faster. The journey from London to Birmingham (116 miles) then occupied nearly three days, as appears from the following advertisement:

"The Litchfield and Birmingham stage-coach set out this morning (Monday, April 12, 1742), from the Rose Inn, Holborn Bridge, London, and will be at the Angel, and the Hen and Chickens, in the High Town, Birmingham, on Wednesday next, to dinner; and goes the same afternoon to Litchfield. It returns to Birmingham on Thursday morning to breakfast, and gets to London on Saturday night, and so will continue every week regularly, with a good coach and able horses."

Thus the whole week was occupied in a journey to and from Litchfield by Birmingham, an entire space of probably not more than two hundred and forty miles—that is, at an average of forty miles a-day.

Of the stage-coach journey to Bath about 1748, we learn some particulars from Smollett's celebrated novel. Mr. Random enters the coach before day-light. It proceeds. A highwayman attacks it before breakfast, and is repulsed by the gallantry of our hero. Strap meanwhile accompanies the coach on horseback. A night is spent on the road, and the journey is finished next day, apparently towards evening—one hundred and eight miles.

At that time there was no regular stage-

coach from London to Edinburgh; and the newspapers of the latter city occasionally present advertisements, stating that an individual about to proceed to the metropolis by a post-chaise, would be glad to hear of a fellow-adventurer, or more, to lessen the expences for mutual convenience.

However, before 1754 there was a stage-coach between the two British capitals. In the Edinburgh Courant for that year, it is advertised that—"The Edinburgh stage-coach, for the better accommodation of passengers, will be altered to a new genteel two-end glass coach machine, hung on steel springs, exceeding light and easy, to go in ten days in summer and twelve in winter; to set out the first Tuesday in March, and continue it, from Hosea Eastgate's, the Coach and Horses in Dean Street, Soho, London, and from John Somerville's in the Canongate, Edinburgh, every other Tuesday, and meet at Burrow-bridge on Saturday night, and set out from thence on Monday morning, and get to London and Edinburgh on Friday. In winter, to set out from London and Edinburgh every other (alternate) Monday morning, and to go to Burrowbridge on Saturday night; and to set out from thence on Monday morning, and get to London and Edinburgh on Saturday night. Passengers to pay as usual. Performed, if God permits, by your dutiful servant, Hosea Eastgate.

Here the distance of two hundred miles requires six days in winter, being at the rate of little more than thirty-three miles a-day.

So lately as the end of the last century, the journey by the stage between Edinburgh and Glasgow (forty-two miles) occupied a whole day, the passengers stopping to dine on the road. It was considered a great improvement when, in 1799, a coach was started with four Horses, which performed the journey in six hours. The usual time now taken is four and a half hours.

It is not unworthy of being noticed, that, when the mail-coaches were started by Mr. Palmer in 1788, six and half miles an hour was the utmost speed attained. Eleven miles an hour has latterly been reached on various occasions.

The opening of the Manchester and Liverpool Railway, in 1830, was the era of a great change in all popular ideas respecting locomotion. When men first heard that carriages upon that way proceeded, under the impulse of the steam-engine, at the rate of twenty, and could even attain thirty, miles an hour, they held up their hands in surprise. These rates of speed have latterly been, and probably will be still more surpassed.

As a gentleman was lately walking along the line of the London and Birmingham Railway, recently opened, a carriage passed him on its way to ascertain the cause of the stoppage of a train. It went to Harrow and returned, being twenty-two miles, in twenty-seven minutes and a half—the time which this gentleman required to walk a mile and a half. This was nearly forty-six miles an hour. But even a hundred has been declared to be within the range of mechanical possibility. If this shall ever be realized, it will be quite possible to go to Edinburgh and back to London between the hours of breakfast and dinner.

Meanwhile, thirty miles an hour is likely to be the speed adopted for ordinary purposes on the railways, by which means the distance from London to Edinburgh will probably be executed (when a railway has been established between the two places) in about thirteen hours.

We learn from the Railway Magazine that a gentleman lately went from Manchester to Liverpool in the morning, and purchased a hundred and fifty tons of cotton, which he immediately took back with him to Manchester. He there sold the lot, and was offered a similar sum for the same quantity. He immediately went once more to Liverpool, purchased the second lot, and, returning to Manchester, delivered it that evening.

We shall conclude this article with a paragraph quoted in the History of the London and Birmingham Railway, from the Railway Times:—"The ordinary rate of a man per second, in walking, is 4 feet; of a good Horse in harness, 12; of a rein-deer in a sledge on the ice, 26; of an English race-horse, 43; of a hare, 88; of a good sailing ship, 19; of the wind, 82; of sound, 1038; of a twenty-four pounder cannon ball, 1800. A railway steamer travelling at the ordinary rate of 30 miles an hour, performs 44 feet per second, which is eleven times the speed of the man walking, nearly four times that of the good Horse, twice that of the rein-deer, and only about one half less than the swiftness of the wind itself. But man, Horse, and rein-deer, all become soon exhausted; even Boreas is sure to 'crack his cheeks' before long; while the railway steamer is as fresh and strong at the end of a long journey as at first starting. Miles to it are but as paces to others. A racer, such as the Flying Childers, might possibly rival the steamer for the last half of a single-mile heat; but we know a Fire Fly that would do more miles in one day than 360 Flying Childerses. Again—a racer doing one mile in two minutes, and no more, can but carry a feather weight for that brief time and distance; while the steamer could draw the Grand Stand, and half the sporting world along with it, from Doncaster to Newmarket, and thence to the Hippodrome, in one day."

ADDRESS OF AN ARAB ROBBER.

While some of the Mamelukes were encamped about Minich, a thief set his mind about carrying off the Horse and wearing apparel of one of their Beys, and with this intention contrived, in the dead of the night, to creep unperceived within the tent, where, as it was winter time, embers were burning, and shewed the rich clothes of the Bey lying close at hand. The thief, as he squatted down by the fire, drew them softly to him, and put them all on: and then, after filling a pipe and lighting it, went deliberately to the tent door and tapping a groom, who was sleeping near, with the pipe end, made a sign to him for the Horse, which stood piquetted in front. It was brought; he mounted and rode off. On the morrow, when the clothes of the Bey could no where be found, none could form a conjecture as to what could become of them, until the groom, on being questioned, maintained to his fellow servants that their master was not yet returned from his ride! and told them how he had suddenly called for his Horse in the night, which at last seemed to give some clue to what had really happened. Upon this, the Bey, anxious to recover his Horse, as well as curious to ascertain the particulars, ordered it to be published abroad, that if the person who robbed him would, within two days, bring back what he had taken, he should not only be freely pardoned, but should receive also the full value of the animal and of the suit of clothes.

Relying on the good faith of this promise, and possibly, too, not a little vain of his ex-

ploit, the Arab presented himself, and brought his booty; and the Bey also, on his part, punctually kept his word; but since, besides the loss, there was something in the transaction that placed the Bey in rather a ludicrous light, it went hard with him to let the rogue depart so freely, and he seemed to be considering what he should do; so that, to gain time, he was continually asking over and over again fresh and more circumstantial accounts of the manner in which the stratagem had been conducted: the other was too crafty not to perceive that no good might be preparing for him, and began to feel anxious to get safe out of the scrape. He shewed no impatience, however, but entered minutely into every detail, accompanying the whole with a great deal of corresponding action; at one time sitting down by the fire, and making believe as though he were slily drawing on the different articles of dress, so as to throw the Bey himself, and all who saw and heard him, into fits of laughter. When he came at last to what concerned the Horse, "It was," he said, "brought to me, and I leaped upon his back;" and so in effect flinging himself again into the saddle, and spurring the flanks sharply with the stirrup-irons, he rode off with all the money that he had received for the animal in his pocket, and had got much too far, during the first moments of surprise, for any of the bullets to take effect that were fired at him in his flight, and nothing further was ever heard of him or the Horse.—*Adventures of Giovanni Finati.*

EMULATION OF THE RACER.

The Horse enters into the spirit of the race as thoroughly as does his rider; and, without whip or spur, will generally exert his energies to the utmost to beat his opponent. It is beautiful to see him advancing to the starting-post, every motion evincing his eagerness. The signal is given, and he springs away; he settles himself in his stride; the jockey becomes a part and portion of him, every motion of the arms and body corresponding with, and assisting the action of the Horse. On he goes, eager, yet husbanding his powers. At length, when he arrives at that distance from which the rider knows that he will *live home* at the top of his speed, the hint is given, and on he rushes. Then the race in reality begins, and every nerve is strained to head his competitor. Then, too, comes the art of the rider, to keep the Horse within his pace, and with admirable *give and take*, add to the length of every stride. Then, perhaps, the spur, skilfully applied, may be necessary to rouse every dormant energy.

A sluggish lurching Horse may need more punishment than the humane observer would think justifiable; but the natural ardour of the race-horse, roused at the moment of the grand struggle, by the moderate application of the whip and spur, will bring him through if he can win.

Forrester will afford sufficient illustration of the natural emulation of the courser. He had won many a hardly contested race; at length, over-weighted and over-matched, the rally had commenced. His opponent, who had been waiting behind, was gaining upon him; he overtook him, and they continued quite close to within the distance. It was a point that could scarcely be decided; but Forrester's strength was failing. He made one desperate plunge—seized his antagonist by the jaw to hold him back, and could be scarcely forced to quit his hold.

In like manner, a Horse belonging to Mr. Quin, in 1753, finding his adversary gradually passing him, seized him by the leg, and both riders were obliged to dismount, in order to separate the animals.

Let us here pause and ask, would the butcherly whipping and cutting which seems so often to form the expected and necessary conclusion of the race; the supposed display of the skill of the rider; the exultation of the thoughtless or unfeeling spectator; would these have carried such Horses over one additional inch of ground? In all probability they would have been thrown abroad; they might have shortened their stroke; and, perhaps, would have become enraged and have suspended every exertion. We believe it is more to our own interest to behave with consideration and kindness to our animals; for by severity we often defeat the very object we had in view.

A LADY'S STUD.

The complement of the stud belonging to the Russian Countess Orloff Tshesmensky, is 1320 Horses of Arab, English, and other races. The grounds attached to it amount to 1080 acres; and the number of grooms and labourers employed in it are 4399. The sum realized by the sale of these Horses is of considerable annual amount; and they are sold not only on the spot itself, but in the regular markets, both at St. Petersburgh and Moscow.

SOCIAL FEELING IN HORSES.

In a French treatise on Horses, published a few years ago, is the following anecdote, which proves that Horses have social feelings, and that their health may at times be seriously benefited by a proper regard to this fact: "A Horse was attacked with an ulcer which resisted all treatment; he was alone, in a corner, melancholy and sad. By chance a companion arrived. The pleasure which the animal experienced made in him a revolution so sensible, that the ulcer changed its nature and became less inveterate. The sore was now ready to heal when the companion of the sick Horse was taken away. The effect which resulted on the same ulcer was such that it opened anew, and to cure it, it was necessary to bring the other Horse, which produced the most happy revolution, and the perfect cure of the ulcer."

EXTRAORDINARY PERFORMANCES.

In 1772, a mile was run by Firetail in one minute and four seconds.

In October, 1741, at the Curragh meeting, in Ireland, Mr. Wilde engaged to ride one hundred and twenty-seven miles in nine hours. He performed it in six hours and twenty-one minutes. He employed ten Horses, and allowing for mounting and dismounting, and a moment for refreshment, he rode for six hours, at the rate of twenty miles an hour.

Mr. Thornhill, in 1745, exceeded this, for he rode from Stilton to London, being two hundred and thirteen miles, in eleven hours and thirty-four minutes, which is, after allowing the least possible time for changing Horses, twenty miles an hour for eleven hours, and on the uneven ground of the turnpike road.

Mr. Shaftoe, in 1762, with ten Horses, and five of them ridden twice, accomplished fifty miles and a quarter, in one hour and forty-nine minutes. In 1763, Mr. Shaftoe won a more extraordinary match. He was to procure a person to ride one hundred miles a day,

on any one Horse each day, for twenty-nine days together, and to have any number of Horses, not exceeding twenty-nine. He accomplished it on fourteen Horses; and on one day he rode one hundred and sixty miles, on account of the tiring of his first Horse.

Mr. Hull's Quibbler, however, afforded the most extraordinary instance on record, of the stoutness as well as speed of the race-horse. In December, 1786, he ran twenty-three miles round the flat of Newmarket, in fifty-seven minutes and ten seconds.

One of the severest plate-races on record, was run at Carlisle, in 1761, and in which there were no fewer than six heats, and two of them were dead heats, each of which was contested by the winner of the plate.

In 1763, at Salisbury, and over a four mile course, there were four heats between two Horses, the Duke of Grafton's Havannah and Mr. Wildman's Pam.

Dr. Anderson says that there was once a breed of small elegant Horses in Scotland, similar to those of Iceland and Sweden, and which were known by the name of galloways; the best of which sometimes reached the height of fourteen hands and a half. One of this description he possessed, it having been bought for his use when a boy. In point of elegance of shape, it was a perfect picture; and in disposition was gentle and compliant; it moved almost with a wish, and never tired. The Doctor rode this little creature for twenty-five years; and twice in that time rode a hundred and fifty miles, without stopping, except to bait, and that not above an hour at a time. It came in at the last stage with as much ease and alacrity as it travelled the first. The Doctor says he would have undertaken to have performed on this animal, when it was in its prime, sixty miles a day for a twelvemonth running, without any extraordinary exertion.

A galloway in point of size, whether of Scotch origin or not is uncertain, performed about the year 1814, a greater feat than Dr. Anderson's favourite. It started from London with the Exeter mail, and notwithstanding the numerous changes of Horses, and the rapid driving of that vehicle, it arrived at Exeter (one hundred and seventy-two miles) fifteen minutes before the mail. A gentleman who saw this animal about twelve months after his wonderful performance, described him as being wind-galled, spavined, ring-boned, and a lamentable picture of the ingratitude of some human brutes, towards a willing and faithful servant.

In 1754, Mr. Corker's galloway went one hundred miles a day for three successive days, over the Newmarket Course, and without the slightest distress.

A galloway belonging to Mr. Sinclair, of Kirby-Lonsdale, performed at Carlisle the extraordinary feat of one thousand miles in a thousand hours!

PONIES.

The Welsh poney is one of the most beautiful little animals that can be imagained. He has a small head, high withers, deep, yet round barrel, short joints, flat legs, and good round feet. The Welsh ponies are said to be indebted to the celebrated Merlin, for their form and qualities. They will live on any fare, and can never be tired out.

The New Foresters, notwithstanding their Marsk-blood, are generally ill-made, large-headed, short-necked, ragged-hipped; but hardy, safe, and useful; with much of their

ancient spirit and speed, and all their old paces. The catching of these ponies is as great a trial of skill, as the hunting of the wild horse on the Pampas of South America, and a greater one of patience.

A great many ponies, of little value, used to be reared in Lincolnshire, in the neighbourhood of Boston; but the breed has been neglected for some years, and the enclosure of the fens will render it extinct.

The Exmoor ponies, although generally ugly enough, are hardy and useful. A well-known sportsman says, that he rode one of them half a dozen miles, and never felt such power and action in so small a compass before. To shew his accomplishments, he was turned over a gate at least eight inches higher than his back; and his owner who rides fourteen stone, travelled on him from Bristol to South Molton, eighty-six miles, beating the coach which runs the same road.

There is on Dartmoor a race of ponies much in request in that vicinity, being sure-footed, and hardy, and admirably calculated to get over the rough roads and dreary wilds of that mountainous district. The Dartmoor poney is larger than the Exmoor, and, if possible, uglier. He exists there almost in a state of nature. The late Captain Colgrave, of the prison, had a great desire to possess one of them of somewhat superior figure to its fellows, and having several men to assist him, they separated it from the herd. They drove it on some rocks by the side of a tor (an abrupt pointed hill); a man followed on horseback, while the Captain stood below watching the chase. The little animal being driven into a corner, leaped completely over the man and horse, and escaped.

The Horses which are still used in Devonshire, and particularly in the western and southern districts under the denomination of pack-horses, are a larger variety of the Exmoor or Dartmoor breed. The saddle-horses of Devonshire are mostly procured from the more eastern counties.

There are many farms in that beautiful part of the kingdom on which there is not a pair of wheels. Hay, corn, straw, fuel, stones, dung, lime, are carried on horseback; and in harvest, sledges drawn by oxen and horses are used. This was probably in early times the mode of conveyance throughout the kingdom, and is continued in these districts, partly from the hilliness of the country, and more from backwardness in all matters of improvement. Light articles, as corn, straw, faggots, &c., are carried in crooks, formed of willow poles, of the thickness of scythe-handles, bent as ox-bows, and with one end much longer than the other; these are joined in pairs by cross-bars, eighteen inches or two feet long, and each Horse has two pair of them, slung together, so that the shorter ends lie against the pack-saddle, and the longer stand four or five feet from each other, and rise fifteen or eighteen inches above the Horse's back. Within and between these crooks the load is piled. Dung, sand, &c. are carried in pots, or strong coarse panniers slung together in the same way, and the dung ridged up over the saddle. At the bottom of the pot is a falling door, and at the end of the journey the trap is unlatched, and the load falls out.

The Highland poney is far inferior to the galloway, and is not pleasant to ride, except in the canter. His habits make him hardy, for he is rarely housed in the summer or the winter. The Rev. Mr. Hall says, that when these animals come to any boggy piece of

ground, they first put their nose to it, and then pat on it in a peculiar way with one of their fore-feet, and from the sound and feel of the ground, they know whether it will bear them. They do the same with ice, and determine in a minute whether they will proceed.

This precaution in examining the roads, is not confined alone to the Horse; for we once had an ass in Spain, which we used as a baggage animal, who when his suspicions were excited as to the unsoundness of the road, would put his nose down till he traced a place which would seem to satisfy him that there might be a safe landing; when he would take a spring, and leap over what he considered to be unsafe for him to tread upon. Poor Jack! the last time we saw him, he was carrying a Portuguese signora home on her way from Spain. We hailed him; he seemed to recognize our voice, erected his ears, but in a moment lopped them, and trudged on in his usual style, as we passed him on the road. It is no libel we suspect to say, that we have oftener thought of Jack than he of us. We had disposed of him six or eight weeks before we thus casually met him.

The Shetland poney we have spoken of before, and only now mention him, to relate an anecdote. A gentleman some distance from home, had a present made him of one of these elegant little animals, and was puzzled how to convey his newly-acquired property. The Shetlander was scarcely more than seven hands high, and as docile as he was beautiful. "Can we not carry him in your chaise?" said his friend. The strange experiment was tried. The Sheltie was placed in the bottom of the gig, and covered up as well as could be managed with the apron; a few bits of bread kept him quiet; and thus he was safely conveyed away, and exhibited the curious spectacle of a Horse riding in a gig.

We now and then see them in the southern parts of England, harnessed to a light garden-den chair, or carrying sometimes an almost baby rider. There are several Shetlanders now running in Windsor Park. It would be curious to watch the stock of these little animals, and to see what improvement in size a richer pasture would have upon the smallness of their original breed.

It was, we believe, Buffon's opinion that all Horses have been derived from one common stock, and the difference has been accomplished only by food and climate. This, however, we know has been disputed; and the question may be difficult to answer, whether the pony and large English Horse were, or could be, originally from the same stock; yet we think it is not impossible but that they might have one common extraction; and if we reflect on the effect of feeding, it is not so improbable, as it may at first appear.

We have before alluded to this subject, that the Horse would represent in size what it fed on; and Mr. Parkinson relates a circumstance very much to this point that fell under his own observation. His father had a mare that brought him no less than fourteen colts, and all by the same Horse, and not one of which at three years old was under seventeen hands high. She was in the fifteenth foal by the same Horse, when he sold her to a neighbouring farmer, reserving the foal which was to be delivered in a twelve month.

At her new master's she was comparatively starved, and she came back at the expiration of the year, so altered as scarcely to be recognized. The foal, four months old, was very small. The little animal was put on the most

luxuriant diet, but it did not reach more than fifteen hands high at the expiration of the third year.

THE IRISH HORSE.

In some of the rich grazing counties, as Meath and Roscommon, a large long blood Horse is reared of considerable value, but he seldom has the elegance of the English Horse; he is larger headed, more leggy, ragged-hipped, angular, yet with great power in the quarters, much depth beneath the knee, stout and hardy, full of fire and courage, and the best leaper in the world.

The Irish Horse is generally smaller than the English. He is stunted in his growth, for the poverty and custom of the country have imposed upon him much hard work, at a time when he is unfit for labour of any kind. For this reason, too, the Irish Horse is deficient in speed. There is, however, another explanation of this. The Irish thorough-bred Horse is not equal to the English. He is comparatively a weedy, leggy, worthless animal, and very little of him enters into the composition of the hunter or the hackney.

For leaping the Irish Horse is unrivalled. It is not, however, the leaping of the English Horse, striding as it were over a low fence, and stretched at his full length over a higher one; it is the proper jump of the deer, beautiful to look at, difficult to sit, and both in height and extent, unequalled by the English Horse. Much of this difference of leaping in the two countries, no doubt, depends on the training, and on the nature of the fences in Ireland, there being so many inclosures with stone walls.

There are very few Horses in the agricultural districts of Ireland, exclusively devoted to draught. The minute division of the farms renders it impossible for them to be kept. The occupier even of a tolerable sized Irish farm, wants a Horse that shall carry him to market, and draw his small car, and perform every kind of drudgery—a Horse of all work; therefore the thorough draught-horse, whether Leicestershire or Suffolk, is rarely found in Ireland.

If we look to the commerce of Ireland, there are few stage waggons, or drays with immense cattle belonging to them, but almost every thing is done by one-horse carts. In the North of Ireland, some stout Horses are employed in the carriage of linen, but the majority of the *garrons* used in agriculture or commercial pursuits are miserable and half-starved animals.

There is a native breed in Ulster, hardy, and sure-footed, but with little pretension to beauty or speed.

THE WILD HORSES OF SOUTH AMERICA.

All travellers, who have crossed the plains extending from the shores of La Plata to Patagonia, have spoken of numerous droves of wild Horses. Some affirm that they have seen ten thousand in one troop. They appear to be under the command of a leader, the strongest and boldest of the herd, and whom they implicitly obey. A secret instinct teaches them that their safety consists in their union, and in a principle of subordination. The lion, the tiger, and the leopard, are their principal enemies. At some signal, intelligible to them all, they either close into a dense mass, and trample their enemy to death; or, placing the mares and foals in the centre, they form themselves into a circle and welcome him with their heels. In the attack, their leader is the

first to face the danger, and, when prudence demands a retreat, they follow his rapid flight.

In the thinly inhabited parts of South America it is dangerous to fall in with any of these troops. The wild Horses approach as near as they dare: they call to the loaded Horse with the greatest eagerness, and, if the rider be not on the alert, and have not considerable strength of arm, and sharpness of spur, his beast will divest himself of his burden, take to his heels, and be gone for ever.

Captain Head gives the following account of a meeting with a troop of wild Horses, where the country is more thickly inhabited. Some poor captured animals are supposed to be forced along by their riders at their very utmost speed:—As they are thus galloping along, urged by the spur, it is interesting to see the groups of wild Horses one passes. The mares, which are never ridden in South America, seem not to understand what makes the poor Horse carry his head so low, and look so weary.

An Englishman once attempted to ride a mare, but he was hooted and pelted by the natives, and thought himself fortunate to escape without serious injury *.

The little innocent colts come running to meet him, and then start away frightened: while old Horses, whose white marks on the flanks and backs betray their acquaintance with the spur and saddle, walk slowly away for some distance, then, breaking into a trot as they seek their safety, snort and look behind them, first with one eye and then with the other, turning their nose from right to left, and carrying their long tail high in the air.

The same pleasing writer describes the system of Horse-management among the rude inhabitants of the plains of South America. They have no stables, no fenced pastures. One Horse is usually kept tied at the door of the hut, fed scantily at night on maize; or at other times several may be enclosed in the *corral*, which is a circular space surrounded by rough posts, driven firmly into the ground. The mares are never ridden, or attempted to be tamed, but wander with their foals whereever they please.

When the *Gaucho*, the native inhabitant of the plains, wants Horses for himself or for the supply of the traveller, he either goes with his lasso to the corral, and selects those, possibly, who on the preceding day had for the first time been backed, or he scampers across the plain, and presently returns with an unwilling, struggling, or subdued captive. When the services of the animals have been exacted he either takes them to the corral, and feeds them with a small quantity of maize, if he thinks he shall presently need them again or he once more turns them loose on the plains.

Travellers give some amusing accounts of the manner in which all this is effected—Miers thus describes the lasso, simple in its construction, but all-powerful in the hands of the Gaucho.

The lasso is a missle weapon used by every native of the United Provinces and Chile. It is a very strong plaited thong of equal thickness, half an inch in diameter, and forty feet long; made of many strips of green hide, plaited like a whipthong, and rendered supple by grease. It has, at one end, an iron ring

* Sir John Carr, in his "Northern Summer," states that it is only a short time since mares began to be ridden in Russia.

above an inch and a half in diameter, through which the thong is passed, and this forms a running noose. The Gaucho, or native Peon, is generally mounted on horseback when he uses the lasso. One end of the thong is affixed to his saddle girth: the remainder he coils carefully in his left hand, leaving about twelve feet belonging to the noose-end, in a coil, and a half of which he holds in his right hand. He then swings this long noose horizontally round his head, the weight of the iron ring at the end of the noose assisting in giving to it, by a continued circular motion, a sufficient force to project it the whole length of the line.

When the Gauchos wish to have a grand breaking-in, they drive a whole herd of wild Horses into the corral. The corral was quite full of Horses, most of which were young ones about two or three years old. The capitar (chief Gaucho), mounted on a strong steady Horse, rode into the corral and threw his lasso over the neck of a young Horse, and dragged him to the gate. For some time he was very unwilling to leave his comrades; but the moment he was forced out of the corral, his first idea was to gallop away: however a timely jerk of the lasso checked him in the most effectual way. The peons now ran after him on foot and threw a lasso over his forelegs just above the fetlock, and twitching it, they pulled his legs from under him so suddenly, that I really thought the fall he got had killed him. In an instant a Gaucho was seated on his head, and with his long knife, and in a few seconds, cut off the whole of the Horse's mane, while another cut the hair from the end of his tail. This they told me was a mark that the Horse had been once mounted. They then put a piece of hide into his mouth to serve for a bit, and a strong hide halter on his head. The Gaucho who was to mount, arranged his spurs, which were unusually long and sharp, and while two men held the Horse by his ears, he put on the saddle, which he girthed extremely tight. He then caught hold of the Horse's ear, and in an instant vaulted into the saddle; upon which the man who held the Horse by the halter threw the end to the rider, and from that moment no one seemed to take any further notice of him.

The Horse instantly began to jump in a manner which made it very difficult for the rider to keep his seat, and quite different from the kick or plunge of an English Horse: however, the Gaucho's spurs soon set him going, and off he galloped, doing everything in his power to throw his rider.

Another Horse was immediately brought from the corral, and so quick was the operation, that twelve Gauchos were mounted in a space which I think hardly exceeded an hour. It was wonderful to see the different manner in which different Horses behaved. Some would actually scream while the Gauchos were girding the saddle upon their backs; some would instantly lie down and roll upon it; while some would stand without being held; their legs stiff, and in unnatural positions, their necks half bent towards their tails, and looking vicious and obstinate; and I could not help thinking that I would not have mounted one of those for any reward that could be offered me, for they were invariably the most difficult to subdue.

It was now curious to look around and see the Gauchos on the horizon in different directions, trying to bring their Horses back to the corral, which is the most difficult part

of their work; for the poor creatures had been so scared there that they were unwilling to return to the place. It was amusing to see the antics of the Horses—they were jumping and dancing in different ways, while the right arm of the Gauchos was seen flogging them. At last they brought the Horses back, apparently subdued, and broken in. The saddles and bridles were taken off, and the young Horses trotted off towards the corral, neighing to one another.

When the Gaucho wishes to take a wild Horse, he mounts one that has been used to the sport, and gallops over the plain. As soon as he comes sufficiently near his prey, "the lasso is thrown round the two hind legs, and as the Gaucho rides a little on one side, the jerk pulls the entangled Horse's feet laterally, so as to throw him on his side, without endangering his knees or his face. Before the Horse can recover the shock, the rider dismounts, and snatching his poncho or cloak from his shoulders, wraps it round the prostrate animal's head. He then forces into his mouth one of the powerful bridles of the country, straps a saddle on his back, and bestriding him, removes the poncho; upon which the astonished Horse springs on his legs, and endeavours by a thousand vain efforts to disencumber himself of his new master, who sits quite composedly on his back, and, by a discipline which never fails, reduces the Horse to such complete obedience, that he is soon trained to lend his whole speed and strength to the capture of his companions."

These animals possess much of the form of the Spanish Horse, from which they sprung; they are tamed, as has been seen, with far less difficulty than could be thought possible; and, although theirs is the obedience of fear, and enforced at first by the whip and spur, there are no Horses who so soon and so perfectly exert their sagacity and their power in the service of man. They are possessed of no extraordinary speed, but they are capable of enduring immense fatigue. They are frequently ridden fifty or sixty miles without drawing bit, and have been urged on by the cruel spur of the Gaucho, more than a hundred miles, and at the rate of twelve miles in the hour.

Like the Arab Horses, they know no intermediate pace between the walk and the gallop. Although at the end of a day so hard, their sides are horribly mangled, and they completely exhausted, there is this consolation for them—they are immediately turned loose on the plains, and it will be their own fault if they are speedily caught again. The mare is occasionally killed for food, and especially on occasions of unusual festivity. General San Martin, during the war for independence, gave a feast to the Indian allies attached to his army; and mares' flesh, and the blood mixed with gin, formed the whole of the entertainment.

On such dry and sultry plains the supply of water is often scanty; and then a species of madness seizes on the Horses, and their generous and docile qualities are no longer recognized. They rush violently into every pond and lake, savagely mangling and trampling upon one another; and the carcases of many thousands of them, destroyed by their fellows, have occasionally been seen in and around a considerable pool. This is one of the means by which the too rapid increase of this quadruped is, by the ordinance of Nature, there prevented.

The wild Horses of Tartary, although easily

domesticated, materially differ in character from those on the plains of South America. They will not suffer a stranger to join them. If a domesticated Horse comes in their way, unprotected by his master, they attack him with their teeth and their heels, and speedily destroy him. They readily submit, however, to the dominion of man, and become perfectly docile and faithful.

Among the Tartars, the flesh of the Horse is a frequent article of food; and although they do not, like the Indians of the Pampas, eat it raw, their mode of cookery would not be very inviting to the European epicure. They cut the muscular parts into slices, and place them under their saddles, and after they have galloped thirty or forty miles, the meat becomes tender and sodden, and fit for their table; and, at all their feasts, the first and last and most favourite dish, is a Horse's head.

When water was not at hand, the Scythians used to draw blood from their Horses, and drink it; and the dukes of Muscovy, for nearly two hundred and sixty years, presented Tartar ambassadors with the milk of mares. If any of this milk fell upon the mane of the Horse, the duke, by custom, was bound to lick it off.

Troops of wild Horses are occasionally met with in the central parts of Africa, in the island of St. Domingo, on the deserts of Arabia, and in a few other parts of the world; but no where do they equal the domesticated Horse in form, strength, or even speed.

The manufacture of the Gaucho's boots is somewhat singular. "The boots of the Gauchos are formed of the ham and part of the leg-skin of a colt taken reeking from the mother, which is said to be sacrificed for the sole purpose, just at the time of bearing when the hair has not begun to grow. At this stage, the skin strips off easily, and is very white and beautiful in texture and appearance. The ham forms the calf of the boot; the hock easily adopts itself to the heel, and the leg above the fetlock constitutes the foot; the whole making a neat and elegant half-boot, with an aperture sufficient for the great toe, to project through."

CHAPTER VI.

A MATCH BETWEEN THE TARTAR AND CALMUCK HORSES, AND THE ENGLISH RACER.—OBSERVATIONS ON THE TURF, ETC.,

THE TARTAR AND CALMUCK HORSES.

These Horses, or those of a similar breed and habits, were beaten by the English blood-horses (not first-rate), in a race which fairly put to the test their speed as well as their stoutness.

On the 4th of August, 1825, a race of the cruel distance of more than forty-seven miles was run between two Cossacks and two thorough-bred English Horses—Sharper and Mina.

The most celebrated Cossack Horses from the Don, the Black Sea, and the Ural, were sent; and, after numerous trials, the best were selected.

On starting, the Cossacks took the lead at a moderate pace, the English Horses following at the distance of three or four lengths, but before they had gone half a mile, the stirrup-leather of Sharper broke, and he ran away with his rider, followed by Mina, and they went more than a mile, and up a steep hill, before they could be held in.

Half the distance was run in an hour and four minutes. Both the English Horses were then fresh, and one of the Cossacks. On their return, Mina fell lame, and was taken away. The Cossack Horse, likewise, began to flag, when the accompanying Russians began to drag him on by the bridle, throwing away the saddle, and putting a mere child on his back. Sharper, likewise, evidently shewed the effects of the pace at which he had gone when running away, and was much distressed. The Cossacks then had recourse to foul play, and actually carried on their Horse; some dragging him on by a rope, and the bridle at his head; and others pulling him on by the tail, and riding alongside of his quarters to support him, and relieving each other at this fatiguing work. Sharper did the whole distance in two hours and forty-eight minutes, and the Cossack Horse was warped in eight minutes after him. At starting, the English Horses carried full three stone more than the Cossacks; and during the latter half of the race, a mere child had ridden the Cossack.

THE WELLESLEY ARABIAN.

This Horse, in figure, bearing considerable resemblance to the larger war-Horse of Europe, although possessing the delicate skin and various other attributes of the south-eastern courser, it may be conjectured, was the produce of some country bordering upon

Arabia, where, as in England, the Arabian or Barbary Horse in process of time, acquires an increase of size and fulness of form, together with a considerable expansion of the hoofs. This is no doubt the effect of lower and more moist grounds, and more succulent food than can be found in the deserts, where the dryness and purity of the air and soil compress the animal body, impart a superior firmness and elasticity to the tendinous and fibrous system, allowing greater powers in a smaller compass of substance, and exalting the tone and vigour of the animal spirits. Thence Horses are chosen from the deserts for their fleetness and courage, and those from the mountainous regions are preferred as coursers. A few of the produce of the Wellesley Arabian were trained, but not with sufficient success to raise his reputation as a racing stallion. This is, we believe, the last Arabian, or foreign Horse, trained from.

MATCHES OVER THE NEWMARKET COURSE, ETC.

We give the following table of the abbreviations used in designating the different courses at Newmarket, and the length of these courses.

	Abbrev.		*Miles.*	*Furl.*	*Yds.*
The Beacon course - - -	B.C.	is	4	1	138
Last three miles of ditto - -	L.T.M.		3	0	5
From the Ditch in - - -	D.I.		2	0	94
From the turn of the lands in	T.L.I.		0	5	184
Clermont Course - - - -	C.C.		1	5	217
Across the Flat - - - -	A.F.		1	1	447
Two-year old course - - -	T.Y.C.		0	5	136
Yearling course - - - -	Y.C.		0	2	147
Round course - - - - -	R.C.		3	6	93
Ditch mile - - - - - -	D.M.		0	7	148
Abingdon mile - - - - -	A.M.		0	7	211
Rowley mile - - - - -	R.M.		1	0	1
Two middle miles of B.C. -	T.M.M.		1	7	115

A *Distance* is the length of two hundred and forty yards from the winning-post. In the gallery at the winning-post, and in a little gallery at the distance-post, are placed two men holding crimson flags. As soon as the first Horse has passed the winning-post, the man drops his flag; the other at the distance-post drops his at the same moment, and the Horse which has not then passed that post is said to be distanced, and cannot start again for the same plate or prize.

A *Feather-weight* is the lightest weight that can be put on the back of a Horse.

A *Give and Take Plate* is where Horses carry weight according to their height. Fourteen hands are taken as the standard height, and the Horse must carry nine stone (the Horseman's stone is fourteen pounds). Seven pounds are taken from the weight for every inch below fourteen hands, and seven pounds added for every inch above fourteen hands. A few pounds additional weight is so serious an evil, that it is said, seven pounds in a mile-race are equivalent to a distance.

A *Post Match* is for Horses of a certain age, and the parties possess the privilege of bringing any Horse of that age to the post.

A *Produce Match* is that between the produce of certain mares in foal at the time of the match, and to be decided when they arrive at a certain age specified.

THE TOORKOMAN HORSE.

Turkistan is that part of South Tartary, north-east of the Caspian sea, and has been celebrated from very early times, for producing a pure and very valuable breed of Horses. They are called Toorkomans; they are said to be preferable even to the pure Persians for service. They are large, standing from fifteen to sixteen hands high; swift, and inexhaustible under fatigue. Some of them have tra-

velled nine hundred miles in eleven successive days. They, however, are somewhat too small in the barrel; too long on the legs; occasionally ewe-necked, and always have a head out of proportion large; yet such are the good qualities of the Horse, that one of the pure blood is worth two or three hundred pounds, even in that country.

Captain Fraser, who is evidently a good judge of the Horse (in his journey to Khorasan) thus relates the impression which they made on him: "They are deficient in compactness; their bodies are long in proportion to their bulk; they are not well ribbed up; they are long on the legs; deficient in muscle; falling off below the knee; narrow-chested; long-necked; head large, uncouth, and seldom well put on. Such was the impression I received from the first of them, and it was not for some time that their superior valuable qualities were apparent to me."

Mr. John Lawrence says that it is related on the authority of a certain Prussian Count, that a German Prince having, with the utmost care and expence, raised a most valuable breed of Horses from a son of that well-known English racer, Morwick Ball, it was one of the first imperial acts of Napoleon, to honour the proprietor with a military order to have the whole of them marched to France, which was promptly executed.

On the same authority it is stated, that about thirty (it must be now fifty) years since, an Arabian Horse was obtained in Germany, probably by the way of Turkey and Hungary, which proved superior, for the beauty, strength, and worth of the stock he produced, to any which had been before known in that country.

The name of this famous stallion was Turkmainatti, a name in equal estimation in Germany, with that of the Godolphin Arabian in England. The valuable stock of this Horse has spread over the country; and young Turkmainatti at present ably supports the honour of his family.

It is not unreasonable to suppose, but that this Horse was a native of the country we have just been describing; instead of an Arabian.

THE TURKISH HORSE.

The Turkish Horses are descended principally from the Arab, crossed by the Persian and certain other bloods. The body, however, is even longer than the Arabian's, and the crupper more elevated. They have contributed materially to the improvement of the English breed. The Byerley and the Helmsley Turk are names familiar to every one conversant with Horses, and connected with our best blood.

The learned and benevolent Busbequius who was ambassador at Constantinople in the seventeenth century, gives the following account of the Turkish Horses. Our grooms, and their masters too, may learn a lesson of wisdom and humanity from his words.

"There is no creature so gentle as a Turkish Horse, nor more respectful to his master, or the groom that dresses him. The reason is, because they treat their Horses with great lenity. I myself saw, when I was in Pontus, passing through a part of Bithinia called Axilos, towards Cappadocia, how indulgent the countrymen were to young colts, and how kindly they used them soon after they were foaled. They would stroke them, bring them into their houses, and almost to their tables, and use them even like children. They hung

something like a jewel about their necks, and a garter, which was full of amulets against poison, which they are most afraid of. The grooms that dress them are as indulgent as their masters; they frequently sleek them down with their hands, and never use a cudgel to bang their sides, but in case of necessity. This makes their Horses great lovers of mankind, and they are so far from kicking, wincing, or growing untractable by this gentle usage, that you will hardly find a masterless Horse amongst them.

"But, alas! our Christian grooms' Horses go on at another rate. They never think them rightly curried till they thunder at them with their voices, and let their clubs or horse-whips, as it were, dwell on their sides. This makes some Horses even tremble when their keepers come into their stable; so that they hate and fear them too. But the Turks love to have their Horses so gentle, that at the word of command they may fall on their knees, and in this position receive their riders.

"They will take up a staff or club upon the road with their teeth, which their rider has let fall, and hold it up to him again; and when they are perfect in this lesson, then, for credit, they have rings of silver hung on their nostrils as a badge of honour and good discipline. I saw some Horses when their master was fallen from the saddle stand stock still without wagging a foot till he got up again. Another time I saw a groom standing at a distance in the midst of a whole ring of Horses, and, I saw some Horses when their master was at dinner with me in an upper room prick up their ears to hear his voice, and when they did so they neighed for joy."

Sir John Malcolm in his "Sketches of Persia," gives the two following anecdotes:—

"When the envoy, returning from his former mission, was encamped near Bagdad, an Arab rode a bright bay mare of extraordinary shape and beauty before his tent, until he attracted his attention. On being asked if he would sell her;—'What will you give me?' was the reply: 'That depends upon her age; I suppose she is past five?' 'Guess again,' said he. 'Four?' 'Look at her mouth,' said the Arab, with a smile. On examination she was found to be rising three. This, from her size and symmetry, greatly enhanced her value. The envoy said, 'I will give you fifty tomans' (a coin nearly of the value of a pound sterling). 'A little more if you please,' said the fellow, apparently entertained. 'Eighty. A hundred.' He shook his head and smiled. The offer at last came to two hundred tomans! 'Well;' said the Arab, 'you need not tempt me further; it is of no use. You are a rich elchee (nobleman). You have fine Horses, camels, and mules, and I am told, you have loads of silver and gold. Now,' added he, 'you want my mare, but you shall not have her for all you have got.'"

"An Arab sheick or chief, who lived within fifty miles of Bussorah, had a favourite breed of Horses. He lost one of his best mares, and could not for a long while discover whether she was stolen or had strayed. Some time after, a young man of a different tribe, who had long wished to marry his daughter, but had always been rejected by the sheick, obtained the lady's consent and eloped with her. The sheick and his followers pursued, but the lover and his mistress, mounted on one Horse, made a wonderful march, and escaped. The old chief swore that the fellow was either mounted upon the devil, or the favourite mare he had lost. After his return he found the

latter was the case; that the lover was the thief of his mare as well as his daughter; and that he stole the one to carry off the other. The chief was quite gratified to think he had not been beaten by a mare of another breed; and was easily reconciled to the young man, in order that he might recover the mare, which appeared an object about which he was more solicitous than about his daughter."

THE PERSIAN HORSE.

Sir R. Ker Porter gives the following account of this breed.

"The Persian Horses never exceed fourteen or fourteen and a half hands high, yet certainly, in the whole, are taller than the Arabs. Those of the desert and country about Hillah run very small, but are full of bone and of good speed. The general custom is to feed and water them at sun-rise and sun-set, when they are cleaned. Their usual provender is barley and chopped straw, which, if the animals are piqueted, is put into a nose-bag and hung from their heads; but if stabled, it is thrown into a small lozenge shaped hole left in the thickness of the mud-wall for that purpose, but much higher up than the line of our mangers, and there the animal eats at his leisure. Hay is a kind of food not known here. The bedding of the Horse consists of his dung. After being exposed to the drying influence of the sun during the day, it becomes pulverized, and, in that state, is nightly spread under him. Little of it touches his body, that being covered by his cloathing, a large *nummud* from the ears to the tail, and bound firmly round his body by a very long surcingle. But this apparel is only for cold weather; in the warmer season the night-clothes are of a lighter substance, and during the heat of the day, the animal is kept entirely under the shade.

"At night he is tied in the court yard. The Horses' heads are attached to the place of security by double ropes from their halters, and the heels of their hinder legs are confined by cords of twisted hair, fastened to iron rings and pegs driven into the earth. The same custom prevailed in the time of Xenophon, and for the same reason, to secure them from being able to attack and maim each other, the whole stud generally consisting of stallions. Their keepers, however, always sleep on their rugs amongst them to prevent accident; and sometimes, notwithstanding all this care, they manage to break loose, and then the combat ensues. A general neighing, screaming, kicking, and snorting, rouses the grooms, and the scene for awhile is terrible. Indeed no one can conceive the sudden uproar of such a moment who has not been in Eastern countries to hear it. They seize, bite, and kick each other with the most determined fury, and frequently cannot be separated before their heads and haunches stream with blood. Even in skirmishes with the natives, their Horses take part in the fray, tearing each other with their teeth, while their masters are in similar close quarters on their backs."

THE DESERT HORSE, AND SWIFT HEIRIES OF AFRICA, ETC.

Mr. Jackson, in his account of Morocco, says, that the *shrubach errech* or desert horse, is to the common horse what the desert camel is to the camel of burden; the only difference between them in point of feeding is, that this Horse requires a portion of camel's milk every day; if they cannot get this, and are obliged from hunger to eat barley and straw, particu-

larly when they are first brought to Morocco, they fall away. However, they gradually recover, fill up, and become handsome to the sight, but lose all their former speed, so that they are afterwards employed to hunt ostriches, at which sport they are very expert.

When travelling in the deserts, the men who ride these Horses, as well as the heiries, or desert camels, have their bowels relaxed at the end of their journies; for which they then drink a draught of camel's milk, which being rejected by the stomach, they drink again; this second draught, after remaining a longer time, is also rejected; the third draught finding the tone of the stomach something restored, remains, and turns to nourishment.

As to the heirie, or desert camel, it is in figure similar to the common camel of burden, but more elegantly formed. The Arab, with his loins, breast, and ears, bound round, to prevent the percussion of air proceeding from a quick motion, rapidly traverses, upon the back of this abstemious animal, the scorching desert, the fiery atmosphere of which parches, and almost impedes respiration, so as nearly to produce suffocation.

The motion of the heirie is violent, and can be endured only by those patient, abstemious, and hardy Arabs, who are accustomed to it. These riders will travel three days without food; or a few pipes of tobacco, or a handful of dates, will furnish their meal.

The most inferior kind of heirie are called talatayee, a term expressive of their going the distance of three days' journey in one. The next kind is called sebayee, expressing an animal that goes seven days' journey in one; and this is their general character. There is also one called tasayee, or the heirie of nine days; but these are extremely rare.

The heirie, in general, has a ring put through its upper lip, to which is fixed a leathern strap, answering the purposes of a bridle; the saddle is similar to that used by the Moors, or what the mountaineers of Andalusia make use of.

With a bakul, or goat-skin, a porous earthern vessel filled with water, a few dates, and some ground barley, the Arab travels from Tombuctoo to Tafilelt, feeding his heirie but once, at the station of Arzawad; for, these camels, on an emergency, will abstain from drinking seven days.

Their swiftness is thus described by the Arabs in their figurative style:—"When thou shalt meet a heirie, and say to the rider Salem Alic (peace be unto thee), ere he shall have answered the salutation, he shall be nearly out of sight; for his swiftness is like the wind."

But of all the animals that arrest the attention of an European in this part of the world, the domestic serpents, well known at Morocco, are the most surprising.

In the city of Morocco, Mr. Jackson observes, there is scarcely a house without its domestic serpent, which is sometimes seen moving along the roofs of the apartments. They are never molested by the family, who would not hurt them on any consideration, conceiving them a benediction on the household; they have been known to suck the breasts of women whilst asleep, and retire without offering any further injury.

They are so sensible as to be susceptible of injury towards them, and it is thought imprudent to incur their displeasure: of course the inhabitants of Morocco do not wish to disturb an animal that claims the rights of hospitality by settling in their houses.

BRUSSELS RACES.

Racing here is but in its infancy. Whether it may grow into popularity, and become as national as it is with us, must be left for time to discover. What strikes an Englishman most is the total want of animation on the course; there being few tents, no gypsies, no feasting, no betting, no promenading of the fairer sex.

There is something else also very unpalatable to the feelings of an Englishman, to be touched by a firelock or bayonet, in order to keep the road clear. With us the crack of the course-clearer's whip seems more congenial with our habits, as being less connected with tyranny, which the sight of a soldier interfering with us in our amusements and pleasures, seems naturally to create in the breast of an Englishman. There was an incident in one of these races, which we shall leave to an eye-witness to describe. But before he comes to the race, he says:—

"The course is an oblong of about one English mile, in tolerable order, the turns difficult, and the whole of a very coarse and rather long turf, well fenced in with ropes, and kept by soldiers placed at every twenty yards, whose rigidness is such that not a soul is ever allowed to pass from one side to the other. Even the jockeys, the moment they arrive, are accompanied by two mounted gens-d'armes to the scales in order that they may have no communication *en route*. All this is very well; but it represses the natural animation and excitement, the hurry, the bustle, the anxiety that constitutes, if not all, part of our enjoyment in England. Perhaps there is a hidden policy in thus accustoming the people to suffer an armed force to be the perpetual participators in their amusements. Doubtless there is: but I will venture to prophesy, that on the Continent racing will never become an amusement with the humbler classes, as long as every anxious gazer, who stretches forward his neck a little beyond the line prescribed by the martinet on duty, is liable to have an inch of cold steel in his ribs."

After having described two races, which were well contested, he says:—

"The next race for Horses of all kinds, perhaps afforded more amusement than was ever witnessed on a course.

"Long before the first bell rang, a lad, mounted on a cart-mare, or rather an Ardennes (which have some little breeding), with tail sweeping the ground, a blue smock-frock, and a green plush cap, attempted to pass through the sentinels into the ground. Of course he was refused; nor would they admit him till the Count Duval (President of the Jockey Club) had certified, that, having complied with the requisite conditions, Cocotte was going to run. Fastened between the flaps and girths, were two large pigs of lead; and, with high demi-pique saddle and military bridle, such a caricature was never witnessed.

"The history is this:—A farmer in the environs had bought a cast artillery mare, and finding it faster than his team, thought he stood as good a chance as another of winning the hundred pounds given for Horses of all breeds. Some wag worked on the good man's sporting ideas to such a point, that he not only fancied she could run, but entered her, would hear nothing against it, and offered to bet a thousand francs (a great sum for a Belgian) his mare distanced the others!

I did not hear whether he was let in or not. Lord Seymour's Morotto, five-years old, and the Vervier Society's Waverer, were the opponents, Cockerill's Amelie being drawn. The start was inimitable: the lad, all anxiety, placed himself a little a-head: the bell rung: spurs and whip into his old mare; up went her heels, swish her long tail, and with a salvo of artillery off she went at score, ran out of the course, got in again, and went half round before the "tits;" but alas! alas!—there Mrs. Cocotte shut up! and *malgre* the youngster pitched it in most lustily, she could not raise a canter once round! What became of her was never known; but to see her start, letting fly in Morotto's face, to hear the roars of laughter, and witness the despair of the farmer, was quite worthy Cruikshank's pencil.

Having got rid of their troublesome friend, Morotto and Waverer ran a beautiful race.

LIEGE RACES.

There was here one race which was described as the "Chevaux de Pays," which is understood to mean labour Horses, which are accustomed to go in cart harness. The race we do not give as affording particular sport in the rivalry of many candidates, as it appears there was only one Horse entered for it. We are unacquainted whether the fame of this little Horse might have prevented any competition; still there is something so extraordinary in the history of the little animal, that we think it will be worthy of the attention of our readers. It also presents a vivid picture of the fortunes of our well-bred Horses, as well as the great discrimination and industry of the gentleman who seemed determined to ascertain from whence he came. He saw enough to convince him that he was sprung from no common stock, and expected to find that in his youth he had never been accustomed to the drudgery of dragging a dung-cart. We shall, however, leave the description of the race to the gentleman who witnessed it.

"A curiously-marked grey pony spotted with black patches, apparently half starved, lousy, and decrepid, was the only Horse entered. To look at him, no one would have said that he could ever crawl round the course; but he not only did, but what is more (a man getting permission to start from the Regency on the moment, on a very decent hackney), went in very good form, distancing his competitor, and winning his 250*f.* (10*l.*) without much effort. I diligently inquired his history, sure that a pony, fifteen years old, who could carry a thumping awkward farmer of at least twelve stone, his mile in three minutes and half, must have seen better days. His history (as I learnt it from a man who seemed very communicative of his intelligence) is, that Snowy *alias* Jack, was bred by the Duke of Richmond, used as a shooting pony, and sold to a clergyman, whom my informant designated as "Parson Towers," who sold him for two hundred pounds!! his equal in every good quality, particularly fencing, not being to be found. He afterwards fell into the hands of Mr. Cockerill, the great iron-master, when he contracted a disease, which terminated in a swelling near the sheath like the udder of a cow, only hard, and of rapid increase. The poor devil was destined to a bullet, when a village Doctor begged his life, and bought him for a present to the groom of twenty-five francs.

"The Doctor sagely determined that *there* was the lump, and come away it must; but

how? The simplest remedy was the knife: so, perfectly regardless of veins, arteries, and other such nonsensical barriers to the art of surgery, he gallantly set to, his arms bearing a knife dexter, and red-hot poker sinister. Strange to say, Doctor Sangrado effected a cure where many an *artiste* would have failed, and sold Snowy for five pounds to Farmer Leloup.

"For years has he toiled at fetching manure, and without a feed of corn in his poor flanks, did this true English pony win the stakes for his master.

"I have heard of the viscissitudes of 'the high-mettled racer,' and many the schoolboy who has almost wept at the prints of his miserable *finale*—going to the dung-cart; but one seldom hears of such a resurrection as a racer from the dung-cart! *Nil admirari!* however; that is the motto of the nineteenth century!"

HORSES IN INDIA.

In India there seems to be a considerable variety of breeds of Horses. If we look to the performance of some of the races, which have become so fashionable there of late years, we shall see that the Horses, whether for speed or bottom, are very far from being contemptible, even when compared with some of our own. In such a climate, where every European must of necessity be mounted, it becomes of importance, for the army as well as civilians, that proper attention should be paid to the selection of the best Horses to breed from; and we believe that a large establishment for that purpose has been under the management of the Indian Government for years; and we should naturally suppose with some success.

The Editor of "The Horse," published under the superintendence of the Society for the Diffusion of Useful Knowledge says:—

The Toorky, originally from a Toorkoman and a Persian, is beautiful in his form, graceful in his action, and docile in his temper. It is said that, when skilfully managed, the grandeur and stateliness of his carriage are equal to what the warmest imagination can conceive of the Horse: his spirit rising as his exertions are required, he exhibits to his beholders an appearance of fury in the performance of his task, yet preserving to his rider the utmost grace, playfulness, and gentleness.

Next comes the Iranee, well limbed, and his joints closely knit, and particularly powerful in the quarters, but with scarcely sufficient spirit, and his ears large and loose.

The patient and docile Cozakee is deep in the girth, powerful in the forearm, but with large head, and sadly cat-hammed; hardy, and calculated for long journeys and severe service.

The Mojinniss have spirit, beauty, speed, and perseverance.

The Tazsee is slight, hollow-backed, and, for that reason perhaps, although deficient in strength, and leaving as it were his hind legs behind him, and likewise irritable in temper, yet sought after on account of the peculiar easiness of his pace.

A sale of Horses near the Company's stud, at Hissar, is thus described by an excellent judge. "Not less than one thousand Horses were shewn. They were all above fourteen hands and a half in height, high-crested, and shewy-looking Horses. The great defect seemed a want of bone below the knee, which is indeed general to all the native Horses

throughout India; and also so great a tendency to fulness in the hocks, that, in England, it would be thought half of them had blood spavins."

A writer in the "Sportsman's Magazine," seems to have no great opinion of the Horses in the East Indies. He describes them as follows:—

The small Mahratta Horse is an active, serviceable little beast, but, in ten cases out of twenty, extremely vicious, but will often make a capital hunter, in fact, being the only Horse in India worth his keep, the larger Horses from Hindostan being adapted only for the capering of a native Souwarree; they are leggy, under-limbed, and, as far as vice goes, regular man-eaters.

Those from Guzerat and Cutch are certainly endowed with greater amiability of disposition, but are more calculated for purposes of display and parade than any thing else. The natives are very partial to this breed, and give long prices for them, frequently as much as two or three thousand rupees. They blow them out to an enormous size, by feeding them on a composition which must be any thing but agreeable to the palate of the Horse, viz., a kind of paste, made of pounded grain and sheep's head, wherewith the poor devil is crammed like a turkey. The end of the flowing tail, generally reaching the ground, is dyed of a deep red colour, a cruelly sharp bit is put into his mouth, he is buried under a ton of bedding covered with crimson cloth, doing duty for saddle, and, thus caparisoned, he is deemed fit to carry one of the "Pillars of the State." It is a pretty sight to see a Souwarree, or procession, accompanied by a cavalcade thus mounted, and taking every opportunity of displaying their horsemanship, a cavalier occasionally darting from the crowd at the top of his speed, and as suddenly pulling his Horse on his haunches in the midst of his headlong career, then wheeling about, and still at full speed, describe in an incredibly small space, the difficult figure of eight, with all the apparent ease of a graceful skaiter.

CURIOUS SPORTING CASE.

In the Court of Common Pleas, on the 21st of Jan. 1836, a curious case was argued, on demurrer, before Chief Justice Tindal. The facts, as set upon the pleadings, appeared to be these:—The defendant was the owner of a Horse named Partington, which he undertook would trot eighteen miles within an hour. The plaintiff agreed to purchase him for 200*l.* on the condition that he should, within a month, trot eighteen miles in an hour, to the satisfaction of a third person agreed upon between the parties; otherwise, he was to be allowed to have him for one shilling. A trial of the Horse's capability was accordingly appointed to take place on a given day, but it was interrupted by a servant of the plaintiff. Another time was then fixed for a second trial, and notice was given to the person who was to act as umpire on the occasion. The latter, however, not attending, the trial did not take place, the month elapsed without the Horse having performed the stipulated feat; whereupon the plaintiff demanded that the Horse should be delivered up to him on payment of the shilling. The defendant refused, on the ground that the first trial had been interrupted by the plaintiff's servant, and that a subsequent trial had not taken place merely in consequence of the non-attendance of the referee. Pleas to this effect were accordingly pleaded to the plaintiff's declaration, to which the

latter demurred. There was also anotner plea—namely, that the contract was merely a colourable one to cover an illegal gambling transaction, and, therefore, void. On this latter plea issue was joined, and, therefore, that question remains to be tried. The demurrer was argued by Mr. Milner for the plaintiff, and by Mr. Bayley for the defendant. The Court decided, with reference to the first point, that as the servant was not alleged to have interrupted the Horse by direction, or command of his master, the latter was not answerable for his act; and that, with respect to the non-attendance of the referee, it was incumbent on the defendant to have procured his attendance, as he had undertaken that the Horse should perform this feat to his satisfaction within the period of a month. Not having done so, he was bound to deliver up the Horse on payment of a shilling, and, therefore, there must be judgment for the plaintiff.

THE LATE REV. MR. HARVEY.

This gentleman who has been for many years a breeder for the Turf, as well as one of its most enthusiastic admirers, was familiarly known to a great portion of the Sporting World, as the "eccentric Parson Harvey." We believe that he was eccentric in the strictest sense of the word; but his whims and oddities were rather peculiarities than any thing like vice; and it is his humane and generous conduct to the lower animals, that make us feel such respect for his memory. His oddities, whatever they might be, were far more than counterbalanced by the goodness of his heart. We shall give the character of this gentleman from one who we believe well knew Mr. Harvey. He says:—

"Mr. Harvey had the warmest sympathy for the brute creation, particularly the race-horse, and possessed the happy art of curbing the most vicious animals; his treatment of them being the best practical illustration of what may be done by mild and fair usage in preference to 'knocking the temper out of them,' as is too frequently practised in training stables; and his swinging by Vandyke Junior's tail in Tattersall's yard, without the Horse shewing any symptoms of uneasiness; a Horse, previously to his coming into his stable, possessed of as much viciousness and as many spiteful tricks as any animal well could have, shews the patience and kindness that characterised his discipline.

"His opinion was the very reverse from those who advocate coercive measures; and when told that 'a good thrashing' now and then did the animal good, he perfectly agreed with the recommendation; 'a *good* thrashing,' he was wont to say, 'might be of service, but the devil of it was they too often received *bad* thrashings.'

"His vagaries, too, were of a harmless nature, and did no injury to others, however his own pocket might have suffered in their adoption. If he purchased blood-stock, or dogs, at a price exceeding the *ad valorem* opinion of more competent judges, he would not part with them without a consideration beyond the purchase money, under the impression that the longer he kept them, the more valuable they became, their keep being added to their original cost, and not considering that though the blood might be invaluable, their power of continuing it would deteriorate.

"The act of covering, he argued was an operation of Nature, and therefore between two animals should be left for Nature to effect; and, in support of this doctrine he was

accustomed to turn mare and horse into a loose box. The result of this *natural* fit was in one instance the ruin of that celebrated stallion Mr. Low, who, in descending from a mare, struck one of his fore-legs against some projecting piece of wood or stone, and snapped the bone of the arm in two; and though he was afterwards enabled to do duty effectually, with some little assistance in descending, he was lame for life.

"Of all his stud he prized Phantom, winner of the Derby in 1811, his produce also winning the Derby twice and the Oaks once, as possessing transcendent qualities as a stallion, though the public voice did not respond to this opinion.

"Mr. Harvey was ever liberal to his friends, and courteous to strangers, whom he received with the urbanity and politeness of a gentleman. There was not a particle of selfishness about him, and in his convivialities his manners gave a zest to the cup of the reveller and a charm to the song of the bard.

"On the 13th of May (1836), Mr. Harvey, who, though he had for some years lost the use of his hands and legs, could not bear confinement, took his customary daily exercise in a carriage constructed for his especial comfort and convenience; the same indeed in which he had a few weeks before visited the Heath at Newmarket, and which the Turf reporters of the London Journals facetiously styled his 'coffin,' but which was a mere couch made to fit the door of his carriage, removable so as to enable him to protrude his legs; and on his return home ate a hearty dinner, shortly after which he was found in his elbow-chair a corpse!

"Mr. Harvey, who was in the 68th year of his age at the time of his death, had retired to his living at Caldecot, Beds. He was a good classical scholar, and very attentive to his religious duties till a late period of his life, though he had not at the time of his decease done public duty as a Clergyman for some years."

We have heard that Mr. Harvey, and the late Mr. Mytton, were considered the most accurate "walking stud-books" in the kingdom.

CHAPTER VIII.

THE DUKE OF GRAFTON'S STUD.—OBSERVATIONS ON THE TURF, ETC.

WITHOUT giving an account of every Horse in the stud of this accomplished and successful breeder, we shall enumerate, however, the winners of the Oaks. The stud mares are eighteen in number, with a fine progeny of colts and filleys.

WINNERS OF THE OAKS.

Pastille, by Rubens, winner of the Oaks in 1822; a bay mare with black legs.

Zinc, by Woful, winner of the Oaks in 1823; dark brown with black legs.

Turquoise, by Selim; winner of the Oaks in 1828, a brown with rather light timber, and a good deal of white about the legs.

Oxygen, winner of the Oaks in 1831, by Emilius; a very powerful bay mare.

A talented writer in the "Sporting Magazine," says:

"Together, occupying a space not larger than the room in which I write, were these four winners of the Oaks.

"Lord Grosvenor won these stakes half-a-dozen times, in a period, however, extending over twenty-four years: His Grace of Grafton eight times; the last four victories occupying only fourteen. Minuet, who won them in 1815, was only shot about two years ago, till when she used to herd with this flock of flyers.

"The Duke of Grafton I should think was the only man in England who ever saw five of his own mares, winners of the Oaks together, at the same time in the same paddock. Music, another winner, is dead also."

Thus we see the principal nobility of the land employed in succouring and improving the breed of the English racer; and yet in the midst of all this, we hear of nothing but of its degeneracy. At one time we hear of yearlings of the astonishing growth of fifteen hands two inches in height, with the substance of waggon-horses; and the next moment we hear from other quarters that the breed of racers are become spindle-shanked, and otherwise so weak and degenerated that nothing but new blood will suffice. Now, although we are willing to believe there may have been mistakes committed by bad management, yet we cannot come to the conclusion that every thing is wrong. The following remarks of the writer, to whom we have before alluded, may explain our meaning perhaps with more force than our own language:—

"Are we indebted to Nature or Art for the generation of men that we find in all quarters of Great Britain riding our eight-stone races?

A chubby lad, that in fulness of time would have ripened into a sixteen stone ploughman, by some accident finds his way into a training stable. There perhaps it is discovered, that his head was intended for a better purpose than as a mere capital for his shoulders. He is put up for trials, exhibits a firm seat and good hands, and commences his career as a jockey. Forthwith he is obliged to undergo a continual process of violent exertion and unnatural regimen. He must not eat when appetite prompts, but as his engagements allow. His pores are not suffered to discharge their functions by gentle and insensible perspiration, but swathed in flannels, and stimulated by unseasonable efforts, the sweat is made to pour from him like a running stream. Then comes pharmacy, with bolus and drench, to finish what toil and sweat had so well begun, and the veteran of threescore is screwed into a coffin of similar dimensions with the cradle in which he was rocked as a baby!

"Thus is the race of pigmies manufactured *to ride;* and how does the treatment differ towards that which is to be *ridden?* In all, save probably a more generous allowance of food, from the hour a race-horse first goes into training he is submitted to precisely the same course of usage as that which transformed his jockey into a shadowy unsubstantial dwarf. And wherefore not? the object is the same for both. Horse and rider are sacrificed, if you will, to speed; but speed is the aim of the one, and the destined purpose of the other: if *that* be obtained, the effect required is produced, and naturally after a like process of treatment."

The above quotation shews the degraded situation in which man will appear for the sake of money! He consents to be deprived of "Nature's fair proportion," to become possessed of a few sovereigns more in a year, even at the sacrifice of his general health and happiness, than his comrade, the plough-boy. Can there be happiness without health, and can there be health under such a system of sacrifices, that stints the growth of manhood to a size, whose body may be "screwed into a coffin of similar dimensions with the cradle in which he was rocked as a baby?"

We have, with wonder and astonishment, often witnessed the training of jockeys for a reduction of weight. We have seen them in a burning sun, clothed in great coats, and walking at a rate, till they were actually in a fainting state from their great exhaustion. We have heard them express a great desire for refreshment, and have seen them refuse it with the spirit of martyrs. We have felt pity and sorrow that their duty should exact such devotion from them, and admiration at their exercising it. Still it was melancholy to reflect that all this devotion to their profession, calling upon all their corporeal energies, did not finish with their present engagement; but that repeated exertions of the same nature might still be demanded on other occasions. To undergo such punishment once in a man's life, might be supportable, and would serve him to talk about as a soldier would after a hard campaign; but to make a trade of it, seems to us a more trying occupation to the human constitution, than cultivating the sugar-cane in a torrid clime.

That the early training of the English race-horse must be highly injurious to his natural physical powers, we think, cannot admit of a dispute. Another popular writer, under the signature of *Ringwood*, says:

"We deplore the degeneracy of our race-horses. Yes we do: but, what is far worse, with all the means at hand we will not make use of them to keep our breed of Horses as it once was. Now let us look to the present system, and see what are the chances of a remedy. In this world we cannot go back: "forward, forward!" is the present cry. How then can we expect Racing to be steady? Look at its Augean Stable: who is to cleanse it? Who will do away with the July Stakes? Who dares to annihilate the favourite Two-year-old Course? Who can command that the great Races of the year shall be contended for by four-year-olds, or induce men to keep Horses in training when there is no longer (comparatively) anything worth contending for? Will the most influential on the Turf *(The Legs)* assist? Will public trainers recommend such changes? Will that class of men who now keep race-horses as a means of livelihood (a thing unknown in the olden time) strive to confer a National benefit? No, no! When Racing shall again become the exclusive sport of Gentlemen; when trainers shall again be private servants, and wear livery coats; when the owners of race-horses dare to go into the stables where their Horses are kept without leave, and not only to ask questions, but to give commands; when they shall in a great measure give up the system of book-making, and match their Horses for 1000*l.* across the Beacon; when they shall as much as possible separate themselves from the most execrable and disgusting set of vagabonds that ever disgraced our name and nation; when the race-course shall no longer be a mere Stock Exchange—then will there be an honorable emulation to bring to the post an animal worth looking at; but not till then.

"And now a few words on that most interesting subject, Breeding. We will begin with the Arabian, as the founder of our present race of blood Horses. Many contend that all our English race-horses may be traced back to pure Eastern descent on both sides: there we are at issue, and this is the mist that obscures the views of some of our first masters.

"Voltaire tells us (not that I agree to half he says), that 'incredulity is the beginning of wisdom:' at all events it encourages research. For one I cannot but feel assured, and on this point common sense bears me out, that when Racing was first introduced, and was beginning to be popular in this kingdom, pure Native Horses were trained, and ran, and bore off the bell! Does not the appearance and character of some of our best race-horses warrant such a conclusion, shewing not one atom of Eastern descent? Well, the fastest of these were then selected as blood-stock: by care and attention the produce of these animals became more speedy, and lighter in form; and then the cross with the Eastern Horse in-and-in, through two or three generations, in the fulness of time produced the *ne plus ultra*, and Nature cried, 'Hold!—enough!' She has her limits; we cannot go beyond them: yet this is what our present breeders are trying to do, and hence the failure. Notwithstanding the repeated trials they have made with the Arab and the blood mares in this country of the present day, and notwithstanding they must perceive that such silkworms spin their thread too fine, yet they will persevere to their own disappointment. Was the whole race of what are termed thorough-bred Horses now annihilated, in my humble opinion, with the assistance of Arabians as stallions only, in little more than a century there would again

be as good race-horses in England as there ever had been.

"Notwithstanding many sad tricks have been played in cocktail racing, yet I conceive much good has resulted from it. It may be proved that some first-raters have been really not thorough-bred, and it is to their bearing no degrading mark to distinguish them from their more aristocratic brethren that has induced men to bring out thorough-bred horses for half-bred stakes. It is not many years since a Sportsman might be highly gratified at seeing the Horses saddled for the Billesdon Coplow Stakes at Croxton Park, and if a thorough-bred one was smuggled in, there was no certainty about his winning: at all events he had no chance unless he was a fine powerful animal, for he had to carry a man upon his back: a weedy devil would not have been accepted (for such purposes, at a gift. At the period to which I allude, cocktail-racing was about its zenith; and we can but remember such nags as Gossoon, Optimus, Tartar, Brother to Hexgrave, Rufus, Contraband, *cum multis aliis;* all of them able, as many of them did, to finish their honourable course as hunters, and carrying men in their *teens*. Now the world said that all these nags were thorough-bred, and there can be little doubt about it: at all events they proved themselves race-horses in spite of English blood; and I heard an experienced trainer at that time declare that the only difference that he could see between the cocktails and the acknowledged thorough-bred Horses was this, that the cocktails were the better sort. Now does not this induce us to believe that powerful blood-horses may be bred if men will but set about it? The materials are still at hand and in full force, but not the inducement. The reason why owners of large racing studs, who are hunting men, find a difficulty even with their advantages to carry them in the field, is merely because these said Horses are all bred expressly for racing after the present fashion: and if Nature now and then goes out of her way, and throws them a great bony animal that requires time to bring his powers to perfection, should he survive the tender mercies of Mr. Trainer, who has tried him (poor devil) at two years old to be as slow as a top, why he is a cast Horse, and has the honour of becoming a hunter. Now did any man (possessed of the means) set about breeding blood-horses for the field only, and select proper materials, and merely train them for hunting, and prohibit their being used till they came to maturity, after a course of years it would be the refuse of his stud that would be sought after for modern racing. If half-bred Horses intended for hunting had to go through the drilling that the thorough-bred Horse of the present day does, and at the same time of life, where would men find hunters even of this description? We may grumble at and lament the degeneracy of our present race of blood-horses, but we have the means at hand for restoring them, and, from the enormous increase of numbers during the last half century, a manifest advantage over our grandfathers. The danger is only to be manfully faced to be overcome. But, alas! who will 'bell the cat?' who, for experiment sake only, will shew us what can be done."

We might extend these remarks to a much greater length; but we think enough has been said to arouse attention to the fact that the early and severe training of our modern race-horses must have contributed to their want of strength and durability.

TREGONWELL FRAMPTON.

Tregonwell Frampton was keeper of the running horses at Newmarket, to William III., Queen Anne, George I., and George II. For a number of years he was styled the father of the Turf, and died on the 12th of March, 1727, aged 86.

Frampton was born in the reign of Charles I., during whose troublesome reign horse-racing commenced at Newmarket, and is perhaps more celebrated as an adept in the crossings and manœuvres of the course than for either humanity or punctilious honour. An attempt has been made (a feeble one apparently) to shield him from the former charge.

Frampton was the owner of several running horses; and, amongst the rest, of one which was matched to run against Old Merlin, at Newmarket. Merlin was placed under the care of one Heseltine, a groom at Newmarket; whom Frampton's groom endeavoured to prevail upon to run the two Horses a private trial at the stated weights and distance agreed upon in the match, observing, by that means they might both make their fortunes. Heseltine refused, but in such a manner as to give the other hopes of bringing him to compliance.

In the meantime, Heseltine took the opportunity of communicating, by a letter sent into Yorkshire, the proposed offer to Sir William Strickland, Bart., who was principally concerned in making the match. The Baronet returned for answer that he might accept it, taking care to deceive Mr. Frampton's groom by letting Merlin carry seven pounds more weight than that agreed upon. Heseltine shortly afterwards consented to the proposal of Mr. Frampton's groom, who had secretly received instructions precisely similar to those given to Heseltine.

These grooms therefore prepared the Horses accordingly, and ran the course agreed to in the articles; when, after an excellent run, Merlin won the race by something more than his own length. This being communicated to each party by their secret and faithful grooms, each flattered himself with certain success. Sir W. Strickland very naturally concluded that, as Merlin had proved himself superior with even seven pounds extra on his back, he would very easily win the race; while Mr. Frampton was decidedly of opinion that, as his Horse had run Merlin so hard, carrying seven pounds more, he could not fail ultimately to win. In consequence, proposals were made and accepted to an enormous amount, to a greater an extent even than was ever known; some gentlemen (in the secret) staking not only all their cash, but their other property also.

At length the hour arrived when this important business was to be decided: the Horses started; and the race was won by Merlin by about the same distance as in the secret trial. In a short time the secret became known; and, though it had originated with Mr. Frampton, it is certainly not a little singular that Sir W. Strickland should adopt the very same expedients.

Several gentlemen were completely ruined by this race; and it excited so much attention throughout the country, that the circumstance was at length noticed in Parliament, and a Bill soon after passed in consequence, to restrain the rage of betting.

By this Bill was enacted, "that no sum of money, exceeding ten pounds, betted, laid, or

agreed to between any party or parties in future, shall be recoverable by law."

But there was another event, one of the blackest acts of cruelty which could well be conceived, and if not well authenticated, could scarcely be believed. The stratagem of the private trial met with its deserts. The charge of this wicked and inhuman act against Frampton rests on the authority of Dr. Hawkesworth, and which was published in the thirty-seventh number of the "Adventurer." The following are the words supposed to be spoken by the unfortunate Horse in the Elysium of beasts and birds:—

"It is true (replied the steed,) I was a favourite; but what avails it to be a favourite of caprice, avarice, and barbarity? My tyrant was a wretch, who had gained a considerable fortune by play, particularly by racing. I had won him many large sums; but being at length excepted out of every match, as having no equal, he regarded even my excellence with malignity, when it was no longer subservient to his interest. Yet I still lived in ease and plenty; and, as he was able to sell even my pleasures, though my labour was become useless, I had a seraglio, in which there was a perpetual succession of new beauties. At last, however, another competitor appeared: I enjoyed a new triumph by anticipation; I rushed into the field panting for the conquest, and the first heat put my master in possession of the stakes, which amounted to *ten thousand pounds!*

"The proprietor of the mare that I had distanced, notwithstanding the disgrace, declared, with great zeal, that she should run next day against any *gelding* in the world for double that sum. My master immediately accepted the challenge, and told him that he would the next day *produce a gelding* that should beat her.

"But what was my astonishment and indignation when I discovered that he, most cruelly and fraudulently, intended to qualify me for this match upon the spot, and to sacrifice my life at the very moment in which every nerve should be strained in his service!

"As I knew it would be in vain to resist, I suffered myself to be bound: the operation was performed, and I was instantly mounted and spurred to the goal. Injured as I was, the love of glory was still superior to the desire of revenge; I determined to die, as I had lived, without an equal; and having again won the race, I sunk at the post in an agony, which soon put an end to my life!

"When I had heard this horrid narrative (continues Dr. Hawkesworth,) which indeed *I remembered to be true*, I turned about in honest confusion, and blushed that I was a man!"

We know it has been contended, however, by some friends to the memory of Mr. Frampton, that no such event as that just described ever occurred; still it should be recollected that assertions are easily made; and that, in such a case as the present, they can have but little weight, unaccompanied by any species of collateral proof, particularly when brought in contact with the authority of Dr. Hawkesworth, who positively states the fact in most explicit terms.

THE HORSE AT A SHIPWRECK.

"I should have found it difficult to give credit," says Mr. De Pages, (from whose travels round the world this fact is related,) "had it not happened at this place (the Cape of Good Hope) the evening before my arrival:

and if, besides the public notoriety of the fact, I had not been an eye-witness of those vehement emotions of sympathy, blended with admiration, which it had justly excited in the mind of every individual at the Cape. A violent gale of wind setting in from north-north-west, a vessel in the road dragged her anchors, was forced on the rocks, and bulged; and while the greater part of the crew fell an immediate sacrifice to the waves, the remainder were seen from the shore struggling for their lives by clinging to the different pieces of the wreck. The sea ran dreadfully high, and broke over the sailors with such amazing fury, that no boat whatever could venture off to their assistance. Meanwhile a planter, considerably advanced in life, had come from his farm to be a spectator of the shipwreck; his heart was melted at the sight of the unhappy seamen, and knowing the bold and enterprising spirit of his Horse, and his particular excellence as a swimmer, he instantly determined to make a desperate effort for their deliverance. He alighted, and blew a little brandy into his Horse's nostrils; when, again seating himself firm in the saddle, he instantly pushed into the midst of the breakers. At first, both disappeared; but it was not long before they floated on the surface, and swam up to the wreck; when, taking with him two men, each of whom held by one of his boots, he brought them safe to shore. This perilous expedition he repeated no seldomer than seven times, and saved fourteen lives to the public, but, on his return the eighth time, his Horse being much fatigued, and meeting a most formidable wave, he lost his balance, and was overwhelmed in a moment. The Horse swam safely to land, but his gallant rider, alas! was no more."

Whilst giving a description of the Horse's services in this dangerous undertaking, we regret the writer has not rescued from oblivion the name of its gallant and noble rider. The Horse's exploit becomes the more prominent feature in this description; but without any wish to descry the merits of the Horse, we do think in justice to his noble conductor and martyr to his humanity, an effort should have been made to preserve the name of that man who had performed such repeated acts of heroism.

THE CANADIAN HORSE.

The winter travelling in Canada is sometimes very expeditious. It is surprising with what speed a good Canadian Horse will go, when drawing a cabriolet over the ice; instances having occurred of their travelling ninety miles, in one of these vehicles, in twelve hours; but, when this occurs, the roads must be very smooth and hard.

The Canadian Horse is a remarkably hardy animal; his best pace is a trot; he is accustomed to much bad usage and hard work, and is the most willing creature in the world (as the jockeys term it), for he never refuses the draught. They are brought from the country into Quebec in the coldest weather, and left standing in the open air, without any covering, for hours together, while their owners are transacting their business or drinking, and they seem not to be any the worse for it. In the winter, the Canadian Horse, like all other quadrupeds of that country, acquires an increased quantity of fur to protect him from the cold, and the curry-comb is never used. When the Horses have been heated by fast driving in a cold day, they appear to have a sort of icicle at every hair, and icicles two

or three inches in length often hang at their noses.

Travelling on Lake Champlain is at all times dangerous; and it is very common for sleigh, Horses, and men, to fall through the ice where the water is some hundred feet deep; and there is no warning of danger till the Horses drop in pulling the sleigh after them: luckily, the weak places are of no great extent, the traveller extricates himself from the sleigh as quick as possible, and he finds the ice generally strong enough to support him, though it will not bear the weight of the Horses. The pulling of them out is done in a manner perfectly unique, the Horses are strangled to save their lives.

When the Horses fall through, for there are always two in these sleighs, their struggles only tend to injure and sink them; but, as they have always round their necks a rope with a running noose, the moment the ice breaks, the driver and passengers get out, and catching hold of the rope, pull it with all their force, which, in a very few minutes, strangles the Horses; and no sooner does this happen than they rise in the water, float on one side, and are drawn out on strong ice, where the noose of the rope being loosened respiration returns, and, in a short time, the Horses are on their feet and as much alive as ever. This operation has been known to be performed two or three times a day on the same Horses. The Canadians tell you that Horses which are often on the lake get so accustomed to being hanged, that they think nothing at all of it. But, though the case is very common, the attempt does not always succeed; for it sometimes happens that both sleigh and Horses go to the bottom, if they cannot be extricated in time.

Another remarkable fact respecting the Canadian Horses is their fondness for fish. The fish thus eaten, except in size, resemble a cod, and are from four to nine inches long; the English call them tommy cod: the manner of catching them is by cutting holes in the ice and putting down either nets or lines. Over this hole a temporary house is built, large enough to contain half a dozen people, and a stove to keep them warm. They who cannot afford deals to build a house, substitute large pieces of ice, with which they form a kind of defence against the weather.

Midnight is the best time for fishing; and they place a strong light near the hole, which attracts the attention of the fish, and brings them round it in large quantities. There are a number of these houses on the river St. Charles, which have a strange appearance in a dark night, especially those made of ice.

INSTINCT.

A Horse having been turned into a field by its owner, Mr. Joseph Lane, of Fascombe, in the parish of Ashelworth, was missed therefrom the next morning, and the usual inquiries set afoot, as to what could have become of him. He had, it seems, been shod, all fours, a few days before, and as usual got pinched in a foot. Feeling, no doubt, a lively sense of proper shoeing, and desirous of relieving the cause of pain, he contrived to unhang the gate of his pasture with his mouth, and make the best of his way to the smithy, a distance of a mile and a half from Fascombe, waiting respectfully at the door until the bungling artist got up. The smith relates, that he found him there at opening his shed; that the Horse advanced to the forge and held up his ailing foot; and that he himself, upon exami-

nation, discovered the injury, took off the shoe, and replaced it more carefully, which having done, the sagacious creature set off at a merry pace homewards. Soon after, Mr. Lane's servants passed by the forge in quest of the animal, and upon inquiry, received for answer; "Oh, he has been here and got shod, and is gone home again."

A curious instance of instinct, in our recollection, occurred at Bristol some few years ago; and which may go in proof that Horses possess the faculty of recollection to a surprising degree. A person, who appeared to be a townsman, recognized a Horse, bestrode by a countryman, to be one which he himself had lost about nine months before. He seized his property (as indeed any one has a right to do, wherever it may be found, by day), and put in his claim: "This is my Horse, and I will prove it in two minutes, or quit my claim." He then liberated the Horse from restraint, let him go at large, and declared his proof to be in that the Horse would be found at his stables at some distance; a fact that was proved in a few minutes, by the two claimants and several by-standers repairing to the stables, where they found the Horse "quite at home."

SAGACITY IN A HORSE.

Seldom do we meet with so near an approach towards mind in the brute creation, as is evinced by the Horse of Horncastle, Lincolnshire, set forth in the Boston paper, as follows:—

Mr. Treevor, of Horncastle Lincolnshire, has a Horse which is, at times, let loose in a yard adjoining the stable, where stand a pump and a water trough. This Horse is endowed with such sagacity as the same species is rarely known to possess, viz. the cunning of pumping its own water to drink. As the pump is frequently used by many persons in the course of every day, it is supposed the docile animal has learned this extraordinary art by noticing them. Since the yard which surrounds the pump is always open to public inspection, many persons have with admiration observed this sagacious Horse lifting up the the handle with its nose, and then pressing it down in the same way. Such of our readers as may have experienced the corroding bitterness of that sorrow which the unkindness of prejudiced neighbours inflict, will doubtless admire as the pleasing trait in the character of this noble animal, the amiable instinct, the generous friendship which inclines him to supply a fellow-companion, another Horse in the same yard, with a daily banquet from the trough, into which he pumps for it a sufficiency of water, before he attempts to satisfy himself! Such an instance of neighbourly kindness exhibited by a much inferior race, must surely be intended to put to shame the hard-hearted and the cruel among mankind.

RACING.—MOUNTING.

See! the jockies neatly and lightly attired, in the chosen and regular colours of their masters, or employers, and nicely weighed, are mounting their high-bred and well-trained racers. The Horses themselves are either patient, or impatiently curvetting, according to their disposition, or experience of the course on which they are about to contend; but all of them are instinctively informed of its nature and intent. They well know they are about to contest the palm of speed and stoutness of heart; and many of them, in consequence, exhibit symptoms of the highest degree of anxiety and irritability. An interval of

anxious suspense now takes place. During this period, perhaps, some steady Horses take a short canter; others of a different and warmer nature are obliged to be led in hand. The riders appear full of thought, big with a commission perhaps of mighty consequence, intrusted to their honour and ability, and meditating how to execute it in the ablest manner. The pulse of the betters beats high, in proportion to their risk, the event of which may verify the old quotation, "Some to undo, and some to be undone." The mind of the unprincipled *Black-leg* is agitated and divided between hope and fear, by an anticipation of the joys of possession in case of winning, and the horrors, loss of cast, and the infamy of a levant, in case he should be lurched by fortune, the goddess of his adoration, and his sole dependence.

Amongst the knowing manœuvres of the turf, of which the aspirant has not a few to learn, the false start ought not to be forgotten. When the Horses are started, a fair and reasonable indulgence is allowed, in case any one from fright, awkwardness, or other accidental circumstance, should fail to get off with the rest. In such a case they are called back, and a fresh signal for the start is given; now a handle has been made of this indulgence, immemorially, but of late years to such excess, that the clerks of the course have found a strong necessity to check it. When there have been young or hot and impatient Horses to start, the jockies mounted on steady Horses, which they could manage in any way, would go off at the signal, and immediately pulling up, call out a false start! by which tour they got them all called back again; and this has been practised to the third, even the fourth time. By such means, the hot Horses were so flurried and harassed, that at last it was difficult to make them start at all; and the experienced who know the delicacy of temperament and constitution in the running Horse, and on what seemingly trifling circumstances both his speed and stoutness depend, are well convinced of the ill effect of such treatment on those which are delicate and irritable.

Now and then, excessive caution in the jockey has overshot its mark, and completely changed its nature. When several capital Horses have started, together with others without the least right or prospect of winning, the former, each afraid of his equal competitor, or bound by orders, have deferred their run, and waited such a length of time, that they have suffered the inferior Horses to gain so much ground, that the capital ones, with all their superiority of speed or goodness, were unable to overtake them; and so the race has been won by the slowest and the worst! The race is thus not always to the swift. The late Lord Grosvenor once won a heavy stake, in this way, at Newmarket; which, however, might be much reduced by the bets he had in all probability made against his own Horse.

PORTRAITS OF RACERS.

A strange neglect was formerly shown at Newmarket, the head-quarters of the British Turf, in respect to the *portraitures* of the celebrated race-horses of former days, the originals and progenitors of our present race. Obscure accounts and traditions of these may be traced, perhaps, to the early part of the reign of Charles I. when, or somewhat earlier, Newmarket first became the theatre of this national sport. These precious relics were

utterly neglected by the first sportsmen in the land, and suffered to mould and rot in garrets and damp cellars. Such was the tenor of the information given many years since, by Mr. Sandiver, the surgeon, at Newmarket, a gentleman well known in the sporting world, to his correspondent, Mr. John Lawrence. This surely evinced a strange want of curiosity and of sensibility towards the memory of the prime instruments of their sport, in the amateurs of the turf. The fragments of these pictures, among which were the portraits of Bay Bolton, and of poor Dragon, the sacrifice to old Frampton's avarice, savage cunning, and cruelty, against the authenticity of which all the late attempts have been unavailing and futile, were formerly said to be among those destroyed as above. It is true, those old portraits were rude and unscientific, evincing the low and immature state of the imitative art in their days; but the ideas of curiosity and enthusiasm excluded, they, no doubt, generally afforded, at least, a tolerably faithful outline of the animals which they represented. The living likenesses of the immortal Stubbs, and his ingenious successors, it may be hoped, have put an end to this disgraceful neglect.

There had been a great desire among the amateurs of the Turf, to collect the portraits of those superior Horses to whom the English racer had been indebted; and in the year 1794, the Turf Gallery was opened in Conduit-street, Hanover-square. The intention of the proprietors was to give a series of all the running-horses of note, with a printed account of their pedigree and performances. To this end, they began with the "Father of the Turf," the Godolphin Arabian; a stallion allowed by all conversant in pedigree, to have contributed more to the breed and improvement of Horses in this country than any Horse before or since his existence.

The undertaking, at the first blush of it, promised much success to the parties concerned; and Mr. Stubbs went to work with so much spirit, that many racers, the progeny of the Arabian, beautifully glowed on the canvas, in a space of time incredible to those unacquainted with his industry. But the tree was without a root, and the want of that nourishment necessary to keep it alive withered all the branches, and that which at first seemed to flourish so fair, fell to nought. The principal in the firm deserted the concern, and of course stagnated an adventure, that, had it been pursued to its intended completion, must have been an honour, as well as an ornament, to the British nation.

Mr. Stubbs was an artist unrivalled in his day, and his pictures were sought for by royalty, as well as by the first noblemen in the land. If we were to enumerate all the patrons of Stubbs, it would embrace the principal sporting characters in the kingdom.

Captain O'Kelly had the whole of his stud painted by Stubbs, and they were reckoned the prime adornments at Cannons, near Edgware.

The Marquis of Westminster has, it is said, in his possession a greater collection of the prime works of this painter than any other gentleman in England.

The Marquis's father was Stubbs's first patron, and a most liberal encourager of the man whose interest he had undertaken, and whose kindness was ever regarded by the artist with gratitude and affection.

One of the most prominent beauties of this collection is, a Stag-hunt. This was the picture the Council of the Academy sat in judg-

ment upon, when they determined Mr. Stubbs the highest honour they had to confer, and dispatched their diploma to acquaint him of their choice; but on Stubbs's refusing to present the picture to the Academy, which is the custom, the Council ever after neglected to invite him to their sittings, and at last became so fastidious as not to acknowledge him to be their member.

Mr. Stubbs offered to give them another picture, but this was rejected; and having sold this picture to his patron, the Earl of Grosvenor, for one hundred and seventy guineas, it was impossible for him to make the offering required.

Mr. Stubbs, however, knew how to appreciate his own consequence, and thinking less of the honour than the sacrifice, and possessing the manly spirit of his predecessor Seymour, never after thought of the chair of Appelles.

We can not conclude this account of our artist and his labours, without taking notice of a trait in his character most worthy to be imitated. Mr. Stubbs was in himself the most abstemious person of his day, wisely thinking, that the way to protract life was to avoid excesses of every description, and by keeping this sentiment in full practice, he appeared as strong and as florid at ninety years of age, as most healthful men do at fifty; and so fully persuaded was Stubbs of the possibility to prolong his own existence to the patriarchal age of one hundred and fifty, that he most cheerfully began his Comparative Anatomy, after the plan of Professor Blumenback, at the period of ninety, promising a complete classification of the animal world, as an addittion to an undertaking so laborious; a work that would require at least thirty years of good health and perfect memory to accomplish. But, alas! in the two eager pursuit of this speculation, poor Stubbs was arrested before he could attain his hundredth year, by the hand of him who sports with princes, and whom the mightiest men of the earth can not resist with impunity.

After his usual early morning's walk, Mr. Stubbs, as was his constant custom, took some simple refreshment, and then mounting his chamber to prepare for his easel, he felt a sudden sensation come over him, and throwing himself back in his great arm-chair, without uttering a sigh, his spirit slipped from its case of life. Thus, like a full-ripe acorn from its shell, dropped to earth one of the brightest and most industrious men of genius that ever graced our country; a cheerful companion, a fast friend, liberal without ostentation, yet prudent without meanness.

LADY BIRD.

Lady Bird is a roan pony, got by Tom Thumb (by Walton), and is supposed to be one of the fastest ponies in all her paces in England. She is highly valued by her owner. Indeed Captain Becher speaks in the highest terms of her performances. He says, "she has trotted one match, which is rather extraordinary for her size, fourteen miles under the hour, carrying fourteen stone, which she performed with ease, for fifty pounds. I have repeatedly ridden and driven her sixty, seventy, and eighty miles in the day, from one race to another, during four summers, and never had her tire in my life; and I will defy any man to drive her less than ten miles an hour in harness whilst going: and she is well known to all sporting people, who have seen her do extraordinary distances."

HORSE WITHOUT HAIR.

A French writer, some years ago, published a description of a Horse without hair, which he considered as forming a variety in the species, and whose state, he says, is neither the effect of art or disease.

This Horse, purchased at Vienna, and taken from the Turks, appeared to be about twenty years of age. He ate the same food, and in about the same quantity, as other Horses; he was lean, and very easily affected by cold. There was not upon the whole body any hair, except the eye-lashes of the lower eye-lid. His skin was black, bordering upon gray, with some white spots under the fore-shoulders, and in the groins; it was also soft to the touch, glossy, and a little unctuous. The bones of the nose were depressed, which embarrassed his respiration, and produced a noise each time that he took in or emitted air. The French writer, we suspect, will not make many converts to his opinion of this curious animal being a new variety of the species. The loss of hair doubtless arose from disease.

AN OLD HORSE.

An account of a Horse having entered into his 64th year appeared some years ago. The Horse at that period (1822,) belonged to the Mersey and Irwell Navigation Company. He was bred by Mr. Edward Robinson, of Willgrave-farm, in Woolston, a short distance from Warrington.

When young, and indeed till he reached the age of fifty, he manifested an extremely vicious disposition, not only to human beings, but to dogs or any other animals that happened to oppose his progress, or stand in his way; and this was particularly shown when, at the dinner hour or other periods, a cessation of labour took place. He was impatient to get into the stable on such occasions, and would use his heels and teeth to remove any impediment placed in his way.

His teeth in front are perfect, but very long, while his bridle teeth, or tusks, after growing to an unusual length, became half inverted, and now describe an uncouth semicircle, convexing towards the upper jaw. His lower lip is neither so loose, nor so pendulous, as what is generally seen in very old Horses. His eye is described as being very remarkably placed in the socket, and is at the same time so bright and clear, and presents altogether so perfect an appearance, as to afford a strong presumption that his sight is as good as that which is usually found in Horses at the age of twelve or fourteen.

Thirty years of his life, it seems, were spent in a mill, and the remainder principally on the Mersey and Irwell navigation, in towing boats.

When in full flesh and in the vigour of life, he would scarcely have measured fifteen hands high. He grazed in summer on the banks of the Mersey, and in winter was taken into the stable, and fed on mashes and soft food. He then possessed the use of all his limbs in tolerable perfection, lay down and rose with ease; and when in the meadows would frequently play, and even gallop with some young colts which grazed along with him. At that time there was no symptoms of an early dissolution.

The great age of this Horse would convince us that he had been kindly treated, and we must naturally suppose, never put to any very violent work. Between the rounds of a wheel,

and on the banks of the Mersey, this animal seems to have spent his life in such labour as would only amount to wholesome exercise; and it is to these circumstances (kindness of treatment and moderation in labour,) that we have a right to suppose were the causes of his extraordinary longevity. We should like to see this principle of moderation extended more generally to the Horse than it is; we know that every Horse is not employed in a mill, nor can be expected to do only the labour of drawing a boat; still we feel convinced that too many Horses are sacrificed in a most wanton manner, which only a little consideration might prevent; and it is for this we implore.

SAGACITY IN A MARE.

A person in the vicinity of Frome, who had an orchard, wherein was a good crop of apples, observing a material diminution of the fruit, determined one day to watch for the thieves, and bring them to justice. He had not stationed himself long in his hiding-place, before the parties made their appearance. These were no other than a *mare* and colt, which had been kept for some days in the orchard.

It appears that, as neither the dam nor the foal could reach the apples, the old one adopted the stratagem of throwing herself repeatedly against the tree, by which means she would dislodge a good lot of apples, which she and her foal would then begin to devour. Indeed, so expert and audacious was the quadruped marauder become at this practice, that on being driven away from the apples under one tree, she and the younger thief proceeded to other trees in succession, and the dam repeated her depredations!

AFFECTION AND SAGACITY OF A NORWEGIAN HORSE TO HIS MASTER.

The following story is told of one of the Norwegian horses. His master had been dinning at a neighbouring town, and, when it was time to return, had drank so much, that he could not keep a firm seat in his saddle. The Horse regulated himself, as well as he could, according to the unsettled motion of his rider, but, happening to make a false step, the peasant was thrown, and hung with one foot entangled in the stirrup. The Horse immediately stopped, and twisting his body in various directions, endeavoured to extricate his master, but in vain. The man was severely hurt, and almost helpless; but the shock had brought him to his senses. The Horse looked at him as he lay on the ground, and, stooping, laid hold of the brim of his hat, and raised his head a little; but the hat coming off, he fell again. The animal then laid hold of the collar of his coat, and raised him by it so far from the ground, that he was enabled to draw his foot out of the stirrup. After resting awhile he regained the saddle, and reached his home. Grateful to his preserver, the man did, what every good feeling bid him—he cherished the animal until it died of old age.

Many an English farmer owes a considerable debt of gratitude to his intelligent and faithful servant, who has taken care of him when he was unable to take care of himself, and, possibly, has preserved his life. Let him repay the debt by kinder usage.

A MARE COURSING A HARE.

A gentleman in Wiltshire, gives an account of the following fact:—

"I can give you a rather remarkable anec-

dote which occurred in my presence some time since, whilst engaged in that beautiful amusement. I lent a fine bred and very fiery mare to a friend from town, who had come down to try his Essex dogs against our Wiltshire breed; at the close of a very fine day's sport, we had to beat a small furze-brake, and, for the purpose of better threading it, my friend dismounted and gave the bridle of the mare to the next horseman. Puss was soon started, the "halloo" was given; the person who held my mare, in the eagerness of sport, forgot his charge, loosed his hold, and, regardless of any other than his own steed, left mine to run, like Mazeppa's, "wild and untutored." But, to the astonishment of all, instead of so doing, or even attempting to bend her course homewards, (and she was in the immediate neighbourhood of her stable), she ran the whole course at the tail of the dogs; turned, as well as she could, when they brought the prey about, and afterwards by very much outstripping all competitors, (for the run was long and sharp,) she stopped only at the death of the hare, and then suffered herself to be quietly regained and re-mounted. This I conceive to be certainly an extraordinary proof of a natural love for the sport; but what renders it more remarkable is, that I had only attempted to ride her twice before after any hounds whatever. The brace of dogs that were slipped at this course were my own, and the groom had been in the habit of exercising them with the mare. Whether this had any effect on her actions I am not competent to give an opinion."

A VICIOUS HORSE.

Some years ago, the Leinster Journal contained an account of a most shocking occurrence which took place between Dunrow and Ballyragget, county of Kilkenny:—"A stallion, the property of a Mr. Shelly, grazing in a field, turned upon his owner as he was passing out at the gate, and killed him. The Horse reared, knocked him down, broke his thigh, seemed to suck his blood, and then tore off the flesh, scattering it about the field. Our postman, who delivers the Journal on that route, saw the melancholy spectacle of the man's mangled remains, and describes it as one of the most appalling scenes that could be witnessed. Some people having been drawn to the spot began to pelt the Horse with stones, on which he dashed through the field, swam across the river, and was not brought back when our accounts left Ballyragget. No inquest has been held, as before Mr. Phillips, the Coroner, could reach the place, a multitude of people had collected the remains of the body, and removed them into the Queen's County."

It would be interesting to know how this Horse had been treated, and if his master had given him any particular offence. There is no doubt as much difference in the temper of Horses, as there is in men. Severe correction amongst some boys will only harden them, whilst kind treatment may have a better effect. It is much easier to spoil a Horse's temper than to mend it; yet there are some men who have the happy art of ingratiating themselves in the good opinion of even vicious Horses. Such was the case with Jupiter, which our readers will recollect when he went into the stables of Parson Harvey. From being a most vicious Horse, he became as harmless as any of his other Horses; still we believe there may be some so morosely ill-tempered (arising, we believe, in the first in-

stance from mis-management), that we should not place much confidence in, and should look to a bullet as the only cure.

A gentleman, very fond of Horses, who was travelling by the coach says —

"I was forcibly struck by an incident which I witnessed, when on a journey to London, in the Aurora coach. At one of the stages, shortly after we left Reading, a beautiful full-bred mare, which they called Fanny, was brought out, with three others, for the purpose of changing; and it required several persons, and great caution, to prevent Fanny from doing mischief till the coach started, when she ran as well as possible; indeed, she was a superior animal for this purpose. Whenever we made a temporary pause on the road, Fanny required an attendant or two to keep her in order; and, even when we reached the end of the stage, she still continued as viciously inclined as ever, till the approach of her favourite, when Fanny became as quiet as possible. The horse-keeper, at this stage, was on terms of perfect harmony with this otherwise vicious animal; this man approached Fanny with the utmost indifference, spoke familiarly to her, and, after unhooking the traces, led her away quietly. I made some inquiry into the matter, and found that this man had gained the affection of Fanny by kindness and good treatment. With this one person she was quiet in all situations, but almost unmanageable with any other, either in the stable or elsewhere. This same mare, I was informed, had a most unconquerable aversion to a blacksmith; and, on this account, it was with the utmost difficulty that she could be shod. It is no uncommon occurrence for blacksmiths (who generally shoe Horses in country places) to strike the animals most unmercifully with their hammer or pincers; and hence may be traced the reason of that dislike so often and so unequivocally testified by Horses to these sombre-looking gentry."

We once had a Spanish gennet, that we purchased at Antwerp, that we suspect had been a martyr to the ill-usage of some of the shoeing tribe. She would almost smell a knight of the anvil a mile off; and it was always at a loss of very considerable time to get her shod, which sometimes would happen at a very inconvenient time for the manifestation of such airs which she assumed. This fastidiousness took very considerably from her value. Vice she had not a single particle of; she was the gentlest creature in the world, and cruel must have been the hand that could have smitten her. Her capering and unsteadiness proceeded from fear, and her sensibility was so great, when we first had her, that on going to her stall, she would tremble, and almost jump into the manger. A very little time elapsed, however, before we gained her confidence, and her timidity by continued kindness gave way so far as to allow us to handle her feet and legs; indeed had we been smiths we think she would have allowed us to shoe her.

We sold her to a gentleman, who intended her for his daughter, and acquainted him with the only fault we knew she had—the difficulty of being shod. In every other respect she was an acquisition for the service she was going to perform; she was broken to the Spanish fashion (which we will admit is not so much for speed as show,) had a good mouth and (as our jockeys say), would canter upon a shilling. She was so graceful too, so modest in her deportment, that to beat her, as she must have been beaten, causes pity for

her sufferings, and detestation for the man who committed the crime, and who could delight to witness the tortures of an animal possessed of such delicate sensibility as made it tremble with fear.

HORSE LEAP.

On Saturday, July 20, 1822, an extraordinary leap was made by a Horse in the possession of Mr. Beardsworth, of Birmingham. On the ground being accurately measured by some gentlemen, who witnessed the performance, it was found that in passing over a bar three feet six inches high, the leap was taken at the amazing distance of seventeen feet seven inches from it, and the whole space of ground covered was twenty-seven feet eight inches. The Horse was fifteen hands and a half high, and carried upwards of twelve stone. He was afterwards rode over the same bar several times, and cleared upwards of eight yards without much apparent effort.

TROTTING MATCHES.

A curious match took place on the Beaconsfield road on Tuesday, February 19, 1822. Mr. Causton undertook to trot his Horse seven miles in half-an-hour; and took bets that he performed each mile within four minutes and twenty-two seconds, a piece of nice calculation, which was achieved in good style.

A Horse belonging to Mr. Dyson, which had been picked up in Smithfield for a trifle, having done thirty miles in two hours and forty-nine minutes, was produced by Mr. Brian against another which cost 7*l.*, to do forty miles in four hours, carrying fifteen stone. This was performed on Wednesday morning, March 20, 1822, over a ten-mile piece of road, near Hockerill, for one hundred guineas. The lankey emblem of blood and bone, above seventeen hands high, was mounted by an old jockey of the same built, and did the first ten miles in fifty-four minutes ten seconds, the second ten miles in fifty-six minutes fifty seconds, the third ten miles in sixty-three minutes, and the fourth ten miles in sixty-three minutes forty seconds, making a win of it two minutes and twenty seconds under the time. The Horse never once broke from a trot; the rider was more fatigued than the Horse.

The second great match between the slate-coloured American Horse, and Mr. Dyson's Wonder, took place on Monday, March 11, 1822, at two o'clock, over the same ground as the preceding one, on Sunbury common. The match was for Mr. Fielder and Mr. Dyson to ride their own Horses. Mr. Dyson took the lead, and was fifty yards a-head at the end of the first mile, and the American Horse never had a chance at any one period, and was beat, with the greatest ease, by about two hundred yards. Neither Horse broke through the match, and the ground, three miles, was done in eight minutes and forty-three seconds, which is thirteen seconds quicker than the last match. What makes this performance unparalleled, is not only the speed, but the extraordinary weights which were carried. The riders were both weighed, to determine a bet, at Kingston, after the match, when Mr. Fielder weighed thirteen stone twelve pounds, and Mr. Dyson fifteen stone four pounds, without saddles. By this it appears that the winner gave the American Horse twenty pounds, which clearly proves the superiority of the breed of our own country, as the slate-coloured Horse has been consi-

dered, for years, the best in America. If, after the decision of the referee on the first match, any disputes could have possibly arisen as to the payment of bets upon it, they must have been entirely cleared by Mr. Fielder expressing himself perfectly satisfied, and paying a bet of 200*l.* to 100*l.* on the double event.

Mr. William's Horse, which beat the slate-coloured American, was backed to trot three miles in nine minutes, for one hundred guineas. It had been reported that the Horse was lame, and, up to the evening before starting, six to four was the betting on time, at the Tun Tavern, and more than two to one was betted before starting. When at speed the lameness was not apparent, but the Horse was more than three minutes doing the first mile, and there was no increase of speed during the match. The Horse broke into a gallop near the George Inn, when about one hundred yards from home, and the pressure of horsemen was so great at his heels that the jockey turned him with difficulty, and the match was lost by forty seconds. Some thousands were depending on this race.

Monday, March 19, 1822, a hackney mare of Mr. Dixon, of Barbican, started at the four-mile-stone on the Romford-road, to trot thirty miles in three successive hours, carrying Mr. J. Coxeter, weighing nearly fifteen stone. Notwithstanding the heavy weight the mare carried, she performed the distance in thirteen minutes and twenty-seven seconds within the given time.

So long ago as 1785, a similar match was made to trot thirty miles in two hours and a half, and the accounts state that this was accomplished, leaving four minutes to spare.

On the 2d of February, 1829, Tom Thumb, an American cob, trotted one hundred miles in harness (over five miles of road on Sunbury Common, in ten hours and twenty-three minutes, and this was considered, and admitted to be, an extraordinary feat.

On the 25th of the following April, Rattler, another American, the property of the same proprietor, beat the celebrated Welsh mare Miss Turner, over ten miles of ground between Cambridge and Godmanchester, going the distance in thirty minutes and forty seconds; and this was certainly a feat unprecedented in the annals of Horse-flesh in this country.

On the 4th of July, 1832, Rattler (drove by Mr. Osbaldeston, his then master) performed five miles of road between Wittlesford-bridge and Royston, in thirteen minutes fifty-eight seconds, beating Mr. Payne's Rochester, an American entire Horse, whose nose touched the wheel of the Squire's cart on passing the winning-post: and on the Friday in the July Meeting, Rattler, rode by his master, beat Mr. Lawton's Driver, (a pony which had recently performed seventeen miles within the hour,) trotting thirty-four miles in two hours eighteen minutes and fifty-six seconds.

If, however the feat of Tom Thumb was considered unprecedented, we have to record a time-match which leaves his performance in the shade—that of a mare, the property of Mr. Dixon, of Knightsbridge, which bears the appropriate appellation of Nonpareil, and who went over precisely the same ground, and completed the hundred miles in nine hours fifty-six minutes and fifty-seven seconds! A match cart had been provided for the occasion, and at twenty minutes to six o'clock on Wednesday morning the 27th of April, the mare started, driven by Mr. W. Stacey, a farmer residing in the vicinity of Kingston, under whose surveillance she had been in training

since November, when the match was made. She finished her first twenty miles, with great gaiety, in two minutes less than two hours, and was then taken out and had some gruel given her. In three minutes and a half she was again on the move, and rather increased her speed in the next twenty miles, to make up for her stoppage, but was still within the four hours; and thus she continued "jogging on" at the same pace till she had completed eighty miles, (having been taken out at the completion of every twenty miles, and cordial balls washed down with gruel administered on each stoppage,) and finally winning with three minutes and three seconds to spare! She shewed no symtoms of fatigue, and on entering her stable began to eat her hay as if she had only come off a moderate stage. After resting an hour, she was gently walked to her training stable, a distance of seven miles, and has continued well ever since.

This is indeed a performance hitherto unequalled, and she "was English, from top to toe," her sire being Mr. William Flander's Fireaway, of Littleport, Isle of Ely, afterwards sold to Mr. W. Wright, of Rougham, and the late Mr. George Goold of Swaffham, and is now I believe in the possession of Mr. H. England, of the Kent-road.

No doubt is entertained but that she could have accomplished her great undertaking in less time; and so confident is her trainer of her powers that he offers to back her to do the same distance in nine hours and a half.

Capt. Halford's match to trot eight miles and a half in half an hour, and to carry eleven stone, with a Horse *bona fide* his property, for one hundred guineas; and a second match, for a like sum, took place over a two-mile piece of ground at Merston Vale. The eight miles and a half were done in twenty-nine minutes and fifty-seven seconds.

A manœuvre not dreamt of was here practised; a jockey of ten stone immediately mounted the same Horse, and proceeded on the second match, to the astonishment of all present. The match was lost by thirteen seconds.

CHAPTER IX.

ACCOUNT OF THE PRINCE OF WALES'S HORSE ESCAPE, RUNNING AT NEWMARKET.—OBSERVATIONS ON THE TURF, ETC.

ESCAPE, SKYLARK, PIPATOR, AND CORIANDER.

On the 20th of October, 1791, Chifney rode the Prince of Wales's famous Horse Escape, by Highflyer, in a sweepstakes, from the Ditch-In, a distance of about two miles, against the above-named Horses, and Coriander won it. On the following day Chifney rode Escape against the same Horses over the Beacon Course, a distance of four miles, and won. The betting on this race was four and five to one against Escape. Public rumour stated that the Prince had won a vast sum.

It is almost impossible to offer any fair opinion upon this subject; that appearances were sufficient to cause suspicion, we are very willing to allow; and we shall leave it to the candour and judgment of our readers to decide whether the explanations of Chifney are satisfactory or not.

The Prince of Wales denied having won above four hundred pounds on the race, and seems to have taken every pains to investigate the winnings of his jockey. We shall let Chifney speak for himself:—

On the 20th October 1791, as I was going on the race-ground in company with others, His Royal Highness from on horseback called to me, saying, "Sam Chifney, Escape is sure of winning to-day, is he not?" I immediately rode up and informed His Royal Highness that I did not know that Escape was sure of winning to day.

His Royal Highness said, "Yes, Escape is sure of winning to-day." I then wished His Royal Highness not to back him; for the odds were likely to be high upon him; that His Royal Highness might lose a deal of money to winning very little.

His Royal Highness then turned short from me, saying, "No, I shall not bet upon him, but he is sure of winning;" and immediately joined the company that was riding down the lower side of the running ground to the turn of the lands.

I now found myself under a peculiar embarrassment, for I very much wanted to tell His Royal Highness that I was doubtful about Escape being quite fit to run, and this was my only reason for wishing His Royal Highness

not to bet upon him; and yet I thought Escape might win without being quite well to run; therefore, if I made any complaint about Escape's condition, and he should afterwards win, I thought I should be represented by some as mischievous. Those thoughts were what made me so slow in trying to break my opinion to His Royal Highness, that I was doubtful about Escape not being fit to run; under these impressions, I wished to be well timed in acquainting His Royal Highness with my doubts about Escape's fitness to run. Then His Royal Highness turned so very short upon me at the time I was going to make known my opinion; I became fearful that he was tired of hearing me; being conscious that I had been very often troublesome on the like occasions; that I immediately became so very much vexed, that the strength of my limbs went from me in so extraordinary a manner, I never felt anything equal to it before. I thought it my duty to offer my opinion to the Prince, and I was trained to it from being questioned upon the same.

After there had been a race or two over, His Royal Highness was in the carriage with Lord Barrymore, standing near the lower end of the rails, by the turn of the lands; and I was on horseback, standing at a small distance from the carriage, when His Royal Highness called to me, and asked me if Escape's race was coming next? I answered, "Yes, your Royal Highness." His Royal Highness said, "Come this way, Sam Chifney, I will give you your orders how to ride Escape." I immediately got up to the side of the carriage, and His Royal Highness said, "Sam Chifney, I wish you to make very strong play with Escape;" then made a pause, as I thought, for me to make answer: I did not make answer. His Royal Highness then said, "Sam Chifney, I am never afraid when that I am giving South and you orders, for I know you are both too good jockeys to over-mark your horse; but now I will not compel you to make play with Escape; providing there should be good play made by any other Horse, you may wait with Escape; but should there be no other Horse make such as you think good play, you must take care to make good play with Escape. I hope, Sam Chifney, you perfectly understand." I said, "Yes, your Royal Highness, I perfectly understand." His Royal Highness then ordered the carriage to drive to the betting-post.

Mr. W. Lake had been standing with his Horse in his hand, near to the carriage, but on the other side of the rails, whilst His Royal Highness was giving me my orders how to ride Escape.

Directly the carriage was gone, I was then passing near to Mr. W. Lake: he said, "Well, Chifney, has the Prince given you orders how to ride Escape?" I said, "Yes, Sir." Mr. W. Lake said, "What are your orders?" I told Mr. Lake that His Royal Highness wished me to make very strong play with Escape; but after, His Royal Highness gave me leave to wait with Escape, providing there should be any other Horse make good play; but should there be no other Horse make such as I thought good play, that I must take care to make good play with Escape.

Mr. W. Lake then asked me if I thought that the best way for Escape to run? I replied, "No, Sir; if I had my life depending upon Escape's winning to-day, I should wish Escape to wait by all means; but as His Royal Highness told me he should not bet upon him and as I am so often contradicting my orders,

and as I was not asked my opinion, I thought it would be impertinent of me to offer to give His Royal Highness any more trouble."

Mr. Lake said, "Well, Chifney, I think as you do, that Escape had better wait, so you will wait at all events; and I see the Prince's carriage, I will go immediately and make everything perfectly pleasant."

I immediately went over to saddle; when I was saddling Escape, I asked if he had had a sweat since he ran last; and I was answered that he had not had a sweat since his last running against Grey Diomed. The Horses started, I waited with Escape and was beaten.

Immediately that the race was over, Escape pulled up to walk back to scale. His Royal Highness came up to me, saying, "Sam Chifney, you have lost this race by not making strong play with Escape, as I desired you." I answered, "I don't know that I have, your Royal Highness." His Royal Highness then said, "Yes, you certainly have lost the race by not making strong play with Escape." I then hoped His Royal Highness had not lost much money upon the race. His Royal Highness said, "No, I have not lost a stiver: but that don't argue, for Escape certainly would have won, if you had made strong play with him, as I desired you; and I do tell you, Sam Chifney, that I am a better jockey than Mr. Lake and you both, for you have lost the race by not running as I desired you." His Royal Highness turned from me, for I was got to the scale-house to alight and weigh.

Whilst I was in the weighing-house, I received a message to attend His Royal Highness. Immediately I got my clothes on I went immediately to His Royal Highness, who was on horseback with Mr. W. Lake, standing close to the farther winning-post of the Beacon Course. His Royal Highness said, "Sam Chifney, what is the meaning of Escape's being beaten to-day, for you tell me that Escape is the best Horse in the world?" I replied, "I did tell your Royal Highness that Escape was much the best Horse in England, and I think the same of him now, your Royal Highness." His Royal Highness continued, "Sam Chifney, tell me your motive immediately why Escape is beaten to-day." "I will tell your Royal Highness my motive immediately why I think Escape is beat to-day. It is a fortnight, or a fortnight and a day, I think, since Escape ran last, which was with Grey Diomed. During that time Escape has not had a sweat, neither has he been tried since, but he has been tenderly treated; and notwithstanding he looks strait and handsome to the eye, he is unfit to run; and this I believe is the reason of his being beat to-day, your Royal Highness." His Royal Highness said, "Very well." I then bowed, and drew back to a small distance, facing his Royal Highness and Mr. Lake, not knowing whether His Royal Highness had quite done with me; and while I was thus waiting, I heard His Royal Highness or Mr. Lake say something about Escape's running to-morrow. I immediately took the liberty of asking His Royal Highness if Escape were to run to-morrow. His Royal Highness said, "Yes, I certainly shall run Escape to-morrow." I said, "I am very glad your Royal Highness does run Escape to-morrow, for I think Escape will win to-morrow; and I wish your Royal Highness to back him to-morrow to losing six or seven hundred; and I wish you to back him, Mr. Lake, and I will back him, your Royal Highness: and had Escape not run to-day, I should

not have wished your Royal Highness to back him to-morrow, for this sharp rally to-day will not fatigue him; it has caused a good perspiration, so as to lighten him of his flesh, and opened his pores, that he will run both faster and longer to-morrow; and his running to-day is my only reason for wishing your Royal Highness to back him to-morrow; for had he not run to-day, I should not have wished your Royal Highness to back him to-morrow."

The above account of the first race is Chifney's own language, who published a book entitled "Genius Genuine," and sold it himself, at the *small* sum of five pounds!

In the next race Skylark chose to make play, and Chifney waited with Escape, and he won.

It was publicly said, and without hesitation, that Chifney had ridden booty; that he purposely lost the first race, by which manœuvre, the odds running very high, next day, against his Horse, an immense sum was won, by backing or betting upon the Horse, to his own considerable emolument. Even the gentleman who had the management of His Royal Highness's betting and racing concerns, as soon as the event of the race was known, riding up to the Prince, said, "I give your Royal Highness joy; but I am sorry the Horse has won; I would sooner have given a hundred guineas!" The Prince, severely mortified by these suspicions of the conduct of his jockey, having taken steps for the investigation of such a disagreeable affair, left Newmarket the following day: it is said, that his Royal Highness never thenceforth honoured him with a single word.

Preparatory to bidding a final adieu to Newmarket, the Prince ordered the attendance of Chifney, and demanded of him whether he was prepared to take such necessary steps as might be proposed to him, tending to clear his own character from suspicion, and to give all possible satisfaction to the parties concerned. Chifney having declared his readiness, His Royal Highness proposed, that he (Chifney) should make oath as to his bets on the two races, and to such other circumstances as might be deemed explanatory of his conduct; and that he should undergo an examination by the Jockey Club.

The Affidavit required was forthwith made by Chifney, before the Rev. D. Framton, at Newmarket, to the following purport, and has been since repeated—March 13, 1801—before Mr. Justice Collick, of London; to wit, "that Chifney had no bet whatever upon the race with Escape, which was lost October 20th, 1791; and only twenty guineas, and no more, upon the race which Escape won on the following day; that he was not interested or concerned, directly or indirectly, in any other bet, either against or for Escape, on either of the aforementioned days; that he neither did, nor caused, nor procured to be done, anything to check, hinder, or prevent, the said Horse Escape from running; but, on the contrary, did everything which his judgment suggested to him, and his powers enabled him, to make Escape win the race on the 20th of October; that in no place in which he had lived from 1784, had he won a guinea against any Horse that was beaten, and which he either trained or rode; that he had never been arrested at Ascot Heath, and that Mr. Vauxhall Clark never did pay any money for him."

It had been reported, it seems, to the Prince of Wales, that Chifney had been arrested at Ascot Heath races for three hundred pounds, and that Vauxhall Clark (the well-known

better) had paid the money for him. This Chifney represents as a mere calumny, invented to give colour to the false accusation of riding booty, brought against him, because Clark usually betted money for Chifney, and the calumniators sought to have it believed, that the betting on the two races was managed by Clark, as a joint concern: it had been reported, that Chifney had won six or seven hundred pounds upon the race which he caused Escape to lose, and six or seven hundreds more upon the race which he won, the bets having been made by the aforesaid Vauxhall Clark.

On the morning of the day on which the Prince left Newmarket, being upon the course, His Royal Highness called Chifney, and, addressing Sir Charles Bunbury, one of the stewards of the Jockey Club, informed him of Chifney's readiness to be examined in any mode which the Club might judge proper, desiring Sir Charles to take every possible pains to obtain satisfaction; afterwards remarking to Chifney, "Sam Chifney, this business should be explained." To which Chifney answered, "Your Royal Highness, I don't know how to explain it."

The gentlemen of the Jockey Club appointed to examine Chifney, were Sir Charles Bunbury, Bart., Ralph Dutton, Esq., and Thomas Panton, Esq. All the questions asked him had already been answered by Chifney on affidavit. Sir Charles Bunbury, it is stated, had the earliest and strongest suspicion of Chifney, and was the most severe upon him.

In order to render intelligible an investigation of this business, it may be necessary to explain to most readers certain terms appropriate to the technicality of the course. *Premierement*, the grand and important division of race-horses, in respect to their qualifications, is into the stout and the speedy; the first term indicating such as are stout of heart, cool in temper, and firm in constitution; generally not remarkable for readiness and speed, but calculated to succeed in a long race. Of the second, it is usually said, speed is their best; by which is meant, that they are best qualified for a short race, possessing a pomptitude in the higher degrees of velocity, which must necessarily be of a relative short duration. This description are generally free, and of a warm temperament; sometimes, but not invariably, of a weak and washy constitution. It may be easily conceived, that the degrees of variation or approximation in these respects must be infinite, rendering it frequently no easy matter to determine positively to which class a Horse belongs; whence numberless errors, both in those who give directions, and those who ride. As to the extremes, there are Horses which have barely racing speed, their sole virtue consisting in their great powers of continuance, by which, in a four-mile race, they wear out their more speedy antagonists. On the other hand, there are such as no measures of art can enable to come through a long course in the company of reputed running Horses: these have their distance, beyond which Nature has put it out of their power to excel. Of this description were Fireaway, Masquerade, and Rocket of former days. The two first were most successful at the distance of a single mile; the last, at that of one quarter, or half a mile at most. It is not in the course of nature, that phenomena like Childers and Eclipse should be often produced, uniting the extremes of both speed and stoutness, giving the go-by and the distance to all possibility of competition. The most use-

ful racer, perhaps, is he which partakes in a nearly equal and considerable degree of both qualities, but with a superior turn towards speed: such was the famous Shark, and such, in Chifney's opinion at least, was the famous Escape. The term to make the play, or to go along, will be easily understood, as leading away in a race, at a pace of very considerable speed, upon a Horse which is presumed to be stout and long-winded, in order to distress those antagonists which are known or supposed to be inferior in stoutness; to the end, that the being fatigued and exhausted, by long and sharp running, they may not have it in their power to reserve their superior speed for the last push. Amongst Horses of equal game, the play may be made by those which are in the best condition. Waiting, or making a waiting race, is plainly the opposite practice: here, the rider of the speedy, weak, or jadish Horse, always aims to keep in the rear, and go as slow as possible, until the last few hundred yards, where he well knows his power of speed will turn to the best account.

Chifney entered into the service of the running stables in 1770, and was regularly trained to his vocation, under the celebrated professors Fox and Prince. Riding, he says, "he learned himself." Like Homer's heroes under similar circumstances of calumny and depreciation, Samuel assumes the undoubted right of speaking in his own praise. Hear him, "In 1773, I could ride a Horse in a better manner in a race, to beat others, than any person ever known in my time. In 1775, I could train Horses for running better than any person I ever yet saw." His own word, however, could not afterwards convince the Prince, his master, who seemed to estimate his skill in training as inferior to his judgment and powers in public riding: so uncommon it is for even a great man to be uniformly great! He farther tells us, that his knowledge is the result of "practice with genius;" after which we can no longer wonder at the title of his book. In 1784, he lived with Lord Grosvenor, riding his Lordship's race-horses. He afterwards entered into the service of Thomas Panton, Esq., with whom he continued four years, until his engagement in the service of the Prince. During his continuance with Mr. Panton, he rode most of the Duke of Bedford's race-horses; and tells us, he was assured by Mr. Panton that "the Duke of Bedford was the very best pleased with his riding, as he always rode to a T, as his Grace told him." His Grace is well known to have been very precise in his directions to his jockies; and appears to have been so well satisfied with this, that, in all probability, had not his Grace then meditated a total relinquishment of the turf, he would have engaged Chifney for life, who was, immediately on quitting the service of Mr. Panton, engaged by His Royal Highness the Prince, at a salary of two hundred pounds per year.

Chifney has been candid enough to give us a marked trait in his own character. He was looked upon by many of the sporting people, and particularly by the training grooms, as obstinate and bigotted to his own opinions; and it was commonly said, that "Chifney would always ride as he pleased;" or, "that he was at his tricks again." These opinions he attributes to the ignorance, prejudice, or knavery of the parties. By his own account, he appears to have acted in this way only when latitude and discretion were allowed him; but it is probable, in doubtful cases, he was apt to take upon himself too great a res-

ponsibility. In the Prince's service, the orders seem generally to have been discretionary; and the discretion appears to have been lodged with the gentleman who managed His Royal Highness's racing concerns and the jockey, jointly. A difference of opinion between the two, and the firm adherence of each to his own judgment, seem to have bred much confusion of management; unless, indeed, we allow that the inconvenience was, in a great degree, obviated by the firmness and practical experience of Chifney.

This difference of opinion is particularly striking in respect to the Horse Escape, which the Prince, the manager, and the train-groom, always valued for his stoutness or game; whilst the jockey, who so often rode him, appears thoroughly convinced that speed was his best.

From a detailed account of Escape's trials and public races, he clearly appears to have been a most uncertain runner; to have possessed capital speed, and even great powers of continuance, when well to run; but to be materially affected by very slight and very usual errors in training; to be subject to have the edge of his speed totally blunted by a few degrees of over work, and his powers, both of speed and continuance, paralyzed and rendered inert, by want of due exercise, or by errors in feeding, more particularly near the time of his running. There also most assuredly is—and they who do not practically know, have free liberty to laugh at the idea; a perfect analogy of nervous sensibility, of irritability, and vacillation of fibre, between the human animal and race-horse; a sharer, at least, in the labours and anxieties, if unfortunately not in the profits and satisfactions, of his master. As men differ, so do Horses; and the warm tempered, free, unequal, and nervous Escape, ought to have had for his trainer and manager, as well as his jockey, that man, who, if we may judge by his account of himself, seems, in so many respects, an exact counterpart of the Horse. Hard-headed and indiscriminating grooms of the common type, could entertain no apprehension of the delicacy, vigilance, and care, with which such an animal required to be treated. Of this Chifney has not failed full often to remind his reader.

Escape beat the best Horses in England, over the course, or four miles, and was himself beaten on the same course by middling Horses. He beat Nimble, one of the speediest Horses of his day, across the Flat, a distance of a mile and a quarter; and was beaten on the same course, in a private trial, by Don Quixote, and Lance, Horses, we believe, of inferior speed to Nimble, several lengths before half the course was ran, and very easily, and a great way at the end; yet, in another trial, two miles over Epsom, he beat Baronet and Pegasus, giving the former, a Horse of his own year, and a winning racer, the enormous weight of twenty pounds; which Horse, Baronet, nevertheless beat him, at the same weight and distance, a few days after, at Ascot. Chifney did not ride Escape either in the trial or the race.

It may be asserted, that Chifney was insincere in his pretended opinion that speed was the best of Escape; and that, inwardly knowing the contrary, he had waited with him, on the first day's race, on purpose to get him beat; but a mere opinion of a man's intentions, however universal it may be, can never form a just ground of crimination. Open and explicit as he has been in his publication, and letting out every thing which came upper-

most, whether it make for him or against him, he may demand, at least, an equal degree of credit for his own statements and assertions. Notwithanding Chifney's profound skill in the close and delicate points of a race-horse's character, we are sometimes strongly inclined to suspect his judgment, in relation to Escape, and to adopt the opinion of his Royal Highness. It appears to us, that, for the two days in question, at least, Escape's game was the best of him; and that, as it has naturally and fairly happened in a thousand instances, he was outfooted in the short race, and won the long one by his stoutness; for although, in the last race, Chifney tells us he waited, they must have gone the course through at a choak-jade rate, since Skylark made such strong play. Could this opinion be rationally adopted, the question would be at rest for ever; but, even if not, Chifney's arguments are both strong and rational, and must be valid, until answered with equal reason and strength.

In order to satisfy the minds of those who, perhaps, without mature consideration, had backed his Horse at four and five to one on one day, and betted four and five to one against him the next, the Royal sportsman appears to have done all that could be required of a man of honour, a gentleman, and a prince. His Royal Highness put his servant to his oath on all the points in dispute, and commanded him to submit himself unreservedly to the examination of his accusers.

This was the last match in which his Royal Highness was concerned in.

LORD COLERAINE'S OPINION OF NEWMARKET JOCKIES, ETC.

We present the opinion of this noble lord, on the system of the Turf, which prevailed in his day, and which perhaps at the present is not much altered for the better. The writer has had considerable experience in Horse-racing, and was better known to the public as "Colonel Hanger," than under the more elevated title of Lord Coleraine. He was at one time the companion of the Prince of Wales, who it is said the Prince cut, from some gross allusions contained in a toast which he gave, and which the Prince thought was disrespectful to the royal family.

The Prince, though affable and courteous in his manner, had always dignity enough to resent impertinent familiarity; and from that time, it is said, Lord Coleraine (then Major Hanger) never entered the doors of Carlton House.

There are some men who pride themselves in speaking or writing what they think; yet who are not always willing to allow the same indulgence for others. There may be some truth in the writer's charge against the training grooms for their dishonesty and vulgarity; yet the latter charge, his Lordship will, we believe, in the opinion of his readers, be not considered wholly exempt from. However, his knowledge of the Turf entitles him to be listened to, and his observations, though homely, may be considered as arising from experience; which is always more to be dedepended on than speculative theories, however ingeniously they may be written. He says:—

"I shall touch but slightly on the method of training Horses at Newmarket; for, if I were to enter into particulars, I might write a whole volume on the absurdities I have seen practised there. All Horses, generally speaking, are treated alike, unless they fortunately fall into the hands of some trainer (the number

of which are but few), who acts according to reason and common sense, and whose brains do not lie in his guts (pardon me this vulgar expression,) and his guts lie in his head; for they are fond of good living.

"There is a certain cant term, and method of speaking, amongst these most ignorant fellows, which I ever despised, when I was on the turf. When a gentleman has matched his Horse at the Jockey Club, he tells his trainer what he has done, and asks his opinion on the match; the trainer replies, 'I think your honour has got to windward of the flats,' or some such low vulgar and low-bred ignorant expression;—although this fellow knows that your Horse is so bad a racer, that, provided he be matched (giving weight) against a common post-horse, he will be troubled to beat him. His interest is not whether you lose, or win, your match; his interest is, to encourage you to continue on the turf, and to persuade you, that your Horses are much better than they really are; for, if he were honest enough to tell you, that, out of ten Horses you had in your stable, you had but one Horse which could be called a racer—then every man, who was not bigoted to his own obstinate folly and ignorance, would send every Horse in his stables to the hammer, excepting that one Horse, to be sold for what they would be knocked down at. But this does not suit or agree with the trainer's interest. He lives by the sieve, and by the sieve only, together with the money you pay for the boy's board and lodging, who exercises your Horse; and by this, and by this only, they accumulate, in time, good fortunes.

"It is by the sieve, and by the sieve materially, they make their fortunes. Every time they shake the sieve, to feed your Horses, it is to their profit. Generally speaking, they give one Horse as much exercise as the other, whether, from his nature, he carries more or less flesh. Can anything be so absurd, as to see all the young colts, coming three years old, brushing along, as it is termed, after the aged Horses, many of them carrying heavier lads, than the aged Horses? I am certain, that most of the delicate Horses, which, by nature, do not carry so much flesh as others, are overtrained and considerably weakened by being immoderately sweated. Every Horse should be sweated acording to his constitution, and the quantity of flesh he makes. I am certain, that nine in ten would run better, provided they went gently for the last three or four days."

Lord Coleraine was confederate on the Turf with his friend, Mr. Robert Pigott, when his celebrated Horse (Shark) was at his best; Mr. Pigott, trusting the whole management of his stables to him.

"I do not believe there ever was a better Horse than Mr. Robert Pigott's Shark, excepting Eclipse, which was a very uncommon Horse. I will tell you what Shark could do, by which you may give a tolerably good guess whether you have nearly the best Horse of his year. Run five or six of your young colts together, one mile: if they all come in well together, you may be sure that not one of them is worthy to be kept in training, excepting you have one amongst them, which is an uncommonly large sized colt, large limbed and loose made. It is possible that, when he comes to his strength, and fills up, he may turn out a good Horse. If you have one colt, which, in the trial, runs clear away from all the rest, you may expect that he will turn out a good runner. Take him, about a fortnight

after, run him with two of the others which were the two first of those beaten; for you must not run him with the worst or last of the lot. Let him give them both twenty-one pounds. If he does not beat them cleverly, you have no right to expect that he is the best, or nearly the best Horse of his year. I will mention a wonderful trial, when Shark was coming six years old. He ran from the Ditch-in. I borrowed a mare, a good runner, of Mr. Vernon. I think her name was Atalanta, but I cannot mention her name for certain. I gave Mr. Vernon fifty guineas for the hire of her; but, then, I agreed to have her for a fortnight before the race, in our stables, that he should not run her to death, by which I might have been deceived in the trial. I promised him to run her only once, from the Ditch-in, and, on the third day, again one mile only, and then to return her. John Oakley rode Shark, and Anthony Wheatly rode the trial mare. Shark gave all the other Horses, except the mare, twenty-one pounds. There were three others; my Horse St. George, Salopian, and Jack of Hicton. The mare carried four pounds more than them; consequently Shark gave her only seventeen pounds. As the mare and the rest of the Horses were coming down that small declivity just past the Furzes on the town side, Shark had beaten them full three hundred yards; so much so, that I rode up to Oakley and told him to pull Shark up, and go in, in the centre of the group. St. George and the mare had a very severe race; he just won it; the other two were beaten three or four lengths.

"St. George had been turned out in a paddock, at my own house, in Berkshire, for ten months, and well fed with corn the whole time. He was wonderfully improved; for, before I turned him out, I ran him with Salopian, across the Flat, and Salopian beat him shamefully.

Remember, every Horse, including the mare, was of the same age—six years old. Twenty-one pounds is the test of speed; and this your colt must be able to give to one which is a tolerable good runner, and not to one which cannot run at all, or you have not the best, or nearly the best colt of the year.—So much for racing.

COMPARATIVE MERITS OF HORSES AND PONIES.

A good judge of Horseflesh, who has paid considerable attention to this subject, speaks of the merits of the pony, which in point of economy we think well worthy the attention of our readers. He says:—

"It is, and has for a long time been a favourite opinion of mine, that a good pony is the best rough-and-ready hack in the world. In a pony is contained within a small space what one might call the concentrated essence of strength and speed.

"It is generally supposed, and I am persuaded of the correctness of the supposition, that if you want to ruin a young Horse, your best plan is to starve him whilst he is young. Every rule, however, has its exception, and the case of the Forest ponies is a most marked exception to this one. Starved in his early youth, the Forester, though small and stuntly in appearance, is endowed generally with a more hardy constitution and more tiring endurance than any other species of Horse in this country. Until he is three years old the Forest pony is scarcely looked after, and then he is taken up by his poor proprietor, exhibiting a shaggy coat, an immense pot-belly, ewe

neck, big head, and ragged mane and tail. To look at him in this stage of his career, you would suppose that a full-grown donkey was more than an equivalent as an exchange for the animal calling itself a horse, which presents itself to your view. If his owner cannot sell him immediately, he puts him into his cart, and is supported by a lock of hay at night. The poor animal becomes crippled by hard work put upon him in his fourth year, and is therefore consigned to the cart of the costermonger or travelling tinker, there to drag on in hunger and toil the existence which commenced in hardships and privations.

" But let us turn from this scene of woe, and suppose our pony born under a more auspicious star. A gentleman sees him when he is first caught, and as he flatters himself he is a bit of a judge, observes a good point or two; he has plenty of good feed to spare, and takes compassion upon the poor starveling's hard lot. After a summer and autumn of good living, with an improved appearance and a spice of the devil in his eye, the pony is in the winter driven into the straw-yard, and shares with the cows all the little comforts of a warm and sheltered shed by night, and a crib well filled with hay by day. During this time his master sees what an improvement has taken place in his nag, and in the spring gives orders for him to have a little taste of the saddle and bridle in the way of breaking in. Physicked, stabled, and clothed, the dust of four years is with no little difficulty extracted from his jacket, and his natural colour is at length opened to the view. He is at last mounted by his master, who discovers that the ragged rascal bought by him out of charity is by no means unworthy of his purchase money: he congratulates himself upon his bargain; and always supposing our gentleman to be a light weight (about ten, but certainly under eleven stone), he discovers, when his nag is five years old, and in good condition, that he is without any exception the best hack that he ever obtained at any price; and moreover, that by means of good and generous keep, his personal appearance is so wonderfully altered and improved, that no one could have recognized in him the least degree of likeness to the puny Forester, that was purchased at the edge of the common for the very sporting price of eight pounds!!!

" Such reader has been the case with me; and I shall ever bless the hour when I rescued from the cart of the costermonger, my gallant little grey. Of course for hunting nothing but a full-sized Horse will do whatever be a man's weight; but for coursing and hacking about, give me a good pony. Then again, their prime cost is not only infinitely less, but they can be kept in condition at a much less expence than a Horse: their constitutions are twenty times as hardy; and if your stud consisted only of ponies, you would never be called upon to pay a farrier's *little account.* But the pony not only shines as a hack for the saddle; in harness he is both useful and ornamental. According to my notions of good taste, there is no turn-out of any nature or kind so pretty as a pair of handsome ponies and a single-bodied wicker carriage. Perhaps I shall be told, in these economic days, that it will not do on account of the expence, as two Horses are dearer than one. That position is an erroneous one; for it is by no means an easy task to meet with a good machiner fit for a four-wheel carriage, well-broke, sound, fresh, and handsome, for fifty pounds. I

could undertake for that money to buy a pair of ponies, young, handsome, and well-broken; and I might almost add, harness into the bargain. Then, as to the keep; two ponies of thirteen hands in height, can be kept well on the same food that is required by one large Horse in hard work. They will give an air and style to a vehicle, which, with one Horse, would look shabby and common-place; and, moreover, will do more work, and go with more ease to themselves (as Horses always will in company,) and therefore, of course, more pleasant to the driver.

EXTRAORDINARY CASE OF STRANGLES.

Mr. E. Hickman, V. S., of Shrewsbury, says that he was called to attend upon a valuable entire Horse, called Herbert Lacy, in the posession of Mr. Wicks, the stud-groom at the Shropshire kennels.

The Horse was taken ill with the strangles about the 9th of May; matter formed under the jaw, the abscess burst in the usual way, and the Horse appeared to be doing well. On the 16th there appeared a swelling on the left side of the neck, a little below the ear, and in a few days it arose to an alarming size. Mr. H. was then requested to see him. He ordered the part to be well fomented and poulticed, but this did not produce suppuration. Mr. Hickman says:—"I was satisfied matter was forming, and recommended a blister to bring it to a surface, which proved of little service. At this period the Horse had great difficulty in breathing, from the pressure of the substance against the larynx; so much so that there was every appearance of suffocation if immediate relief were not given, the animal appearing in the greatest agony.

"From his value, and to guard against public censure, I requested that two other veterinary surgeons might attend, it being my intention to open the trachea as the only means to preserve life. These gentlemen were from home, and I requested Mr. William Clement, a most eminent surgeon, to attend, which he kindly agreed to do. It was considered advisable to cut down upon the abscess, although we could not feel any thing like matter, which I did, but not until I had made two very deep incisions through about two inches of the integuments, when about a quart of matter escaped. The Horse then became more tranquil in his breathing, but not as I expected, instantly relieved. I continued the fomentations and poulticing for a few days, when the wound became healthy, granulations began to form, and the breathing became regular. There was a great deal of thickening round the wound, which I reduced by the application of tincture of iodine and soap liniment. The Horse is perfectly recovered, and is most certainly allowed to be one of the best thorough-bred Horses Shropshire has produced since old Sultan's time."

CHAPTER X.

CHIFNEY'S REASONS WHY TURF HORSES DEGENERATE, ETC., OBSERVATIONS ON THE TURF, ETC.

REASONS WHY TURF HORSES DEGENERATE, ETC.

THE following remarks are most enlightened and practical, and merit the most profound attention from men of the turf, coming from the quarter they do. Chifney says:—

I have said Horses change in their twice running. If a Horse is in perfect fitness for running, he immediately becomes exhausted, little or much; he must then change in his running. A Horse cannot keep his perfect fitness for running more than one race, till rested. I have seen one sweat between their twice running change Horses for the worse astonishingly. It is destruction to Horses to sweat them in the manner they are sweated at Newmarket, as the practice there is to sweat them once in six days, sometimes oftener; and between those days of sweating, it is usual for the Horse to go out twice a day, each time having strong exercise. In these sweating days the Horses are mostly covered with cloths, two or three times doubled, and go in their sweats six miles, more or less, and at times go tolerably fast. Directly the Horse pulls up, he is hurried into the stable, which is on the spot for that purpose. As soon as he gets in, there is often more cloths thrown upon him, in addition to those he had been sweated in. This is done to make the Horse sweat the more, and he stands thus for a time, panting, before he is stripped for scraping; that with being thus worked, clothed, and stoved, it so affects him at times, that he keeps breaking out in fresh sweats, that it pours from him, when scraping, as if water had been thrown on him. Nature cannot bear this. The Horses must dwindle.

I think, in the first place, that the Horse has been too long at this sort of work for his sinews; then the clothing and stoving him forces his juices from him in such quantities, must destroy their spirits, strength, and speed; and much clothing jades Horses. A Horse don't meet with this destruction when he runs, for then he is likely to be lighter in his carcase, lighter in his feet, having plates on, not shoes, which is wonderfully in favour of his sinews; and he is without clothes, and not stoved, and his course in running is very seldom more than four miles; therefore this difference in sweating and running is immense.

When a Horse pulls up from his running, he has time given him to move gently in the air, and is usually scraped out upon the turf, and by these means the Horse perspires no more than suits his nature.

Horses should have different brakes against weather, to scrape in. Buildings for this, I think, would be most proper made after the horse-dealers' rides in London; open in front, being out of the weather, and not out of the air. Places of this sort would be much the best for Horses to saddle in; for Horses saddling in those close, dark stables, they at times break out with great perspiration when saddling; and in fine roomy places of this sort, there would be proper space, &c. for noblemen and gentlemen sportsmen to command a sight of the Horses at saddling; and Horses are less timid being in a crowd, than they are to hear it and not see it.

When a Horse is first taken into work after having had a long rest, his carcase is then large and heavy, and the practice is to put more cloths upon the Horse, and order him to go a longer sweat. But the Horse in this stage of his training is the less able to bear more cloths, and go further in his sweats; for the Horse himself being heavy, that, with boy and cloths, at times has a great weight upon his legs; with this pressure and his work heating him, it makes his sinews full and weak; and thus working a little too fast or too long upon his sinews at one stretch, they are forced out of their places. This once done, the Horse seldom stands training after.

It is ignorant cruelty that causes a number of Horses being thus unskilfully lamed at Newmarket; and gentlemen not only lose the use of them and their money by it, but it deprives them of sport they otherwise might have.

The principal care in training Horses for running, and hunters and hacks for hard riding, is, to train their legs to be able to carry their carcase; using them first to short exercise, short gallops, short sweats, and giving time between their work for their sinews to rest, or the best of legs will become destroyed.

Horses' legs are very soon destroyed at first coming into work; but when they have had time to be well trained, scarce any running or riding will hurt them.

Some few, I am informed, have a way of pinching their race-horses in their meat and water. This is another certain way of perishing a Horse in his spirit and strength. Where a Horse is too large in his carcase, he should be well fed, as Horses, I believe, for the most part of them are at Newmarket; and, instead of pinching him in his water, where a Horse is greedy of it, he should be watered very often, and at all times as much as he will drink; he will then drink less, and come straight and strong in his carcase.

The outcry is, Why are there so few good runners, or that the turf-horses degenerate? Some say they think it is from running Horses too young. My opinion is this; viz. That the best running mares are trained till their running is gone from them little or much, then turned into the stud exhausted of their juices, as above described. Perhaps drop a foal on the following year, and so on year after year, suckling one foal while breeding another. The mare is thus turned into the stud, drained of her strength, and her continually breeding keeps her so, without she lays herself barren a year or two by her misstanding to the Horse. This chance manner of her laying herself fallow gives her an opportunity of recovering her juices, or strength to enable her to breed

a stronger foal, provided the Horse that is put to her is in the same proper plight.

And it is the same with the Horses. They are turned out of training into the stud, thus drained of their nature; and the better runners they are, the more are they pressed with mares, and in such numbers, as to exhaust their prolific powers.

These are my reasons why the turf-horses degenerate in length, speed, and beauty.

OURALSK (ASIATIC RUSSIA), OCT. 10, 1838.

We copy from the French Journals the following account of the races which took place at Ouralsk, in Asiatic Russia. There seems to be considerable exaggeration in the pace, as well as great difference in the speed of the Horses. The French league is not equal to the English; but if we may suppose the distance to be correctly given, we have no hesitation in doubting the accuracy of the statement altogether. The distance, however, is too vaguely stated, to criticise upon. The following is the account:—

"The annals of the Jockey Club do not perhaps record an instance of what occurred at our late Horse-races, on the 29th of September, at which several Kirghis-Sultans and the civil and military high functionaries of the province attended. The latter, preceded by the Hettman of the Cossacks of the Oural, had repaired in procession to the Hippodrome, situate in the centre of the town.

"The Horses were to clear a distance of eighteen wersts (four and a half French leagues), and the Cossack Horses were to run first.

"Twenty started from the post together, two of whom (one mounted by the Cossack Santehyn, and the other by the Cossack Salihoff,) outstripped all the rest, and constantly ran by each other's side, as if they were tied together, without so much as a line's difference between the two. They reached the mark in twenty-four minutes and thirty-five seconds; and the prize of two hundred and fifty roubles (40*l.*) was divided between the two competitors.

"This equal swiftness of the two Horses astonished the spectators of this race; and on enquiry being made, it was discovered that they were twins.

"The race of the Kirghis Kaissak Horse next took place. Eighteen left the post together, and the conqueror, mounted by Dajin Baj-Mohamed, the son of the sovereign Sultan of the Kirghis Kaissaks, and the young Sultan enjoys the reputation of being the best Horseman in his father's dominions. The Prince distributed among his servants the prize of 310 roubles (50*l.*) gained by his steed.

"A race was afterwards to be run between Cossack and Kirghis-Kaissak Horses, but no one having a Horse able to compete with that of Dajin Baj-Mahomed, the race did not take place. The only one which had a chance of beating him was the black stallion of the Cossack Boustche-Tchou-Groumien, who has gained all the prizes during the last four years. That Horse was unfortunately ill at the time. Last year he cleared the eighteen wersts in eighteen minutes and twenty-five seconds.

EXTRAORDINARY ROAD MATCH IN INDIA.

Mr. B. bets Capt. C. one thousand rupees, that neither he nor Mr. R. ride from the milestone in the Poona Cantonment to the Parsee Tavern at Pauwell (a distance of seventy

miles) in four hours and ten minutes; number of Horses unlimited, and the match to come off on the 22d instant.

Eleven Horses, the number which it was proposed to employ in the match, were in the course of a couple of days mustered by the parties and their friends (who in the meantime had made an additional bet of fifteen hundred rupees on the match being performed in four hours), and were exercised every morning on the race-course here for the short time intervening between the making and coming off of the match.

The backers of Old Time were numerous, and in fact the general opinion was that the match would not be won: the grounds for which were, that the roads were known to be in a bad state; that the Bore Ghaut, a steep and winding descent of four miles, with a precipice on one side of the road, had to be passed; added to which was the probability, nay almost certainty of obstruction from the droves of bullocks carrying grain up the country, with which the road is usually at this season thronged. It was moreover supposed that the Horses in training were by no means equal to the performance, and that an accident, of which there appeared more than a probability, would infallibly lose the match.

From the confidence of the parties themselves, however, the betting at starting was even on the match being performed in four hours ten minutes; three to two against four hours; three to one against three hours fifty minutes; and ten to one that it was not won in three hours and thirty minutes.

On the first making of the match two watches on the chronometer principle, which had been selected for the occasion, had been placed in the hands of a watchmaker, and these having been set on the day preceding the match, one was taken on in the mail to Pauwell by the umpire, whilst the other was reserved for the start at Poona.

At a quarter past five o'clock in the morning of the 22d, Mr. Rawlinson, riding twelve stone, appeared at the starting place; and the word "off" having been given, the match commenced.

Only one, and that not a very large drove of bullocks, was met between Poona and Rhandalla; the distance forty-four miles, having been performed in exactly two hours, without any accident having occurred. Here a violent Horse had been injudiciously stationed, and immediately on his being mounted, the curb turned round in his mouth, and he ran away with his rider the whole way down the Ghaut; but luckily was, after two or three narrow escapes, pulled up safe at Kolapoor. The last Horse, when within a couple of miles of home, suddenly leapt off the road into the fields, and alighting on bad ground, fell. No injury, however, was sustained by either horse or rider, who immediately remounted, and arrived in Pauwell at twenty-eight minutes to nine o'clock, thus winning the original match with fifty-three minutes to spare.

The Horse which ran between Wargaon and Carli was the only one of those employed in the match which had ever appeared on the Turf.

The match was ridden with great nerve and judgment throughout by Mr. Rawlinson son of Mr. Rawlinson, of Chadlington, Oxfordshire.

The Horses were Arabs belonging to the Officers, and the match arose from some conversation on Mr. Osbaldeston's match.

THE LATE EARL FITZWILLIAM.

The honoured, revered, and patriarchal supporter of the turf, Earl Fitzwilliam, died on February 8, 1833, at Milton Abbey, near Peterborough, Northamptonshire, at the seat of his only son, Viscount Milton. His Lordship was in his eighty-fifth year, having been born on the 30th of May, 1748.

Perhaps no individual ever spent a life of however short duration more sincerely honoured, revered, and beloved than the late Earl, and not by those only who lived within the sphere of his kindness, his liberality, his charity, or his munificence, but by the nation at large. However individuals might dissent from his sentiments or opinions, political or otherwise, all parties, sects, and persons ever universally bowed to the homage which his never-ceasing charity and liberality drew from them. He was indeed a splendid example of true Nobility, and enshrined his title in that brilliant gem, the love and gratitude of a people's hearts.

His Lordship's first connexion with the turf commenced between sixty and seventy years ago, during the life of his late uncle, the Marquis of Rockingham, with whom he was co-proprietor or confederate, who was one of the first supporters of our national pastime in those days; and although the venerable Earl did not then run Horses in his own name, he ever took a lively interest in their achievements, as well as in the general racing of the time.

His Lordship succeeded to the title on the death of his father when only eight years of age, and has thus been a Peer for the unprecedented term of seventy-seven years; and though death has now relieved him from that painful state of "second childhood" which length of days had entailed upon him for the last few years of his life, his memory will live in the hearts of thousands long after his mortal remains shall have dissolved and be no more. Possessed of great wealth and ample means, he spent a life of unwearied and indefatigable usefulness, with a heart overflowing with charity and benevolence. The tear of sorrow never met his eye without finding sympathy and relief: the plaints of distress never reached his ear without meeting assistance and support: no public calamity ever ravaged our shores but the name of Fitzwilliam was foremost in the ranks to avert the evil and to neutralize its effects: indeed so great was the estimation and idolized feeling that the poor and destitute of Sheffield and its neighbourhood felt towards him, that after one severe season of wretchedness and distress, in which he had afforded them substantial and bountiful relief, they presented him with a Silver Cup, raised by a subscription, to which no person was permitted to give more than a penny. This instance of the gratitude of the poor and needy made a deep impression on his Lordship; and ever after, whether at home or abroad, the Cup accompanied him, and was the vessel from which he drank his beverage. Shall worth like his, then, be suffered to depart without a sigh? No! Heaven forbid! His name, his memory, his virtues, his worth, will live, so long

> "As dying excellence deserves a tear,
> And fond remembrance shall be cherished here."

To enumerate the Horses which this distinguished nobleman has been the proprietor of upon the turf, during so long a period, would occupy too much space. He won the Doncaster St. Leger three times only.

THE JUDGE AT NEWMARKET.

Mr. Clark, who is now Judge of the greater number of the principal South-country Meetings, officiated for the first time in the Chair at the Newmarket July Meeting 1822. He now attends and decides at the following places: viz. Newmarket, Epsom, Ascot, Goodwood, Lewes, Chelmsford, Bath, and Brighton, and occasionally also at Egham and Abingdon.

The present Judge, at the period above stated, succeeded his father, Mr. Clark, senior, who had filled the situation, conferred upon him by the Noblemen and Gentlemen of the Jockey Club, with the greatest integrity and satisfaction during a period of sixteen years, viz. from the Newmarket Craven Meeting 1806, until that of Epsom 1822. He was also many years Judge of the Bibury and Kingscote Clubs, and attended Stamford Races professionally, as well as the places above enumerated. This octogenarian arbiter still figures at the "head-quarters" of Racing as "mine host" of the Greyhound at Newmarket; a useless intimation to such as are in the habit of frequenting the place. To those, however, who are not quite so well informed upon this point, we would earnestly recommend a trial, as it is said that Mr. Clark's larder and wines are excellent, and accompanied by attention and comfort; and not least, though last, moderate charges, which are rarely concomitant at Race Meetings.

In the Chair he assumes the tripartite character of witness and Jury, as well as Judge: from his fiat there is no appeal. No after-quibbles, no writs of *certiorari*, no moves for rules for new trials, occur from his decisions; and if he enjoys the enviable and proud distinction above his learned brethren in escaping the vexation consequent upon attempts to abrogate his sentences, how infinitely happier are his decrees as to consequences! Fortunately for his feelings, he is not called upon to pronounce a doom which shall entail either loss of liberty, expatriation, or the more awful atonement of an ignominious death, spreading humiliation and disgrace upon surviving relatives and connexions.

In speaking of the subject of this brief memoir during his public career, such have been his accuracy and quickness of eye, and so great the reliance placed upon his integrity and honour, that his decisions have been rarely questioned.

NAPOLEON'S HORSE.

This little Horse is interesting as having been the last that Napoleon ever rode, and almost the first his present Royal owner (Prince George of Cumberland) crossed, at least the first on which he took his lessons and military evolutions. He is a beautiful little chesnut stallion, bred at the Cape of Good Hope, and purchased by the late Lord Charles Somerset, then Governor there, and sent to St. Helena for the Ex-Emperor, and was the only Horse he rode in that Island. After Napoleon's death, and on the breaking up of his establishment in the Island, the Horse was brought to this country, and presented to the young Prince by His late Majesty George the Fourth: he is very old, of a perfectly docile temper, yet with high courage, and, like all well-bred Horses, of a lasting and hardy constitution. Such is the attachment and feelings of the young Prince to this noble animal, that orders have been given for his declining years to be made easy and comfortable, ranging in

his alloted paddock—a circumstance worthy of imitation by many owners of faithful steeds whose every nerve and sinew have been exerted in the pleasure and service of their masters.

THE ROYAL STABLES AT BRIGHTON.

From the limited scale of the grounds which surround the Pavilion, the stables are necessarily near to the house; a lawn of not more than a hundred and fifty yards separates them. As you approach the King's stables from the Palace (we are speaking now of the former reign,) the Riding House, the most extensive and splendid in Europe, is on the left hand, and her Majesty's private stables on the right. These truly Royal Mews are in form of a Rotunda, the roof being a cupola of glass. The circle altogether contains standing for seventy-two Horses, the divisions being of different dimensions; some with seven stalls, some with but three, but no loose boxes. Around the circle there is a covered way, which in wet weather they use as their exercise ground.

It is scarcely necessary to say, that in such an establishment as this; where, too, the essential was at hand, everything which modern improvement has made available is to be found. Air and cleanliness seems to have been the objects with those who superintended their construction; no superfluous ornament is anywhere observable. They are very lofty, and it seems as if the racks and mangers were placed too high; however, being intended for coach-horses, and those in the royal stud run some sixteen hands and a half high, they may not be an inconvenience to them.

Over the stables are the sleeping rooms for the grooms, each having one for himself. In front of the lodging-rooms, runs a gallery all round the building, ornamented by a very handsome light iron railing. In the middle of the circle there is a fountain for watering, the water being supplied by a forcing pump, which stands in the passage leading to the Riding House. The floor of the building used to be fine gravel; but in consequence of the dust arising from it ascending to the sleeping rooms above, it has been paved, the ride as well as the centre.

The stables, which occupy a right wing attached to the Rotunda, comprise some most admirable loose boxes. To view this magnificent building when occupied by the stud, must be a sight unrivalled by anything of the same kind in Europe.

OF THE DIFFERENCE IN THE PRICE OF HORSES.

A writer expresses some astonishment at the sum of money given by some persons to provide themselves with Horses, while another may provide himself with a stud equally good, at half the expence. We suspect this difference in price is not confined merely to Horses, but extends itself to all those whose purses are superior to their judgment. There are some persons who conceive that no article can be good, unless it costs a great deal of money, and there are always good-natured people willing to indulge them in their ideas upon this subject; and indulged they are accordingly. There is, however, something very like good common sense in what this writer states, which may cause some reflection even in the minds of the high-priced gentry to ruminate upon. The writer observes:—

Upon the subject of purchasing Horses, and the prices given for them (too often a perfect paradox), I have a little to offer, but chiefly

in the shape of inquiries. In the first place, how does it happen that the same Horse in one county shall be worth no more than 40*l.*: take him into another, no one will think of offering less than double the sum for him? In the stable of plain John So-and-so a nag shall be a vulgar brute of little value: let a fashionable horse-dealer purchase him, get 150*l.* out of him, and let My Lord ride him, and he is really a very splended animal! From the experience I have had, I feel quite confident that a man not exceeding the weight I have before alluded to in this letter can, if possessed of judgment and the accomplishment of good horsemanship, be as well carried in any country for 60*l.* or 70*l.* as he can for 600*l.* A few seasons ago I visited the stud of a Sporting Nobleman, not one hundred miles from the town of Leicester. This stud consisted of nearly fifty hunters, the average price of which was at least 120*l.* Now I will fearlessly assert, that had any good judge been allowed to select ten out of this number, the remainder were not equal in point of appearance to run in our fast coaches; nor would they have fetched (had they been obliged to be sold) more than coach-horse price.

A few years ago, during the time that Mr. Sadler was in business as a stable-keeper in Oxford, he had amongst others, for hire, a very fine well-bred five-year-old Horse that had obtained some celebrity by going well on several occasions with the Duke of Beaufort's and M. Drake's hounds. A young Nobleman from Christchurch, accompanied by his friend, called at the stables with the intention of purchasing him, and, after the usual viewings, warranty, and so on, demanded the price of the animal, which (Mr. Sadler being absent was left with his foreman) was only 150*l.* His Grace shook his head, turned upon his heel, and retreated. A few days after, on Mr. S. meeting the Gentleman who had accompanied the Noble Lord to inspect the tit, expressed his surprise at his not having purchased him, declaring it as his opinion that he would have suited, and was cheap at the money asked for him. "Cheap!" exclaimed the Gentleman; "why yes, that was the very thing that frightened him away. He was quite sure the Horse could not be right for the sum your servant demanded for him: at 300*l.* he would have jumped at him!" Such are the effects of prejudice, want of judgment, or the power of making use of it by many people even when possessed of it; and to shew how far fashion and a London stable of high repute can affect the price of a Horse utterly destitute of any tried superior ability. I will relate one more anecdote, and with it close these remarks.

Two or three summers ago a Horse found his way into the stable of a celebrated dealer in Piccadilly, that, like a young lady of great beauty and fortune on her first appearance at Almack's, created quite a sensation amongst a certain set known for their exclusive notions respecting women and Horses. The West End was in a state of excitement. My Lord A. meets my Lord B. and inquires of him if he has seen the splended animal at A.'s Repository? Four hundred pounds had been offered and refused by this spirited dealer in hard bargains, who himself had given three hundred for him. The fame of the nag spread even beyond Bow Bells, and a brother chip from the neighbourhood of Romford even found his business stand still—nobody would come to his yard till the wonder was disposed of. Romford even caught the mania, and

was determined to have a peep at the phenomenon, and quietly walked one fine morning into the Mews where the beauty was preserved, and requested to be gratified with a peep. The nag was paraded and viewed, and the following short colloquy passed between the Greeks:—"There, Romford, is not he a top-sawyer? You complain that I have not bought any Horses of you lately: bring such a sort as that, and I'll buy a hundred." Romford picked up his ash plant, slapped it smartly on his boot-top, and walking quietly out of the yard by his friend's side, said, "Well, Piccadilly, 'tis a nice Horse, and he looks fresh and well, and I bought him about eight months ago at Howden fair for thirty-five sovereigns!"—Such was the fact.

TURNED OUT FOR LIFE.

There seems to be some difference of opinion, even in the minds of humane sportsmen, whether the "bullet," be not the most desirable *finale* for a Horse who has had his day. That there are men who have an equal affection for the Horse, dispute upon the point we know, some advocating the system of "turning out for life," whilst others prefer the "bullet;" both parties still making humanity the ground of the dispute. We shall leave the settlement of this question to the consideration and decision of our readers, after they have perused the following observations, which seem to embrace both sides of the question:—

Turned out for life! a billet, or a bullet! a billet, that consigns him to the daised field, the grassy mead, the happy groves, and purling streams; or the bullet, that sends him where the "weary be at rest." Help us! oh, all ye great and good! to decide which of these is the best. Too old to do any services (though only sweet five-and-twenty), as well as to seek a new one turned out of the stud, but neither "spavined nor wind-galled," with the remains of a beautiful form, an undaunted heart, and an unalterable spirit of gentleness, generous, attached, and faithful. "Blow his brains out!" "Oh, fie! oh, fie! (swearing don't look well in print): where is your gratitude?" said an old and excellent man and good sportsman, in reply to another, with a character made up of the most perfect and kindly feelings. "What is the life of a Horse? It is fine talking of the sunshine of life, of verdant lawns, delicious variegated herbage, dewy grass, so cooling to the heated feet and feverish body; and, above all, that love of liberty, &c., which I adore as much as you," said he in haste: "And what then?" answering himself. Then comes a chilling frost, benumbed limbs, the wasted back set up in vain to ward off the pitiless storm. The love of liberty, it is true, may remain a few short days longer, but the power of enjoying it is lost for ever; and to furnish him with the comforts of his younger days is next to impossible. Where is the fortune that could provide the warm stable, the clean straw bed, the well preserved nutritious food, the good warm clothing, the regular stable discipline, with air and exercise sufficient to preserve health? A man with an establishment of twenty Horses might soon have a hundred pensioners. It reads well, I grant, to consign a true and faithful servant to him that tempers the wind to the shorn lamb; but the artificial way in which he has been kept for more than twenty years renders this wise dispensation ineffective, without a miracle. I also grant that our Indian brethren, who bring their aged

parents to the water-side, there staking them down till the overwhelming tide swallows them up, is an awful preparation, and certainly rather appalling; but a Horse, however sagacious, is not, and cannot be made aware of what awaits him, but ends his life, at best one of toil and trouble, with a flash quicker than thought, and so devoid of pain or sensation, that if he falls with a leg distended there is not enough of life left to draw it up; or, if contracted, to stretch it out.

WHITE LEGS.

There is in England a general dislike to white legs in Horses; yet other countries may consider it a prejudice, if Horses of that description are remarkable for enduring fatigue, and who are prized on account of their durability and cleanness of limb. A writer who signs himself "Javelin," says:

Turn to the banks of the Euphrates, to the decayed but once splendid seats of the Caliphs of the Black Banner, to the cradle of the Arabian Tales; to the Queen of the East, Bagdad, the beloved capital of the Great Haroun al Reschid; and there we have a breed of Horses uniting the fire of the Persian with the symmetry and enduring qualities of the Desert breed. Go further to the southward, cross the Great River, roam among the settled tribes who have pitched their tents on the very verge of civilization, near unto the great cities, the dwellings of slaves, as they are not inaptly termed by the Bedouins, and you may lay your hand on the flowing Horses of the Montafique Arabs, all chesnut, with the starting prominent eye, like an ember glowing, "full of fire and full of bone," and all singularly and invariably stamped with the peculiar distinctive marks of their caste; the white blazed face, and white legs (generally three) white up to the knee, perhaps the ancestors of the great Eclipse; a chesnut also with these remarkable marks, and which sometimes breaks forth in his most distinguished descendants; to wit, Sultan of the present day, and his son Beiram.

The prejudice against white legs is strong; yet my experience, and it justifies me in the assertion, has proved that the chesnut Arab Horse with the white legs up to the knee is one of the hardiest, cleanest-limbed, fastest, and most honest of all the breeds; none bear so much rattling. I speak not of one, but of many of this kind.

Go along the shores of the Red Sea, and you shall see a breed of Horses, small, not fast, but lasting, feeding upon dates, and the offal of *fish!* and eating it greedily too, and thriving upon it, carrying that perfect barrelled carcase too, one of the characteristics of the Arabian Horse. These are the Horses bred by the Zoasmee pirates, the tribes who subsist by piracy and fishing.

TOURNAMENTS.

When we read of tournaments and jousts, and tiltings at full speed, it goes down very well; our imagination is excited by the contemplatiou of the stirring scene, and measuring the speed of their Horses by our own, we are lost in admiration at the desperate daring of the men, and the feats of activity that were performed by their steeds; or, as they are flowery denominated

"The noble chargers of black, white, or sorrel."

No wonder the nags were tractable; the weight they had to carry was enough to tame them; there was no room for play or vicious

tricks; and he must have been a Horse of no common bone and sinew who could throw up his heels under so overwhelming a burden. The charging pace must have been a slow, heavy gallop, or canter; and if we bring down things to that standard, there can have been no great occasion for the excessive address and agility of the Knights. Their Horses were no doubt highly trained; and at the pace they must have gone, the exactness of their lance's aim must have been a feat much less worthy of admiration than that of "touching a fly off the near leader."

We are always glad to bring forward these speculations when people affect to groan about the decay of chivalry; for in our humble opinion, the turf, and modern fox-hunting, are worth all the tournaments in the world!

No one will deny that much better Horses are required; the men are unincumbered, and every bit as good in other respects; and as great skill and agility are as absolutely necessary, both in man and horse, as were required in chivalric pursuits. These pursuits were all very well in their way, inasmuch as they brought to light, and polished highly that fair jewel, HONOUR! and paved the way for the introduction of Civilization and the Arts!

ANECDOTE OF GEORGE THE THIRD.

The King was hunting in the neighbourhood of Basingstoke, when he fell into conversation with William Chute, of the Vine, the County Member, who could answer His Majesty's inquisitiveness as to persons, and names of places through which they had passed. When they came to a certain old manor-house which had some curious fragments of antiquity, the King exclaimed, "What is that, Mr. Chute! What, what, what!" Chute smiled and hesitated. The King repeated his question: "Why, please your Majesty," said Chute, who was bluntness itself, "that is a manor held of your Majesty by the tenure of finding your Majesty a concubine whenever you come this way!" The King exclaimed, What, what, what! Chute? Eh! eh! Chute! I believe I shall stop my Horse and take some refreshment there. But are there pretty girls there? "Please your Majesty," with sufficient familiarity, "shall I go and see?" But a loud "Tally-ho!" sounded at that moment, and all went off at a full burst. At the end of a famous run, the King again found himself by the side of Chute. "Ah! Chute," replied the King, "where are we now? "Please your Majesty," Chute replied, "we are 20 miles from the Master of the Concubines." The King burst out into a loud laugh, and said, "Very well, Chute; very well, indeed!" Chute himself related this story to me the very day after it happened.---*From Clavering's Auto-Biography, in the Metropolitan.*

CHAPTER XI.

MEMOIR OF THE LATE EARL OF DERBY, FOUNDER OF THE DERBY AND OAKS AT EPSOM.—OBSERVATIONS ON THE TURF, ETC.,

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This venerable and highly, nay universally, respected and beloved Nobleman, who departed this life at his seat Knowsley Hall, near Prescot, Lancashire, on Tuesday, October 21st, was not only one of the oldest supporters but one of the brightest ornaments of the British Turf. In early life he supported, with that style which Nobility was wont to do in olden times, a splendid stud of esteemed Horses, and continued the same steady and ardent advocate of the sport to the close of life, having been an owner and patron of the national pastime for the unparalleled period of nearly sixty years.

Fate ordained the venerated Earl to enter life on a sporting day, having been born on the 1st of September 1752; and he succeeded to the title of Earl of Derby, on the demise of his grandsire the eleventh Earl, on the 24th of February 1776, consequently he was a Peer of the Realm 58 years. His Lordship, who was in youthful days a votary at the shrine of Beauty, was twice bound in "the hallowed chain" of matrimony; his first consort being Elizabeth, the only daughter of James the sixth Duke of Hamilton, by whom he had produce (if I may beg the use of the Stud Book phrase) Lord Stanley (now the Earl of Derby, and father of the late Secretary of Ireland), Lady Charlotte Hornby, and Lady Elizabeth Henrietta Cole.

The annals of Weatherby announce our revered Nobleman to have made his debut on the race-course in 1776, the year in which he attained his title; and he was then, as he continued through life (the emblem of his family motto—"*sans changer*"), a considerable supporter of the Manchester, Lancaster, and other Meetings in that his own immediate neighbourhood; and many succeeding years recorded his name among the competitors at Preston, York, Knutsford, Ormskirk, Nottingham, Chester, Liverpool, Warwick, Holywell, Derby, &c. &c.: but the grand theatre of his early sport was "The Emporium," Newmarket. Soon after he came on the Turf he became a Member of the Jockey Club.

With him originated the two most eminent contests which our country boasts, both of which were christened in honour of our venerable Earl; the Epsom Oaks and the Derby Stakes. I know not who might be the other sponsors to the urchins, but it is enough they have grown up a goodly brace of twins, which the patriarch lived, and I am sure was pleased and proud, to see attain maturity.

The former was named the Oaks, after Earl Derby's seat in Surrey; it was first contested for in 1779, and the Noble Earl had the proud gratification of first winning it with his mare Bridget, by King Herod out of Jemima by Snap, beating a field of eleven. He also won the same stake with Hermione, by Sir Peter out of Paulina, in 1794. He purchased Annette, by Eclipse, of Mr. Vernon, after winning the Oaks in 1787, and had the mortification, if such it could be to him (which we much doubt), to have her beaten the following day in a match with Lord Clermont's Bullfinch, 7st. 6lb., a mile and a half, for 300gs. she carrying 8st. 6lb.

The Noble Earl very often started a filly for the Oaks; and although he only succeeded in gaining the stake twice, he ran in second with Lady Teazle, Lady Jane, and Margaret, though he did not in that day, as now, gain 100 sovs. for so doing, the honour secondary being all the advantage.

The year following the establishment of the Oaks, the Derby Stake was originated, and honoured with the title of our revered Peer. Fortune decreed that he should but once obtain that prize; but then it was to be won with such a Horse, that had his noble owner never bred another but him, would have shed a wreath of honour round his brow that would distinguish him for evermore; no less than Sir Peter Teazle.

Coeval with his appearance on the Turf, he established his own Stud Farm at Knowsley, which has during a long series of years boasted the possession of many valuable and esteemed mares.

The noble Earl continued his powerful support to the Newmarket meetings until the year 1796, during which period he produced many valuable and greatly esteemed Horses. The splendour, however, of them all was Sir Peter Teazle, who made his first appearance in 1787; and after a victorious campaign, that spread far and wide the fame not only of himself but his sire Highflyer, he was removed to the stud at Knowsley at the close of the year 1789, at the then high price of ten guineas and a half, and here as well as on the course, his excellence was in succeeding years made more and more manifest. It may be honestly asserted, he proved himself the most valued sire of his day; and tell me, ye who can, where is the breeder of any judgment in our own times who will not rejoice to see the Sir Peter cross in the pedigrees of all his stock!

During the year 1796, the noble Earl started nothing in public; and at the commencement of the following year his noble Countess paid the debt of frail mortality.

The second partner of the Earl of Derby, whom he married two years after, was the beautiful Miss Farren, the celebrated actress.

To return to the turf history of the honoured Peer, we proceed to notice his racing career since the year 1797. He now almost entirely retired from running Horses at Newmarket, and henceforth the provincials in his own district met in him a very liberal and constant supporter, and, amongst many other places, to none more than the town of Preston. At the race meetings and cockings in that place, the noble Earl for many successive years was a regular visitant, possessed a fine large mansion in the centre of the town, in which he always resided at these periods, and contributed very considerably, by his presence and beneficence, to the welfare and advantage of the inhabitants, until, in an unfortunate and deeply deplored (by the good folk of Preston) period of mad

party rage, the pot-walloping constituents voted for Mr. Hunt, and rejected the grandson of their liberal benefactor.

Earl Derby, after the wound of such ingratitude, could not visit again the scenes of his former solicitude and attention: since then, the magnificent mansion has been shut up and unoccupied; the race meetings have died away, the cockings have ceased.

It may be asserted with great truth, that the Earl of Derby throughout his long life secured to himself a very highly influential position on the turf. The proud and elevated rank to which the Derby and Oaks Stakes both have attained, proclaim the fact; and the decline of Preston when the bright beams of his countenance and support were withdrawn has shewn the value and advantage of his patronage—his fostering care and solicitude: and while in early life he had raised up two important and ever interesting Stakes in the South, which annually demand the attention of the sporting spirits of the whole nation, in the autumn or rather winter of his days he has left us another noble monument of his production and attachment in the north, which contributes in an equal degree to the advancement and interest of our sports; that is, the Liverpool and Aintree meeting, which was produced through his individual proposition, aided by his support, and annually honoured by his personal attendance.

Wherever he went, all, whether nobly born or lowly bred, met his presence with the feelings of reverence and love. Scarcely a father's presence amid his children and his home inspired more pleasure than the sight of the Knowsley equipage at the annual festive scenes of the Lancastrians, and the neighbouring counties.

So far have we viewed his sporting character as a supporter of the turf; but it was not only in the race that his sporting soul found delight: he was without question the most celebrated cocker of either ancient or modern days, and in this light we may say never had his equal, and during his life has fought more mains, and very generally successfully, than any person ever known. His birds, to which he was extremely partial, were by judicious breeding brought to the finest possible perfection; and nothing inspired the noble Lord with more pleasure and gratification than the English game cock; indeed, many favourites have at times gained admittance to his presence even in the splendid drawing-room at Knowsley. The first feeder that the Earl of Derby employed, and which is now a very long time ago, was Beesley: he was succeeded by Potter the elder; at whose death, his son, the present Potter, attained the post, which he has held to the present time.

The extreme age of the venerable Peer would of course make the tidings of his dissolution a subject of little surprise; but the event will, with the true-bred turfman, and numberless others, call forth the expressions of heartfelt regret, to lose so great an ornament and so powerful a supporter of the British turf.

The remains of the late Earl were interred in the family vault at Ormskirk, Lancashire, on Sunday the 2d of November, 1834, and the ceremony was attended by an immense number of spectators, many of whom went in carriages from Liverpool (in which place the Earl was very greatly esteemed) to witness it, and to pay their last tribute of respect to his memory.

THE LATE JOHN MYTTON, ESQ., OF HALSTON.

The gentleman whom we are now going to give some account of, differs very materially from those noblemen (Fitzwilliam and Derby,) whose turf history we have just given. They may have been considered fathers of the turf, having been engaged on it for a period which almost doubles even the whole life time of J. Mytton, of Halston. The present subject of our memoir had an enthusiastic attachment to the turf, and to the sports of the field, which had it been moderated by the example of the above-named noblemen, we might have had the more pleasing task of speaking of his living performances, than the melancholy one which now devolves upon us. It would be useless to deny, that, to use no harsher terms, his thoughtlessness and extravagance must have hastened his dissolution. It would be injustice to his memory not to suppose that the degradation in being forced to leave his own mansion, and by involving the dearest connections in his ruin, must not have had an effect upon his health. The life of Mytton is an example, that should teach us that the most unbounded wealth may be exhausted; and that self-government is as requisite for happiness to men with wealth, as it is to those without it. There is a moral in it, which may teach the poorer to be satisfied, because they may feel that wealth may not always produce comfort, and in too many instances may be the cause of irresistible temptation. It is with melancholy feeling and regret for the deceased that we have made the above observations.

The following announcement of his death is taken from one of the Shrewsbury papers:—

"On Saturday the 29th of March (1834,) in the King's Bench, London, aged 38, John Mytton, Esq., of Halston, in this county. This gentleman inherited large estates in Shropshire and Merionethshire, had been High Sheriff for both counties, and M.P. for this town. His great munificence and eccentric gaieties obtained him notoriety in the gay and sporting circles both in England and on the continent; and, while a few faithful friends were esteemed to the last, and who remembered kindnesses, we fear there are many partakers of his bounty who have treated him with ingratitude."

We are indebted chiefly to correspondents in the *Sporting Magazine* for these remarks.

The subject of this memoir was an only son and a posthumous child. Born with splendid prospects, nursed in the lap of luxury and unbounded indulgence, the idol of a doating mother—is it a marvel that his career should be erratic and extravagant, whose infancy was never subjected to restraint?

His education was confined to Westminster, as he never graduated. There is a characteristic anecdote told of him when he was at that school; being a ward of Chancery, he wrote to Lord Eldon, telling him that as he was about to be married, he could not live upon his income. His allowance was said to be 400*l.* a year, and he was only fourteen years of age when he made this application. The Lord Chancellor's answer was laconic, and to the purpose: "Sir; If you can't live on your allowance, you may starve; and if you marry, I'll commit you to prison!"

Soon after leaving Westminster he entered the Seventh Hussars, and was with that regiment during the time it formed part of the Army of Occupation in France. He used to speak of those days with rapture.

It was about this time that it was said he lost ten thousand pounds in a match at billiards, at Calais.

A writer in speaking of Halston, says: "It is in good truth the very *beau ideal* of a sportsman. All that Nature can do, all that Art, aided by the best taste and the most lavish hand, might achieve, is here in the prodigality of profusion. This noble residence is situate in the county of Salop, two miles from Oswestry, and about six from Ellesmere. While the far western horizon is occupied by the chain of lofty Montgomeryshire mountains, to the north and east the bold Denbighshire hills, waving with the noble woods of Chirk Castle, give it their shelter. In front to the south expands its own ample domains, rich as *Tempe;* and beyond again is seen that truly English landscape---

'The village church that crowns the distant hill;'

the substantial farm-house, with its well-stocked inclosures, and its belt of fruit-trees; the humble dwelling of the cottager, trellissed with roses and jessamine; and the bright water that leaps and sparkles in the sunbeam, which woes its freshness. Oh! the memory of that sylvan paradise, and the happy, happy days that I have passed within it."

In the year 1817, this meteor of the turf commenced his operations with three Horses. In 1819 we find him with eight; in 1822 he had fourteen in training; and in the close of that year twenty-one!

On being asked by a friend in what year his turf expences had been the greatest? the reply was, "I think it was the year I raced Longwaist; aye, it was: I spent *seventy thousand pounds* that year!" That was in 1826. Still it is supposed by some, that in 1823 he was in the zenith of his glory as a master of race-horses. With such Horses as Habberley, Euphrates, and about a dozen like them, Mytton was certainly considered to stand first among the provincials.

Notwithstanding the enormous sums which he expended on his turf establishment, he was never winner of any of the great stakes. In the year 1824, he had a brown colt in the Leger, Oswestry, who was we believe sixth, and that was his nearest attempt. Birmingham, the conqueror of Priam, and the victor in the great race in 1830, was bred for him, but fell into other hands. Taken all together, perhaps little Banker, bought of Mr. Lechmere Charlton, was his favourite.

Mytton was far from particular in nursing his Horses. He used to ride Euphrates with greyhounds when in training. Euphrates won thirty-eight times. Before taking leave of Euphrates, we cannot help noticing that this prime son of Quiz won the Darlington Cup at Wolverhampton, in his thirteenth year! He could not be got to run straight till after he was castrated; but after that operation an infant might have rode him all his races, and steered him with a silken thread.

Halston, a son of Banker, was an extraordinary good Horse. His style of winning the great cup at the Liverpool meeting in the year 1831, was a proof of this; but he was not kept to be looked at. If ever anything on four legs did more to earn his corn, we know nothing of horse-flesh; he was eternally kept going. This was Mytton's great misfortune; like the boy and the golden egg, he was never satisfied. Halston, Hedgford, and all his Horses were running in 1831, and subsequently in the name of Beardsworth. In this

year Mytton had ceased virtually to belong to the turf.

A companion and friend of Mytton observes—

"Mr. Mytton's habits, once fixed, may be easily supposed to have undergone no change of material consequence; but as he grew daily older, the expansion, I might say the philanthropy, of his noble heart grew also daily greater, and his hospitality and kindness to all around him must have been experienced to be described. Surely never, in this most selfish world, was there an individual less selfish, or one who, whilst wrapt up in the pursuit of his own pleasures, could be more eager to contribute to the participation in them of others amongst his associates! His purse, his house, his stables, and his kennels (to say nothing of the weighty benefits conferred by his powerful interest and recommendation on many and many an individual, who, if gratitude be not altogether banished from the earth, must long most gratefully revere his memory)—all, all were open to the demands of his acquaintances."

A gentleman who had been hunting with him, relates an anecdote or two, which shews that Mytton's heart was not dead to the misfortunes of others.

"One incident in our progress town-wards I cannot refrain from putting on paper, inasmuch as it shews this extraordinary man in a light in which few have chosen to view him, and speaks forcibly of his sympathy with distress, even in some of his wildest and most unaccountable moments. We had pulled up to hay and water both bipeds and quadrupeds at the Telegraph on Brixton-hill, and before the door of the public-house there was sitting a woman, evidently not a common beggar, though in apparent great distress, surrounded by a group of little shirtless and shoeless wretches, the sight of whom before a word was spoken, made an appeal to Mytton's feelings. Causing the woman to come up to the carriage, and changing his tone from the boisterously mirthful key in which he had been convulsing us by his anecdotes, &c., &c., into one of deep and even respectful sympathy, he drew from her in a few sentences her tale of misfortune; and, as he literally had not one farthing remaining in his own pocket, borrowed a sovereign from me, and made me present it to her on the spot! Tell me that this shipwrecked man had not a heart? Why, what do I happen to know that he offered only a few days after this very occurrence to an acquaintance, not a friend, but simply an acquaintance, then under a cloud? He had himself just raised ten thousand pounds on mortgage (this I know, for my own solicitor raised it for him), and hearing that the individual alluded to was most hardly pushed for five hundred, the want of which might operate most prejudicially on his future prospects, he went at once to him with the bank notes in his hand, and would have left them with him to be repaid at any time, with or even without the simple security of an I O U, or a note of hand, had not his noble interference been rendered unnecessary by a relation of the party having anticipated him. Nor is this at all a singular anecdote of his career: and could every act of generosity performed by John Mytton be put on paper, the record would form a volume, of which the dimensions would astonish this censorious and calumniating world.

"The closing scene of the first day of my personal acquaintance with this intrepid

sportsman consisted of an excellent and jovial a dinner as eight fellows ever sat down to in their lives, but one also, on which I confess I cannot look back without the strongest sensations of emotion, and even distress. To think that in the brief space of seven short years, one individual, and one only, of that merry conclave should be left, over whom either 'the gardener of the gravestone' had not performed his office, or whom the black ox of fallen fortunes had not visited with his rude assaults, is indeed a reflection that must sober the most mirthful! Yet even thus is it with regard to the party of that memorable evening. Poor Mytton himself, and Ralph Benson of Lutwyche, dead and gone! Jack Tarleton of Collingwood, Matt Steward of Lockridge, John Longden of Ashbourne, Jamie Henderson, the ally of Theodore Hook, the penner of this paragraph, all dispersed before the pitiless pelting of the storm, some into exile, and all, at least in discomfort! there remains but the eighth, (My Lord of Birmingham) as Beardsworth was then jocosely designated, on whom the sunbeams have not ceased to shine!"

In the spring of 1831 family affairs caused him to leave Halston, and in the autumn of that year all the stock, furniture, pictures, plate, every thing in that place of splendid hospitality and matchless comfort, came to the hammer!

For nearly three years preceding his death, he was

"A wanderer from his own good hall!"

We now come to the melancholy end of John Mytton, of Halston. Our readers will recollect where his death took place One of his friends says---

"Drear and desolate as that end was, still was it not without its consolation; one whose affection I thought could have known no increase, till sorrow and suffering had drawn him still closer to her heart; she, the fond, the doting mother, was there, his 'ministering angel!' The hands which had rocked his cradle, spread and smoothed his dying couch! The eyes which had beamed with the radiance of hope on the bright promise of his youth, shed their dews of agony upon his blighted manhood, in prison! and in death!"

The funeral of Mr. Mytton took place at Halston on the 9th of April, and as the cavalcade passed through Shrewsbury, many of the shops were closed, and crowds assembled to take a last look on his bier, and pay the homage of a sigh to the memory of John Mytton!

THE BOURRA.—A SPORTMAN'S "TURN OUT" IN THE PENINSULA.

There is scarcely any scene more exciting, or occupies so much individual energy as in the baggage department of an army on its march. It would indeed be an excellent cure for those who have been so indulged by luxury and fashion, as to have created that disease which goes under the name of a nervous malady. To be actually engaged in the turmoil of a baggage route would do more for the health of such a patient, than the prescriptions of the most eminent physicians. It is a spirit-stirring scene; every one engaged in it has enough to do to take care of himself, and still there are scenes enough so comic as to excite frequently irresistible bursts of laughter. Such a scene can hardly be described, and one wonders and pities to see how many of the gentler sex are doomed to unutterable privations in following the fate of their husbands. Still in the midst of this

distress, you are not left long to sympathise with misfortune; something so grotesque, so tag-rag and bob-tailish, meets the eye at every turn; something in the shape of a bit of blanket, an old tin saucepan, an old washing-tub, the bottom of which, in its turn, serves the laundress for her ironing-board. The unskilled in bivouacking would see with surprise so much care taken with so much rubbish.

Then we have sometimes a more pleasing occupation in beholding the happy countenances of children, pleased with the bustle surrounding the baggage-waggon. We have witnessed some little children placed over a donkey's back, slung in a sort of box, with their happy little faces peeping out, the box being turned as the wind might shift, to protect them from the weather.

The following is a correct and humourous description of a baggage-march in the Peninsula:—

"Devil another yard he'll stir, your Honour," said Pat Rooney over the prostrate body of a jaded worn-out bourra; "that march yesterday did his business!"

We had marched the day previous from Campo Maior, bivouacking at the foot of the glacis of Badajos, and were then preparing for a march to the little town of Puebla, distant about seven leagues. The batman (Rooney) was thus addressing his master, the miserable donkey lying at full length, its owner contemplating with dejected looks the too probable wreck of all his comforts.

"It is useless talking, Rooney! the poor devil is certainly nearly done up: still on he must go to-day: therefore he must be put on his legs in some way; the division is already formed, and it is quite impossible to procure another animal this morning."

Vos-me-say (the donkey's name) was an old acquaintance: he had long been an *attache* to the corps, and had followed our fortunes from the gloomy period of Torres Vedras lines to the brighter days of Rodrigo and Badajos: his master was an old friend and brother sportsman, so with the assistance of two or three other batmen, the poor old fellow was placed on all fours.

The march from Puebla to Badajos is through a deep, flat, sandy country, and seven long leagues: very faint hopes were entertained of Vos-me-say seeing the little town that day; however, an effort must be made, and he was shortly loaded.

All the old Peninsular men remember the pleasures of a baggage-guard! Some tried to evade it, others to exchange it for a more agreeable duty; all were rejoiced at its termination. The whole scene till the baggage was formed was confusion confounded; from the groom of the General's led horses to the *chere amie* mounted *en cavalier*, all were in a jabber; donkeys, horses, and mules were thrashed and thumped, with accompaniments in all the languages of Europe; hallooing, arreeing, and pounding; once witnessed, it could never be forgotten.

I have stated before my friend was a sportsman, and certainly his baggage shewed pretty clearly it could belong to none other: across Vos-me-say were slung a pair of panniers, covered with a bullock's hide, one of which contained provender for the human system, and the few requisites of a soldier's *batterie de cuisine;* its fellow, linen, &c. On one of these was placed a gun-case, fishing-rod, and basket; on the other a small tent, iron camp-kettle, and at its side hung a dead hare; in the centre a sack, surmounted by a round

wicker basket, out of which peered the head of a young wolf from the neighbourhood of Quadres-ayes in Portugal; four still younger whelps, its companions, keeping a continued whine as some variation to the external melody; the mother, an old pointer bitch, listening and contemplating with much anxiety from time to time the proceedings in the basket. Attached to a ring at the high peak of the pack-saddle were a greyhound and a setter, Pat Rooney bringing up the rear with a wire-haired terrier.

It was a hot sultry day; between Badajos and Puebla there is nothing like a tree or shrub to interrupt the rays of the sun; as far as the eye can stretch, the whole conntry appears to be a continued succession of corn fields. At starting the bourra crouched and slunk till his very belly touched "our mother earth;" however, by dint of perseverance, the batmen contrived to place him fairly on the road. Notwithstanding the poor beast appeared but in a very sorry mood, *ce n'est que la premiere pas qui coute:* so pricking up his ears and shaking his head, he paced forward with the other animals: his attendant struck a few sparks to some fungus in the pan of his musket, lit his pipe, and put aside the twitching stick with which the hind-quarters of Vos-me-say were usually belaboured, and for some leagues they thus slowly, but happily jogged on.

Our own feelings required little to assure us it was a distressing maren to the division in front: numerous stragglers lined the way, weary and weakened by sickness or indifferent fare; some still struggled on after their corps, others sunk exhausted by the road-side; many of the best of the baggage-animals fell from the oppressive heat or want of water; but amidst the confusion, to the astonishment of all, Vos-me-say kept his pace.

A few hours after mid-day we arrived at Puebla; there were many anxious lookers-out for the baggages. On entering the little town from the Badajos side to the left of the church there was, and perhaps is now, a small posada or inn; opposite its door-way Vos-me-say drew up, and came to a dead stand-still. The batmen pulled before and pushed behind; Pat Rooney arreed, thrashed, and pounded with his twitching stick; it was to no purpose; Vos-me-say had planted his feet firmly on the ground, and every effort to move him proved ineffectual. At length not relishing probably the treatment he had undergone, he set up a loud roar that made the tympanum of every ear crack, and presently appeared at the portal one well acquainted with the voice—"*Carracco! ciento mille demonios! Viego! que quieres tu? por amor de Dios!*" (For the love of God, thou old devil, what dost thou want? art thou again at thy old home?); and in a few minutes he was surrounded by mine hostess and her tribe, crossing themselves amidst Paternosters and ejaculations at his unlooked-for appearance.

Vos-me-say in name was Portuguese, by birth a Spaniard, and Puebla his native place; he had recognized the road between the two towns, his ancient avocation having been the conveyance of tomatos, cibolis, and pumpkins to Badajos. The French had extended the conscription laws to animals in Spain, and Vos-me-say had fallen under their ordeal. On the retreat from Portugal he became a follower of the red coats. It is hardly necessary to state that Vos-me-say was restored to his old master.

CHAPTER XII.

THE HUNTER AND HACKNEY.—RIDING IN THE FIELD.—OBSERVATIONS ON THE CHASE, ETC.

THE HUNTER.

The English hunter is generally a Horse between fifteen and sixteen hands in height, from the half-bred to the thorough-bred species; and ought to be of a lofty forehand, and shoulder well formed for action, with wide and substantial loins, moderately short legs and pasterns, and sound feet. The fashion of riding full-bred and speedy Horses, so prevalent of late years, was equally prevalent in the beginning, indeed original in the system. But this chiefly takes place in light land counties. Upon strong and heavy soils, a powerful well-shaped half-bred Horse may perform satisfactorily, and make a good figure; but upon light lands and downs, the speed and rate of the high-bred courser are too much above his powers, and he cannot long hold way in such superior company. On a general consideration, the three part or seven-eighth bred Horse is best adapted to the purpose of hunting, since, at the same time, acknowledging the superiority of the thorough-bred Horse, it is so extremely difficult to obtain him of that make and form, which shall sufficiently constitute strength with speed, as to adapt him for the purposes of hunting.

Hunting is obviously one of the most severe labours of the Horse, yet one that is so generally attractive to him, that there are well authenticated anecdotes of old hunters inspired by the music of their fellow-sportsmen the hounds, breaking pasture over the most dangerous fences, following the chase, and coming first in at the death.

The joints of a Horse cannot be sufficiently fixed until six years old, to go through with safety a season's hunting; although at five he should be cautiously and moderately used in the field. His education consists chiefly in being taught to leap the bar, standing, since generally, all Horses will take a flying leap, in some form or other. The practice of the leaping bar furzed around, is well known; but some grooms are too harsh and hasty with the young Horse, whence many of irritable tempers can never be afterwards made staunch leapers.

The first property of a good hunter is, that he should be light in hand. For this purpose his head must be small; his neck thin; and

especially thin beneath; his crest firm and arched, and his jaws wide. The head will then be well set on. It will form that angle with the neck, which gives a light and pleasant mouth.

The forehand should be loftier than that of the racer. A turf Horse may be forgiven if his hind quarters rise an inch or two above his fore ones. His principal power is wanted from behind, and the very lowness of the forehand may throw more weight in front, and cause the whole machine to be more easily and speedily moved. A lofty forehand, however, is indispensable in the hunter; the shoulder as extensive as in the racer; as oblique and somewhat thicker; the saddle will then be in its proper place, and will continue so, however long may be the run.

The barrel should be rounder to give greater room for the heart and lungs to play, and send more and purer blood to the larger frame of this Horse; and especially more room to play when the run may continue unchecked for a time that begins to be distressing. A broad chest is an excellence in the hunter. In the violent and long continued exertion of the chase, the respiration is exceedingly quickened, and abundantly more blood is hurried through the lungs in a given time than when the animal is at rest. There must be sufficient room for this, or the Horse will be blown, and possibly destroyed. The majority of the Horses that perish in the field are narrow chested.

The foot of the hunter is a most material point. It is of consequence in the racer, yet it is a notorious fact, that many of our best thorough-bred Horses have had very indifferent feet. The narrow contracted foot is the curse of much of the racing blood. The work of the racer, however, is all performed on the turf, and his bad feet may scarcely incommode him; but the foot of the hunter is battered over many a flinty road and stony field, and if not particularly good, will soon be disabled and ruined.

The position of the feet requires some attention in the hunter. They should if possible stand straight. If they turn a little outward there is no serious objection; but if they turn inward his action cannot be safe particularly when he is fatigued or overweighted.

The body should be short and compact, compared with that of the race-horse, that he may not in his gallop take too extended a stride. This would be a serious disadvantage in a long day and with a heavy rider, from the stress on the pasterns; and more serious when going over clayey poached ground, during the winter months. The compact short-strided Horse will almost skim the surface, while the feet of the longer-reached animal will sink deep, and he will wear himself out by efforts to disengage himself.

Training the hunter is a simple process, all that is required being to bring him into good wind, without, at the same time, reducing him too low in flesh, or injuring his sinews; since, on a long chase, more especially over a heavy country, a Horse needs the aid of his full bodily strength, and of his unimpaired tendinous and muscular powers. It is extremely dangerous to ride a Horse over the country, which is weak in his joints, or has the common hurt in his back sinews; but the danger is tenfold, in taking a flying leap upon such a Horse, where the opposite descent is considerable, and the stress upon his lower limbs in his landing, with a heavy weight

upon his back, must be excessive. Training must commence with two or three doses of physic, should the Horse be gross, and not have been previously trained. A young Horse, in his first training, will require most work; but it is an error of the surest side, rather to under-do this business, than exceed, because, if a Horse come into the field rather under-worked, being full of good meat and heart, the easy remedy is to favour and ride him carefully the first week or two, but should your training groom set you upon a Horse harassed and weakened by too much exercise, he will get worse as the season advances, and perhaps be totally ruined by the end; exclusive of the probable disgrace of failing you in a long and important day. Old hunters from spring grass, which they ever ought to enjoy, can scarcely be trained too lightly; the true test is, that their wind in its course be free and unembarrassed; to that point, however, their exercise must at any rate extend. The lighter the Horse's clothing the better, in view of the heats and colds he must necessarily undergo in the chase. An early morning's gallop, at a good steady stride, but not speedy, of a mile or two, with a canter after water in the afternoon, is sufficient for the hunter, and two months ought to bring him into good condition. A young Horse may have, once a week, a tolerably sharp rally for one or two miles, a method which should never be practised with a seasoned hunter, to which, indeed, walking exercise may be often substituted for the gallop.

Some think that even the simple process now described is not necessary, and that Horses that are taken up and worked in the day, and with a feed or two of corn, and turned out at night, with an open stable or shed to run into if they please, are as active, healthy, and enduring, as those who are most carefully trained, and confined to the stable during the hunting season. Many a farmer has boasted that he can beat the most numerous and the best-appointed field, and that his Horse never wants wind, and rarely tires.

It is true that the farmer may enjoy a good day's sport on the Horse that carries him to market, or possibly, occasionally performs more menial drudgery; but the frothy lather with which such a Horse is covered in the early part of the day evinces undeniable inferiority. There is, however, one point on which the untrained Horse has the advantage. Accustomed to all weathers, he rarely suffers, when, after a sharp burst, there comes a sudden check, and the pampered and shivering stabled Horse is exposed with him for a considerable time to a piercing north-easter. The one cares nothing about it; the other may carry home the seeds of dangerous disease.

The hunter may be fairly ridden twice, or, if not with any very hard days, three times in the week; but, after a thoroughly hard day, and evident distress, three or four days' rest should be allowed. They who are merciful to their Horses, allow about thirty days work in the course of the season; with gentle exercise on each of the intermediate days, and particularly a sweat on the day before hunting. There is an account, however, of one Horse who followed the fox-hounds seventy-five times in one season. This feat has never been exceeded.

We have before said the Horse fully shares in the enthusiasm of his rider. It is beautiful to watch the old hunter, who, after many a winters' hard work, is turned into the park to

enjoy himself for life. His attitude and his countenance when, perchance, he hears the distant cry of the dogs, are a study for the contemplation of the artist.

A Horse that had, a short time before, been severely fired on three legs, and was placed in a loose box, with the door, four feet high, closed, and an aperture over it little more than three feet square, and standing himself nearly sixteen hands, and master of fifteen stone, hearing the cheering of the huntsman and the cry of the dogs at no great distance, sprung through the aperture without leaving a single mark on the bottom, the top, or the sides.

Then, if the Horse be thus ready to exert himself for our pleasure—and pleasure alone is here the object—it is indefensible and brutal to urge him beyond his own natural ardour, so severely as we sometimes do, and even until nature is quite exhausted. We do not often hear of a "hard day," without being likewise informed, that one or more Horses either died in the field, or scarcely reached home before they expired. Some have been thoughtless and cruel enough to kill two Horses in one day. One of the severest chases on record was by the King's stag-hounds. There was an uninterrupted burst of four hours and twenty minutes. One Horse dropped dead in the field; another died before he could reach the stable; and seven more within a week afterwards.

It is very conceivable, and does sometimes happen, that, entering as fully as his master into the sports of the day, the Horse disdains to yield to fatigue, and voluntarily presses on, until nature is exhausted, and he falls and dies; but, much oftener, the poor animal has, intelligibly enough, hinted his distress; unwilling to give in, yet painfully and faulteringly holding on. The merciless rider, rather than give up one hour's enjoyment, tortures him with whip and spur, until he drops and expires.

Although the hunter may be unwilling to relinquish the chase, he who "is merciful to his beast" will soon recognize the symptoms of excessive and dangerous distress. To the drooping pace and staggering gait, and heaving flank, and heavy bearing on hand, will be added a very peculiar noise. The inexperienced person will fancy it to be the beating of the heart; but that has almost ceased to beat, and the lungs are becoming gorged with blood. It is the convulsive motion of the muscles of the belly, called into violent action to assist in the now laborious office of breathing.

In this dangerous situation, life almost quivering at the Horse's nostrils, a celebrated writer in the work published by the Society of Universal Knowledge, entitled the "Horse," says---

Let the rider instantly dismount. If he has a lancet, and skill to use it, let him take away five or six quarts of blood; or if he has no lancet, let him cut the burs with his pocket knife as deeply as he can. The lungs may be thus relieved, and the Horse may be able to crawl home. Then, or before, if possible, let some powerful cordial be administered. Cordials are, generally speaking, the disgrace and bane of the stable; but here, and almost here alone, they are truly valuable. They may rouse the exhausted powers of nature; they may prevent what the medical man would call the re-action of inflammation; although they are the veriest poison when inflammation has commenced.

A favourite hunter fell after a long burst,

and lay stretched out, convulsed, and apparently dying. His master procured a bottle of good sherry from the house of a neighbouring friend, and poured it down the animal's throat. The Horse immediately began to revive; soon after got up, and walked home, and gradually recovered. The sportsman may not always be able to get this, but he may obtain a cordial-ball from the nearest farrier, or he may beg a little ginger from some good house-wife, and mix it with warm ale, or he may give the ale alone, or strengthened with a little rum or gin. When he gets home, or if he stops at the first stable he finds, let the Horse be put into the coolest place, and then well clothed and diligently rubbed about the legs and belly. The practice of putting the animal, thus distressed, into "a comfortable warm stable," and excluding every breath of air, has destroyed many valuable Horses.

We are now describing the very earliest treatment to be adopted, and before it may be possible to call in an experienced practitioner. This stimulating plan would be fatal twelve hours afterwards. It will, however, be the wisest course, to commit the animal, the first moment it is practicable, to the care of the veterinary surgeon, if such there be in the neighbourhood, in whom confidence can be placed.

The labours and the pleasures of the hunting season being passed, the farmer makes little, or no difference in the management of his untrained Horse; but the wealthier sportsman is somewhat at a loss what to do with his. It used to be thought, that when the animal had so long contributed, sometimes voluntarily, and sometimes with a little compulsion, to the enjoyment of his owner, he ought, for a few months, to be permitted to seek his own amusement, in his own way; and he was turned out for a summer's run at grass.

Some few years ago a long controversy took place in the *Sporting Magazine* on the merits of summering the Hunter. Two celebrated writers were engaged in it; one under the signature of Nimrod, who recommended summering the Hunter in the stable; the opponent to this measure was the veteran John Lawrence, who advocated the summering of the Hunter in the field as the best means of renovating him, and restoring him to his pristine vigour.

The experience of Nimrod in horseflesh, and the influence which his writings generally possess, may have influenced some to have adopted his opinions on this subject, we do not doubt, and we refer our readers to the "Sporting Magazine" for 1822, &c., who may there see and judge for themselves. This controversy was carried on in no very measured or complimentary terms.

The practice, however, of turning out the Hunter seems to us so natural as well as beneficial to the animal, that we feel surprised that a dispute upon such a nature could have arisen. The following remarks upon this subject seem so judicious, that we cannot withhold them from our readers. They proceed from the same writer in the "Horse," to whom we have before alluded:—

Fashion, which now governs everything, and now and then cruelly and absurdly, has exercised her tyranny over this poor quadruped. His field, where he could wander and gambol as he liked, is changed to a loose box; and the liberty in which he so evidently exulted, to an hour's walking exercise daily.

He is allowed vetches, or grass occasionally, but from his box he stirs not, except for his dull morning's round, until he is taken into training for the next winter's business.

In this, however, as in most other things, there is a medium. There are few Horses who have not materially suffered in their legs and feet, before the close of the hunting season. There is nothing so refreshing to their feet as the damp coolness of the grass into which they are turned in May; and nothing so calculated to remove every enlargement and sprain, as the gentle exercise which the animal voluntarily takes while his legs are exposed to the cooling process of evaporation, which is taking place from the herbage he treads. The experience of ages has shewn, that it is superior to all the embrocations and bandages of the most skilful veterinarian. It is the renovating process of nature, where the art of man fails.

The spring grass is the best physic that can possibly be administered to the Horse. To a degree, which no artificial aperient or diuretic can attain, it carries off every humour which may be lurking about the animal; it fines down the roundness of the legs; and, except there be some bony enlargement, restores them almost to their original form and strength. When, however, the summer has thoroughly set in, the grass ceases to be succulent, aperient, or medicinal; the ground is no longer cool and moist, at least during the day; and a host of tormentors, in the shape of flies, are, from sun-rise to sun-set, persecuting the poor animal. Running and stamping to rid himself of his plagues, his feet are battered by the hard ground, and he newly, and perhaps more severely, injures his legs. Kept in a constant state of irritation and fever, he rapidly loses his condition, and sometimes comes up in August little better than a skeleton.

Let the Horse be turned out as soon as possible after the hunting season is over. Let him have the whole of May, and the greater part, or possibly the whole of June; but when the grass fails, and the ground gets hard, and the flies torment, let him be taken up. All the benefits of turning out, and that which a loose box and artificial physic can never give, will have been obtained, without the inconvenience and injury which attend an injudiciously protracted run at grass, and which arguing against the use of a thing from the abuse of it, have been improperly urged against turning out at all.

RIDING IN THE FIELD.

Riding in the field requires very few peculiar instructions. After having acquired a good seat on horseback, and enabled himself to sit firmly and with presence of mind and circumspection upon his Horse in a jump, the rider would do well to select the steadiest and best reputed horseman in the field, and to follow his course, in all respects, as nearly as a fresh man shall be able so to do. The hunting-seat on horseback partakes of both those of the road and the turf, having little or nothing peculiar; a long gallop or a canter in the field, requiring the same form as on the road. Perhaps the late Sam Chifney's seat, who rested more on his haunches than was the general custom with jockies, may be the most easy and convenient for the field. Some sportsmen ride a hole longer in the field than on the road.

As to leaping, initiatory practice may be had at the bar, at school, or at any fences which may present. The rules for sitting a

Horse in his leap, are precisely the same as those which refer to him when unquiet, and he alternately rears and kicks; if flying, sit fast, give your nag his head, and have your wits about you. It may be often necessary to touch your Horse with the spur or whip towards the finish of his leap, in order to make him clear his hind legs; to the Horse much ought, indeed, must be confided in this affair. If seasoned and a staunch fencer, it is a perilous thing to drive him at a leap that he, most assuredly the best and safest judge, has refused; and how many accidents have happened from that vain-glorious practice? Nor is it always successful to drive a raw Horse, by the force of whip and spur, at a fence that has alarmed him, it may render him habitually desperate and careless.

The way to make a Horse a steady, prompt, and safe fencer, is to suffer him to take it by degrees and spontaneously. Some very excellent hedge-fencers are naturally shy of timber, in particular palings and hurdles; such Horses cannot be safely put to those of any considerable height.

For leaping the Irish Horse is unrivalled. It is not, however, the leaping of the English Horse, striding as it were over a low fence, and stretched at his full length over a higher one; but it resembles the jump of the deer. The training of the Irish Horse must, we suppose, make this difference, as in riding in that country a horseman has to meet with fences very different from those of England; stone walls are common.

The passion of Horses for hunting was exemplified some years ago in a most extraordinary manner. Three of the Horses of the Brighton coach chanced to have finished their stage, and to have been standing unharnassed at the instant Lord Derby's stag-hounds passed in full cry; the Horses started off and joined the hunt, and had the gratification of a run of some length, until the hounds were whipped off. After which, even, they followed the stag till they got up to his haunches, and then chased him three miles on the high road, when the stag taking a high fence, left them snorting on the wrong side, to be secured by those in quest of them.

This deer was more fortunate than one which was hunted by the same pack, as the result will shew. Some years since, the Earl of Derby turned out from the Oaks, a noble deer, for a day's sport with his friends; which after having traced a very long tract of country, entered the grounds of the late Mrs. Smith, of Ashted, near Epsom, Surrey, and being closely pursued by the hounds, it actually leaped through the drawing-room window, the sash of which was down, followed by the pack in full cry. The consternation occasioned in the family, by this strange event was indescribable. At that critical moment, no one was in the apartment, some ladies having quitted it about two minutes previously to the irruption of this novel and unexpected visitor, which entered with so little ceremony. The window was almost dashed to atoms, and every part of the room, with its rich carpet and corresponding furniture, covered with blood and dirt. The animal was soon dispatched by the ferocity of the dogs, and perhaps so curious an event is not to be found in the annals of Sporting. As a companion, however, to the above, a stag *graduating* towards the city of Oxford, at length took to one of the streets, through which he was followed by the hounds in full cry, into a chapel, and there killed, during divine service.

THE HACKNEY.

A Hack, in our modern stable phrase, signifies a road Horse, and not merely a Horse let out to hire, as some of the uninitiated suppose.

The road Horse! more difficult to meet with in perfection than even the hunter or the courser. There are many reasons for this. The price of the hackney, or the Horse of all work, is so low, that he who has a good one will not part with him; and it is by mere accident that he can be obtained. There are also several faults that can be overlooked in the hunter, but which the road Horse must not have. The hunter may start, may be awkward in his walk, or even his trot; he may have thrushes or corns; but if he can go a good slapping pace, and has wind and bottom, we can put up with him, or prize him: but the hackney, if he be worth having, must have good fore-legs, and good hinder ones too; he must be sound on his feet; even tempered; no starter; quiet in whatever situation he may be placed; not heavy in hand; and never disposed to tumble down.

The Hackney, like the Hunter of the present day, is always a Horse with some portion of racing blood, the whole English race, even to the cart Horse, being more or less imbued, and equally improved by it. Thus our road Horses are half, three parts, seven-eighths, or thorough-bred. The two latter degrees are, in several respects, less fitted for the purpose of travelling the roads than the former: chiefly on account of the tenderness of their legs and feet, their longer stride, and straight-kneed action, not so well adapted to the English road pace, the trot. Nevertheless, bred hacknies are elegant and fashionable, and, when good canterers, pleasant to ride; insomuch that, a certain colonel of the Guards of former days insisted, there was the same difference to be felt in riding a bred hack and one without blood, as between riding in a coach and in a cart. One good property in the thorough-bred road Horse is, that he seldom shies, many of them never.

The road Horse should have a considerably lofty, yet light forehand or crest, a deep and extensive shoulder, well raised at the withers, straight back with substantial loins and wide fillets, the croup not suddenly drooping, nor the tail set on low. The head should not be thick and fleshy, nor joined abruptly to the neck, but in a gradual or tapering form; the eye full, clear, and diaphanous. The fore arms and thighs, with plenty of muscular substance, should be of reasonable length, but the legs should, at no rate, be long. Much solid flat bone beneath the knee, is a great perfection in a hackney; and the feet, standing straight, turning neither in nor outwards, should be of tough, dark, shining horn, the heels wide and open. The saddle-horse's fore-feet should closely approach each other, the wide chest being rather adapted to the collar. Nor need any apprehension be entertained from this near approximation of the fore feet, of the Horse's cutting in the speed, or knocking his pastern joints, since those defects arise almost invariably from the irregular pointing of the toe, inwards or outwards, and for which, neither a wide chest nor the most skilful farriery, has ever yet provided a sufficient remedy. A saddle Horse of any description can scarcely go too close before, or too wide behind.

Perhaps the best pedigree for a road Horse is, that he is bred from hackney stock on both sides, more particularly for a trotter. The

breaking and education of our road Horses are too generally incomplete. A good mouth should be secured, neither hard and insensible, nor too exquisitely sensible; which latter extreme causes the Horse to ride loose necked, and his head, in the language of a practical author, to vibrate like a pendulum. The nag should be set moderately upon his haunches, as in the riding school, which will enable him to carry his fore-quarters lightly and pleasantly to the rider, and also to descend a hill with more ease and safety; the doing which in perfection, is one of the highest qualities in a hackney. The Horse being low or ill-formed in the shoulders, that the saddle will ride forward; or, in the horseman's phrase, *cock-throppled*, which is to say, having the crest reversed, that a martingale be required to keep his head in its proper place, are great, and being irremediable defects, should be guarded against in breeding, by attention to the well-known principle—like produces like. In these confirmed cases of mal-conformation, there are no remedies worth regard, but the martingale and the crupper; and however unfashionable the latter, it is still preferable to the insecurity of riding upon a saddle gradually shifting towards the Horse's neck, there being no eminence or form of withers adapted to its support in its place. The natural paces of the Horse are walk, trot, canter, and gallop; and in this country, the artificial paces of padding and racking have long since been out of use; yet cantering is with us almost an artificial pace, our road Horses being so universally accustomed to the trot, that few will canter handsomely and steadily. The reverse of this is actually the case in other countries, where Horses, from disuse of the trot in work, almost forget that natural pace. In breaking the colt, it should not be neglected, as it usually is, to teach him a handsome, safe, and steady canter, more especially if he naturally incline to that pace, so useful and pleasant in a variety of respects: for example, as a lady's pad, or summer hackney; and in case of the Horse having much blood and delicacy, an occasional canter of a mile, being a great relief from the shaking of the hard road in a trot. Nor is there any ground for the common apprehension that, being taught to canter, will render a Horse less steady in his trot; that depends upon good riding; and the present writer has known capital trotters also handsome and good canterers.

The exercise of Horses in constant work, should never be of the speedy or rattling kind; their labour is, in general, sufficient to wear out their legs and feet full soon enough. Walking exercise alone, will keep a hackney in good condition: beyond this, the slow trot, the moderate journey-trot, and the canter should not be exceeded.

The nag may be accustomed and trained to that pace which is preferred and most used by the master; and a skilful groom may act the part of the riding-master, and improve a Horse greatly in his mouth, paces, and habits. Many Horses, good in nature and really valuable, may have been rudely and imperfectly broken. Such are apt to mix and run their paces one into another, shuffling between walk and trot, and between trot and canter. It is the business of a good groom during exercise, to correct these errors of progression, and to accustom the Horse to change freely and easily from one pace to the other. The vice of shying and starting also, may be, to a considerable degree, remedied in exercise. The

high road is the proper theatre of exercise for these Horses; but, as in London, there may be sometimes a necessity for exercising them on the pavement, where the pace should never exceed the slow trot.

LADIES' HORSES.

Much care seems in general to be used in the selection of ladies' Horses, and our ladies appear to be sufficiently attentive to that necessary accomplishment, riding on Horseback; this is evident from the comparatively few accidents which happen to ladies when riding.

This delightful exercise, to which our young and most gracious queen Victoria seems to have formed so great an attachment, will no doubt become still more fashionable; for when did royalty set an example which was not followed, and extend its influence (whether for good or evil) in this country? Happy are we to feel assured that this exercise combines health as well as pleasure to the riders, and shews both elegance and grace to the beholders.

For elegance, a lady's pad should have a considerable show of blood, and should seldom exceed fifteen hands in height; the paces should not be rough; and an easy slow trot, the pace of health, is a valuable qualification. The canter is of the chief consequence, and that it be formed naturally and handsomely, the neck gracefully curved, and the mouth having pleasant and good feeling; these are natural canterers, they will last at it, taking to it, and on the proper signal dropping into the trot or walk, without roughness, boggling, or changing of legs. But the first and grand consideration is going safely; for a Horse deficient in that respect, is perhaps always most liable to fall in his canter. The most graceful canterers may be observed to lead generally, with the off leg; but no doubt there is such an error, as a Horse, both in his canter and gallop, going with the wrong leg first, to the considerable uneasiness of the rider; this is most felt upon worn and battered Horses, which change their legs to procure a momentary ease.

The person who attends for the purpose of assisting a lady to mount her Horse, must come close to her; must join his hands, by placing his fingers within each other, to form a stirrup for the lady's left foot, as near to the ground as possible; her left knee must be quite straight, which will facilitate the assistant's effort to place her in the saddle, which is also forwarded by a moderate spring from herself. She will perceive the necessity of the knee being held perfectly straight, and of her standing with her shoulder close to the saddle. Here one reason is apparent why a lady's pad ought not to be too lofty.

Some masters teach their lady-scholars to ride on either side of the Horse, and recommend to have the pommel of the saddle made very low, that the knee may not be thrown too high; and also that the pommel be made with a screw, to be taken off in case of a lady wishing to change sides on any particular account. Ladies' riding-shoes should be always straight soled, as in case of accident, there is the risk of the foot hanging in the stirrup, when the sole, according to the old fashion, is hollow next the heel. A lady's pad should particularly be accustomed to walk off quietly; and with respect to his improvement in that pace, it is accomplished by touching him gently behind with the whip.

In case a lady should have to dismount

with the assistance of only one person to hold her Horse, steps or a chair are requisite. If there be not this convenience, a lady springs from her seat, and should her pad, which is so often the case, be upwards of fifteen hands in height, she has a good jump to make, and may sometimes meet with a strained ankle, as the consequence. Having an assistant, the lady gives him her left hand, supporting herself by that hold, and by the crutch of the saddle with the other as she alights. Her preliminary act, however, is gently to change her whip from the right to the left or bridle hand, leaving its end to hang down the Horse's near shoulder, hanging the reins upon the upright horn of the saddle, on which also she rests her right hand; her garments clear of giving any obstruction, she may then, turning a little to the right, make her spring towards the assistant, who is ready to break her fall. She should be careful on quitting her stirrup, to keep her knee upon the crutch, as a security in case of the Horse starting. It must be needless to mention, that a gentleman who attends a lady on horseback, rides on her near side; and that it is one of his first duties, ever to keep himself between the lady and any carriages or horsemen that may be met with.

FEEDING AND MANAGEMENT ON THE ROAD.

A good hack will perform fifty or sixty miles a day with ease; but for long continued journeys, thirty to forty miles a day is as much as can be required. Let no man expect great performance, unless his Horse be full of hard meat, and in CONDITION. Should a man be forced to ride a Horse a journey with his full burden of grass-flesh upon him, he must at first ride him moderately, and by virtue of good solid corn-feeds, he will in a month attain condition.

Many persons ride long stages, for example, thirty or forty miles without feeding; but it is inconsiderate, and is injurious to the Horse. Moderate feeds at the different stages, and an ample one at the last, are most beneficial; a quartern of oats, with a handful or two of beans, are sufficient quantities during the day; at night, half a peck of oats and a few handsful of beans; so that a hack upon a journey of considerable length, may be allowed from a peck and a quarter, to a peck and a half of oats. Hasty travellers will yet find an advantage in starting at a very moderate pace, and in finishing the last three miles of a stage, especially in hot weather, as leisurely as their haste will admit, since by such means, they will save time; as their Horses, on reaching the inn, will be the sooner dry, and ready to feed. On the road, the Horse may be indulged, every eight or ten miles, if he require it, with a few go-downs of water; and in hot weather, over hard roads, and with fast travelling, when the shoes acquire a burning heat, it is most refreshing to the Horse, to ride him over his pasterns, momentarily, through any water that may be accessible. But a caution of much moment must have place here; be the weather hot or cold, a Horse in a state of perspiration should never be kept standing any length of time in water.

In fast travelling, every Horseman of common sense, will ease his hack up the hills; in going down also, if he values his own neck and his Horse's knees, he will do the same.

We recollect meeting in the travellers' room, at an inn in Birmingham, a respectable butcher, who kept some good Horses. He had a famous mare who carried him from

Birmingham to Nottingham and back within the twelve hours. We believe his name was Allcock. It was on the occasion of voting for a member of that county. The sentiments he uttered did him honour for his integrity and independence. He said he always voted for the man of his choice without ever putting him to one farthing expence. This was no mean performance, the distance there and back being close upon a hundred miles. He spoke of it as not being much of an effort. He said his general pace was eleven miles an hour, and on going down hill, he sometimes dismounted, which he considered to be very refreshing to the mare, he being a heavy man.

When a hack, always known to ride quiet, does not set off readily, or makes a stop on the road, the rider may be assured that it arises from some sudden painful bodily affection, or something misplaced and galling in his furniture. The rider should instantly dismount, and examine both Horse and tackle, at all points. He may be suddenly griped, or seized with a fit of stranguary, which will appear from his dilated nostrils, sweating at the ear-roots, staring coat, and attempts to stale. Aged and worked hackneys are liable to the stranguary; in which case, all the rider can do is to lead him about gently, and give him time to void the dripping urine.

Arrived at the inn, and the Horse cool, no extra care or solicitude is required, he may be led into the stable, stripped, rubbed over, whilst eating a lock of hay, and soon be ready for his feed of corn.

There is nothing more refreshing to a hard-ridden Horse, and for abating the excessive and painful heat and tension in his joints and sinews, than to have his feet and legs well washed and suppled in warm water. It is a good precaution used, if the inside of the saddle be made dry and comfortable.

If the Horse should not feed well, nor eat his corn with an appetite, it is a hint that rest would be acceptable, and it should be complied with.

It will be wise to keep the old adage in view, " that a master's eye makes his Horse fat;" either himself or his groom should attend at every feeding time, to see that the Horse has justice done in his food, as to quality as well as to quantity.

CHAPTER XIII.

ON BREEDING.

ON BREEDING.

THERE seems to be an opinion formed, that there are fewer good hacks now than there were formerly. If such be the fact, it becomes important for breeders to take into their consideration the causes of this deterioration, and to adopt those means which may be the most likely to restore the breed which we formerly possessed, as well as to the general improvement of our Horses; which, whether considered socially or nationally, is an object of too much importance to be neglected.

Our observations are of a general nature, and will be very simple; and the first axiom we would lay down is, that "like will produce like," that the progeny will inherit the qualities, or the mingled qualities, of the parents. We would refer to the subject of diseases, and again state our perfect conviction, that there is scarcely one by which either of the parents is affected, that the foal will not inherit, or, at least, the predisposition to it: even the consequences of ill usage or hard work will descend to the progeny. We have already mentioned this, but its importance will be a sufficient apology for the repetition. We have had proof upon proof, that blindness, roaring, thick wind, broken wind, spavins, curbs, ring-bones, and founder, have been bequeathed, both by the sire and the dam, to the offspring. It should likewise be recollected, that although these blemishes may not appear in the immediate progeny, they frequently will in the next generation. Hence the necessity of some knowledge of the parentage both of sire and dam.

Peculiarity of form and constitution will also be inherited. This is a most important, but neglected consideration; for however desirable or even perfect, may have been the conformation of the sire, every good point may be neutralized or lost by the defective form, or want of blood, of the mare. There are niceties in this, of which some breeders used to be aware, and they employed their knowledge to great advantage. When they were careful that the essential points should be good in both parents, and that some minor defect in either should be met, and got rid of, by excellence in that particular point in the other, the result was creditable to their judgment,

and highly profitable. The unskilful or careless breeder will often so badly pair the animals, that the good points of each will be, in a manner, lost; the defects of both will be increased, and the produce will be far inferior to both sire and dam.

Of late years, these principles have been much lost sight of in the breeding of Horses for general use; and the following is the explanation of it. There are nearly as good stallions as there used to be. Few but well-formed and valuable Horses will be selected and retained as stallions. They are always the very prime of the breed; but the mares are not what they used to be. Poverty has induced many of the breeders to part with the mares from which they used to raise their stock, and which were worth their weight in gold; and the jade on which the farmer now rides to market, or which he uses in his farm, costs him but little money, and is only retained because he could not get much money for her. It has likewise become the fashion for gentlemen to ride mares, almost as frequently as geldings; and thus the better kind are taken from the breeding service, until old age or injury renders them worth little for it.

We would wish, then, to impress it on the minds of the breeders, that peculiarity of form and constitution are inherited from both parents; that the excellence of the mare is a point of quite as much importance as that of the Horse; and that out of a sorry mare, let the Horse be as perfect as he may, a good foal will rarely be produced. All this is recognized upon the turf, although poverty or carelessness have made the general breeder neglect or forget it.

It is recognized in the midland counties in the breed of cart-horses; and the strict attention which has been paid to it, has brought our heavy Horses to almost the same perfection in their way as the blood-horse. It is strange that in our saddle-horses, our hunters, and, to a great degree, our carriage-horses, this should be left to chance. The breeder begins to care little about the quality of the mare, and the progeny is becoming comparatively of little worth. Experience, it is said, will make fools wise, but experience will here be bought at a very dear rate, both as it regards the breeder and the community.

That the constitution and endurance of the Horse are inherited, no sporting man ever doubted. The qualities of the sire or the dam descend from generation to generation, and the excellences or defects of certain Horses are traced, and justly so, to some peculiarity in a far distant ancestor.

It may, perhaps, be justly affirmed, that there is more difficulty in selecting a good mare to breed from, than a good Horse, because she should possess somewhat opposite qualities. Her carcase should be long, to give room for the growth of the fœtus, and yet with this there should be compactness of form and shortness of leg. What can they expect who go to Smithfield Market to purchase a number of worn-out, spavined, foundered mares, about whom they fancy there have been some good points, and send them far into the country to breed from, and, with all their variety of shape, to be covered by the same Horse? In a lottery like this, there may be now and then a prize, but there must be many blanks. "If horse-breeders, possessed of good judgment, would pay the same attention to breed and shape as Mr. Bakewell did with sheep, they would probably attain their wishes in an equal degree, and

greatly to their advantage, whether for the collar or the road, for racing or for hunting."

As to the shape of the stallion, little satisfactory can be said. It must depend on that of the mare, and the kind of Horse wished to be bred; but if there be one point which we should say is absolutely essential, it is this, "compactness"—as much goodness and strength as possible condensed in a little space. If we are describing the reverse of the common race of stallions for hunters and coach-horses, the fault lies with the bad taste and judgment of the majority of breeders.

Next to compactness, the inclination of the shoulder will be regarded. A huge stallion, with upright shoulders, never got a capital hunter or hackney. From him the breeder can obtain nothing but a cart or dray-horse, and that, perhaps, spoiled by the opposite form of the mare. On the other hand, an upright shoulder is desirable, if not absolutely necessary, when a mere draught Horse is required.

It is of no little importance, that the parents should be in full possession of their natural strength and powers. It is a common error, that because a mare has once been good, she is fit for breeding when she is no longer capable of ordinary work. Her blood and perfect frame may ensure a foal of some value, but he will inherit a portion of the worn-out constitution of her from whom he sprung.

On the subject of breeding in and in, that is, persevering in the same breed, and selecting the best on either side, much has been said. The system of crossing requires much judgment and experience; a great deal more, indeed, than breeders usually possess. The bad qualities of the cross are too soon engrafted on the original stock, and once engrafted there, are not, for many generations, eradicated. The good ones of both are occasionally neutralized to a most mortifying degree. On the other hand, it is the fact, however some may deny it, that strict confinement to one breed, however valuable or perfect, produces gradual deterioration. The truth here, as in many other cases, lies in the middle; crossing should be attempted with great caution, and the most perfect of the same breed should be selected, but varied, by being frequently taken from different stocks. This is the secret of the course. The pure south-eastern blood is never left, but the stock is often changed with manifest advantage.

A mare is capable of breeding at three or four years old; some have injudiciously commenced at two years, before her form or her strength is sufficiently developed, and with the developement of which this early breeding will materially interfere. If she does little more than farm-work, she may continue to be bred from until she is nearly twenty; but if she has been hardly worked, and bears the marks of it, let her have been what she will in her youth, she will deceive the expectations of the breeder in her old age.

The mare comes into heat in the early part of the spring. She is said to go with foal eleven months, but there is sometimes a strange irregularity about this. Some have foaled five weeks earlier, while the time of others has been six weeks beyond the eleven months. We may take, however, eleven months as the average. In running-horses that are brought so early to the starting-post, and whether they are foaled early in January or late in April, rank as of the same age, it is of importance that the mare should go to cover as early as possible: in a two or three-year-old, four months would

make considerable difference in the growth and strength; yet many of these early foals are almost worthless, because they have been deprived of that additional nutriment which nature designed for them. For other breeds, the beginning of May is the most convenient period. The mare would then foal in the early part of April, when there would begin to be sufficient food for her and her colt, without confining them to the stable.

From the time of covering to that of foaling, the mare may be kept at moderate work, and that not only without injury, but with decided advantange. The work may be continued up to the very time when she is expected to foal; and of which she will give at least a day's notice, by the adhesive matter that will appear about the teats. When this is seen, it will be prudent to release her from work, and keep her near home, and under the frequent inspection of some careful person.

When nearly half the time of pregnancy has elapsed, the mare should have a little better food. She should be allowed one or two feeds of corn in the day. This is about the period when they are accustomed to slink their foals, or when abortion occurs: at this time, therefore, the eye of the owner should be frequently upon them. Good feeding and moderate exercise will be the best preventives against this. The mare that has once slinked her foal is ever liable to the same accident, and therefore should never be suffered to be with other mares about the time that this usually occurs, which is between the fourth and fifth months; for such is the power of imagination or of sympathy in the mare, that if one of them suffers abortion, the greater number of those in the same pasture will share the same fate. Farmers wash, and paint, and tar their stables to prevent some supposed infection:—the infection lies in the imagination.

If a mare has been regularly exercised, and apparently in health while she was in faol, little danger will attend the act of parturition. If there be false presentation of the fœtus, or difficulty in producing it, it will be better to have recourse to a well-informed practitioner, rather than injure the mother by the violent, and injurious attempts which are often made to relieve the animal.

As soon as the mare has foaled, she should be turned into some well-sheltered pasture, with a hovel or shed to run into when she pleases: and as, supposing she has foaled in April, the grass is scanty, she should have a couple of feeds of corn daily. The breeder may depend upon it, that nothing is gained by starving the mother and stinting the foal at this time. It is the most important time in the life of the Horse; and if, from false economy, his growth be arrested now, his puny form and want of endurance will ever afterwards testify the error that has been committed. The corn should be given in a trough on the ground, that the foal may partake of it with the mother. When the new grass is flush and plenty, the corn may be gradually discontinued.

Our work is intended, principally, for farmers: they well know that the mare may be put to moderate work again a month after the foaling. The foal is at first shut in the stable during the hours of work; but as soon as it acquires sufficient strength to toddle after the mare, and especially when she is at slow work, it will be better for the foal and the dam that they should be together. The work will contribute to the health of the mother; the foal will more frequently draw the milk,

and thrive better; and will be hardy and tractable, and gradually familiarized with the objects among which it is afterwards to live. While the mother, however, is thus worked, she and the foal should be well fed; and two feeds of corn, at least, should be added to the green food which they get when turned out after their work, and at night. The mare will usually be found at heat at or before the expiration of a month from the time of foaling, when, if she be kept principally for breeding purposes, she may be put again to the Horse.

To return, however, to the foal:—It is not generally known that the refusing to suck, which is the cause of the death of many foals, as well as the scouring, which about the third day kills many more, are both produced by irritation, and consequent inflammation of the bowels, from the retention of a few small hard fæces in the rectum. These are generally more in quantity in proportion as the keep of the mare has been high.

The cure is simple; a few hours after the foal has been dropped, a tallow candle should invariably be passed into the rectum, and when the passage has been sufficiently softened, the fæces can easily be extracted by the finger.

In cases where scouring kills foals at a subsequent period, it is generally attributable to the foal heating itself by violent exercise; consequently the mare, for the first day or two that she is let out (supposing her to be housed,) ought only to be walked about with a halter, and the same practice pursued at the time of her first horsing.

Some mares will not allow their foals to suck. This arises from the tenderness of the teats; and in this case they should have their heads tied up, and if necessary, be otherwise prevented from kicking, while they are milked by hand; and the milk should be rubbed over the teats for some short time, after which they will allow the foal to suck.

Should the mare's milk be obstructed and fail, either from cold caught, or other cause, if out, she should immediately be taken up to the house, and enticed to lie down upon a large and deep littered bed of fresh straw, in a loose box, and every method taken to comfort her, and to encourage the secretion of milk. To promote this end, as much warm mild ale should be allowed, as she would drink; or should she refuse it, she may be drenched with a couple of quarts, to be repeated as may appear necessary; her food being the finest and most fragrant hay, sweet grains, with mashes of corn and pollard. In cases of *chill*, and great weakness, the old well known article, cordial ball, may be given in warm ale.

Should, however, the case be inflammatory, from previous high condition and fulness of blood, cordial ball and all stimulants should be strictly avoided, and the regimen confined to warm water and gruel, in as copious quantities as can be administered. Should further measures of similar tendency be indicated, a mild solution of Glauber's or Epsom salts (ten or twelve ounces in a pail of warm water,) may be given, which she may be induced to drink by means of being kept short of water. A moderate quantity of blood may be drawn, should the symptoms demand it, not otherwise. Daily walking exercise abroad, the mare being clothed if necessary, should succeed, until she be sufficiently recovered to be returned to her pasture.

During the inability of the mare to give suck, the foal must be sustained on cow's

milk. This alien milk will generally disorder and gripe the foal, for which the best remedy is two or three spoonsful of rhubarb in powder, with an equal quantity of magnesia, in warm gruel. This medicine should be given to the foals of labouring mares, which are often griped by sucking pent milk. The disorder arising from wet and cold, a table spoonful each, of the best brandy and syrup of white poppies, may be given several times. Mares that come early, and in bad weather, should invariably be brought to the house to foal.

Mares travelling with young foals ought not to go above fifteen miles a day, and their pace must be entirely regulated by the *natural* pace of the foal, which must never be hurried or left behind. Every mile or two the mare should be allowed to stop a little, and the foal be permitted to suck and rest itself. Thus the journey ought to occupy the whole of the day.

Mares having dead foals, ought to lose a little blood, be fed moderately on cooling mashes with a little nitre, and on no account be allowed corn. Moderate walking exercise is very desirable for mares before foaling; and alternate mashes of plain and of scalded bran are much to be recommended.

It should be observed that geldings should not be admitted among the brood mares, as by leaping them, or harassing them about, abortion may be occasioned.

Docking the sucking foal at a month old, is an operation which may then be performed with a sharp knife, and is attended with trifling pain, and no risk; whereas both the pain and the danger of the operation on adults are considerable.

In five or six months, according to the growth of the foal, it may be weaned. It should then be housed for three weeks or a month, or turned into some distant rick-yard. There can be no better place for the foal than the latter, as affording, and that without trouble, both food and shelter. The mother should be put to harder work, and have drier meat. One or two urine balls, or a physic ball, will be useful if the milk should be troublesome, or she should pine after her foal.

There is no principle of greater importance than the liberal feeding of the foal during the whole of his growth, and at this time in particular. Bruised oats and bran should form a considerable part of his daily provender. The farmer may be assured that money is well laid out which is expended on the liberal nourishment of the growing colt; while, however, he is well fed, he should not be rendered delicate by excess of care. A racing colt is sometimes stabled; but one that is destined to be a hunter, a hackney, or an agricultural Horse, should merely have a square rick, under the leeward side of which he may shelter himself, or a hovel, into which he may run at night, or out of the rain. The process of breaking-in should commence from the very period of weaning. The foal should be daily handled, partially dressed, accustomed to the halter, led about, and even tied up. The tractability, and good temper, and value of the Horse, depend a great deal more upon this than breeders are aware: this should be done as much as possible by the man by whom they are fed, and whose management of them should be always kind and gentle. There is no fault for even harshness, towards the rising stock; for the principle on which their after usefulness is founded, is early attachment to, and confidence in man, and obedience, im-

plicit obedience, resulting principally from these attentions.

BREEDING FOR THE TURF, ETC.

Our remarks have hitherto applied more to the breeders in small farms, than to breeders for the turf. There has been lately some writers who have strongly recommended the breeding of thorough blood-horses as hunters, which they say would prove a profitable speculation, in consequence of the great difficulty to obtain substance sufficient in these Horses for carrying weight to fox-hounds. These writers contend that with a proper selection among thorough-bred Horses, such a breed can be obtained. They say that if race-horses of certain substance were allowed sufficient time to grow to maturity, and trained as hunters, there would be such a demand as would amply compensate the breeders who might be induced to enter on such an undertaking. To do this, however, would be generally beyond the means of the small farmer, as brood mares of that class would not be very easily obtained; yet we think it right to state the opinions of men, who though their writings may be considered somewhat speculative, still we believe them to be practical men, and well versed in hunting affairs.

To create such an establishment upon a considerable scale, and in the first style of adaptation and convenience of every kind, the country chosen should be dry, hilly, and irregular, the soil calcareous, with sweet herbage, and good water in abundance. A sufficient shelter of timber is advantageous. A number of well and high fenced paddocks and inclosures, commensurate with the extent of the stud, will, of course, be understood; as also of sheds in those inclosures, for sheltering the stock in winter or unfavourable weather. From the nature of a soil and situation similar to the above, a correspondent effect may be rationally expected, on the feet, limbs, and tendinous system of the Horses bred there; whilst a clear and elastic air will be equally productive of beneficial effects to their wind and animal spirits. Ample and separated yard room and stabling, with outhouses, and every convenience for the storing of provender, should, in conformity, not be neglected; to add also a convenient residence for the stud-groom and his boys and assistants, will be important.

There should be land sufficient in extent to produce the requisite quantities of corn, straw, hay, artificial grasses, and roots. At any rate, the stud should be joined by land enough, on which might be cultivated the needful quantities of lucern for soiling; and, should the soil be sufficiently deep, of carrots; an indispensable article in this concern, for autumnal and early spring use. Our chief breeding establishments of first sized heavy dray and cart horses, chiefly for the metropolitan market, are found in rich and deep grassy soils; since the same full bite is required for these, to rear them up to their utmost size and bulk, as is indispensable for the same purpose, in the large varieties of horned cattle and sheep.

The best markets for brood mares, whether in regard to price or quality, will be found in the London repositories, during the months of September and October. All descriptions, one perhaps excepted, may then and there be met with, and many of good age, prematurely worked down, in our flying stage work. Such mares, turned off for the winter, well kept with hay and carrots, and well sheltered in

dry straw-yards and sheds abroad, their constitutions being sound, will be in the best possible state for breeding in the spring. The exception above, refers to draught horses of the first size and class, such mares are seldom seen in London; but must be sought for in the midland counties and Lincolnshire.

Our readers will recollect the account we gave of some yearlings which belonged to Mr. Thornhill, of Riddlesworth. The sole object of Mr. Thornhill being the breeding and rearing of stock exclusively designed for racing, it is of course by mere accident that any thing suited for the field, or rather hinted at is to be found in his paddocks. The writer who advocates the breed of thorough-bred Horses for the purpose of hunting, says:—

"I saw a four-year-old colt in one of the boxes, which from some cause that I did not investigate, had never been trained, then on sale, and described as 'likely to make a hunter,' his price being two hundred guineas. He was a fine powerful bay, with four rare black legs, and substance to the eye for fourteen stone over any country with any hounds; in fact, he was just such a four-year-old as all the yearlings I saw ought to make; and when I state that he never was put into training, it is because I shall offer him as an example of the theory (which I am more and more becoming convinced experience is destined to prove no speculative imagination) that in our blood stock is existent the seed, which only requires a system of treatment suitable to the object to supply the class of Horse fitted to the present condition of British fox-hunting."

We shall see how the accusation, so unsparingly brought against the men of the nineteenth century, of breeding *weeds* for the turf, is supported by the testimony of competent and unprejudiced witnesses. The writer says:—

"The father of Mr. Thomas Hindly, the stud-groom at Euston (old Charles Hindly,) rode for the first two-year-old plate that was ever run for at Newmarket. Now what opinion did he hold for the last score years? Why, that we have been gradually breeding with more size and substance every year within his memory. What said old Tyler when I questioned him upon this subject? "that at Riddlesworth they were continually getting their stock with increased power and size; and that nothing ever bred by the late Duke of Grafton could compare with the bone and strength now to be found in the paddocks of Euston!' I attach more importance to the opinions of these men, because the force of prejudice would naturally lead them to lean to the side of 'lang syne!' Enough has been said, I think, to shew that the character of weediness, which I admit attaches to too many of our race-horses, is not a defect originating with, or derived from, blood. If, as I believe to be the case, the average height of thorough-bred yearlings at all the great breeding establishments is little under fifteen hands high, it is a natural consequence, that, unless by unnatural means the stamina be destroyed, when at maturity a corresponding substance would be added to the growth, and the symmetry of frame be completed by a just assimilation of size and power."

The writer now sums up his conclusions as to the probable result of making hunters from thorough-bred stock, and the profits likely to accrue from it. He says:—

"I am convinced that the quality of the thorough-bred Horse never before reached the

perfection in which it is now bred; and, that, were the fashion of the turf such as it was in the day of Childers, such Horses would be found in England as mankind knows not by experience or tradition. Racing, too, is yearly on the increase, and consequently, the produce multiplies in a similar degree. Here then, without the risk, and at half the expence, of breeding, a supply of the best blood is available to all who would embark in a very promising scheme of rural enterprise.

"In the large breeding studs, the foals selected by the proprietors, or set aside at high prices for the turf, are those promising an early maturity, and possessing purely racing qualities. Neither of these will be required by the purchaser who has four years' law to allow his colt or filly, and who, under any circumstances, is sure of finding pace enough for his purpose. Having procured one or two yearlings, or according to the room he has to spare, I would recommend that they be turned into the best upland pasturage his farm affords; the exercise they will take up and down hill, giving an early freedom to the shoulder, so essential to a hunter. Plenty of room, too, will be very desirable; and now and then an incentive to break bounds will not be amiss, provided the fences be not of a dangerous description. This practice it is that makes most of the Irish Horses perfect leapers before they are backed. The forcing system of the racing paddock will be by no means necessary where so much time will be allowed the fruit to ripen; but corn, at intervals should be given, and much succulent food avoided. Coarse rushy bottoms intersected with drains, now and then alternated with an upland run where circumstances will permit, is the treatment which I should recommend as the best adapted for young blood stock.

"In the second winter I would put a headstall upon them in the straw-yard, and use them to be handled. In the third, I would occasionally have them led with the head tied up in a cavesson across the fallows, and if a drain offered, they should be made to jump it; but by no means should they be backed till the autumn of their fourth year: they will then be four years and a half old, and rendered tractable by the course already pursued. It is needless to say that no false economy should bias the selection of a person for this most important office. It is at this crisis of his fate that in most cases a Horse is made or marred. Not only is his temper jeopardised, and *that* ruined he is worthless; but if allowed to be, as it is technically called *screwed* (for which his transition from idleness to labour peculiarly disposes him), rarely, if ever, can the machine be again restored to order.

"Your colt then being broken by the end of his fourth winter, you have the succeeding spring to make him fit for sale, and at five years old bring him into the market; enough that it be whispered that a farmer has a thorough-bred five-year-old fit to carry twelve stone to hounds, to ensure him more purchasers than he can deal with. Say his yearling costs him fifty pounds; his four years' keep and all incidental expences, one hundred more; this is over-rated; and at the prices such merchandise now commands, he will have no cause to regret his speculation. Let nothing induce a breeder to send a colt with a breaker on him to hounds. Such an exhibition is execrated in every field, and is the sure road to unpopularity. Let him sell his Horse as I

have above counselled; or, if he can do him justice *himself*, then let him shew him with fox-hounds, after a course of proper treatment and training."

The writer seems to infer that young blood-stock, unless with decided early pretensions for racing, might be bought worth the money for a farmer to speculate upon. This we think very probable; for when men act upon artificial or conventional rules, how often may they be deceived? If a colt does not come up to their standard of perfection, he is considered worthless. The very form which they object to, may be designed by Nature to furnish, at maturity, a most splendid animal. It would be interesting to trace the lives of those animals who may have been turned out of the stud through fashion or caprice. We have no doubt in many cases, between those turned off and those kept, it would prove as often in the favour of the "disowned," as the retained.

We have often been surprised to see the difference in prices fetched by blood-stock. We have noticed brood-mares stinted to capital stallions, in sales, knocked down for the contemptible price of eighteen pounds!

At such prices no farmer could run any risk, if he could make a hunter of her progeny. If a farmer could procure dams of undoubted pedigree, at moderate prices, he will always find stallions enough to put them to. There is no difficulty in the present diffusion of racing-blood to prevent a farmer taking the opportunity of watching the sales of racing-stock, where he might find dams at moderate prices; which, even should they not be of the prevailing fashionable blood, they are quite equal for all his purposes. He might select his stallions from those of the greatest substance.

It never entered into the calculation, we suppose, of farmers breeding hunters from thorough-blood stock; therefore we have thought it our duty to lay before them the opinions of a writer, whom we believe quite competent to give advice, and leave it to the judgment of our readers to decide upon adopting it or not, should they have the opportunity of trying it.

CHAPTER XIV.

BREAKING.—CASTRATION.

BREAKING.

THERE is nothing more important to the owner of the Horse than his being well broken. To ensure this, great care should be taken to put the animal into the hands of a man well qualified for this undertaking; for nothing is easier than to spoil a Horse's mouth, if left to the management of an injudicious person. It has been observed that more Horses are spoiled in the breaking, than can ever be recovered afterwards, even if mounted by the most judicious riders.

After the second winter, the work of breaking-in may commence in good earnest. He may first be bitted, and a bit carefully selected that will not hurt his mouth, and much smaller than those in common use; with this he may be suffered to amuse himself, and to play, and to champ for an hour, on a few successive days.

Having become a little tractable, portions of the harness may be put upon him, and, last of all, the blind winkers; and a few days afterward he may go into the team. It would be better if there could be one before, and one behind him, beside the shaft Horse. Let there be first the mere empty waggon. Let nothing be done to him, except that he may have an occasional pat or kind word. The other Horses will keep him moving, and in his place; and no great time will pass, sometimes not even the first day, before he will begin to pull with the rest; then the load may be gradually increased.

The agricultural Horse is wanted to ride as well as to draw. Let his first lesson be given when he is in the team. Let his feeder, if possible, be first put upon him: he will be too much hampered by his harness, and by the other Horses, to make much resistance; and, in the majority of cases, will quietly and at once submit. We need not repeat, that no whip or spur should be used in giving the first lessons in riding.

When he begins a little to understand his business, backing, the most difficult part of his work, may be taught him; first to back well without anything behind him, then with a light cart, and afterwards with some serious load; and taking the greatest care not seriously to hurt the mouth. If the first lesson causes much soreness of the gums, the colt will not readily submit to a second. If he has been rendered tractable before by kind usage, time and patience will do all that can be wished

here. Some carters are in the habit of blinding the colt when teaching him to back: it may be necessary with the restive and obstinate one, and should be used only as a last resort. It is an admirable plan to teach a Horse to back without blinkers. How many accidents have occurred from Horses having had their bridles slipped off, and through not being accustomed to see the carriage behind them, become terrified, and set off at full speed, to the destruction often of themselves and whatever they may come in contact with.

The colt having been thus partially broken-in, the necessity of implicit obedience may be taught him, and that not by severity, but by firmness and steadiness; the voice will go a great way, but the whip or the spur is sometimes indispensable—not so cruelly applied as to excite the animal to resistance, but to convince him that we have the power to enforce submission. Few, we would almost say, no Horses, are naturally vicious. It is cruel usage which has first provoked resistance; that resistance has been followed by greater severity, and the stubbornness of the animal has increased; open warfare has ensued, in which the man seldom gained an advantage, and the Horse was frequently rendered unserviceable. Correction may, or must be used, to enforce implicit obedience after the education has proceeded to a certain extent, but the early lessons should be inculcated with kindness alone. Young colts are sometimes very perverse; many days will occasionally pass before they will permit the bridle to be put on, or the saddle to be worn; one act of harshness will double or treble this time. Patience and kindness will, after a while, prevail. When the Horse is in better humour than usual, the bridle will be put on, and the saddle will be worn; and this compliance being followed by kindness and soothing on the part of the breaker, and no inconvenience or pain being suffered by the animal, all resistance will be at an end.

The same principles will apply to the breaking-in of the Horse for the road or the chase. The handling, and some portion of instruction, should commence from the time of weaning. The future tractability of the Horse will much depend on this. At two years and a half, or three years, the regular process of breaking-in should come on. If it be delayed until the animal is four years old, his strength and obstinacy will be more difficult to overcome. We cannot much improve on the plan usually pursued by the breaker, except that there should be much more kindness and patience, and far less harshness and cruelty, than these persons are accustomed to exhibit, and a great deal more attention to the form and natural action of the Horse. A headstall is put on the colt, and a cavesson (or apparatus to confine and pinch the nose) affixed to it, with long reins. He is first accustomed to rein, then led round a ring on soft ground, and at length mounted and taught his paces. Next to preserving the Horse's temper and docility, there is nothing of so much importance as to teach him every pace, and every part of his duty, distinctly and thoroughly. Each must constitute a separate and sometimes long-continued lesson, and that taught by a man who will never suffer his passion to get the better of his discretion.

After the cavesson has been attached to the headstall, and the long rein put on, the first lesson is, to be quietly led about by the breaker; a steady boy following behind, by occasional threatening with the whip, but

never by an actual blow, to keep the colt up. When the animal follows readily and quietly, he may be taken to the ring, and walked round, right and left, in a very small circle. Care should be taken to teach him this pace thoroughly, never suffering him to break into a trot. The boy with his whip may here again be necessary, but not a single blow should actually fall.

Becoming tolerably perfect in the walk, he should be quickened to a trot, and kept steadily at it; the whip of the boy, if needful, urging him on, and the cavesson restraining him. These lessons should be short. The pace should be kept perfect and distinct in each; and docility and improvement rewarded with frequent caresses, and handsful of corn. The length of the rein may now be gradually increased, and the pace quickened, and the time extended, until the animal becomes tractable in this his first lessons, towards the conclusion of which, crupper-straps, or something similar, may be attached to the clothing. These, playing about the sides and flanks, accustom him to the flapping of the coat of the rider. The annoyance which they occasion will pass over in a day or two; for when the animal finds that no harm comes to him on account of these straps, he will cease to regard them.

Next comes the bitting. The bit should be large and smooth, and the reins should be buckled to a ring on either side of the pad. There are many curious and expensive machines for this purpose, but the simple rein will be quite sufficient. The reins should at first be slack, and very gradually tightened. This will prepare for the more perfect manner in which the head will be afterwards got into its proper position, when the colt is accustomed to the saddle. Occasionally the breaker should stand in front of the colt, and take hold of each side rein near to the mouth, and press upon it, and thus begin to teach him to stop and to back at the pressure of the rein, rewarding every act of docility, and not being too eager to punish occasional carelessness or waywardness.

The colt may now be taken into the road or street to be gradually accustomed to the objects among which his services will be required. Here, from fear or playfulness, a considerable degree of starti ng and shying may be exhibited. As little notice as possible should be taken of it. The same or a similar object should be soon passed again, but at a greater distance. If the colt still shies, let the distance be farther increased, until he takes no notice of the object; then he may be gradually brought nearer to it, and this will be usually effected without the slightest difficulty: whereas, had there been an attempt to force the animal close to it in the first instance, the remembrance of the contest would have been associated with the object, and the habit of shying would have been established.

Hitherto, with a cool and patient breaker, the whip may have been shown, but will scarcely have been used; the colt must now, however, be accustomed to this necessary instrument of authority. Let the breaker walk by the side of the animal, and throw his right arm over his back, holding the reins in his left; and occasionally quicken his pace, and, at the moment of doing this, tap the Horse with the whip in his right hand, and at first very gently. The tap of the whip and the quickening of the pace will soon become associated together in the mind of the animal. If necessary, the taps may gradually

fall a little heavier, and the feeling of pain be the monitor of the necessity of increased exertion. The lessons of reining in and stopping, and backing on the pressure of the bit, may continue to be practised at the same time.

He may now be taught to bear the saddle. Some little caution will be necessary at the first putting of it on. The breaker should stand at the head of the colt, patting him, and engaging his attention, while one assistant, on the off-side, gently places the saddle on the back of the animal; and another, on the near side, slowly tightens the girths. If he submits quietly to this, as he generally will, when the previous process of breaking in has been properly conducted, the ceremony of mounting may be attempted on the following or on the third day. The breaker will need two assistants to accomplish this operation. He will remain at the head of the colt, patting and making much of him. The rider will put his foot into the stirrup, and bear a little weight upon it, while the man on the off-side presses equally on the other stirrup-leather; and, according to the docility of the animal, he will gradually increase the weight, until he balances himself on the stirrup. If the colt be uneasy or fearful, he should be spoken kindly to and patted, or a mouthful of corn be given to him: but if he offers serious resistance, the lessons must terminate for that day; he may probably be in better humour on the morrow.

When the rider has balanced himself for a minute or two, he may gently throw his leg over, and quietly seat himself in the saddle. The breaker will then lead the animal round the ring, the rider sitting perfectly still. After a few minutes he will take the reins, and handle them as gently as possible, and guide the Horse by the pressure of them; patting him frequently, and especially when he thinks of dismounting—and after having dismounted, offering him a little corn or green meat. The use of the rein in checking him, and of the pressure of the leg and the touch of the heel in quickening his pace, will soon be taught him, and the education will now be nearly completed.

The Horse having thus far submitted himself to the breaker, these pattings and rewards must be gradually diminished, and implicit obedience mildly but firmly enforced. Severity will not often be necessary; in the great majority of cases it will be altogether uncalled for: but should the animal, in a moment of waywardness, dispute the command of the breaker, he must at once be taught that he is the slave of man, and that we have the power, by other means than those of kindness, to bend him to our will. The education of the Horse is that of the child. Pleasure is, as much as possible, associated with the early lessons; but firmness, or, if need be, coercion, must confirm the habit of obedience. Tyranny and cruelty will, more speedily in the Horse than even in the child, provoke the wish to disobey; and, on every practicable occasion, the resistance to command. The restive and vicious Horse is, in ninety-nine cases out of a hundred, made so by ill-usage, and not by nature. None but those who will take the trouble to try the experiment are aware how absolute a command the due admixture of firmness and kindness will soon give us over any Horse. The breaker should keep in his mind continually the latin proverb, "*quod factum est, bis factum est,*" what is well done, is twice done.

The case of shying should be particularly attended to by the breaker. Many broken limbs and lost lives might thence have been saved. It arises from three causes: actual fear, skittishness, and roguery. The more racing blood a Horse has, the less he is subject to this infirmity or vice. The only remedy in the case is, hold hard and be quiet. As to the whip and spur, and the silly checking a really fearful Horse with a sharp curb, as though the intent were to break his jaw bone, it is truly a noodling, unthinking, as well as cruel practice. It is, in fact, an excellent recipe to advance the nag in the noble accomplishments of shying and starting, since, in association with the object, he naturally expects the whip and spur. Mr. Lawrence says:—

"With affected shyers, some severity may be necessary. These chaps generally fix upon some particular shying but: for example, I recollect having, at different periods, three hacks, all very powerful; the one made choice of a windmill for the object or but, the other a tilted waggon, and the last a pig led in a string. I was once placed in a very dangerous predicament by this last, on a road filled with carriages. It so happened, however, that I rode the two former when amiss from a violent cold, and they then paid no more attention to either windmills or tilted waggons, than to any other objects, convincing me that their shying, when in health and spirits, was pure affection. It is a thing seldom, perhaps never, thought of or attended to, which however detracts nothing from its consequence, to accustom colts, during their breaking, to all the chief object of terror, which occasion the vice of shying. After a colt shall have been a considerable time in hand, and his education nearly finished, should he be a careless and blundering goer, not sufficiently bending his kness, he should be frequently, but with great care, (beware broken knees) exercised daily in a slow trot, over rough and uneven roads.

"To connect vices with their anomalies together, I once had a fine hunting mare, an incorrigible biter; as a proof of which, before she came into my possession, but I was unapprised of it, she had killed a stable boy; yet her biting was entirely confined to the stable, nor did she ever show either that or any other kind of vice abroad, riding perfectly quiet."

CASTRATION.

The period at which this important operation will be best performed depends much on the breed and form of the colt, and the purpose for which he is destined. For the common agricultural Horse, the age of four or five months will be the most advisable, or, at least, before he is weaned. Very few Horses are lost when cut at that age. The weather, however, should not be too hot, nor the flies too numerous. We enter our decided protest against the recommendation of some valuable, but incautious agricultural writers, that "colts should be cut in the months of June or July, when flies pester the Horses, and cause them to be continually moving about, and thereby prevent swelling." One moment's reflection will convince the reader that nothing can be more likely to produce inflammation, and consequent swelling and danger, than the torture of the flies hovering round and stinging the sore part.

If the Horse is designed either for the carriage or for heavy draught, the farmer should not think of castrating him until he be at least a twelvemonth old; and, even then,

the colt should be carefully examined. If he is thin and spare about the neck and shoulders, and low in the withers, he will materially improve by remaining uncut another six months; but if his fore-quarters are fairly developed at the age of a twelvemonth, the operation should not be delayed, lest he become heavy and gross before, and perhaps have begun too decidedly to have a will of his own. No specific age, then, can be fixed; but the castration should be performed rather late in the autumn, when the air is temperate, and particularly when the weather is dry. No preparation is necessary for the suckling colt, but it may be prudent to bleed and to physic one of more advanced age. In the majority of cases, no after treatment will be necessary, except that the animal should be sheltered from intense heat, and more particularly from wet. In temperate weather he will do much better running in the field than nursed in a close and hot stable. The moderate exercise which he will take in grazing will be preferable to perfect inaction. A large and well-ventilated box, however, may be permitted.

The manner in which the operation is performed will be properly left to the veterinary surgeon; although we must confess that we are disposed to adhere to the old way of opening the bag on either side, cutting off the testicle, and preventing bleeding by searing the vessels with a hot iron. There is at least an appearance of brutality, and, we believe, much unnecessary pain inflicted, when the spermatic cord (the vessels and the nerve) is tightly compressed between two pieces of wood, as in a powerful vice, and left there either until the testicle drops off, or is removed on the following day by the operator. To the practice of some farmers, of twitching their colts at an early period, sometimes even so early as a month, we have stronger objection. When the operation of twitching is performed, a small cord is drawn as tightly as possible round the bag, between the testicle and the belly; the circulation is thus stopped, and, in a few days, the testicles and the bag drop off: but the animal suffers sadly—it is occasionally necessary to tighten the cord on the second or third day, and inflammation and death have frequently ensued.

CHAPTER XV.

DIRECTIONS TO THE YOUNG HORSEMAN, IN RIDING, ETC.

HORSEMANSHIP.

We have not spoken of, or alluded to what is called the *grand menage*, in training the Horse, but have confined ourselves only to that branch of breaking, which constitutes the training of the English Horse for the purpose of the field and the road; leaving those Horses which require a higher degree of perfection in the *menage*, to the care of those professors of the riding-schools, whose business it is to teach Horses to become astonishing to the beholders in their caprioles, &c.

The horsemanship of which we shall speak of, will then be confined to the modern English school. We do not wish to depreciate the talents of those masters who can so highly dress their Horses, as to afford amusement to thousands of spectators, as well as profit to themselves; still, nothing can be more obvious than that the *menage* is chiefly ornamental; and that the thoroughly dressed Horse is rather an object of luxurious parade than of real utility.

Adams (a writer on Horsemanship) says, the body must always be in a situation, not only to preserve the balance, but to maintain the seat. The distinction between the balance and the seat may be thus marked. The balance is the centrical or equilibrium position of the body, whatever may be the motion of the Horse. The seat is the Horseman's firm hold of the saddle, when he is liable to be thrown over the Horse's neck, or to fall backward over his tail.

To preserve the balance, it is evident the body of the rider must keep in the same direction as the Horse's legs; *e. g.*, if the Horse work straight and upright on his legs, the rider's body must be in the same upright direction; but when the Horse bends or leans, as when working on a circle, or trotting round a corner, the rider must lean in the same direction or proportion, or his balance will be lost. The balance, indeed, may be preserved by a different seat; but the seat will not be secure.

Mr. Adams says, that if the hand be held steady, as the Horse advances in the trot, the fingers will feel by the contraction and dilatation of the reins, a small sensation or tug, occasioned by the measure or cadence of every

step. This, which is reciprocally felt in the Horse's mo th, by means of the correspondence, is called the *appui;* and while the *appui* is preserved between the hand and the mouth, the Horse is in perfect obedience to the rider, the hand directing him with the greatest ease, so that the Horse seems to work by the will of the rider, rather than the compulsion of the hand. The hand then possesses a considerable power, independently of other aids and assistances, more than sufficient to control and direct a Horse that is broken and obedient.

Berenger gives five directions on the functions of the hand. Hold your hand three fingers breadth from your body, as high as your elbow, in such manner that the joint of your little finger be upon a right line with the tip of the elbow; let your wrist be sufficiently rounded, that your knuckles may be kept directly above the neck of the Horse; let your nails be exactly opp o ite your body, the little finger nearer to it than the others; your thumb quite flat upon the reins, which you must separate by putting your little finger between them, the right rein lying upon it: this is the first and general position.

Does your Horse go forward; or rather would you have him go forward, yield to him your hand, and for that purpose, turn your nails downward in such manner as to bring your thumb near your body; remove your little finger from it, and bring it into the place where your knuckles were in the first position; keeping your nails directly above your Horse's neck: this is the second position.

If you would make your Horse go backward, quit the first position; let your wrist be quite round; let your thumb be in the place of the little finger in the second position, and the little finger in that of the thumb; turn your nails quite upward, and towards your face, and your knuckles will be towards your Horse's neck: this is the third position.

If you would turn your Horse to the right, leave the first position, carry your nails to the right, turning your hand upside down, in such a manner that your thumb be carried out to the left, and the little finger brought to the right: this is the fourth position.

Lastly, if you would turn to the left, quit again the first position; carry the back of your hand a little to the left, so that the knuckles may come under a little, that your thumb may incline to the right and the little finger to the left: this makes the fifth position. These different positions (says Berenger,) however, alone are insufficient, unless the Horseman be able to pass from one to another with readiness and order.

THE NECESSITY OF EXAMINING THE HORSE'S TACKLE.

When the Horse is led out, saddled and bridled, it is well always for the rider to examine with his own hands and eyes the state of his Horse's equipment, and to ascertain that every part of the furniture has been so placed as to ensure his own safety as well as the comfort of the Horse. The first object will be the bridle, to see that the headstall be of a proper length, neither too loose, nor so short as to gall the Horse's jaws; to see the curb-chain hooked in its proper place, leaving the snaffle above, and clear; the fore-top hair placed under the band of the bridle, and the reins untwisted and even.

The saddle should be placed perfectly even and centrical on the Horse's back, so

placed as not to impede the motion of his shoulders, and the girths, buckled one over the other, be sufficiently tight to retain the saddle firmly in its place. The real Horseman inspects every thing; he leaves nothing to chance. When a groom once knows that his Horse has to undergo the critical examination of his master, it will have a tendency to make him careful in bringing his Horse out in a perfect state.

MOUNTING.

In giving advice to young Horsemen, we are indebted to Mr. John Lawrence for many of the directions, which are so pertinent to this subject, and which from his experience may be considered better advice than we could give. Some persons, perhaps, may think this minutiæ unimportant; but no man will be considered a complete Horseman who neglects them.

The nag being led out and held, our jockey that is to be, approaches the near (left) shoulder, and gathering up the reins between the fingers in his left hand, the thumb upwards, at the same time weaving the fingers into the Horse's mane, he acquires a holdfast and purchase. The whip is held with the reins, in the left hand. With his right hand he then takes hold of the stirrup, the flat side of the leather being placed towards him, and into the stirrup inserts his left foot. Next placing his right hand on the cantle or afterpart of the saddle, and making a moderate spring or vault, being cautious at the same time to keep his foot and spur clear of the Horse, he seats himself, and the left hand still retaining hold of the mane, with the right he adjusts the stirrup to that foot. Being seated at his ease, as in a chair, and looking forward between the ears of his Horse, he will find himself in a square and even position with the animal. The two forming a perfect centaur.

His next object is to adjust the reins, supposing them the bridoon or snaffle, and curb, which should be done by leaving the rein of the latter rather slack, the chief pressure being upon the snaffle rein; the curb being reserved for occasional use, when a more than ordinary command over the Horse's mouth may be needful, the curb rein may then be drawn with the requisite force. The right foot being fixed in the stirrup, the whip, its handle being upwards, is gently withdrawn from the left to the right hand, and its usual place is down behind the calf of the leg. As to the seat, a man will sit upright, as in his chair, but in the common, and more particularly the sporting seat on horseback, the spine is bent in a small degree outward, being directly contrary to the form in military equitation, in which we are no professors. The stirrup leathers should be of such length as to admit of the knee being sufficiently bent to retain a firm hold of the saddle, but not to that degree as to hoist the rider much above it when he stands in his stirrups: nor should they be so long as to exhibit him a straight-kneed jockey, which detracts from his power on horseback, and is dangerous in the respect of that pressure which has sometimes occasioned rupture in the belly of the rider. The foot, for a road or sporting, indeed the most secure seat, is placed home in the stirrup, the toe rather elevated and turned somewhat outward; thence arises a centre and union of force between the foot and the knee, the toe being turned out and the knee inward, pressing the saddle, which assures a firm seat, indeed is the very essence

and groundwork of the seat in the speedy trot and gallop; this, with the firm grasp of the thighs and the hold on the bridle, assures the stability of the seat on horseback.

In military riding the seat is said to depend entirely on the equipoise, or balance, a point of consequence, no doubt, but which, on trying occasions, can only be maintained as above stated. It has been observed of bad horsemen, that they can scarcely keep their spurs from their Horse's sides, but such can never be the case with the above seat, in which the greater difficulty is to reach the Horse's sides with the spurs. The act of spurring, contrary to the military mode, is performed with a kick, the toe being somewhat more turned out.

In dismounting, the left hand inclosing the reins, resumes its former place in the Horse's mane, and the rider lands from the same side on which he mounted, with his Horse safe in hand. Particular situations may render it necessary to mount on the off side. The convenience is considerable when a Horse will stand still, unheld at the head, to be mounted; a point of obedience, however, to which some spirited and impatient Horses can scarcely be reduced. When a Horse is held for mounting, it should be by the checks of the bridle, not the reins, least of all by the curb rein.

Being mounted, the rider may find the stirrup leathers too long or too short. In applying the remedy the attendant should be careful to draw the buckle of the stirrup leather to the top, and to leave the pad of the saddle smooth and even. The arms should hang easily down the waist, and, though the elbows be bent, they must not be awkwardly elevated or protruded. The bridle is held about level with, or rather above the pommel of the saddle, at a length somewhat beyond it, towards the rider. The reins should not be held so long and loose as to diminish the rider's power of supporting the Horse by a pull, in case of a false step. Few are left now, I apprehend, of the school of Bakewell, who taught that the rider, being upon the Horse, could afford him no possible support in case of stumbling, but that, by pulling at him, would rather accelerate his fall. The Horse, well aware of the purpose for which he is mounted, will, in general, proceed, on his head being loosed; if not, an intimation by the rider gently moving the reins, or pressing the Horse's sides with the calves of his legs, will be sufficient. If a steady and quiet hack, and on such only should a tyro be mounted, he will commence with a walk, and, in all probability, continue that pace till put forward by his rider. Horses, indeed, full of good keep, high spirited, and having had little work, will, at starting, be impatient of a slow pace and cut a few capers, on which the rider has nothing to do but to sit quiet with a mild and steady hand, until his nag's merry fit be over. The proper starting pace, the walk, being continued at the rider's option, the intimations above described, or a gentle touch on the Horse's buttock with the whip or stick, will cause him to advance to his next pace, the slow or jog-trot, the best pace of the Horse perhaps, to those who ride for their health's sake, granting the motion be not too rough. In the walk, the slow trot, and the canter or slow gallop, the rider sits on his saddle as in his easy chair; in the speedy trot he makes more use of his knees, hitching, or his body riding and falling in unison with the motion of the Horse: in the swift gallop the rider stands in his stirrups, chiefly depending

on the grasp of his kness and thighs. Formerly it was the practice to ride a galloper with stirrup leathers too short, which made the seat unsteady, and too much dependence was placed for support on the reins. It is obviously impossible to lay down a precise rule in this case. The length at which to ride a racing pace, whether trot or gallop, must be left to the judgment and convenience of the rider, with the remark that, of the extremes, riding too short is the worst. Rising in the trot, and lifting and working the Horse along with the reins in the gallop by the jockey, are, no doubt, practices purely English.

Beyond the slow trot the motion of few Horses is sufficiently smooth and easy to encourage the rider to sit upon the saddle, nor is the appearance of such a seat very seemly; it is preferable then, if more speed in the trot be desired, to advance to that degree in which the rider may rise in his stirrups; in order to perform this easily and gracefully, the rate must be somewhat considerable. To put the Horse into a canter, a touch of the left heel, and a gentle pull of the right rein, for which the right hand may be used, is the proper method.

On any critical occasion, whether of embarrassment on the road, or from unquietness in the Horse, the reins may be taken separately in each hand; and it is much practised both in riding and driving. It obviously increases the rider's power over the Horse, and is useful in case of starting and shying, or the attempt in the animal to turn round, in plunging, kicking, or rearing. In the latter case, common sense will inform the rider that he must lean forward with slack reins, or he may pull the Horse over; certainly one of the most dangerous accidents among the many which appertain to Horsemanship. Whilst leaning forward, he should apply his spurs sharply to the Horse's sides, which punishment will cure the Horse of this vice, granting it be curable.

In the opposite habit of kicking out behind, which some Horses have the knack of doing very high and hard, with jerks not over comfortable to the rider's back-bone, the precisely opposite course is dictated, in order to avoid a somerset over the Horse's shoulders. The rule now is, sit back, sit fast, pull hard, holding the Horse's head as high as possible, and spur with all your force at every interval of kicking; and finding the opportunity, use your whip effectually on the thigh, the belly, and if necessary, on the jaws of the animal. In a confirmed case of vice, nothing short of intimidation and absolute conquest will succeed. Such severity indeed, instead of a cure, may sometimes produce desperation; and when patience and mild measures will succeed, they are infinitely preferable. We would always recommend that spurs be worn; with a restive Horse they are indispensable, and in the case of being placed between two objects, one of which alarms the Horse, and the other dangerous for him to come in contact with; the spur on the dangerous side is of unspeakable use, as the rider's chief dependence in aid of his hand, to keep the Horse in his safe and proper place.

We have spoken of terrifying the vicious Horse into subordination by severity; but a man of right feeling and reflection will always endeavour to render his Horse's labour as little irksome, and as comfortable to him as may be possible, and will therefore give him his rein, and bear as lightly on his mouth as is consistent with such a hold upon him as may be necessary upon any emergency; and

if, as with holding the reins sufficiently short, we have laid much stress on the fixedness and grasp on horseback, we intended that grasp, like the curb of the bridle, for occasional use; but by no means that the rider should be a mere fixture, as though nailed to the saddle. On the contrary, he should learn to sit at his ease, pliable to the motions of his Horse, and in full possession of that equipoise, so much the boast of the schools. The custom of forcing a shying Horse up to the object which causes it, with severity, seems an unreasonable way to make the Horse better, as he may be apt to confound the punishment he receives as connected with the object he shies at. It is far better to go on with him, hold 'firm in hand, to scold him, and suffer him to deviate as little as possible from the road.

In speaking of bridles, we should observe that the curb alone, and with single rein, is an unfair bridle for the Horse, and entirely deceptious to the rider, since its first effect is to torture, and ultimately to harden the Horse's mouth, depriving it of that sensibility which is the basis of what we should call a good mouth. The curb beside, is an awkward bit wherewith to turn a Horse, it being only calculated for pulling straight forward. In former days the snaffle was deemed the severest bit, no doubt from its having been made small and sharp. Since then we have changed the snaffle into a mild bit ; not but that the folly yet remains with ingenious bit-makers and inconsiderate Horsemen, of using hard and sharp snaffles. Young Horses should be first put to work with mild bits, and chiefly accustomed to the snaffle, which will ensure a good mouth, sufficiently hard for fair pulling, yet with a due share of sensibility and liability to be affected and acted on by the occasional use of the curb. The snaffle bit should be of considerable thickness, particularly at the ends next to the reins, and not made so long that the joint would work into the bars of the Horse's mouth. Many riders prefer a good snaffle bridle Horse to any other ; still we think there is an additional convenience in the double-reined bridle, in case of a rein breaking.

CHAPTER XVI.

REMARKS ON THE PURCHASE OF A HORSE.

REMARKS ON THE PURCHASE OF A HORSE.

We now come to the difficult subject of making some remarks relative to the purchase of a Horse:—a commerce, in which is exercised more chicanery and deceit than in almost any other, and which often proves a lottery, even to the most initiated in its mysteries. Before entering into the cautions requisite to guard the unwary, we give the following judicious remarks of the Editor of the "Horse," because we think they are true. He says:—

"Beautiful as is the Horse, and identified so much with our pleasure and our profit, he has been the object of almost universal regard; and there are few persons who do not pretend to be somewhat competent judges of his form, qualities, and worth. From the nobleman, with his numerous and valuable stud, to the meanest helper in the stable, and not excluding even the mechanic who scarcely crosses, or sits behind a Horse once in a twelvemonth, there is scarcely a man who would not be offended if he were thought to be altogether ignorant of horse-flesh. There is no subject on which he is so positive, there is no subject on which, generally speaking, he is so deficient, and there are few Horses, on some points of which these pretended and self-sufficient judges would not give a totally opposite opinion.

"The truth is, that this supposed knowledge is rarely founded on principle; or is the result of the slightest acquaintance with the actual structure of this animal, or that form and connexion of parts, on which strength, or fleetness, or stoutness, must necessarily depend. If we were constructing or examining a machine composed of levers and pullies, and by which we purposed to raise a great weight, or to set in motion certain bodies with a given velocity, we should fail in our object, or expose our ignorance of the matter, if we were not aware what kind of lever, or connexion of levers was necessary, and in what situation the ropes should be placed, and in what direction the force should be applied, and by what means we could obtain mechanical advantage, and by what peculiar construction it would inevitably be lost *."

These observations are, we believe, mathematically correct, and show to us the necessity of studying the anatomy of animals, before we can become critically acquainted with the

* See "Treatise on Animal Mechanics."

cause of their powers. However, it will be sufficient for our general readers to lay down the commonly received notions of points which constitute what may be considered an effective animal, leaving to those who wish to gain a more extensive knowledge of the structure of the Horse, to those more scientific works, incompatible with a work of this general nature; but which we can assure them will amply repay them for their attention; for we know no study more instructive, or more elevating, than in the contemplation of the wisdom which is displayed in the economy of the animal structure.

The want of knowledge of the proper organization of the Horse, for certain employments, no doubt is the cause of great disappointment to their owners.

Every Horse is adapted to some particular purpose, for Horses not only differ in kind, but like men, in utility, in temper, in stamina, &c., and the selection of them, in regard to these particulars, constitutes one of the most arduous and nicest duties of the judge; he must readily acknowledge good or bad conformation; trace genealogy in the outline, and discover all that denotes good or bad, instinctive and unalterable qualities.

It requires some experience, but more attentive observation, to be what is termed a good judge in horse-phraseology. To know at once, by a cast of the eye, whether the nag is likely to suit; is he cut out for a hackney, or is he calculated for harness? Does he look like a hunter, or has he any good looks about him? Does he show any blood, or is he all over a mongrel? To such a man we should recommend the uninitiated in the mysteries of horse-dealing to make purchases for them.

The exterior of the Horse may be divided, for the convenience of describing his several parts into head, neck, body, and legs. The head should be small. A large head is considered a bad point, inasmuch as it really, under certain circumstances, detracts from the powers of the Horse; he has, in fact, more to carry; it is a burden to him, and the only way in which he can possibly carry it to advantage, is at the extremity of a short and upright neck. Next to size, its shape becomes a consideration; let the forehead be broad and flat, the eye staring, and full of fire; the ears thin, fine, and often erect; the nostrils circular, dilated, and reddened within; the lips soft, thin, and hairless; the jowl extended, and the cheeks well marked. This, at least, is what we would have it in the thorough-bred; and, as a general rule, the nearer any other description of Horse approaches to it, the better is the family he springs from, and the more sanguine we may be in our prognostic of his abilities.

The neck now demands our attention; if good, the crest will form an arc of agreeable curve from the poll to the withers. It will be of proportionate length, and progressive increase in breadth, as it approaches the chest. A long neck, if it be straight, or but little curved, is objectionable. It has been said that short-necked Horses are better winded than others, because the air has less distance to pass to and from the lungs; but it is an opinion which we do not pay much deference to. The neck should be thin, at least, not thick and heavy, and rounded and straight along its lower margin: should the canal of the jugular vein be deep, and the windpipe full and prominent below it, we may regard it as a sign of good wind. If the arch of the neck

is reversed, *i. e.*, below instead of above, and the crest, or what ought to be the crest, near the withers, is hollow and sunken, the Horse is said to have an ewe neck, one of the greatest natural deformities common to these parts. Under these circumstances it is usual for a dealer to say that "the neck is put on the wrong side upwards;" but in reality, it appears to arise from the junction of it with the chest being too low down.

Of all the points of a Horse, the shoulder, for a hackney, or a hunter, is of the utmost consequence; without a good shoulder, no Horse can ride well; he may be a good harness-horse, or he may race well, but it is physically impossible for him to carry his rider with ease and pleasure on the road. How are we to know what constitutes a good shoulder from a bad one? It will then be necessary to say something on the internal mechanism of the part. The *scapulæ*, or shoulder-blades, are attached to the ribs by many powerful muscles, which move them, during the action of the animal, round their own axes; or, at least, in a very similar way; and though they can only revolve through the small segment of a circle, that segment is greater in proportion as they are more obliquely placed against the sides of the chest; hence it will be seen, that what is called an oblique shoulder, is most advantageous for motion. It is said, the best shouldered Horses have generally thin withers; but this is not indispensably necessary to the formation of a good shoulder, and we believe there are some judges of a contrary opinion. If, in viewing the fore parts of a Horse, we find he rises upon the withers, and that no traces of his blade-bone can be seen under the skin, but all appears smooth and level, we may conclude that the shoulder is oblique; though a more direct proof is furnished us by carrying the eye from the summit of the withers to the extremity of the point of the shoulder. If it be upright, or nearly so, unless it be in a thorough-bred Horse, such a Horse is only fit for the collar. That Horses have been fast runners on the turf with bad shoulders, is no proof that they would not have galloped better with good ones; and we must recollect, that in a racer, the hind-quarters are considered of primary importance; but on the road, we know that bad-shouldered Horses are never pleasant nor safe hackneys; they step short, are puddling walkers, roll about in the trot, and are exceedingly liable to come down.

The fore-legs should descend in a straight line from the bottom of the shoulder, *i. e.* in a lateral view; but when seen in front, it ought to incline gently inwards. If the elbow projects directly backwards, and the toe points with precision forwards, we may rest satisfied that the Horse is not twisted in his fore-legs. Turning the toe in or out in standing, is apt to be accompanied with distortion, or deformity of the limb; this circumstance, therefore, is seldom seen without materially lessening the value of a Horse. Of the two faults, turning them out is the greater; for the pointing inwards is seldom carried to extreme. A good arm is broad and thick; long, when compared to the leg, and marked exteriorly by muscular prominences; the elbow cannot project too far back, and the plumper the muscle is immediately above it, the greater may we conclude to be the animal's powers.

The knees ought to be large, broad in front, and distinctly marked with several bony knobs; lateral thickness is also of much importance. When the *radius* (the bone of the

arm,) instead of descending in a straight line, is directed backwards, so that the knee appears to recede from it, the Horse is said to be *calf-kneed*, a term that well conveys the idea we have of this formation. It is always objectionable for the saddle, though it may do for the collar. The leg should fall in exactly perpendicular from the carcass, and be short when compared with the arm (the converse of this being indicative of weakness,) and of sufficient breadth to enable a purchaser, even at a distance, to distinguish the tendons and bone, with perfect clearness, in their relative situations; for, if he cannot do this, there is reason for suspecting that he is, what is called *gummy*, the effect of hard work, or of premature labour; and never a natural defect. Should the legs be round and straight below, they are called *stilty*, and are never firm and good; but the best, and only correct way to judge of legs is to pass the hand down them; if they measure much round, and the sinews feel firm, hard, and distinct, like well-braced cords; and if the intervening spaces between bone and sinew be clean—free from gum—we may pronounce that they are good.

The fetlock, as a joint, should be of large dimensions, proportionate with other parts; no joint, in fact, is too large, providing its bony prominences be seen with the naked eye, and its ligaments perceptible under our fingers. Knuckling over in the fetlocks is a sign of original mal-formation, such as uprightness in the pasterns, or else is the result of hard work; and the tottering affection of the limb, accompanying this state, is caused by local debility and excessive irritability in the nervous system. The pasterns always deserve the attention of the buyer; when good, their length is proportionate with that of other parts, and they incline with much obliquity, downwards and forwards to the foot. Horses with very oblique pasterns, are likely to break down; and, for this reason, they never ought to be shod with thin-heeled shoes. On the other hand, if they are very short and upright in these joints, they are seldom or ever sure-footed, and will soon become stilty or groggy from work.

The hoof next engages our attention, and this is a part of which we should be more than commonly scrupulous and nice in our inspection. "No foot, no Horse," is a trite, but very true adage. First, we should look to the size of the hoof; a small foot is not only objectionable in itself, even though it be a natural formation, but is often a characteristic of disease. A small and upright hoof is, however, a morbid structure. White hoofs are to be eyed with suspicion, for they are really weaker, and more liable to disease than black ones; and if a Horse has one white, and the other dark coloured, and he is lame, in nine cases out of ten, it is the white hoof that is affected. Other considerations now engross our attention. Is it contracted? *i. e.*, is its circular form destroyed by narrowness at the heels? A good hoof is circular in the tread, or nearly so, measuring as much from side to side, as from toe to heel; but we frequently find those that are morbid measuring as much from toe to heel as twice the lateral diameter. On the other hand, the wall of the hoof, which should, at all times, be perfectly smooth and free from ridges (the contrary indicating disease,) may be very oblique, in which case, it is not only circular, but spreads out, even to a morbid degree, in the tread. Large Horses, bred in low marshy situations, are most subject to this kind of

foot. As the strong and upright foot is likely to become contracted, so is this subject to a disease called fleshy soles; indeed, in the former, the sole is concave; but, in the latter, it is flat, on which account, the two require different modes of shoeing.

The body, or carcass, may be subdivided into the chest, belly, and loins. So far as regards the constitution of the Horse, his stamina, or his bottom, no part is of more consequence than the chest; but like that of many other parts, no particular construction of it is the best for all kinds of Horses. That of the cart-horse should be circular, broad in the bosom, and large in the girth; that of the thorough-bred, more circumscribed, but not flat-sided, very deep, and also extensive in the girth; so that the two differ more in width than in depth. A full and prominent bosom is a fine point; and the ribs should stand out with sufficient curve to afford space enough within; for which reason some prefer a thickish shoulder, if it be an oblique one; and another advantage accompanying such formation is, that we have something substantial between our legs when mounted, a property, most certainly, every Horse ought to possess. A narrow-carcassed Horse is always to be avoided; he is commonly an indifferent feeder. If we expect durability from a Horse, the barrel should be round, and capacious enough to give room for the heart and lungs to play. This organization is essential to those animals from whom you expect daily hard work. Those opposed to this form, are generally of weak constitution, though they may give satisfaction enough to those riders who merely use them for summer recreation. They are generally what is termed *washy*, parting with their food too quickly, and perfectly incompetent to perform any great labour, or continued hard work.

The back should be perfectly straight; a hollow back is a sign of want of strength; but it is often extremely pleasant to the rider. A roach back, the reverse of a hollow back, is by no means handsome, though some argue that Horses having such are stronger: one objection to it is, that it is apt to chafe from the saddle. The loins are a point that we should always be nice about. A hollow back and a narrow loin are generally indicative of natural weakness; but the latter is far more exceptionable than the former: a Horse so formed can seldom carry much weight, soon knocks up, and often proves a bad feeder: his constant hollowness in the flank, and his lank appearance altogether, after a day's hunting, demonstrate how incapable he is of bearing the exertions required of him.

The tail, in regard to the manner in which it is set on, is not to be overlooked: a Horse that carries two good ends, (of which the head forms one, and the tail the other,) always looks grand and showy. Above all others, the charger should possess this point in perfection, to coincide with the grandeur of his carriage in the ostentations parade of a field-day. The tail, in most Horses, should form, when elevated, a straight line, or nearly so, with the back; a gentle declivity of the croup, however, from the summit of the rump, denotes the blook-like quarter, and adds much grace to this part in the thorough-bred Horse. Should this line, however, decline very much, the Horse is said to be *droop-arsed*, and the quarters lose much of their beauty as well as their natural power. Nothing is so ugly, in a full-quartered Horse, as to see the tail set on low down, and issuing abruptly from the

rump. The dealers fig all Horses indiscriminately, which we think is injudicious, for those who naturally carry a good tail, come under the same suspicion as those who may be really figged to answer the dealer's purpose. Fiery and spirited hackneys seldom require nicking. Hackneys are often called cock-tails from this circumstance, in contradistinction to those of the thorough-bred, who never carry any but a drooping-tail. A cocked-tail would be incompatible with a blood-quarter; hence it is that blood-horrses should never be figged or nicked.

The quarters may be full, small, or fine and blood-like. Full quarters are such as are possessed by cart-horses, large machiners, and hackneys able to carry weight. These Horses are wide in the hips, though their hips are but indistinctly marked, in consequence of being enveloped by large, coarse, and flabby muscles. People are too apt to regard wide hips as an objectionable point, from their giving to the Horse that appearance called ragged hips; which, indeed, are not only ugly, but denote bad conformation, though of themselves they denote good make; for the fact is, that ragged hips are produced by a bad loin, and a lank, flat, and weak quarters. Were these parts well formed, the hips might be pronounced of the best description. The small quarter is one that is often seen in a Horse of this form; though the general contour of it may be regular and uniform, it is altogether disproportionately small when compared with the carcass. If it grows narrow towards the hinder part, the animal is said to be goose-rumped. Of all other structures, the blood-like quarter is the best adapted for speed. In the blood-horse, the tail is set on, high up, and the hips are high and prominent, but not ragged; so that many of our best racers are higher behind than before, the spaces between them and the points of the quarters great, as are also those between the latter parts and the stifles. The haunches want the plump and round appearance of the full quarter; but so far from either being lank or thin, they are striped with bold and prominent muscles, which being free from the adipose and cellular substance, that constitute the flabbiness of those of the full quarter, are so distinct, even through the skin, that we can distinguish where one ends and another begins. The stifles should project boldly forwards, and have a perceptible irregularity of surface. The thighs are good, when long, thick, and muscular. The hock, of all other parts in the racer, is of the utmost importance; it should be broad, flat, and of large dimensions. The propulsion of the machine is effected chiefly by those muscles that are attached to the point of the hock; so that the more this projects, the greater the force they can exert, simply on the principle of the lever. The half-bred horse, with good hocks, possesses the same advantage in hunting, as the racer does on the turf. The point of the hock, as we have before observed, cannot stand out too much; indeed the greater its dimensions, altogether, the better; provided it be not gummy, or that its various bony projections and sinewy parts be distinctly seen or felt. If the hock is narrow, its point round, and not well defined, it is said to be straight; and, from its being liable to curbs, is called a curby hock: should its point be directed inwards, and the toes turned outwards, the Horse is said to be cow-hocked, or cat-hammed. As this is a part very liable to disease, as well as to original mal-formation, the nicest

examination is required to detect all that may prove disadvantageous or injurious to its function, the proper performance of which is of so much importance, that the propulsion of the whole machine depends chiefly upon it.

The colour of the Horse's hair is considered by some persons to be of considerable importance, in spite of the old adage, "that a good Horse is never of a bad colour." Bays and browns are considered generally good colours, as they have almost invariably black legs, and as a consequence, good black hoofs, which colour is always preferable to white ones. Chesnut colours and roans are much approved of. The dark iron-grey is often the colour sought after; yet, as they advance in years, they gradually become lighter, and at the age of eight or nine years old, will be almost entirely white. Grooms, no doubt, have an objection to this colour, and with some justice; for they stain themselves so frequently by even lying down, that it is almost impossible to keep them clean, without frequently washing them, and which makes them liable to take cold. There is also an objection generally to the natural softness of their hoofs, which prevents the shoes from being well and firmly fixed.

We have enumerated the points of the Horse (good and bad) sufficiently intelligible, we hope, to make our readers tolerably well acquainted with the essential properties that constitute an effective animal. We should be glad if we could sufficiently put them on their guard against the nefarious and cheating practices of what are called *Horse-chaunters*. There is scarcely a newspaper published in which they do not figure in; sometimes as advertisers, sometimes before the magistrates as swindlers. The Horse seems a conductor to all sorts of villany; he is himself the object of their desperate cruelties, and is surrounded by the most heartless of mankind. There is no article of commerce carried on, in which a man has more right to have his suspicions excited than in Horse-dealing. If a man goes to a repository to buy a Horse, it is ten to one but he meets with a *chaunter* to oppose him. He runs up the price to the *mark*, and gives the Horse a good character, and expresses his high admiration at his great qualities. The same is done in Smithfield, and other places of private bargain, where the *chaunter* will approach, and make an open, though fallacious offer, bidding very near the price asked.

There is another swindling method practised among farmers' servants, or countrymen who are not likely to know much about country notes. They are what you call liberal purchasers, and pay what is asked; but pay in worthless money. This has been done so frequently with success, that it seems astonishing, that a man who feels himself incompetent to know good money, does not step into some respectable shop, and inquire if the banks were known, before he consented to part with his Horse to strangers. This would defeat the object of the sharpers. The countryman is so pleased with the liberality of his customer, that we may suppose it disarms him of any suspicion; and like the *yokel* in London, who meets with such kind friends in the streets, who take such an anxious interest in his affairs, that they cannot rest satisfied till they see his money fairly deposited in his watch-fob pocket; they only lose their confidence when they find out they have been cheated, and discover they have been made the dupes of conduct, which their simplicity might lead them to suppose proceeded from

generosity and kindness. It is impossible to contemplate such debasement in the human character, without experiencing a melancholy regret that the feelings of those servants, who come home elated with having made what they considered a good sale for their masters, should meet with so disagreeable a disappointment as to be told the money they received was of no value.

Some time ago we remember an instance of this kind having taken place in Somersetshire. A farmer sent his man to Stafforddale-fair, to sell a Horse, which he speedily sold for 24*l.*, being the price he asked. Elated with his success, he returned in great good humour with himself, and laid the money on the table before his master. The farmer was equally pleased; but on a little closer examination, however, he soon found out that poor John had been duped by sharpers. The notes paid him were a ten pound note and a five guinea note (of banks which had stopped payment,) and a one-pound Dorsetshire note, altered into ten. John attempted to trace the swindlers, but without success. The same gang passed a ten-pound note of a bank that had stopped nearly fifty years.

There seems some fatality to persons connected with horse-flesh, that immediately leads to roguery. We never saw any directions given for the purchase of a Horse, but that one of almost the first cautions was, "never buy one of a friend." Such seems the overwhelming contamination of this traffic, that friendship itself, is no security against rascality, and the moment a man has a Horse to sell, he becomes a suspicious character. Now, if the sale of one Horse places a man in such an equivocal situation as to character, what must that man be who becomes a dealer in Horses? Why, by common consent, he is placed out of the pale of respectability, and if his conduct were to be in a parallel with his character, he would be a most accomplished deceiver. Notwithstanding the opinion entertained against horse-dealers, however, if we were in want of an animal suddenly, or were not possessed of sufficient judgment to warrant a confidence to purchase one, we should immediately apply to some eminent dealer, upon the same principle that we should to an eminent jeweller for any article which we were not accurate judges of, and should rely on the same justice on one side as the other.

A dealer in a large way, has generally a stock of Horses on hand, from which it may be easy to select. If not, his general resources are such, that he will very quickly supply you with what you want. To the uniniated in buying Horses, we should recommend them to go to a respectable dealer, as a place less likely for disappointment, than to depend on less responsible judgment.

When we reflect on the catalogue of diseases, imperfections, vice, &c., which a Horse may be liable to, and left for the tyro to discover, when he runs the risk of purchasing for himself; we believe the most economical commencement of his study to buy should be with a dealer in a large way. Although he may give a good price for the Horse, even more than its value; still, in our opinion, he runs less risk than in buying from strangers. If he may have paid a top price, he is unlikely to be so cheated as he might be by the *chaunting tribe.* The dealer has a residence, and if there be any thing to complain of, you know where to find him. By buying of a dealer of respectability, under a warranty, you have a

security that he is, at least, not a man of straw. It is natural to suppose that a dealer has an opportunity of selling a Horse at a better price than most other individuals, and it being his trade, it is but reasonable that he should have his profit. It is an expensive undertaking, accompanied with very considerable risk; for the Horses must be kept in saleable condition, however long they may lie on hand, and we have no doubt there may be many instances in which the dealer may sustain an actual loss. In recommending a tyro to commence his buying from a dealer, we do so on account of believing it to be the least hazardous of any other; for we will not indulge the aspirant for obtaining knowledge of the Horse, in the hope that he may gain it without suffering some pecuniary losses, as well as disappointment.

After he has gained some experience, it will be quite time enough for him to enter the bazaars and repositories, to trade on his own judgment. If he has a taste for this pursuit, he will not rest satisfied till he has matured his judgment, and he will find no greater pleasure than in exercising it.

Dealers never like to take a Horse back, and whenever this is done, the purchaser must expect to make some considerable sacrifice. No man likes to return money for any article that he may have sold in his shop; but to a dealer in Horses, it is particularly objectionable. Persons who discover a Horse returned, may naturally enough suppose that it was from some fault; and although the fact might be from sheer caprice, still his value would be decreased in the opinion of those who knew it, and before the Horse can be sold for his former value, he must wait till a stranger comes, who may know nothing of his being a returned Horse. Persons conversant with buying and selling Horses, never think of returning them, unless from unsoundness; but the unskilled, or those persons not being in the habit of disposing of Horses, may naturally apply to the party to take them back again, and think him, perhaps, an unfair dealer if he refuses, on their allowing him a few guineas to boot. The fact is, a quick return is the very soul of horse-dealing; for without it, the expence soon eats the profits up. A fresh Horse is more likely to meet with a purchaser, than those which may have lain longer in his stables; hence the dealer's repugnance to returned Horses.

A dealer has enough to do to give satisfaction to all the various claimants upon him. It is not enough that he has to please the master or purchaser of the Horse; but he has too often to please the master's master (the groom); he is often the most unreasonable of the two. A douceur, from one to ten guineas, is given by the dealers. Of course, the influence of grooms is too powerful to be treated with indifference; and consequently they are propitiated by sharing in the profits of the dealer, according, we suppose, to the implied agreement.

In going to look out for a Horse in a dealer's stables, you will no doubt soon attract the notice of an attendant, who will soon endeavour to put the Horses into a fidgetty state by his presence, in all probability with a whip in his hand. Restrain all this; your object is to see the animal in a state of repose, and as far from any exciting cause as possible. It may be difficult to take a quiet survey; for the attendant is not always obedient to you, but often will persevere in exciting, what you want to see in a quiescent state, and you are

compelled sometimes to leave the stable in disgust.

If, however, you have seen any thing likely to suit your purpose, return the next day, and take an opportunity of seeing him in the stable. To see a Horse in his stall is one of the most satisfactory examinations we can have, as far as it goes. By watching the motions of his legs and feet, lameness may be easily detected, should it exist; as well as his quietness in the stable be tested. Much knowledge of the disposition of the animal may be traced from his countenance. There is not a surer index. Before, however, going into the Horse's stall, it will be highly proper to make the inquiry if the Horse be quiet to go up to?

We suppose the price may have been ascertained, or nearly so; and the ceremony of examining for purchase will now commence. On being assured that he is quiet to approach, you will give some gentle warning with your voice, and go up to him on his near (left) side, and laying your hand on his forehand (to regard his height,) you will proceed from thence to examine his eyes, mouth, and countenance; still holding his head, and turning your own to the right about, you have a view of the curve of his neck, the height of his forehand, the position of his shoulder, and the substance of his forearm. Returning to his forehand, you descend to his legs and feet, minutely examining with your fingers every part, from above, below, withinside, and without. You will not forget the knees, as the value of the animal so much depends on their perfect state.

Having satisfied yourself respecting his fore-parts, your eye will glance over his back, girthing place, carcass, and loins; thence proceeding to his hind-quarter, and the setting on of his tail. You will judge how far he agrees in each and every respect with those rules of proportion already laid down. The hinder legs and feet will demand a share of attention equally minute as the fore ones; nor should the inside or hollow of the hock be passed by without due notice, since it often happens, that the injuries of hard labour are most apparent in those parts. A survey of the other side of the Horse will complete the stable examination. Some prefer examining the Horse's eyes in the stable, and place him in such a position that the light may fall only in one direction, and see that they are of the same size, and equally full; that the haws are not prominent, and that one does not project more than the other; that the eyes are perfectly clear and transparent, and that the pupils, or apples of the eye, are exactly alike in size as well as colour.

Mr. John Lawrence, in speaking of the too common practice of dealers using the whip, gives the following caution, as wells as expresses his honest indignation at its practice, which does honour to his humane and enlightened mind. He says:—

"Suffer no person belonging to the seller to be with you in the stall (unless you know and are well satisfied with the dealer's character) during your inspection, that the Horse may not be rendered unquiet, either designedly, or at the mere presence of an habitual tormentor. A short time since I had occasion to examine a Horse, for a friend, at the stable of a considerable dealer; it was a very beautiful and well shaped nag, but, as is commonly the hard fate of such, he appeared to have done too much work. The attendant, from a superabundant share of regard to my

safety, must needs hold the Horse's head whilst I examined his legs, still assuring me he was perfectly quiet; nevertheless, every time I attempted to feel below his knees, the Horse started, and flew about the stall in a strange manner, to the no small risk of my toes and shins. Whilst I stood musing and wondering what beside the devil could possibly ail the animal, I discovered a short whip under the arm of the jockey, with which he had, no doubt, tickled the neck and chest of the Horse, whenever I stooped down with the intent of handling his legs. I wished this adept good morning.

"A good quiet stable survey is a material prelude, the Horse being under none of that excitement which will probably have place in him when abroad upon the show. Unless, indeed, he should have been previously subject to that most barbarous stable dicipline which I too often witnessed in days of yore, but which, I hope, does not in the present days, at least, not in so great a degree or so usually disgrace the conduct of our dealers. I refer to the daily, too probably almost hourly, attendance of a fellow with a whip, who flogs and cuts the Horses up and down in their stalls, causing them to jump and fly about as if mad, keeping them in such a constant state of miserable apprehension, that they dread the approach of any human being. The motive of this was to render them active, ready, and lively on a show, and to hide defects; and, as an exaggeration of this monstrous barbarity, the unfortunate cripples had even an additional share of this discipline, being whipped and beat most cruelly for putting out, in order to ease, a crippled limb. I vouch as an eye witness. It was a constant practice at the repositories, with the poor worn out machiners and post hacks, and I have related, in my old treatise, the case of a beautiful mare, so totally worn out, that every step she took was obviously attended with acute torture, whipped, and out, and beat, and checked with the curb, with all the force that a powerful ruffian could exert, whilst the tears were dropping from her sightless eyes."

To return, the Horse being led out, he will most probably be placed upon rising ground, for the purpose of showing his fore quarters to advantage, which also affords the buyer an opportunity of another examination in a good light. Now is the time for regarding whether he be sound or not; for though the dealer may declare, that he is as sound as a *bell*, still we should disregard what he may say on that subject, and judge for ourselves.

We have already spoken of the eyes; but there is one point which we should regard with equal importance to them; we allude to his wind. If good and sound, on being nipped in the gullet, he will utter such a sound as cannot fail to strike the ear as the emission of a good pair of lungs; but if his lungs are touched, he will give vent to a dry, husky, short cough. We have, however, seen a strong man sometimes pinch the gullet of a Horse with all his might, without being able to make him cough. There is another way of detecting a broken-winded Horse, and that is by directing your attention to his flanks; which, under such circumstances, will work either much quicker than ordinarily, or heave deeply, and with great irregularity.

There are also two other defects in Horses, which though not any thing like so distressing to the animal itself, are disagreeable to hear. They go under the denomination of "whistlers," and "roarers;" the first may

be known by the peculiar wheezing he is addicted to, when put to sudden or long continued exertion: the latter makes a roaring noise under similar circumstances; and either may be made to display itself, by the purchaser giving him a smart cut, or even feigning to do so, with his whip.

In another part of our work, we have spoken at length on the age of the Horse from his teeth; and those rules should now be applied. Great care should be taken to see that there is no enlargement of the glands, and that the nostrils are free from any fœtid smell; as under such circumstances, that most terrible of all diseases, glanders, may be apprehended.

We cannot leave this subject without adverting concisely to the animal's limbs: If, in passing our hand down his legs, we find any unnatural protuberance or puffiness, or if in feeling first one leg and then the other, we discover any difference between them, disease more or less is present; he may not be lame, but he is not *clean* upon his legs. Splents, windgalls, and ringbones, may be present without occasioning lameness; but they are all unnatural, are considered blemishes, and are all to be regarded with a suspicious eye, as either denoting past hard work, or betokening future evils. On the same principle, a Horse may have a spavin, and be only stiff from it at starting, or he may have a curb, or a thorough-pin, and be perfectly sound; but these are still blemishes, and as such, detract from the intrinsic value of the animal.

The Horse is next trotted in hand, or rode; during which the first look-out will be to discover whether he bends his knees sufficiently, and goes clear of both hind and fore-legs; whether he goes wide enough behind, and whether his feet stand straight. His reining may be then observed, to see in what state he carries his head, whether he appears light in hand, or otherwise. Should he thrust out his head, he will go heavy in hand. The mode in which he is shod should be well observed, to guard against those knavish tricks which are too often played in that respect; or to forget the exquisite barbarity known to be practised by miscreants upon a Horse lame of one foot, by driving a nail or peg into the other, so that by the force of whip and spur, the Horse going alike with both, may momentarily assume the appearance of soundness. A second-hand Horse, or one which has been a considerable time in work, may be warranted sound, but care should be used to observe whether he knuckles with bent knees, or has any other impending cause of unsoundness. Horses which appear stale and dingy in their coats, with perhaps a mixture of grey hairs; and a Horse, low in flesh and dull, with his coat dead, may be suspected of rottenness. We should not object to buying a Horse, merely because he was low in condition; the appearance of such a Horse, with those described above, will be readily perceived; and a Horse merely suffering from not having had a kind and generous master, ought not to prove an impediment to his again having one. Indeed, we have often felt great pleasure in restoring a Horse who has suffered from neglect and poor keep, to good condition. There have been many Horses restored even from the knackers. We were shown one, a beautiful pie-balled Horse, which had been sent to a knacker's, in Friar Street, and whose owner has since refused seventy pounds for him.

A naturally vicious Horse will shew it in the leering and designing glances from his eyes,

and by laying back his ears. It is true, the kind and playful Horse will lay down his ears, but he will not be a very skilful physiognomist who cannot easily discriminate between the countenance of a vicious and a playful one. The sour and sullen expression of the vicious Horse is generally so determinedly indexed, that there are but few men who will not instantly discover it. We need hardly caution our readers against the purchase of so dangerous an animal, as the naturally vicious Horse.

These various examinations of the intended purchase may probably give satisfaction, as far as the eye is concerned; yet there may be solid objections to be adduced against their being made final. The Horse, at present, has been shewn to every advantage by the seller. He has been ridden by a jockey, accustomed by his profession to make the most of any animal he has to show; by one whose able hands and habitual use of the spurs, do not fail to command the Horse's most implicit obedience, and which will make him put his best foot forward. A buyer, expecting to find the accomplishment of all this under his own management of the Horse, may find himself very unpleasantly deceived. We know that many Horses are occasionally restive, when mounted by a timid rider, and who have cunning enough, very soon, to ascertain that fact; while, with a good and fearless rider, he will go quietly.

We should always recommend before the buyer pays his money, that he should claim the privilege of riding the Horse several miles on the high road, in his walk, trot, canter, and gallop, and then judge for himself whether he is likely to suit him in his paces or not. It should be remarked that the wind and condition of Horses made up for sale, must not be put to immediate and too severe tests; and if wanted for hard work, should have sufficient preparation by moderate daily exercise, and purging, if necessary.

CHAPTER XVII.

ON THE RESTIVE HORSE; WITH AN ACCOUNT OF JUMPER AND SULLIVAN, TWO CELEBRATED HORSE-TAMERS.

It has been said of naturally vicious Horses, that however they may have been cowed and temporarily subdued by some master-spirits, they are never to be depended upon; but will return to their dangerous practices on any opportunity which their caprice may dictate. The following statement of facts, quite bear out this opinion, and show the danger of keeping any naturally vicious Horse, under the impression that they may become quiet and harmless animals.

Restiveness may be considered the effect of bad temper, and perhaps, worse breaking; and like all other habits founded on nature and stamped by education, it may be considered inveterate. Whether it may appear in the form of kicking, rearing, plunging, or bolting, or in whatever way it may threaten danger to the animal, or its rider, it rarely admits of a cure. It may be true, that a resolute and determined rider may, to a certain degree, subjugate the animal; or the Horse may form his attachments, and with some particular person he may be comparatively or perfectly manageable; still we believe it to be a rule that admits of very few exceptions, that he neither displays his wisdom, nor consults his safety, who attempts to conquer a restive Horse.

An excellent veterinary surgeon, and a man of great experience in Horses, Mr. Castly, truly says, in *The Veterinarian*, "From whatever cause the vicious habits of Horses may originate, whether from some mismanagement, or from natural badness of temper, or from what is called in Yorkshire a *mistetch*, whenever these animals acquire one of them, and it becomes in some degree confirmed, they very seldom, if ever, altogether forget it. In reference to driving, it is so true, that it may be taken as a kind of aphorism, that if a Horse kicks once in harness, no matter from what cause, he will be liable to kick ever afterwards. A good coachman may drive him, it is true—and may make him go, but he cannot make him forget his vice; and so it is in riding. You may conquer a restive Horse; you make him ride quiet for months, nay, almost for years together, but I affirm, that under other circumstances, and at some future opportunity, he will be sure to return to his old tricks again."

Mr. Castly gives two singular and conclusive instances of the truth of this doctrine.

"When a very young man," says he, "I remember purchasing a Horse at a fair in the north of England, that was offered very cheap on account of his being unmanageable. It was said that nobody could ride him. We found that the animal objected to have anything placed upon his back, and that, when made to move forward with nothing more than a saddle on, he instantly threw himself down on his side with great violence, and would then endeavour to roll upon his back.

"There was at that time in Yorkshire, a famous colt-breaker, known by the name of Jumper, who was almost as celebrated in that country for taming vicious Horses into submission, as the famed Whisperer was in Ireland. We put this animal into Jumper's hands, who took him away, and in about ten days brought him home again, certainly not looking worse in condition, but perfectly subdued and almost as obedient as a dog: for he would lie down at this man's bidding, and only rise again at his command, and carry double or anything. I took to riding him myself, and may say, that I was never better carried for six or eight months, during which time he never shewed the least vice whatever. I then sold him to a Lincolnshire farmer, who said that he would give him a summer's run at grass, and shew him a very fine Horse at the great Horncastle fair.

"Happening to meet this gentleman the following year, I naturally enough inquired after my old friend. 'Oh,' said he, 'that was a bad business—the Horse turned out a sad rebel. The first time we attempted to mount him, after getting him up from grass, he in an instant threw the man down with the greatest violence, pitching him several yards over his head; and after that he threw every one that attempted to get on his back. If he could not throw his rider, he would throw himself down. We could do nothing with him and I was obliged at last to sell him to go in a stage-coach.'"

In the next story, Jumper's counterpart and superior, the Irish Whisperer, is brought on the stage, and, although he performs wonders, he cannot radically cure a restive Horse. "At the Spring Meeting of 1804, Mr. Whalley's King Pippin was brought on Curragh at Kildare to run. He was a Horse of the most extraordinary savage and vicious disposition. His particular propensity was that of flying at and worrying any person who came within his reach, and if he had an opportunity, he would get his head round, seize his rider by the leg with his teeth, and drag him down from his back. For this reason he was always ridden in what is called a sword; which is nothing more than a strong flat stick, having one end attached to the cheek of the bridle, and the other to the girth of the saddle, a contrivance to prevent a Horse of this kind from getting at his rider.

"King Pippin had long been difficult to manage and dangerous to go near, but on the occasion in question he could not be got out to run at all. Nobody could put the bridle upon his head. It being Easter Monday, and consequently a great holiday, there was a large concourse of people assembled at the Curragh, consisting principally of the neighbouring peasantry; and one countryman, more fearless than the rest of the lookers-on, forgetting, or perhaps never dreaming that the better part of courage is discretion, volunteered his services to bridle the Horse. No sooner had he committed himself in this operation, than King Pippin seized him somewhere about

the shoulders or chest, and says Mr. Watts, (Mr. Castley's informant), 'I know of nothing I can compare it to, so much as a dog shaking a rat.' Fortunately for the poor fellow, his body was very thickly covered with clothes, for on such occasions an Irishman of this class is fond of displaying his wardrobe, and if he has three coats at all in the world, he is sure to put them all on.

"This circumstance in all probability saved the individual who had so gallantly volunteered the forlorn hope. His person was so deeply enveloped in extra-teguments, that the Horse never got fairly hold of his skin, and I understand that he escaped with but little injury, beside the sadly rent and totally ruined state of his toggery.

"The Whisperer was sent for, who having arrived, was shut up with the Horse all night, and in the morning he exhibited this hitherto ferocious animal, following him about the course like a dog, lying down at his command; suffering his mouth to be opened, and any person's hand to be introduced into it; in short, as quiet as a sheep.

"He came out the same meeting, and won a race, and his docility continued satisfactory for a long time; but at the end of about three years his vice returned, and then he is said to have killed a man, for which he was destroyed."

It may be interesting to give some account of this extraordinary tamer of quadruped vice. The Rev. Mr. Townsend, in his "Statistical Survey of Cork," first introduced him to the notice of the public generally, although his fame had long spread over that part of Ireland. He is mentioned also in "Croker's Fairy Legends and Traditions of Ireland." The following is an extract from that work:

"He was an awkward, ignorant rustic of the lowest class, of the name of Sullivan, but better known by the appellation of the Whisperer; his occupation was Horse-breaking. The nickname he acquired from the vulgar notion of his being able to communicate to the animal what he wished by means of a whisper, and the singularity of his method seemed in some degree to justify the attribute. In his own neighbourhood, the notoriety of the fact made it seem less remarkable, but I doubt if any instance of similar subjugating talent is to be found on record. As far as the sphere of his control extended, the boast of *veni, vidi, vici*, was more justly claimed by Sullivan than by Cæsar himself.

"How his art was acquired, and in what it consisted, is likely to be for ever unknown, as he has lately (about 1810) left the world without divulging it. His son, who follows the same trade, possesses but a small portion of the art, having either never learned the true secret, or being incapable of putting it into practice. The wonder of his skill consisted in the celerity of the operation, which was performed in privacy without any apparent means of coercion. Every description of Horse, or even mule, whether previously broken or unhandled, whatever their peculiar habits or vices might have been, submitted without show of resistance to the magical influence of his art, and in the short space of half an hour became gentle and tractable. This effect, though instantaneously produced, was generally durable. Though more submissive to him than others, they seemed to have acquired a docility unknown before.

"When sent for to tame a vicious beast, for which he was either paid according to the distance, or generally two or three guineas, he

directed the stable, in which he and the object of the experiment were, to be shut, with orders not to open the door until a signal was given. After a *tete-a-tete* of about half an hour, during which little or no bustle was heard, the signal was made, and, upon opening the door, the Horse appeared lying down, and the man by his side, playing with him like a child with a puppy dog. From that time he was found willing to submit to any discipline, however repugnant to his nature before."

"I once," continues Mr. Townsend, "saw his skill tried on a Horse, which could never before be brought to stand for a smith to shoe him. The day after Sullivan's half hour's lecture, I went, not without some incredulity, to the smith's shop, with many other curious spectators, where we were eye-witnesses of the complete success of his art. This, too, had been a troop Horse, and it was supposed, not without reason, that after regimental discipline had failed, no other would be found availing. I observed that the animal appeared terrified whenever Sullivan either spoke or looked at him; how that extraordinary ascendancy could have been obtained, is difficult to conjecture."

"In common cases this mysterious preparation was unnecessary. He seemed to possess an instinctive power of inspiring awe, the result, perhaps, of natural intrepidity, in which, I believe, a great part of his art consisted; though the circumstance of the *tete-a-tete* shows that, on particular occasions, something more must have been added to it. A faculty like this would in some hands have made a fortune, and I understand that great offers were made to him, for the exercise of his art abroad. But hunting was his passion. He lived at home in the style most agreeable to his disposition, and nothing could induce him to quit Duhallow and the fox hounds."

Mr. Castley witnessed the total failure of the younger Sullivan. He says, "we have in the regiment a remarkably nice Horse, called Lancer, that has always been very difficult to shoe, but seven or eight years ago, when we first got him, he was downright vicious in that respect. When the regiment was stationed at Cork, the farrier-major sought out the present Sullivan, the son of the celebrated Whisperer, and brought him up to the barracks in order to try his hand upon Lancer, and make him more peaceable to shoe; but I must say this person did not appear to possess any particular controlling power over the animal, more than any other man. Lancer seemed to pay no attention whatever to his charm, and, at last, fairly beat him out of the forge. Time, however, and a long perseverance in kind and gentle treatment, have effected what force could not. The Horse is now pretty reasonable to shoe."

Mr. Townsend has said enough of Sullivan, to make us wish to know more about him. It does seem almost incredible that a man being left only one night in King Pippin's stable, should have produced such an alteration in that animal's ferocity, and partakes more of the marvellous than we are in the habit of giving credence to. Still the evidence of the fact seems so overwhelming, that we cannot but consider it one of those extraordinary facts, for which we cannot account, without the aid of admitting some unknown and mysterious agency. It is said some have the power of disarming the rage of the most savage dogs; and the "Whisperer" seems to have found out the same charm for the vicious Horse.

Jumper seems to have had extraordinary power over other animals beside the Horse; for he is said to have tamed a buffalo for the saddle, for Mr. Tempest, and a pair of reindeer for harness, for Lord Fitzwilliam. The manner of Jumper's treatment seems intelligible; his charm consisted chiefly in fearlessness and brute force. He would generally try rough measures first; and in his perilous encounters with some of these troublesome animals, had nearly every bone of his body fractured. Jumper, however, seemed to have some sort of magic about him; for it is said, when he had, by dint of punishment, striven in vain to conquer an unruly Horse in the market-place of Wakefield, he alighted, stood on the near side of the Horse, brought the animal's head almost back to his off-shoulder, by forcibly pulling at his off-rein, and then sternly gazing at him over the withers for two or three minutes. The animal began to tremble, and broke out in a profuse perspiration. Jumper then loosened his hold of the rein, and patted and caressed the Horse, who immediately followed him round the market place perfectly subdued.

Jumper is described as having been employed in the contested elections for Yorkshire, covered with orange plush from top to toe, and scampering in every direction over the county. Sometimes he would exchange this costume for a bear-skin, enveloped in which, and mounted occasionally on a buffalo, he was indeed a most formidable looking object.

We have been speaking of a naturally bad tempered Horse; but we would inquire how many really good-tempered Horses have been ruined by bad and passionate breakers? How often have we witnessed some young Horses refuse to take the collar at starting, and begin to back; the whip is applied, which sometimes does not produce the desired effect, but flurries the animal, and instead of putting a stone behind the wheel, the driver loses his temper, flogs the Horse, and puts him in a fair way to become a gibber. When the Horse finds it more difficult to back than to go forward, he is apt to adopt the least impediment of the two, and goes forward. It would be advantageous, as often as it could be managed, so to start that the Horse should have to back up-hill. The difficulty of accomplishing this will soon make him readily go forward at once; and a little coaxing, or leading, or moderate use of the whip, will assist in accomplishing the cure.

When a Horse first begins to gib, persuasion should be first tried; and afterwards, reasonable coercion, but no cruelty: for the brutality which is often exercised in attempting to compel a gibbing Horse to throw himself habitually in the collar, never yet accomplished the purpose. Such a Horse may be put in a stage-coach as a wheeler, and particularly as the near-wheeler; or in the middle of a team at agricultural work, he may be serviceable. It will be useless for him to attempt to gib there, for he will be dragged on by his companions whether he will or no; and finding the inutility of resistance, he will soon be induced to work as well as any other Horse in the team. This reformation will last while he is thus employed; but, like restiveness generally, it will be delusive when the Horse returns to his former occupation. Some instances of complete reformation have taken place; but they are the exceptions to the rule.

When a Horse, not accustomed to gib, betrays a reluctance to work, humanity will

demand that some examination should take place, before measures of severity be resorted to. Sometimes the withers are wrung, and the shoulders sadly galled; and the pain, which may be intense on level ground and with a fair draught, becomes insupportable when going up a steep acclivity. These things should be seen into, and if possible, rectified; for, under such circumstances, severe punishment might produce obstinacy and vice, but not willing obedience.

A Horse, whose shoulders are raw, or that have frequently been so, will not start with a cold collar. When the collar has acquired the warmth of the parts on which it presses, the animal will go without reluctance. Some determined gibbers have been reformed by constantly wearing a false collar, or strip of cloth round the shoulders, so that the coldness of the collar should never be felt; and others have been cured by keeping on the collar night and day, although the animal is not able to lie down so completely at his ease, as without it, and which a tired Horse ought always to be able to do. When a Horse gibs at his work, it has been sometimes useful to line his collar with cloth instead of leather; the perspiration is more readily absorbed, the substance which presses on the shoulder is softer, and it is more readily eased off at a tender place.

Biting may be often the consequence of natural ferocity; but it is a habit also acquired from the foolish and teasing play of grooms and stable-boys. When a Horse is tickled and pinched by thoughtless and mischievous youths, he will first pretend to bite his tormentors; by degrees he will proceed farther, and actually bite them, and very soon after that, he will be the first to challenge to the combat, and without provocation seize some opportunity to gripe the incautious groom; and then, as the love of mischief is a propensity too easily acquired, this war which commenced half playful and half in earnest, will become habitual to him, and will degenerate into absolute viciousness. Nothing can here be done in the way of cure; kindness would aggravate the evil, and no degree of severity will correct it. Prevention is in the power of every proprietor of Horses. While he insists on gentle and humane treatment of his cattle, he should systematically forbid this horse-play. It is that which can never be considered as operating as a reward, and thereby rendering the Horse tractable; nor does it increase the affection of the animal for his groom, because he is annoyed and irritated by being thus incessantly teased.

Kicking, as a vice, is another consequence of the culpable habit of grooms and stable-boys of teasing the Horse. There is no cure for this vice; and the owner of kicking Horses cannot be justified in keeping them. Some Horses acquire a habit of kicking at the stall, and particularly at night, from mere irritability and fidgetiness. This is productive of considerable inconvenience, as disturbing the other Horses, and frequently the kicker does himself some injury. Mares are more subject to these freaks than Horses. This is a habit very difficult to correct. It is attempted by fastening a thorn-bush, or a piece of furze against the partition or post. When the Horse finds himself pricked by the bushes, it has a tendency to prevent his kicking, and perhaps in the end may cure him of this very disagreeable and dangerous habit. Should this method, however, fail, recourse is had to the log, though the legs are often not a little

bruised by it. A rather long and heavy piece of wood, attached to a chain, is buckled above the hock, so as to reach above half way down the leg. When the Horse attempts to kick violently, his leg will receive a severe rap from the log, and the repetition of the blow will induce him to be quiet.

Kicking in harness, however, is a much more serious vice, and those Horses that are so fidgety in the stable, are the most apt to do this. From the least annoyance about the rump or quarters, some Horses will kick most violently, and destroy every thing within their reach. These Horses can only be tolerated in stage-coaches, where between hard work and daring attendants, they are the least likely to do mischief. Cautions may certainly be used; if the shafts are very strong and without flaw, or if they are plated with iron underneath, and a stout kicking-strap used, which will barely allow the Horse the proper use of his hind limbs in progression, but not permit him to raise them sufficiently for the purpose of kicking, he may be prevented from doing mischief. Still there may be possibility of accident; the strap may break, and extreme danger may ensue. A Horse that has once begun to kick, whatever may have been the original cause of it, can never be depended on again; and he will be very unwise who ventures to sit behind him.

Mounting. When the difficulty of mounting arises not from eagerness to start, but from unwillingness to be ridden, the sooner such a Horse is disposed of the better. He may be conquered by a determined rider, but a skilful horseman only will manage him; and even he will not succeed without frequent and even dangerous contests, that will mar all the pleasures of the rider.

Rearing may sometimes proceed from mere playfulness, carried to an unpleasant and dangerous extent; but it is oftener a vice, and is a desperate effort to unseat his rider. Sometimes it may proceed from using a deep curb and sharp bit. Some of the best Horses will contend against this curb; and if his rearing proceeds from this cause, it may be prevented by using a snaffle bridle. It is otherwise a vice of that dangerous description, that no rational man would think of mounting a Horse addicted to it, a second time.

The horse-breaker's remedy of pulling him backward on a soft piece of ground, is a dangerous and brutal one. Many Horses have been injured in the spine, and others have broken their necks, by being thus suddenly brought over; while even the horse-breaker, who fears no danger, is not always able to extricate himself from the falling Horse.

Running-away. Some headstrong Horses will occasionally endeavour to bolt with the best rider. Others, with their wonted sagacity, endeavour thus to dislodge the timid or unskilful. Some are hard to hold, or bolt only during the excitement of the chace; others will run away, prompted by a vicious propensity alone. There is no cure here. That method which affords any probability of success, is to ride such a Horse with a strong curb and sharp bit; to have him always firmly in hand; and if he will run away, and the place will admit of it, to give him (sparing neither curb, whip, nor spur,) a great deal more running than he likes.

Vicious to clean. There are a great many Horses quiet to ride, that are very difficult to clean. The origin of this is probably some mal-treatment. In young Horses the skin is very delicate; if they have been curried with

a too sharp comb, or rubbed too hard with an uneven brush, the recollection of the torture they may have felt, makes them impatient, and even vicious, during every succeeding operation of the kind. Many grooms, likewise, seem to delight in producing these exhibitions of uneasiness and vice; although when they are carried a little too far, and endanger the limbs of the grooms, the animals that have been almost aggravated into these expressions of irritation, are brutally kicked and punished.

This, however, is a vice which may be conquered by care. If the animal is dressed with a light hand, and whisped rather than brushed, and the places where the skin is most sensitive be avoided as much as thorough cleanliness will allow, the Horse will gradually lose the recollection of former ill treatment, and may become tractable and quiet to be cleaned.

Vicious to shoe. Nothing can be more annoying to a traveller than having a Horse of this description meeting with an accident on the road, which demands the attention of the smith. The smith is no better pleased than the Horse's rider, who has got to perform a job which he would rather be without; and this vice, nine times out of ten, has been caused by want of patience, and by injudicious management at the commencement of the Horse being shod.

This is a very serious vice, for it not only exposes the animal to occasional severe injury from his own struggles, but also from the correction of the irritated smith, whose limbs, and even whose life being in jeopardy, may be forgiven, if he is sometimes a little too heavy-handed. Such a Horse is very liable, and without any fault of the smith, to be pricked and lamed in shoeing; and if the habit should be confirmed, and it becomes necessary to cast him, or put him in the trevis, the owner may be assured that no long time will elapse before some formidable and even fatal accident will take place. If therefore, mild treatment will not correct the vice, the Horse cannot be got rid of too soon.

Horses have many unpleasant habits in the stable and on the road, which cannot be said to amount to vice, but which materially lessen their value.

Crib-biting. The only remedy is a muzzle, with bars across the bottom, wide enough to enable the animal to eat his corn and pull his hay, but not to grasp the edge of the manger. If this be worn a very long time, the Horse may possibly forget the habit; but in the majority of cases, the desire returns with the power of gratifying it.

CHAPTER XVIII.

WARRANTY.—ON SOUNDNESS OF THE HORSE.

WARRANTY.

When there are every day disputes arising out of the consideration of the soundness of the Horse, we think it of importance to lay before our readers those points which constitute it, as well as those which do not; it being of equal importance to both purchaser and seller. We have consulted the best authorities. The Editor of the "Horse" says:

That Horse is sound in whom there is no disease, nor any alteration of structure in any part which impairs, or is likely to impair his natural usefulness. That Horse is unsound that labours under disease, or that has some alteration of structure that does interfere, or is likely to interfere with his natural usefulness. One Horse may possess great speed, but is soon knocked up; another will work all day, but cannot be got beyond a snail's pace: one with a heavy forehead is liable to stumble, and is continually putting to hazard the neck of his rider; another, with an irritable constitution and a washy make, loses his appetite and begins to scour if a little extra work is exacted from him. The term unsoundness cannot be applied to either of these; it would be opening a door to endless wrangling. The buyer can discern, or ought to know, whether the form of the Horse is that which will render him likely to suit his purpose, and he should try him sufficiently to ascerain his natural strength, endurance, and manner of going. Unsoundness, we repeat, has reference only to disease, or to that alteration of structure which is connected with, or will produce disease, and lessen the usefulness of the animal.

These principles will be best illustrated by a brief consideration of the usual supposed causes of unsoundness.

Broken-knees certainly do not constitute unsoundness after the wounds are healed, unless they interfere with the action of the joint, for the Horse may have fallen from mere accident, or through the fault of the rider; but no person would buy a Horse with broken-knees until he had throughly tried him, and satisfied himself as to his form and action.

Capped Hocks may be produced by lying on an unevenly paved stable with a scanty supply of litter, or by kicking; in neither of which cases would they constitute unsoundness, though in the latter they would be an indication of vice; but in the majority of

instances, they are the consequence of sprain of the hock, and when accompanied by enlargement, there would be unsoundness. A special warranty should always be taken against capped hocks.

Contraction is a considerable deviation from the natural form of the foot, but not necessarily constituting unsoundness; it requires, however, a most careful examination on the part of the purchaser or veterinary surgeon to ascertain that there is no heat about the quarter, or ossification of the cartilage; that the frog, although diminished in size, is not diseased; that the Horse does not step short and go as if the foot were tender, and that there is not the slightest trace of lameness. Unless these circumstances, or some of them, are detected, a Horse must not be pronounced to be unsound because his feet are contracted, for many Horses with strangely contracted feet, are never lame: a special warranty, however, should be required where the feet are at all contracted.

Corns manifestly constitute unsoundness. The portion of the foot in which they are situated will not bear the ordinary pressure of the shoe; and any accidental additional pressure from the growing down of the horn, or the introduction of dirt or gravel, will cause serious lameness. They render it necessary to wear a thick and heavy shoe, or a bar shoe, to protect the weakened and diseased part; and corns are very seldom radically cured.

Cough. This is a disease, and consequently unsoundness. However slight may be its degree, and of whatever short standing it is, although it may sometimes seem scarcely to interfere with the usefulness of the Horse, a change of stabling, or slight exposure to wet and cold, or the least over-exertion, may at other times cause it to degenerate into many dangerous complaints. A Horse, therefore, should never be purchased with a cough upon him without an especial warranty; or if the cough not being observed, he is purchased under a general warranty, he may be returned as soon as it is discovered.

Roaring, Wheezing, Whistling, High-blowing, and Grunting, being the result of alteration of structure or disease in some of the air passages, and interfering with the perfect freedom of breathing, and especially when the Horse is put on his speed, without doubt constitute unsoundness. There are decisions to the contrary, which are now universally admitted to be erroneous. Broken wind is still decidedly unsoundness.

Crib-biting.—Although there is some difference of opinion among veterinary surgeons on this point, crib-biting must be regarded as unsoundness. This unnatural sucking in of the air must be to a certain degree injurious to digestion, must dispose to colic, and so interfere with the strength, and usefulness, and health of the Horse. Some crib-biters are good goers, but they probably would have possessed more endurance had they not acquired this habit; and it is a fact well established, that as soon as a Horse begins to become a crib-biter, he, in more than nine cases out of ten, begins to lose condition. He is not, to the experienced eye, the Horse he was before. It may not lead on to absolute disease, or it may rarely do so to any considerable degree; but a Horse that is deficient in condition, must, to that extent, have his capability for extraordinary work diminished, although not so often as to be apparent in ordinary work, and so far, the Horse is unsound. Were there no other consideration,

the wear of the front teeth, and even the frequent breaking of them, make a Horse old before his time, and sometimes render it difficult or almost impossible for him to graze, when the state of the animal or the convenience of the owner require that he should be turned out.

Curb constitutes unsoundness while it lasts, and perhaps while the swelling remains, although the imflammation may have subsided; for a Horse that has once thrown out a curb, is, for a while at least, very liable to do so again on the slightest extra exertion. A Horse, however, is not returnable if he should spring a curb five minutes after the purchase, for it is done in a moment, and does not necessarily indicate any previous unsoundness or weakness of the part.

Cutting, as rendering a Horse liable to serious injury of the legs, and indicating that he is either weak, or has an awkwardness of gait inconsistent with safety, should be considered as unsoundness. Many Horses go lame for a considerable period after cutting themselves severely; and others have dropped from the sudden agony, and endangered themselves and their riders. As some doubt, however, exists on this subject, and as it is a very material objection to a Horse, cutting, when evident, should have its serious consequences provided against by a special warranty.

Enlarged Glands.—The enlargement of the glands under the jaw has not been so much considered as it ought, in our estimate of the soundness of the Horse. Simple catarrh will occasionally, and severe affection of the chest will generally be accompanied by swelling of these glands, and which does not subside for a considerable time after the cold or fever has apparently been cured. To a slight enlargement of the glands under the jaw much attention need not be paid; but if they are of considerable size, and especially if tender, and the gland at the root of the ear be enlarged, as well as the membrane of the nose be redder than it should be, we should hesitate in pronouncing that Horse to be sound. We should fear the insidious lurking of disease.

Enlarged Hock.—A Horse with enlarged hock is unsound. The structure of this complicated joint being so materially affected, that although the Horse may appear for a considerable time to do ordinary work well, he will occasionally fail even as to that, and a few days' hard work will always lame him.

The Eyes. That inflammation of the eye of the Horse which usually terminates in blindness of one or both eyes, has the peculiar character of remitting or disappearing for a time, once or twice, before it fully runs its course. The eye, after an attack of inflammation, regains so nearly its former natural brilliancy, that a man well acquainted with Horses will not always recognize the traces of former disease. After a time, however, the inflammation returns, and the result is unavoidable.

If a man buys a Horse actually blind, he may repent of his bargain, but he cannot get rid of it. He should be more careful, and the law will not protect him if he does not use common precaution.

Lameness, from whatever cause arising, is unsoundness. However temporary it may be, or however obscure, it lessens the utility of the Horse, and renders him unsound for the time. How far his soundness may be afterwards affected, must depend on the circumstances of the case. A lame Horse is for the time an unsound one.

Neurotomy. A question has arisen how far a Horse that has undergone the operation of the division of the nerve of the leg, and has recovered from the lameness with which he was before affected, and stands his work well, may be considered to be sound. In our opinion there cannot be a doubt about the matter. A Horse on whom this operation has been performed may be improved; may cease to be lame, may go well for many years; but there is no certainty of his continuing to do so, and he is unsound.

Pumiced-foot. When the union between the horny and sensible lamellæ, or little plates of the foot, is weakened, and the coffin-bone is let down, and presses upon the sole, which yields to this unnatural weight, and becomes rounded, and comes in contract with the ground, and gets bruised and injured, that Horse must be unsound, and unsound for ever, because there are no means by which we can lift up the coffin-bone again into its place.

Quidding. If the mastication of the food gives pain to the animal, in consequence of soreness of the mouth or throat, he will drop it before it is perfectly chewed. This, as an indication of disease, constitutes unsoundness. Quidding sometimes arises from irregularity in the teeth, which wound the cheek with their sharp edges; or a protruding tooth renders it impossible for the Horse to close his jaws so as to chew his food thoroughly. Quidding is unsoundness for the time; but the unsoundness will cease when the teeth are properly filled, or the catarrh relieved, or the cause of this imperfect chewing removed.

Quittor is unsoundness.

Ring-bone. Although when the bony tumour is small, and on one side only, there is little or no lameness, and there are a few instances in which a Horse with ring-bone has worked for many years without lameness; yet, from the action of the foot, and the stress upon the part, the inflammation and the formation of bone have such a tendency rapidly to spread, that we must pronounce the slightest enlargement of the pasterns or around the coronet, to be a cause of unsoundness.

Sandcrack is manifestly unsoundness; but it may occur without the slightest warning, and no Horse can be returned for one that is sprung after purchase. Its usual cause is too great brittleness of the crust of the hoof; but there is no infallible method of detecting this, or the degree in which it must exist to constitute unsoundness. When the horn round the bottom of the foot has chipped off so much that only a skilful smith can fasten the shoe without pricking the Horse, or even when there is a tendency in the horn to chip and break off in a much less degree than this, the Horse may probably be returned as unsound, for this brittleness of the crust is a disease of the part, or it is such an altered structure of it as to interfere materially with the usefulness of the animal.

Spavin in unsoundness, whether the bony or the blood-spavin. In the first, lameness is produced, at least at starting, in ninety-nine cases out of a hundred, and there is enlargement of the hock, which rapidly spreads with quick and hard work, although the Horse may be capable of, and may even get better at slow work. If there be no lameness, we would yet reject a spavined Horse, because the bony enlargement is too near a very important and complicated joint, and on the least injury or sprain of that joint, would spread over it, and materially interfere with its motion.

Blood-spavin is unsoundness, because, although it may not be productive of lameness at slow work, the rapid and powerful action of the hock in quicker motion will produce permanent, although not considerable lameness, and which can scarcely ever be with certainty removed.

Splent. It depends entirely on the situation of the bony tumour on the inside of the shank-bone, whether it is to be considered as unsoundness. If it is not in the neighbourhood of any joint, so as to interfere with its action, and if it does not press upon any ligament or tendon, it can be no cause of unsoundness, although it is often very unsightly. It does not lessen the capability and value of the animal.

Stringhalt. This singular and very unpleasant action of the hind leg cannot be termed unsoundness. It is an irregular communication of nervous energy to some muscle of the thigh, observable when the Horse first comes from the stable, and gradually ceasing on exercise, and has usually been found in those Horses that have a more than common degree of strength and endurance.

Thickening of the back sinews. Sufficient attention is not always paid to the fineness of the legs of the Horse. If the flexor tendons have been sprained so as to produce considerable thickening of the cellular substance in which their sheaths are enveloped, they will long afterwards, or perhaps ever after, be liable to sprain from causes by which they would otherwise be scarcely affected. The continuance of any considerable thickness around the sheaths of the tendons indicates previous and voilent sprain. This very thickening will fetter the action of the tendons, and after much quick work will, from the very friction, occasionally renew the inflammation and the lameness; therefore, such a Horse cannot be sound. It requires, however, a little discrimination to distinguish this from the *gumminess* or roundness of leg, peculiar to some breeds. There should be an evident difference between the injured leg and the others.

Thoroughpin, except it be of great size, is rarely productive of lameness, and therefore cannot, when unaccompanied by lameness, be termed unsoundness; but as it is the consequence of hard work, and now and then does produce lameness, the hock should be most carefully examined, and there should be a special warranty against it.

Thrush. There are various cases on record of actions of thrushes in Horses, and the decisions have been much at variance, or perfectly contradictory. Thrush has not been considered by legal men as unsoundness: it seemed to be necessary to prove lameness, or probable injury to the foot. We confess, however, that we are inclined to consider thrush as unsoundness.

Windgalls. There are few Horses perfectly free from windgalls, but they do not interfere with the action of the fetlock, or cause lameness, except when they are numerous or large. They constitute unsoundness only when they cause lameness, or are so large and numerous as to render it likely that they will soon cause it.

In the purchase of a Horse the buyer usually receives, embodied in the receipt, what is termed a warranty. It should be thus expressed:—

"Received of A. B. forty pounds for a grey mare, warranted only five years old, sound, free from vice, and quiet to ride and drive.

£40. C. D."

A receipt, including merely the word 'warranted," extends only to soundness—"warranted sound" extends no further; the age, freedom from vice, and quietness to ride and drive, should be especially named. This warranty extends to every cause of unsoundness that can be detected, or that lurks in the constitution at the time of sale, and to every vicious habit which the animal has hitherto shown. To establish a breach of the warranty, and to be enabled to return the Horse, or recover the price, *the purchaser must prove that it was unsound or viciously disposed at the time of sale.* In cases of cough, the Horse must have been heard to cough previous to the purchase, or as he was led home, or as soon as he had entered the stables of the purchaser. Coughing, even on the following morning, will not be sufficient; for it is possible that he might have caught cold by change of stabling. If he is lame, it must be proved to arise from a cause that could not have occurred after the animal was in the purchaser's possession. "No price will imply a warranty," or be equivalent to one; there must be an express warranty. A fraud must be proved, in the seller, in order that the buyer may be enabled to return the Horse or maintain an action for the price. The warranty should be given at the time of sale. A warranty, or a promise to warrant the Horse, given at any period antecedent to the sale, is invalid; for the Horse is a very perishable commodity, and his constitution and his usefulness may undergo a considerable change in a few days. A warranty after the sale is invalid, for it is given without any legal consideration. In order to complete the purchase, there must be a transfer of the animal, or a memorandum of agreement or the payment of earnest-money; the least sum will suffice for earnest. No verbal promise to buy or to sell is binding without one of these; and the moment either of these is effected, the legal transfer of property or delivery is made, and whatever may happen to the Horse, the seller retains or is entitled to the money. If the purchaser exercises any act of ownership, by using the animal without leave of the vendor, or by having any operation performed, or done to him, or medicines given, he makes him his own. The warranty of a servant is considered to be binding on the master.

If the Horse should be afterwards discovered to have been unsound at the time of warranty, the buyer may return it. Although not legally compelled to give notice to the seller of the discovered unsoundness, it will be better for it to be done. The animal should then be tendered at the house or stables of the vendor. If he refuses to receive him, it is cruel to tie up the poor beast in the street, and leave him to the tender mercies of the other party: it will be more advisable to send the animal to a livery-stable, for an action (the Horse having been tendered) may be brought for expences as well as for price. The keep, however, can be recovered only for the time that necessarily intervened between the tender and the determination of the action. It is not legally necessary to return the Horse as soon as the unsoundness is discovered. The animal may be kept for a reasonable time afterwards, and even proper medical means used to remove the unsoundness; but courtesy, and indeed justice, will require that the notice should be given as soon as possible. Although it is stated, on the authority of Lord Loughborough, that "no length of time elapsed after the sale will alter the nature of a contract

originally false ;" yet there are cases on record in which the plaintiff was nonsuited because he did not give notice of the unsoundness in a reasonable time. The extent of this reasonable time must depend on many circumstances. It used to be supposed that the buyer had no right to have the Horse medically treated, and that he would vitiate the warranty by doing so. The question, however, would be, has he injured, or diminished the value of the Horse by this treatment? It will generally, however, be prudent for him to refrain from all medical treatment, because the means adopted, however skilfully employed, may have an unfortunate effect, or what he does may be misrepresented by ignorant or interested observers.

When a Horse is returned, and an action brought for the price, it will be indispensable that in every other respect, except the alleged unsoundness, the animal shall be as perfect and valuable as when bought.

The purchaser, possibly, may like the Horse, notwithstanding his discovered defect, and he may retain and bring his action for the depreciation in value on account of the unsoundness. Few, however, will do this, because the detention of the Horse will cause a suspicion that the defect was of no great consequence, and will give rise to much cavil about the quantum of damages, and, after all, very slight damages will probably be obtained.

Where there is no warranty, an action may be brought on the ground of fraud, but this is very difficult to be maintained, and few possibly will hazard it. It will be necessary to prove that the dealer knew the defect, and that the purchaser was imposed upon by his false representation; and that, too, in a case in which a person of ordinary circumspection might have been imposed upon. If the defect was evident to every eye, the purchaser has no remedy; he should have taken more care; but if a warranty was given, it extends to all unsoundness, palpable or concealed. Although a person should ignorantly or carelessly buy a blind Horse, warranted sound, he may return it; the warranty is his guard, and prevents him from so closely examining the Horse as he otherwise would have done; but if he buys a blind Horse, thinking him to be sound, and without a warranty, he has no remedy. The law supposes every one to exercise common circumspection and common sense.

A man should have a more perfect knowledge of Horses than falls to the lot of most, and a perfect knowledge of the vendor too, who ventures to buy a Horse without a warranty.

If a person buys a Horse warranted sound, and discovering no defect in him, and relying on the warranty, resells him, and the unsoundness is discovered by the second purchaser, and the Horse returned to the first purchaser, or an action commenced against him, he has his claim on the first seller, and may demand of him not only the price of the Horse, or the difference in value, but every expence that may have been incurred.

Exchanges, whether of one Horse absolutely for another, or a sum of money being paid in addition by one of the parties, stand on the same ground as simple sales. If there is a warranty on either side, and that is broken, the exchange is vitiated: if there be no warranty, deceit must be proved.

The subject of trial is a very intricate one, and we are inclined to think that the dealer is often very ill-used. It is well known that a

Horse from a dealer's stable is seldom or never fit for hard work until he has undergone some preparation and training. It is right that the purchaser should have a trial of him, but he should try him in a fair way; in a way consistent with the state in which the animal is. If a Horse from a dealer's stable is gallopped far and fast, it is probable that he will soon show distress; and if he is pushed farther, inflammation and death may ensue. The dealer rarely gets compensated for this; and if it should occur soon after the sale, the Horse is returned, or an action is brought for its price. When accidents have arisen in the fair trial of a Horse, the decisions of the courts of law have been strangely contradictory; and, indeed, it is often difficult to determine whether the fault rests with the Horse or the rider. If the Horse be detained after the specified time of trial, he is supposed to be sold, and with all his faults.

SALE AT REPOSITORIES.

In London, and in most great towns, there are repositories for the periodical sale of Horses by auction. They are of great convenience to the seller, who can at once get rid of a Horse with which he wishes to part, without waiting month after month before he obtains a purchaser, and who is relieved from the nuisance or fear of having the Horse returned on account of breach of the warranty, because in these places only two days are allowed for the trial, and if the Horse is not returned within that period, he cannot be returned afterwards. They are also convenient to the purchaser, who can thus in a large town soon find a Horse that will suit him, and which, from this restriction as to the returning the animal, he will obtain twenty or thirty per cent. below the dealer's prices. Although an auction may seem to offer a fair open competition, there is no place at which it is more necessary for a person not much accustomed to Horses to take with him an experienced friend, and when there to depend on his own judgment or that of his friend, heedless of the observations or manœuvres of the by-standers, the exaggerated commendations of some Horses, and thousand faults found with others. There are always numerous groups of low dealers, copers, and chaunters, whose business it is to delude and deceive.

The principal repositories in London, are Tattersall's, at Hyde Park Corner, on Monday and Thursday, at one o'clock, for racers, hunters, and superior Horses of every kind, although many that are good for nothing find their way there. This repository is considered the most fashionable resort for the nobility and gentlemen connected with the turf.

Young's, at the Bazaar in King Street, Portman Square, on Tuesday and Saturday, at twelve o'clock, for Horses of every description; and where, likewise, Horses are always standing for private sale.

Dixon's, in Barbican, for machiners of every kind, and generally the best of them, with good hackneys.

Morris's, in St. Martin's Lane, for draught Horses and hackneys of every description and value.

Horses should be sent two days before the sale; and it should be so contrived, in order to obtain the greatest advantage for sale, that they should be placed about or beyond the middle of the catalogue; so that they may be brought out when those persons who lie abed until after noon, begin to appear. If the

Horses are bought in, the owner will have to pay three and sixpence per night for their keep, and six shillings for the offering them for sale: if they are sold, he will be charged with five per cent. for the auction-duty, five per cent. for commission, and the keep; and the balance may be received the day after the period of trial expires.

One of the regulations at the Bazaar is exceedingly fair, both with regard to the previous owner and the purchaser: viz.

"When a Horse, having been warranted sound, shall be returned within the prescribed period, on account of unsoundness, a certificate from a veterinary surgeon, particularly describing the unsoundness, must accompany the Horse so returned; when, if it be agreed to by the veterinary surgeon of the establishment, the amount received for the Horse shall be immediately paid back; but if the veterinary surgeon of the establishment should not confirm the certificate, then, in order to avoid further dispute, one of the veterinary surgeons of the college shall be called in, and his decision shall be final, and the expense of such umpire shall be borne by the party in error."

Mr. John Lawrence, in speaking of the usefulness of these repositories, both to buyer and seller, has given us their history. He says:

"It was perhaps about the year 1740, or somewhat later, that Beavor, supposed to have first introduced the plan of sale in this mode, opened the Horse repository in Little Saint Martin's Lane, London; he was succeeded by Aldridge, father of Mr. Aldridge, who has within the last two or three years, retired, parting with the concern to the present proprietor, Mr. Morris. Tattersall's repository at Hyde Park Corner, was opened about the year 1760, by Mr. Tattersail, who had previously resided at Worcester, and was proprietor of the stallion, Young Traveller; he was also engaged awhile in London, with Beavor. After the then Duke of Cumberland's decease, his stud was sold at Tattersall's in 1765. Old Tat, as he was in due time familiarly called, was so fortunate at his very outset, as to obtain the countenance and patronage of persons of the highest distinction, who took and interest in Horses; and that important advantage has continued undiminished, to his successors of the present day. I first knew old Mr. Tattersall in 1773, he was a shrewd, assiduous, and observant man, precisely one of those qualified by nature to be *faber fortunæ*, the maker of his own fortune; and he achieved it, becoming the founder of an opulent and respectable house."

CHAPTER XIX.

REMARKS ON THE FOOD OF THE HORSE.—MANGER FEEDING.

MANGER-FEEDING.

This system, which has now been adopted for some years on the road, arose no doubt in the first instance from a desire in the proprietors of Horses to fill the bellies of their animals in the shortest possible space of time, in order that they might get more rest on the road. The old broad-wheeled waggons, with large slow Horses, docked almost close to the rump, have given way to lighter and more expeditious conveyances, and which are called "fly-waggons," which we believe perform their journeys (including stoppages,) at about three miles an hour. Since the period of the starting of the lighter waggons we have noticed manger-feeding with them common on the road.

The stupid idea that cutting a Horse's tail close to his rump, made his back stronger, seems to have had its day, for we now see almost universally switch or long tails; a style much more in congeniality with humanity, as the tail is left more in a state of nature, to defend the animal from its natural enemies the flies. We are glad to see such prejudices give way to a better system.

Manger-feeding is becoming general among farmers. It is well adapted for Horses who are not over-worked through speed. We know that it is an economical way of feeding by mixing a portion of chaff with the corn and beans, because by this means the animal is compelled to chew his food; he cannot bolt the straw or hay, and while he is compelled to grind the chaff, the oats and beans are ground with it, which yields more nourishment, as the stomach is more slowly filled, and therefore acts better on its contents, and is not so likely to be overloaded; independently of this, the increased quantity of saliva thrown out in the lengthened grinding of the food, softens it, and renders it more fit for digestion.

Chaff may be composed of equal quantities of clover or meadow hay, and wheaten, oaten, or barley straw, cut into pieces of a quarter or half an inch in length, and mixed well together; the quantity of oats or beans is afterwards added, and mixed with the chaff. We would recommend that the beans and oats should be bruised, because the whole oat is apt to slip out of the chaff and be lost; but when it is bruised, and especially if the chaff

is a little wetted, it will not readily separate; or should a portion of it escape the grinders, it will be partly prepared for digestion by the act of bruising. The prejudice against bruising the oats is, so far as the slow draught Horse is concerned, quite unfounded. The quantity of straw in the chaff will always be sufficient to counteract any supposed purgative quality in the bruised oats. Horses of quicker draught, unless they are naturally disposed to scour, will thrive better with bruised than with whole oats; inasmuch as a greater quantity of nutriment will be extracted from the food, and it will be easy to proportion the quantity of straw or beans to the effect of counteracting any mischievous consequences to the bowels of the Horse. The alteration requisite to be made in the diet of the post, or stage-coach Horse, should be to increase the quantity of hay, and diminish that of the straw. Two trusses of hay may be cut to one of straw.

We do not consider, however, this system to be adapted either to the hunter or the race-horse; because their food must be in smaller bulk, in order that the action of their lungs be not impeded by the distension of the stomach; still many hunters have gone well over the field, who have been manger-fed, the proportion of corn, however, being materially increased.

PROPORTIONS OF OATS AND BEANS TO THE CHAFF, FOR DRAUGHT HORSES.

For the agricultural and cart-horse, eight pounds of oats and two of beans should be added to every twenty pounds of chaff; and thirty-four or thirty-six pounds of the mixture will be sufficient for any moderate-sized Horse, even with hard work. The dray and very large waggon-horses may require something more. Hay in the rack at night is, in this case, to be omitted altogether. The rack, however, may be useful to contain tares, or other green meat, which may occasionally be given.

In order to prevent the Horses from turning the chaff out of the manger in their search for the oats, small iron bars may be placed at intervals across it, and the provender may be sprinkled with water; but the water should be applied only at the moment of feeding, as the wetted mixture would soon become sour and mouldy.

Horses eat this provender very greedily; but we would, however, caution the owners of them not to put damaged hay for the manufacture of chaff. The corn contained in the chaff may tempt a Horse to eat, even if it be not good. More injury is done by the eating of damaged hay or musty oats, than is generally imagined. The advantage of this system of manger-feeding, will be entirely counteracted, if it be made the vehicle for the consumption of unwholesome hay or musty corn.

The principal importance to be attached to manger-feeding, arises from the Horse being compelled in a very considerable degree, to masticate and prepare his food more by this mixture for his stomach, than he would if left to eat his oats whole, which he might swallow, without deriving one half the benefit he does from their being bruised. Another most important advantage derived from it is, that the Horse by this union of eating nutritious matter with the more bulky material (hay-chaff,) fills his stomach sooner, and has, consequently, more time for rest, a very considerable consequence to a Horse on the road.

OATS.

In almost every part of Great Britain, the oat has been selected as that portion of the food which is to afford to the Horse its principal nourishment. It contains seven hundred and forty-three parts out of a thousand of nutritive matter. The oat should be old, heavy, dry, and sweet. The new oat will weigh ten or fifteen per cent. more than the old oat; but the difference consists principally in watery matter, which is gradually evaporated. The new oat is not so easily ground down by the teeth as the old one, and forms a more glutinous mass, difficult to digest, and when eaten in considerable quantities, is apt to become so unwholesome, as to occasion colic, and even staggers. Oats should be plump, bright in colour, and free from unpleasant taste or smell. The musty smell of wetted or damaged corn, is caused by a fungus which grows upon the seed, and which has an injurious effect on the urinary organs, and often on the intestines, producing profuse staling, inflammation of the kidney or colic, and inflammation of the bowels. This musty smell may be removed by kiln-drying the oat, but care should be used that too great a degree of heat is not employed. It should be sufficient to destroy the fungus, without injuring the vitality of the seed. The kiln-burnt oat, however, is not so grateful to the animal; it acquires a heating quality, and not unfrequently produces inflammation of the eyes, and mangy affections of the skin. If the unthreshed oat-straw were cut for chaff, it would save the expence of threshing. Oat-straw is better than barley-straw, but does not contain so much nourishment as that of wheat. When the Horse is fed on hay and oats, the quantity of the oats must vary with his size and the work to be performed. Nine or ten pounds of oats a day will be a fair allowance for a Horse of fifteen hands one or two inches high, in moderate work, with a proportionate quantity of hay. In summer, when the Horse is given green food daily, reduce his corn one half.

BARLEY.

Barley is a common food of the Horse on various parts of the continent, and, until the introduction of the oat, seems to have constituted almost his only food. It is more nutritious than oats, containing nine hundred and twenty parts of nutritive matter in every thousand. There seems, however, to be something necessary besides a great proportion of nutritive matter, in order to render any substance wholesome, strengthening, or fattening. Except where Horses are very hardly worked, barley does not seem in our country to agree with them so well as oats. They are more subject to inflammatory complaints, and particularly to surfeit and mange. When barley is given, the quantity should not exceed a peck daily. It should be always bruised, and the chaff should consist of equal quantities of hay and barley straw, and not cut too short. If the farmer has a quantity of spotted or unsaleable barley which he wishes thus to get rid of, he must very gradually accustom his Horses to it, or he will probably produce serious illness among them. For Horses that are recovering from illness, barley, in the form of malt, is often serviceable, as tempting the appetite and recruiting the strength. It is best given in mashes; water, considerably below the boiling heat, being poured upon it, and the vessel or pail kept covered for half an hour.

GRAINS.

Grains fresh from the mash-tub, either alone, or mixed with oats or chaff, or both, may be occasionally given to Horses of slow work; they would, however, afford very insufficient nourishment for Horses of quicker or harder work.

WHEAT.

Wheat is in Great Britain more rarely given than barley. It contains nine hundred and fifty-five parts of nutritive matter. When farmers have a damaged or unmarketable sample of wheat, they sometimes give it to their Horses, and, being at first used in small quantities, the Horse becomes accustomed to it, and thrives and works well. It must, however, always be bruised and given in chaff, Wheat contains a greater proportion of *gluten* or sickly adhesive matter, than any other kind of grain; it is difficult of digestion, and apt to cake and form obstructions in the bowels. This will oftener be the case if the Horse is suffered to drink much water soon after feeding upon wheat; for the water passing rapidly through the stomach and small intestines, in its way to the cœcum, carries off with it all the starch, which is the most nourishing, and leaves this sticky mass behind, which accumulates and hardens, and obstructs the intestines, and often destroys the Horse. A Horse that is fed on wheat should have very little hay. The proportion should not be more than one truss of hay to two of straw. Wheaten flour, boiled in water to the thickness of starch, is given with good effect in over purging, and especially if combined with chalk and opium. There is no grain that seems to agree so well with the constitution of the Horse as the oat.

BEANS.

Beans.—These form a striking illustration of the principle, that the nourishing or strengthening effects of the different articles of food depend more upon some peculiar property which they have, or some combination which they form, than on the actual quantity of nutritive matter, yet they add materially to the vigour of the Horse. There are many Horses that will not stand hard work without beans being mingled with their food, and these not Horses whose tendency to purge it may be necessary to restrain by the astringency of the bean. There is no traveller who is not aware of the difference in the spirit and continuance of his Horse if he allows or denies him beans on his journey. They afford not merely a temporary stimulus, but they may be daily used without losing their power, or producing exhaustion. Two pounds of beans may, with advantage, be mixed with the chaff of the agricultural Horse, during the winter. In summer, the quantity may be lessened, or the beans altogether discontinued. Beans are generally given whole. This is very absurd; for the young Horse, whose teeth are strong, seldom requires them; while the old Horse, to whom they are in a manner necessary, is scarcely able to masticate them, swallows many of them whole, which he is unable to break, and drops much corn from his mouth in the ineffectual attempt to break them. Beans should not be merely split, but crushed; they will even then give sufficient employment to the grinders of the animal. Some postmasters use chaff with beans instead of oats. With hardly worked Horses they may possibly be allowed; but in general cases, the beans, without oats, would be too binding and stimulating, and

would produce costiveness, and probably megrims or staggers.

PEAS.

Peas are occasionally given. They appear to be in a slight degree more nourishing than beans, and not so heating. They contain five hundred and seventy-four parts of nutritive matter. For Horses of slow work they may be used; but the quantity of chaff should be increased, and a few oats added. They have not been found to answer with Horses of quick draught. It is essential that they should be crushed; otherwise on an account of their globular form, they are apt to escape from the teeth, and many are swallowed whole. Exposed to warmth and moisture in the stomach, they swell very much, and may painfully and injuriously distend it.

Many Horses have died after gorging themselves with peas, and the stomach has been found to have been burst by their swelling. If a small phial is filled with peas, and warm water poured on them, and the bottle tightly corked, it will not remain many hours before it bursts.

Where the manger system of feeding is not adopted, or where hay is still given at night, and chaff and corn in the day, there is no error into which the farmer is so apt to fall as to give an undue quantity of hay, and that generally of the worst kind. If the manger system is good, there can be no necessity for hay, or only for a small quantity of it; but if the rack is overloaded, the greedy Horse will be eating all night, instead of taking his rest; and when the time for the morning feed arrives, his stomach will be already filled, and he will be less capable of work, from the want of sleep, and from the long-continued distention of the stomach rendering it impossible for the food to be properly digested.

It is a good practice to sprinkle the hay with water in which salt has been dissolved. It is evidently more palatable to the animal, who will leave the best unsalted hay for that of an inferior quality that has been moistened with brine; and there can be no doubt that the salt very materially assists the process of digestion. The preferable way of salting the hay would be to sprinkle it over the different layers as the rick is formed. From its attraction for water, it would combine with that excess of moisture which, in wet seasons, is the cause of too rapid and violent fermentation, and of the hay becoming mowburnt, or the rick sometimes catching fire, and it would become more incorporated with the hay. The only objection to its being thus used is, that the colour of the hay is not so bright; but this would be of little consequence for home consumption.

TARES.

Of the value of tares, as forming a portion of the late spring and summer food of the stabled and agricultural Horse, there can be no doubt. They are very nutritive, and they act as a kind of medicine. When surfeit lumps appear on the skin, and the Horse begins to rub himself against the divisions of the stall, and the legs swell, and the heels threaten to crack, a few tares, cut up with the chaff, or given instead of a portion of the hay, will often afford immediate and perfect relief. Ten or twelve pounds may be given daily, and half that weight of hay subtracted. It is an erroneous notion, that, given in moderate quantities, they either roughen the coat or lessen the capability for hard work.

RYE GRASS.

Rye Grass affords a valuable article of food, but is inferior to the tare. It is not so nutritive; it is apt to scour; and occasionally, and late in the spring, it has appeared to become injurious to the Horse.

CLOVER.

Clover, for soiling the Horse, is inferior to the tare and the rye grass, but nevertheless, is useful when they cannot be obtained. Clover hay is, perhaps, preferable to meadow hay for chaff; it will sometimes tempt the sick Horse, and may be given with advantage to those of slow and heavy work; but custom seems properly to have forbidden it to the hunter and the hackney.

LUCERN.

Lucern, where it can be obtained, is preferable even to tares, and sainfoin is superior to lucern. Although they contain but a small quantity of nutritive matter, it is easily digested, and perfectly assimilated; they speedily put both muscle and fat on the Horse that is worn down by labour, and they are almost a specific for hide-bound. Some farmers have thought so highly of lucern as to substitute it for oats. This may do for the agricultural Horse of slow and not hard work; but he from whom speedier action is sometimes required, and the Horse of all work, must have a proportion of hard meat within him.

The Swedish Turnip is an article of food the value of which has not been sufficiently appreciated, and particularly for agricultural Horses.

CARROTS.

The virtues of this root are not too greatly esteemed. There is little food of which the Horse is fonder. Some farmers allow a bushel of carrots a day, with chaff, without any oats; and the Horses are said to be equal to all slow or agricultural work.

POTATOES.

Potatoes have been sliced with advantage in their raw state, and mixed with the chaff; but, where there has been convenience to boil or steam them, the benefit has been greater. Some have given boiled potatoes alone, and Horses have preferred them even to the oat; but it is better to mix them with the manger feed, in the proportion of one pound of potatoes to two and a half of the other ingredients.

CHEMICAL ANALYSIS OF THE NUTRIMENT CONTAINED IN THE FOLLOWING VEGETABLES.

1000 parts of wheat contain 955 parts of nutritive matter; barley, 920; oats, 743; peas, 574; beans, 570; potatoes, 230; red beet, 148; parsnips, 99; carrots, 98.

Of the grasses, 1000 parts of the meadow cat's tail contain at the time of seeding 98 parts of nutritive matter; narrow-leaved meadow grass in seed, and sweet-scented soft grass in flower, 95; narrow-leaved and flat-stalked meadow grass in flower, fertile meadow grass in seed, and tall fescue, in flower, 93; Swedish turnips, 64; common turnips, 42; sainfoin, and broad-leaved and long-rooted clover, 39; white clover, 32; and lucern, 23.

THE

MODERN SYSTEM OF FARRIERY.

PART IV.

THE VETERINARY PHARMACOPEIA; OR, MEDICINES USED IN HORSE PRACTICE.

The weights made use of in compounding medicines are troy, which are divided, and characterized as follows.—

The pound (lb.) contains	12 ounces	℥	xij
Ounce	-	Eight drachms	ʒ	viij
Drachm	-	Three scruples	℈	iij
Scruple	-	Twenty grains	gr	xx

The measures made use of are wine, and are thus divided and characterized:

The Gallon (longum) contains	8 pints		viij
Pint -	16 fluid ounces	fl ℥	xvj
Fluid ounce	8 fluid drachms	fl ʒ	viij
Fluid drachm	60 minims		lx

ACACIÆ GUMMI.

GUM ARABIC.

This is a natural exudation from the trunk and branches of the pinosa tree, which grows plentifully in all parts of Africa. It appears to be the produce of disease. It is gathered in July and August.

Medicinal Uses.—Mucilaginous, chiefly used to form a vessicle for the exhibition of active remedies, one to two ounces being dissolved in about one and half-pint of water.

ACIDUM ACETICUM FORTIUS.

STRONG ACETIC, OR PYROLIGNEUS ACID.

This is prepared from wood, distilled dry in iron chambers. One part of this acid,

mixed with seven parts of water, form the greater part of the distilled vinegar of the shops.

Medicinal Uses.—*See* vinegar.

ACIDUM ACETICUM IMPURUM.

IMPURE ACETIC ACID.—VINEGAR.

This is made by exposing infusion of malt, wines, or any fermentive saccharine mixtures, to the action of atmospheric air, after having induced the fermentation process by heat.

Medicinal Uses.—Refrigerant—relaxant.—Applied externally, in combination with muriatic ammoniæ. Used for making infusium cantharidis.

ACIDUM MURIATICUM.

MURIATIC ACID.—SPIRITS OF SALTS.

Take Dried common salts - - 2 drach.
Sulphuric acid (by weight) 20 grains.
Distilled water - - - - 1½ pint.

Mix the acid with half a pint of the water in a glass retort, and to these when cold, add the common salt; pour the remainder of the water into the receiver, which adapt to the retort, and let the muriatic acid gas distil into the water from a sand bath, with heat gradually raised, until the retort becomes red hot.

Decomposition.—Common salt is a chloride of sodium, the chlorine of which on the admixture unites to the hydrogen of the water of the sulphuric acid, forming hydrocloric, or muriatic gas, whilst the oxygen of the water unites with the sodium, and forms oxide of sodium, or soda. On the application of heat, the water used in diluting the acid, rises in vapour, and with it combined the muriatic acid gas, and becomes condensed into the receiver, forming liquid muriatic acid, whilst the dry sulphuric acid unites with the soda, and forms sulphate of soda, which remains in the retort.

Medicinal Uses.—Caustic applied externally; but most commonly used as a solvent for oxymuriate of mercury in the liquor hydrargyris oxymuriates.

ACIDUM NITRICUM.

NITRIC ACID.—DOUBLE AQUA FORTIS.

Take Dried nitrate of potash - 2 pounds.
Sulphuric acid (by weight) 2 do.

Mix them in a glass retort, distil the nitric acid off by means of a sand bath, till a red vapour arises; then having added another ounce of the dried nitrate of potash, continue the distillation.

Decomposition.—When these are heated together, a double decomposition takes place. The dry sulphuric acid unites to the potash, and forms sulphate of potash of what remains in the retort; whilst the nitric acid disengaged, unites with the water, rising in the state of vapour, these become condensed in the receiver, and form liquid nitric acid.

Medicinal Uses.—Caustic and stimulant; as the former, applied alone; as the latter, in combination with tar, for thrushes, &c.

ACIDUM SULPHURICUM.

SULPHURIC ACID.—OIL OF VITRIOL.

Into a chamber, lined with sheet-lead, having no opening but a small door placed a few inches from the floor, and made to shut very close; water is then poured so as to cover the floor, and rise upon it to the height of one or two inches. A stand is then introduced, on which is placed an earthen pot, containing nine parts of refined Sicilian sulphur, and one part of nitrate of potash. This is kindled by

means of a red-hot iron, and the door instantly closed.

Decomposition.—The sulphur burning in the atmospheric air of the chamber, forms sulphuric acid gas. The nitre gives rise to the nitric oxide, which with the oxygen of the air produces nitrous acid gas. These two gases, from the moisture present, form a white solid, which is instantly decomposed in the water, when the nitrous acid reverts to the state of nitre oxide, having transferred one additional proportion of oxygen to the sulphureous acid, forming sulphuric acid, which uniting with the water, forms liquid sulphuric acid.

Medicinal Uses.—Caustic and stimulant, applied externally, but not very often used alone, entering more into combinations.

ALUMINÆ ET POTASSÆ SUPER SULPHAS.

SUPER SULPHATE OF ALUM AND POTASH.

This is a salt of alum. Potash and sulphuric acid is found native in some places; but the greater quantity of the alum commerce is prepared from alum ores; by exposing them to the atmospheric air, the oxygen of which uniting to the sulphur of the sulphurite of iron present, becomes converted into sulphuric acid, and the combining with the alumine, the alum effloresces; this is subsequently evaporated, and then set aside to crystallize.

Medicinal Uses.—Astringent, this is only used for the Horse as any external application in the formula.

ACONITI FOLIA.

LEAF OF ACONITE, OR MONK'S HOOD.

This is a perennial plant, cultivated in our gardens, flowering in June, but found native in the mountainous parts of Germany. It should be gathered when the flowers appear.

Medicinal Uses.—This, like all the other narcotics of the human subject, produces no such effect in the Horse. In doses of one and a half to two drachms, repeatedly given, it will produce efforts to vomit, accompanied with much general irritation.

ADEPS.

THE FAT OF HOGS.

Its uses are emollient, and used for the formation of ointment.

ALOES CABALLINA.

HORSE ALOES ARE CAPE ALOES.

ALOE SPICATA.

SPIKED, OR SOCOTRINE ALOES.

ALOE VULGARIS EXTRACTUM.

COMMON, OR BARBADOES ALOES.

The general nature of these three kinds of aloes are nearly the same, the difference being the different proportions of the extracted gummy matter compared with the resinous. The smell and taste reside principally in the extracted matter as to their virtues, the resin being nearly inert.

The leaves of the plant are cut off, expressed, and the juice evaporated in the sun till of a fit consistence, which is then put into packages.

True Socotrine aloes are very scarce. It comes over into this country wrapped in skins from the island of Socotra. That which is now sold for Socotrine, is the produce of the spiked aloe of the Cape of Good Hope.

The term Caballina applied to the Cape aloes, is for the sake of distinction, although it is thought the same plant yields this, and

what is now sold as Socotrine, differing only in quality. Cape aloes come over in chests of two to four hundred pounds weight each, enveloped in buffalo hides. The finest Barbadoes come in gourds, or calabashes, from the island of the same name, and contain from twenty to fifty-six pounds each. An inferior quality comes in casks.

Medicinal Uses.—Purgative and alterative; the first in doses of four to eight drachms; the latter in doses of one to three drachms. Cape aloes are the variety made use of at the College, and its effects seem equal to any of the others.

AMMONIÆ MURIAS.

MURIATE OF AMMONIA, SAL AMMONIAC.

A saline concrete, formed by the union of muriatic acid with ammonia. It is obtained from several sources. First, found native; second, prepared from camels' dung; third, which is the principal, from soot, bones, animal matter, known to contain the volatile alkali, as horn, &c. The process is as follows: the animal matter is placed in an iron cylindrical still, to which is attached a leaden receiver, cooled by a refrigeratory, which is its cover, and contains about four inches in depth of water, heat being applied, distillation is allowed to go on. The oil which arises on the surface of the distilled liquor being removed,to the residue, which is impure alkaline solution, is added sulphuric acid, and a sulphate of ammonia is formed; to this is added common salt, when a double decomposition takes place, muriate of ammonia, and sulphate of soda, being formed through chemical agency. These being in solution, the last salt is crystallized, and the first sublimes into cakes.

Medicinal Uses. Refrigerent, applied externally, dissolved in vinegar, in inflammatory swellings, when cold is the required object.

It may not be irrelevant to observe here, that a solution of any neutral salt in water, lowers the temperature of it by robbing it of a portion of its caloric, to liquify the salt; but the solution will acquire a mean of temperature equal to the surrounding medium in which it is placed, in the course of time, therefore it should be used as soon as made.

ANTIMONII SULPHURETUM.

SULPHATE OF ANTIMONY.

Medicinal Uses. Alterative and vermifuge; but of very little effect. Much used amongst grooms, combined with sulphur and nitrate of potash. Dose from ʒ ss to ʒ j.

ANTIMONII TARTARIZATUM.

TARTARIZED ANTIMONY. EMETIC TARTAR.

Medicinal Uses. Febrifuge in doses of ʒ ss to ʒij, generally in combination with nitre, &c. Large doses will not in the Horse produce nausea, even to the quantity of an ounce.

ANCHUSÆ RADIX.

ALKANET ROOT.

The root of the plant, which is a perennial, growing in the south of Europe.

Medicinal Uses. It is merely used for the sake of its colouring matter, which it readily yields to oils, fats, spirits, &c.; but not to water.

ARGENTI NITRAS.

NITRATE OF SILVER. LUNAR CAUSTIC.

Take Silver	- -	1 ounce.
Nitric acid	-	1 fl do.
Distilled water	-	2 fl do.

Mix the nitric acid with the water, and dissolve the silver with the mixture on a sand bath; then gradually raise the heat until the nitrate of silver becomes dry; melt this in a crucible over a slow fire until ebullition ceases; then pour into moulds.

Decomposition. Nitric acid is composed of oxygen and azote, and when the silver is dissolved, a portion of the acid is decomposed, its azote escaping into the air with the oxygen, which with it forms fumes of red nitrous acid gas. The oxygen of the decomposed acid unites with the silver to form into an oxide, whilst the undecomposed acid dissolves, and converts it into nitrate of silver.

Medicinal Uses.—Caustic. This appears to have given place to less expensive preparations, such as the nitric acid, and the sulphate of copper.

BOLUS ARMENIÆ.

ARMENIAN BOLE.

A friable earthy substance of the clay kind, which comes from America.

Medicinal Uses.—Slightly astringent and absorbent. It is chiefly used for colouring ointments and powders, and for lowering the effect of other active remedies, as sulphate of copper and alum, when used as astringent powders, in case of grease, &c., &c.

CAMPHORÆ.

CAMPHOR.

This concrete matter is obtained from the roots and smaller branches of the camphor tree, which grows in Sumatra and Borneo, by distillation; afterwards it is sublimed into glass vessels with quick lime, and ultimately it is pressed into cakes.

Medicinal Uses.—Febrifuge, internally; stimulant, externally; in doses of ʒ j to ʒ ij, combined with nitre and tartarized antimony; as an external application it is used in the compound soap liniment.

CANTHARIS.

BLISTERING FLY.

This fly is found plentifully in Spain, Italy, and France, on several kinds of trees. Those from Spain are obtained by shaking the trees on which they are found, and catching them in a cloth spread underneath. They are then killed by the steam of boiled vinegar, and dried by the sun or stove. The active principle appears to reside in an oil which they contain.

Medicinal Uses.—Vesicant, applied in the formulæ unguentum cantharidis infusium, &c., &c.

CATECHU EXTRACTUM.

EXTRACT OF CATECHU. CATECHU.

This extract, prepared from the inner wood of the tree, which grows in Hindos, by boiling the water, straining the decoction, and afterwards evaporating in the sun.

Medicinal Uses.—Astringent. Dose from ʒ ij to ʒ iv, in combination with creta preparata.

CRETA PREPARATA.

PREPARED CHALK.

This is made by washing common chalk in water, allowing the grosser particles, as sand, &c., to fall to the bottom, whilst the firm particles floating on the water, is poured off with it into another vessel, and then is allowed to subside, which is afterwards made into nobs, and dried.

Medicinal Uses.—Absorbent, anti-acid. It is either given alone, or in combination, with kino, catechu, &c., in quantity from ℥ iv to ℥ vi, in diarrhœa.

CROTONI SEMINA.

CROTON SEEDS.

These are the produce of a tree in the East Indies.

Medicinal Uses.—Cathartic, in doses, from x to xxx grains in a ball. It appears from experiment, that the meal, or rather cake, which remains in the press after the expression of the oil from the seeds, that the active principle does not reside so much in the oil, as in a peculiar resin. Its effects are rather uncertain.

CUPRI SUBACETATIS. ÆRUGO.

SUBACETATE OF COPPER. VERDIGRIS.

This salt is principally made in the south of France, by putting plates of copper among the residuum of the grape, after the expression of its juice. Frequently sprinkling them with water, and allowing the grape-stalks to ferment; after some time a thick coating of verdigris forms on the surface of each plate, which is scraped off by means of a knife, and then put into bags, and exposed to the sun and air to dry.

Medicinal Uses.—Detergent and escarotic, and externally in the compound linimentum elrugimis.

CUPRI SULPHAS.

SULPHATE OF COPPER. BLUE STONE.

This salt is obtained from the evaporation of the water of copper mines. It is also procured by washing copper pyrites, and exposing them to the action of air and moisture. When required for these purposes, it may be made in the same manner as sulphate of zinc, by putting pieces of copper into diluted sulphuric acid, contained in a glass vessel, and when the effervescence has ceased, filtering the solution through paper, and after boiling it down till a pellicle appears on the surface; then setting it aside that crystals may form, which are to be dried in bibulous paper.

Decomposition.—Concentrated, it does not act on the metals at the ordinary temperature of the atmosphere; they require to be diluted when action goes on rapidly; the water is decomposed, its oxygen unites to the copper, and converts it into an oxide, which is dissolved by the sulphuric acid, and forming sulphate of copper, whilst its hydrogen escapes in the form of gas.

Medicinal Uses.—Tonic, internally; stimulant and escarotic, externally; this is given in doses, from one to two drachms, combined with ginger, as a general tonic, in the form of balls; but when given, as at the College, in cases of glanders and farcy, in doses from four to eight drachms, it is advisable to make it into a draft, by dissolving it in about two pints of water, and adding an ounce of linseed meal to the solution. Externally, it is applied either in solution, or in powder.

DIGITALIS FOLIA.

FOX-GLOVE LEAF, OR DIGITALIS.

This plant is indigenous, and flowering from June to August. The leaves are the part of the plant used medicinally, which should be gathered just as the plant is in flower, dried quickly in the shade; or what is still better, secluded entirely from light. Let them be powdered, and kept in well stopped bottles for use.

Medicinal Uses.—Sedative, given in doses from ʒ ss to ʒ ij, in the form of ball.

EXTRACTUM BELLADONNÆ.

EXTRACT OF DEADLY NIGHTSHADE.

This is prepared by bruising the leaves of the plant in a stone mortar, sprinkling a little water on them, then pressing out the juice, and evaporating; it must stand until it acquires a thick consistency.

Medicinal Uses.—Stimulant. It is only used as an application to the eye, to cure a morbid contraction of the iris, or rather its circular fibres, in quantities from two to five grains.

EUPHORBII GUMMI RESINI.

EUPHORBIUM.

The plant which yields this gum (resin) is perennial, succulent, and shrubby. It is obtained by making incisions in the branches, from which a lartious gum exudes, and concretes into tears.

Medicinal Uses.—Stimulant. Rubefacient. It is only used externally, entering into the compound unguentum cantharides.

FERRI SULPHAS.

SULPHATE OF IRON. SALT OF STEEL.

Take of iron (by weight)	- -	8 ounces.
Sulphuric acid	- -	8 do.
Water - - - - -		4 do.

Mix the sulphuric acid with the water, in a glass retort, and to this add the iron in the form of filings; then when bubbles cease to escape, filter the solution through paper, and evaporate over a slow fire, so that as it cools crystals may form. Having poured off the super natant fluid, dry the crystals upon bibulous paper.

Decomposition.—Water consists of oxygen and hydrogen, and a portion of it is decomposed by the action of the sulphuric acid and iron, its oxygen unites to iron, converting it into an oxide of iron; before which the sulphuric acid will not act upon it, whilst its hydrogen being set at liberty, escapes in the form of gas. The oxide of iron is then dissolved by the sulphuric acid, and sulphate of iron is formed.

Medicinal Uses.—Tonic; combined with ginger.

GLYCYRRHIZÆ RADIX.

LIQUORICE ROOT.

This plant is a native of the south of Europe; but for the London market it is cultivated in large quantities, at Mitcham, in Surrey.

Medicinal Uses.—Demulgent. It possesses little, if any virtue; and is, when dried and ground, more used for giving bulk, than any other purposes.

HYDRARGYRUM.

QUICKSILVER. MERCURY.

Native quicksilver is generally found in globules, disseminated on the surface, or collected in the crevices of other mercurial ores, &c.; but the greater portion of quicksilver of commerce is obtained from Cinnabar, by mixing this ore with quicksilver, and then distilling from large iron retorts into glass receivers. It is purified by re-distilling it with iron filings. One hundred pounds of the ore gives about one hundred and three pounds of quicksilver.

Medicinal Uses.—Only used for making the mercurial preparations.

HYDRARGYRI OXYMURIAS.

OXYMURIATE OF MERCURY. CORROSIVE SUBLIMATE.

Take of purified mercury (by weight)		2 lb.
Sulphuric acid	- -	30 oz.
Dried muriate of soda	-	4 lb.

Boil the mercury with the sulphuric acid in a glass vessel, until the sulphate of mercury becomes dry. Rub this when it is cold with the muriate of soda, in an earthen mortar; then sublime in a glass, the heat being gradually raised.

Decomposition.—When sulphuric acid and purified mercury are boiled together, a portion of the acid is decomposed, and separated into sulphurous acid oxygen, the former being dissipated in the gaseous state, the latter combines with the mercury, and converts it into peroxide, and this uniting with the undecomposed acid, a super sulphate of peroxide, or bifer sulphate of mercury is formed. To this the salt is added, when another decomposition takes place, as follows.

We consider salt as a compound of chlorate and sodium; this when heated with the bifer sulphate of mercury is decomposed by it, the sodium is converted into soda by its combination with the oxygen from the mercury which is dissolved by the sulphuric acid, and forms sulphate of soda, whilst the chlorine unites to the mercury, and forms peroxide chloride of mercury, which name the London College of Physicians still retain.

Medicinal Uses.—Caustic, applied externally, either mixed with grease or in solution, as in the formula, liquor hydrargyri oxymuriatis.

HYDRARGYRI SUBMURIA.

SUBMURIATE OF MERCURY. CALOMEL.

Take of purified mercury (by weight)		4 lb.
Sulphuric acid	- -	30 oz.
Muriate of soda	- -	1½ lb.
Muriate of ammonia	-	8 oz.

Boil 2lb. of the mercury with the sulphuric acid in a glass vessel, until the mercury formed be dry; when this is cold, triturate it with the other 2 lb. of mercury in an earthen mortar; then add the muriate of soda, and rub them together, until globules are no longer visible. Afterwards reduce the sublimed matter to a very fine powder; pass it through a sieve, and mix it very carefully with the muriate of ammonia, previously dissolved in a gallon of boiling distilled water; set it by, that the powder may subside; pour off the solution, and wash the powder frequently with boiling distilled water, until solution of ammonia drops, and throws down precipitate; lastly, let it be reduced to a very fine powder.

Decomposition.—It is the same as the forementioned, with merely this difference; that one half of the chlorine unites with the fresh portion of mercury, added so, that the per or bi chloride becomes converted into chloride, or pro chloride of mercury. The muriate of ammonia appears to be added for the purpose of dissolving any corrosive sublimate which may be formed with the calomel.

Medicinal Uses.—Anthelmiatic, or vermifuge and alterative; for these it is given, in doses from one to two drams, in the form of ball, at night, and a dose of aloes in the morning.

KINO.

KINO.

An extract, prepared from a non-descriptive African tree.

Medicinal Uses.—Astringent, given in doses from ʒ ij to ʒ iv, generally in combination with chalk.

LINI SEMINA.

LINSEED.

The common flax is an annual plant, flowering in July; the seed ripens in September.

Medicinal Uses.—Demulcent, given in any quantity. Two ounces of the seed boiled in two pints of water for a short time, will form an exceedingly nice jelly-like fluid, for the administration of any of the sulphates; but at the College the meal principally made use of is the ground cake, after the oil has been expressed from the seeds.

MYRRHÆ.

MYRRH.

An exudation from a tree or plant, undescribed by naturalists, which grows on the eastern coast of Arabia Felix. It is imported into this country in chests.

Medicinal Uses.—Stimulant, applied externally, in the form of tincture.

OLEUM OLIVÆ.

OLIVE OIL.

The olive tree is a native of the South of Europe, cultivated in great abundance in France and Spain. The oil is procured from the ripe fruit which is gathered in November, and immediately bruised in a mill, the stones of which are kept so wide as not to crush the nut. This pulp is subjected to the pressing bags, made of rushes, and by means of gentle pressure, the best oil flows first. A second oil is gained by breaking the mass, and moistening it with warm water, and returning it to the press. A third, and still inferior sort is obtained by boiling the residue, or by breaking, moistening, and fomenting it in large cisterns, and again submitting it to the full force of the press.

Medicinal Uses.—Aperient; Emollient. It may be given in the quantity of a pint. Over castor oil it possesses no advantage; it enters into the composition of liniments, &c.

OLEUM PICIS LIQUIDÆ.

OIL OF TAR.

Take of Tar	5	lbs.
Water	4	pints

Distil from a retort with great care. What remains in the retort is pitch.

Medicinal Uses.—Stimulant and irritant. This is only used as an external application, either alone, or combined with olive oil as in the Linimentum Picis Liquidæ.

OLEUM SULPHURATUM.

SULPHURATED OIL.

Take of washed Sulphur	2	ounces
Olive oil	1	pint

Heat the oil in a very large iron vessel, and add the sulphur by degrees to it, and constantly stirring them with a spatula, till they are united. This is merely a solution of sulphur and oil.

Medicinal Uses.—Used, in the language of the laboratory, to kill the quicksilver in making the Unguentum Hydrargyri Fortius.

OLEUM TERIBINTHINA.

OIL OF TURPENTINE.

Take of common Turpentine - - 5 lbs.
Water - - - 4 ounces

Distil the oil from a copper alembic with great care, what remains in the retort is resin.

Medicinal Uses.—Diuretic; Stimulant, given in doses from two drams to one ounce, this acts as a diuretic; but in doses from ℥ iv to ℥ viij it acts as a stimulant to the intestines in cases of gripes. Applied to the skin, it is a violent irritant; but combined with olive oil, it forms a useful embrocation.

OPIUM.

OPIUM.

The white poppy of which this is the produce, is a native of Asia; but is sometimes found growing wild in England. The market is principally supplied with opium from Turkey, though the poppy is cultivated in almost all states in Europe. To obtain opium, the half ripe capsules have all, after sunset, longitudinal incisions made in them; the night dews favour the exudation of the juice, which is collected in the morning by means of a small iron scoop; it is then deposited into an earthen pot, where the whole is worked by the hand, in the sunshine, until it has acquired a considerable degree of spissitude, it is then formed into cakes, which are laid in basons, to be farther dried. Then they are covered with tobacco or poppy leaves, and packed in chests, in which state they are brought to this country.

Medicinal Uses.—Producing but little effect on the Horse, none as a narcotic, like the narcotic of the human subject, generally acting as an irritant. It is very seldom employed at the College; very little good effects having resulted from its use. The tincture is sometimes employed in ophthalmia.

PETROLEUM,

BARBADOES TAR.

This variety of bitumen is collected from the surface of water which exudes from the sides of hills, in which pits are sunk for its reception, and skimmed every week. The greatest quantity is produced in the East Indies.

Medicinal Uses.—Stimulant. It is applied externally, but possesses no advantage over common tar, which by some means or other is compounded at the College.

PIX NIGRA,

BLACK PITCH.

This is the residue in the retort after the distillation of the oil from tar.

Medicinal Uses.—Slightly stimulant, and adhesive; but seldom used.

PIX LIQUIDA.

TAR.

This is obtained by placing billets of the Scotch fir in large stacks, which are covered with the turf, and to which fire is then applied. They are suffered to burn with a slow smothered flame, during which time tar is formed by the decomposition of the resinous juice of the wood, which flows to the bottom, and runs out at a small channel cut for the purpose.

Medicinal Uses.—Stimulant applied externally, entering into the composition of unguentum Picis Liquida.

PLUMBI OXYDUM SEMIVITRIUM.

SEMIVITRIFIED OXIDE OF LEAD.

LITHARGE.

This oxide is prepared by the action of heat and air upon lead; the lead is placed upon a warm furnace on a hollow dish made of ahes, and kept at a red heat with the blast of a large pair of bellows directed on its surface; an oxide soon appears, and is successively formed by raking of it, and exposing it to a new surface.

Medicinal Uses.—In making the liquor plumbi superacetatis.

PLUMBI SUPERACETATIS.

SUPERACETATE OF LEAD. SUGAR OF LEAD.

Take of Carbonate of lead	-	1 lb.
Acetic acid	- -	1½ gallon.

Boil the carbonate of lead with the acid until it is saturated, then filter through paper, and evaporate it until a pellicle appears, then set it aside to chrystallize from off the super natant born fluid, and dry the chrystals on blotting paper.

Medicinal Uses.—Cooling, applied externally, in the form of solution.

POTASSÆ NITRAS.

NITRATE OF POTASH. NITRE.

This salt is both a natural and artificial product, being found on the surface of the soil in some parts of the world, particularly in India; and prepared artificially in France and Germany, by the decomposition of animal and vegetable matter, after it is purified. It is also formed by the union of potash and nitric acid.

Medicinal Uses.—Antiseptic, given in doses from one to two ounces; externally in solution, one ounce in ten ounces of water, as a preventive to gangrene.

PTERORARPI LIGNUM.

RED SAUNDERS WOOD.

This tree is a native of the mountains of India and Ceylon; the wood is brought to England in billets, which are very heavy, and sink in water. It is merely used for its colouring matter, which it yields readily to spirits.

QUERCUS CORTEX.

OAK BARK.

This is prepared from the small branches in spring, when it contains four times its astringent principles to what it does in winter.

RESINA FLAVA.

YELLOW RESIN.

The residue in the retort, after the distillation of the oil from the common turpentine; but should the process from the distillation of the turpentine be carried on without water, what remains in the retort will be amber-coloured resin; but this is easily made yellow, by adding, while fluid, a small quantity of water, shaken together.

Medicinal Uses.—Diuretic, in doses from ʒ iv to ʒ j, combined with soap, in the form of ball, making the bolus according to the directions of the College.

SAPO CASTIL.

CASTILE SOAP.

This soap is prepared in Spain (hence its name,) by the combination of barilla with olive oil; to which is added a small quantity of sulphate of iron, which gives it its marble appearance.

Medicinal Uses.—Slightly diuretic, rarely given alone, cheifly in union with resin.

SAPO MOLLIS.

SOFT SOAP.

This is made in the same way as the former, with the exception, that potash is used instead of barilla, or soda, and the colouring matter left out.

Medicinal Uses.—As the former; in case of gripes caused by the exhibition of sulphate of copper, from two to four ounces dissolved in water has been given with great success.

SPIRITUS RECTIFICATUS.

RECTIFIED SPIRITS OF WINE.

This may be obtained by any vegetable substance, in which the vinous fermentation is not completely over, by distillation; the first result is ardent spirits, as brandy, rum, &c. It is from re-distillation that rectified spirits is produced, which is very simple, being nothing more than the repetition of the process of distillation, with the addition, if necessary, of some alkali or lime, to destroy the empyrematic flavour, and absorb the water. Proof spirits is made by mixing nearly equal parts of water and rectified spirits.

Medicinal Uses.—Stimulant; principally used as a menstruum.

SULPHUR SUBLIMATUM.

SUBLIMED SULPHUR.

Sulphur is found native in the neighbourhood of volcanoes, and sometimes, though rarely, in veins traversing primitive rocks. It is dug up near Naples in a state of comparative purity; this is sublimed, and cast into moulds forming boll sulphur. This contains commonly some impurities.

Medicinal Uses.—Purgative, from one to two ounces, for cows.

TEREBINTHINÆ VULGARIS.

COMMON TURPENTINE.

This is procured from Scotch fir, when the tree is about forty years old, by stripping off the outer bark to the extent of six inches, so as to expose the inner smooth bark, near the foot of the tree, making a wound with an instrument three inches square and one inch deep; the resinous juice soon begins to exude in transparent drops, which fall into a hole previously dug to receive them. Fresh incisions are continued to be made till the month of September. A healthy tree will yield from eleven to twelve pounds of turpentine annually for a century. It is afterwards purified by filtration, through casks with holes in the bottom.

Medicinal Uses.—Diuretic; externally digestive; as a diuretic, given in doses from ʒ j to ʒviij in form of ball; as a digestive externally, it is used in the form of unguentum.

TEREBINTHINÆ VENETA.

VENICE TURPENTINE.

This is the produce of the larch fir, obtained in a similar manner to the foregoing; but the greatest quantity of the Venice turpentine is made by melting together the amber coloured resin and oil of turpentine.

Medicinal Uses.—As the foregoing to which it gives place, possessing no advantage over it.

VERATRI RADIX.

WHITE HELLEBORE ROOT.

This plant is a native of the mountainous parts of Greece, Italy, Switzerland, Russia, &c., the root is dug in autumn and dried.

Medicinal Uses.—In small doses (and with great attention,) from ℈ j to ʒ j, frequently giving it, will produce sedative effects; but if the effect be not narrowly watched, or if the dose be increased from ʒ j, nausea will be produced and violent irritation.

Externally it is combined with oil. It may, however, be used with advantage in affections of the skin, either in the form of decoction or ointment.

ZINCI OXYDUM.

OXIDE OF ZINC.

This is made by throwing small pieces of zinc gradually, into a deep crucible, placed obliquely in the furnace, and made of a white heat; it should be so placed that the zinc may be exposed to the air, and that it may be frequently stirred with an iron spatula. The oxide, as it is formed, is to be taken out, and treated in the manner as directed for the preparation of chalk.

Medicinal Uses.—Tonic; but gives place to the following:

ZINCI SULPHAS.

SULPHATE OF ZINC. WHITE VITRIOL.

Take of Zinc, in small pieces - 4 ounces.
Sulphuric acid (by weight) 6 do.
Distilled water - - 4 pints.

Mix them in a glass vessel, and the effervescence having ceased, filter the solution through paper, then boil it till a pellicle appears; set it by that chrystals may form.

Decomposition.—The same process acts here as in the preparations of the sulphate of iron and copper; the oxygen of the water unites to the zinc, converting it into an oxide of zinc, which is dissolved by the sulphuric acid, forming sulphate of zinc, whilst the hydrogen of the water assumes the elastic form, and escapes.

Medicinal Uses.—Tonic, internally; stimulant, externally. As a tonic, it is given in doses from ʒ j to ʒ ss; but it is now rarely used at the College. It is used externally to promote healthy granulations; it may be used either in the form of solution or ointment.

ZINGIBERIS RADIX.

GINGER ROOT.

This plant is a native of the East Indies, but is now cultivated in the West Indies, to very great advantage. Our finest quality comes from Jamaica; the root is dug up after the herbaceous part of the plant is withered in January, and dried in the sun. There are many sorts in the market, but they all possess the like qualities, differing slightly in strength, but none in flavour and appearance.

Medicinal Uses.—Carminative, in doses from ʒ ss to ʒ ij; in the form of ball it is the active ingredient in the formulæ, bolus cardeavæ.

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