Fragmenta veterinaria; or scraps from my memorandum book

FRAGMENTA VETERINARIA;

OR

SCRAPS FROM MY MEMORANDUM BOOK.

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FRAGMENTA.

1. The establishment of a Veterinary College in this country, was a noble attempt at improving the knowledge of the horse and assisting the arts and commerce that greatly depended upon his labors. The French had led the way in the cultivation of this species of knowledge, but, excepting a few books on anatomy, had not proceeded far in the knowledge of the shoeing or diseases, and our unfortunate college experienced this, as the works of its professors sufficiently attest. We are now upon more solid ground, and the advances are not imaginary, but real, for the horses are going better almost universally, and are not so often lost by disease.

The old principle of shoeing, was to take care to fix them on as tight as possible, to secure them from coming off; the new principle since the discovery of the elastic principle is to give them all the liberty possible consistent with their security, and this it is found can be done by leaving four fifths of the inner limb free from nails and at liberty, by which the horse goes freer in his action and pleasanter to himself, and his life is

extended by it many years. A figure of this shoe is seen Essay on Expansion Shoeing, p. 6, fig. 2. And it must be obvious to every reflecting mind that a soft elastic furch or frog would not have been given, if the foot had not been designed for very wise purposes to be elastic, and yielding to the weight and burthen brought upon it.*

In every land there should be schools for the education of the horse, and also for the instruction of the man in the use of him. And horse racing introduced here by the Stuarts is of all cruelties inflicted on these worthy animals the worst. Betting in the small way in the streets is thought a crime. and is punished, but betting for thousands in the large way on the race course, is thought very glorious! These rending life struggles of these worthy creatures is perhaps the greatest cruelty than animal existence permits. His instruction and education is simple when rightly undertaken, but at times requires a little patience with a wayward subject. As we have erected a noble school in England for the due consideration and study of the horse, we hope it will not be suffered to be frittered away and lost again to serve the interested purposes of men who had no hand in its formation.

It is a most important and interesting fact also in regard to the shoeing, that the shoe should not bear upon the heels, as it makes the horse go insecure and fumbling, see the illustration of this by experiment at p. 11 of the Stereoplia.

And we may also add, that any one making experiments on shoeing, should not fail to ride the horse he shoes, or he will never know the exact effects of it. We may make this remark the more impressively, as the smiths ignorantly say they lay the shoes on the inflexions, in order to render them *more steady*, a takeing but foolish suggestion, as the 7 nails do

* viz To avoid all jar and repercussion

this efficiently without it, and these heels or inflexions being carried under the foot to the center of impression of the limb are the more easily bruised, and then are absurdly called by the smiths *corns*, forsooth, and many a fine young horse has been thus abused by the very first shoeing.

Indeed after a long and painful consideration of the difficulties of the subject, we are brought to the unexpected conclusion—that in order to shoe safely and scientifically, we ought never to lay the iron on or bring it in contact with the heels or inflexions at all, but to leave a clear space between the iron and the hoof, of the sixteenth of an inch, and not touching the horn, that we may be well assured no injury can arise that can affect these tender parts, occasioning by a slight degree a rupture of the blood vessels, and redness of the parts, and in a greater degree, inflammation and suppuration, and those terrible disasters artfully termed corns; and we shall thus remove a thousand offences in different degrees against those tender points, which many of them without advancing to a suppuration, are annoying the horse in an undefinable degree, which notwithstanding his great patience and courage in bearing pain, cannot fail to be expressed in some degree by his action. For it is true that bruises are a very prevailing case, suppurated or not suppurated as it may be, which might all be removed by the above suggestion and thus render a great blessing to the horse, and also to mankind in the use of him.

Also the idea of steadying the shoe by laying it on the heels should be entirely removed from the view of the workman conveying error and leading to such a serious mass of evils.

As there is no name at present for these, but too frequent and abominable injuries, and as we are obliged always in

speaking of them to use utterly false and delusive terms, so we should be led to propose something more distinctive and appropriate, as *Contusiones, Ferrimala* or in simply speaking *fermals,* and thus do away a deal of mystery, confusion, ambiguity and misconception, and greatly benefit the art.

The vast uncertainty in the performance of the best race horses is a subject of frequent lamentation with betting sportsmen, and which in a great degree we believe to be owing to the grievous effects of the *ironing* of their feet; never performed twice alike, for I will not now call it by the delusive name of shoeing, its real effects upon the foot we have honestly pourtrayed in the *Hipponomia,* and if cats have been born without tails after having this member amputated for a few generations, and the Chinese feet are said to become smaller than the rest of mankind by the unremitted constant prsesure, we think it not assuming too much to imagine, that the horse suffering by this vile ironing through hundreds of generations has lost the full comforts and spread of this natural organ, which only could be restored by many successive generations of full liberty for life of this important organ. What infernal inflictions indeed are imposed on this most suffering, kind, forgiving, worthy, generous and most useful of animals ! !

2. A VIEW of the Tribes of which THE HORSE is a member viz. the *Equidæ*, taken chiefly from *Martin* and *Moorcroft*, in the Asiatic Researches, and Owen in the Philosophical Transactions and others.

The *Equidæ* can be divided into 3 families, according to Edward Gray, viz. *Equus*, *Asinus*, and *Hippotigris*.

GENUS. 1. *Equus* Mane and Tail long, full and flowing, a projecting callous of horn inside all 4 legs.

1. Var the *Curvidens* of Owen, found by Clausen in Brazil, whether an accidental variety or distinct, uncertain.

2. *Nanus* or *Hippotherium* described by Kaup.

3. Himmalayan variety discovered by Cautley, also by Captain Beechy, in North America.

4. The Baskier Horse, bearded like a Goat.

Karakoom and Tarpan, on the Northern frontier of China, Darwin also describes the *Gran. Secco horse*, hunting on the river Parana. See Descr. of Australasia

GENUS. II. *Asinus*. Tail naked except the extremity, mane thin, callous on the fore legs only.

var. a. *Onager* of the Romans. The *Koulan* or *Wild Ass*, The *Lalisia* of Martial, eaten as a delicacy when quite young. It is the *Dzegzetai* of Tartary, and the *Yotaze* of Colonel Smith, seen in Chinese Tartary, and probably only the wild descendant of the former.

GENUS. III. *Hippotigris* or the *Striped Horses*: The 1. *Zebra*, 2. Burchel's do.,

3. *Quagga* of the Cape, or *Dau* extending thence into Caffraria, to the Mosambique, Congo, and up into Abyssinia, says Udel. The troppical quagga of Sennar and Cutch has a dark dorsal line.

The *Ghorkhier* of Elphinstone, Kiang of *Moorcroft*, of the old ass of Arabia Petrea, of *Burchardt*.

3. One of the greatest hinderances and drawbacks to the spread and advancement of useful knowledge and practice respecting the horse and his invaluable services, is the continual influx of ignorant, uninstructed men from all parts of the country into this large city, who as the custom is, are admitted into our forges, without the least inquiry as to their competence for the delicate operation of ironing the horses foot, or helping in the various surgical and medical offices, that his services renders at times necessary. And often in proportion to their ignorance is their stubborness and conceit, and when you have got a little the better of these difficulties by instruction afforded, you are perhaps suddenly left, and again the same difficulty occurs.

It certainly would be a wise measure in a rich country like this, to have a school for teaching the neccessary preliminaries for people engaged in this important pursuit, with examinations and attestations of their capability in this respect that when a man hires them. and receives them into his forge, he may be at some certainty of the article he engages. More mischief than the public dream of, is done for want of these precautions, what man would be allowed to go on board ship or in the army, to act as a doctor, without some enquiry or testimony of his fitness, for these men often supply the office of the master in his absence. A cheap, easy license after examination would stop all this, and an admitted competent performer would ensure better wages.

It is not many months ago I was standing by chance, at a shoeing forge, near the Foundling Hospital, when I saw a fine young horse, with a beautiful fresh foot, and a *greenhorn* with one deliberate slice of his drawing knife remove half the horn on one side of the furch, and then the other. I

turned away revolted at the proceeding, for had I remonstrated I should, I knew get only abuse in return and have been told how impossible it was that I could know anything about these intricate affairs of horses, that it is high time measures were taken to prevent such scenes as these, as we shall have further remarks to make by and by on the abuse of the drawing knife, we desist from further hints at present. We cannot however help suggesting that some spare nook or corner, or apartment of the noble Veterinary Establishment might be most usefully appropriated for the licence and examination of country individuals, desirous of occupying themselves with the labors of the forge, of their fitness for such occupation, and not permit every one who pleases, to cut and hack their feet about at their simple apprehension, and pleasure as at present.

I now taking advantage of the fragmentary formula I set out with, introduce to the readers attention another often domestic favorite.

4. The CAT. frequently the affectionate and delightful companion of young and old, and sometimes of those whom the world does not congenially harmonize with and cherish, these worthies are fed, especially in large towns and cities, chiefly on horse flesh obtained from the slaughter houses, supplied conveniently at the door by small indigent traders whose sole occupation it is, and after a time owing to the solidity of the meat, they become heated and feverish by it, it then flies to the skin which becomes hot and looses its hair in patches, and at length rough and mangy, This state of things we find to be removed by changing the food to lights,

or lungs, which appears designed their appropriate food, as they are very fond of it, and prefer it to any other; the flesh, bones, and often liver, are being left for the dogs. By feeding them less plentifully and dressing their diseased skins with lard, and an occasional touch with the end of a tallow candle, to encourage the growth of the hair, the disease disappears pretty quickly, especially if dressed daily, for the lard is soon absorbed or flies off. A little flowers of sulphur added to the lard, we have thought assisted its action.

5. I believe I was the first to notice, at least that I am acquainted with, the apparent law of the distribution of the internal viscera and contents of the chest and abdomen of animals, their being arranged according to the law of their gravity, thus the liver the weightiest of the lot, was placed nearest the center of gravity, in the central or middle place of the animal,between the hind and fore legs,and the stomach, ever varying in its weight next it, the kidnies and intestines and the lungs also being very light are disposed at either end or extremity of the body, thereby favoring all lateral or circular movements of the body. The advantages of which arrangement will be obvious, and which disposition would not be so striking on view of an erect or perpendicular animal as a man, and which may have caused the fact not to have been noticed that we know of before, The circumstance is vastly more visible in the contemplation of the section of the entire body.

6. With regard to Shoeing of the Horse or defending the foot with iron, as the part so treated is a living sentient part, so the operation of doing this may in some degree come under the designation of a Surgical operation, and therefore requiring anatomical knowledge of the organization about to be so treated, influencing essentially its future existence. Now this has hitherto never been thought of, but the object in view has been to defend it against the wear of the road at any cost of its structure and laws, now a more reasonable view is taken of one of its essential properties, viz, its accomodating *Elasticity*, and which taken into the account, makes the shoeing become quite a different matter from merely enclosing any rough body with a circling band of iron. Therefore the operator to be properly equipped for this service, should as far as respects the organ he is dealing with, become an intelligent anatomist, and then, and not till then, will he perfectly succeed in his undertaking, and with this knowledge will his art rise in usefulness and respect, and his occupation be rewarded with more honor and more wages, at least so it is to be hoped. Though in this respect it is not much to be complained of at present when compared with the wages of other similar artificers.

Now the business of the Shoeing artificer should be to consider the real structure and nature of the living organ he is practicing upon, before he is permitted to drive a nail into it and closely embrace it with his iron bondage, so as not to offend against the fundamental principles of the foot, and then finding mischevous effects resulting from it to cut and slash away necessary parts under pretence of relieving it, but in reality making bad worse, for want of understanding its general laws and structure.

On the Rarey System of Horse Taming.

7. We hail with pleasure anything coming from this new born land of America, unencumbered as it is with the tumors, incrustations and impediments usually thrown in the way of advancing knowledge by old governments and laws. However it is not to be expected that all will be good that proceeds thence, without some degree of pruning and setting to rights, as being too wild for immediate adoption. How earnestly we wish the noble example of the founder of Pensylvania may be kept always in view by this people, who nobly refused to receive the gift of the land of Pensylvania, though given him for a debt, till he had satisfied the natives of the land by a solemn treaty and purchase.

The present performance of Rarey is brought before the public by one enamoured of his system, if such it may be called, by a fox hunting squire, a writer on horse subjects for the newspapers, a school not very much entertained by the public for this species of investigation. In the first place we must seriously object to the very title which is rendering injustice to the horse, making him a sort of wild beast that stands in need of being *tamed.* Instead of which we hold him from his natural inoffensive disposition to require nothing of the sort, but has been most kindly delivered to our hands by a merciful Creator, neither wild nor mischevous, but only requiring a little gentle breaking in, or education, without any punishing him or injuring him, to become the docile, faithful, laborious, ready helpmate of man, that could be possibly desired.

His education we hold should consist of gaining his friendship and confidence by gentle measures, and not by deceiving

him and punishing him by throwing him down and frightening him, and grievously *sweating* him, and accompanied with all sorts of fears and apprehensions.

The most noble of dispositions we know, may be subdued by extreme punishment and severity, but is this the way to make a loving, obedient slave, that should have pleasure in giving satisfaction to all reasonable demands, and in return for it receiving kindness and rewards.

Better works than this exist and should have been consulted by this writer for the Newspapers, as for instance, Beringer's second edition on the Horse, copied into Rees's Cyclopœdia, and again copied in Clark's works on the bits of horses, which far transcends every suggestion in this volume. Treachery of all kinds we believe to a noble animal of this description should be avoided,and the obtaining his love and confidence should be our chief aim, by patient sedulous measures, which it is not our business here to reiterate, and as to Beringer and some others of whose labours we cannot suppose him entirely ignorant, but of which there is not even a mention, and, indeed, as a system of general *Horse Breaking* it is almost useless, and inferior to works we already possess on the subject.

The latter half of the volume is filled wholly concerning his fox hunting affairs, without one word about the *taming* business.

As to these extremely obstinate cases, they, we believe, nine times out of ten, where owing to their being set about improperly, by violence, or ill fitted and ill adjusted apparatus offending and causing objection and not being judiciously met and attended to and removed, occasioned the rebellion and untowerdness that was so much complained of.

8. On Drawing Knives. The only article a country shoeing smith has to equip himself with, in order to present himself at the door of the shoeing forge for employment, is the said drawing knife, and soon he lets you know what it can do.

The public but little dream of the mischief that is being done to their horses by that wretched instrument, which we sincerely believe in the present state of the art, ought to be forbidden, and banished from the shoeing forge, and all removals of superfluous growth be done by the rasp alone, such after sixty years experience in the forge, is our sincere belief. If there are portions of exfolating sole that adhere from the motionless state of the arch of the sole, from the firm nailing on both its sides, such can be loosened and pulled away by any common blade or pocket knife, without the aid of any drawing knife, and as to the over growth of the wall, the sharp rasp is the properest instrument for its removal.

The chips also from the cutting of the hoof, sold for a trifle to the workers in steel, ought to be the perquisite of the masters, and not of the men, inducing delabrations mischevous and unnecessary to the great injury of the horses, and little advantage to any one. The foot trimmed close and unduly rasped on the outside deprived of its defensive coat from the air dries and pinches, and adds to the general discomfiture of the animal, whose foot cannot be left in too nearly its natural state.

However, notwithstanding our horror and aversion to the drawing knife, from a long period of witnessing its abuses, we must at last admit the necessity of its presence in the shoeing forge for the curvature part at its extremety is indispensibly requisite for the removing horn, when we search deep for the

for the presence of pus under the horn, from the pressure of nails driven too close to the quick, or have bent in their course towards the flesh; as also in bleeding the circular vein of the foot, or in the removal of cracks in the hoofs from uneven shoes, or the rasping the very useful flinty rind off, its proper defence from the air, and from its drying and pinching. So that we are compelled at all hazards to retain these knives in the forge at present.

When I look back to the period of my commencing these studies sixty years ago, the vile buttriss was in universal use for cutting a wide, deep notch in the heels, to widen and make them fly open, as they said, but which in reality by weakening the frame of the hoof, made it only contract the faster, this weapon is now wholely disused, and the business scarification left to the drawing knife alone. People then indeed were so subdued by their mishaps and troubles, with their horses, that they hardly dared call in question whatever the grooms and the smiths declared to be right.

These were the palmy days for the forge and the stable, and *nicking, docking, cropping, and fireing* went on gloriously and borne down by the strength of the tide, I was obliged to become a reluctant participator in these doings, or be cast aside and with no opportunity of practice and to be without that indispensible, never failing thing *practical knowledge,* which I wished to acquire. At length, finding where the error lay, in the shoeing, in not attending to, or understanding the necessity of providing for the elasticity of the foot; a property first described intelligbly in the *Podonomia,* but which the booksellers also would neither buy nor encourage, declaring it out of print, if called for, having their own subordinates in

view, who published books almost without number.

Whilst at Worcester, near the expiring of my apprenticeship, I by chance heard that a Veterinary school was about to be established in London, the ground and buildings of which were provided by the munificence of the noble duke of Northumberland.* Fond of the horse, and his many excellent qualities, I determined on joining the concern, St. Bel, a french gentleman being made its professor, poor fellow within a twelvemonth he was cut off by a dreadful attack of low nervous fever, which Dr. Crawford who attended him, from the tumors and boils which attended it, said, it more nearly resembled the plague as described by authors, than anything he had ever seen in this country. On his death Mr. Moorcroft was chosen professor, but declined going on, on account of its too much interfering with his own business in Oxford Street, and Coleman therefore was invited to assist him. I remained in the college two years. I then left for a long tour of two years nearly, on the continent, visiting all the Veterinary schools, from Copenhagen, north, to Lyons, south, witnessing their coarse and rough proceedings. Returning home, I found a vacant spot in the centre of the metropolis, where I commenced my labors, by erecting some stables, a forge, and a counting house, and finally a dwelling or two.

In seting down to business I chiefly found encouragement from the large brewers, whose horses I attended, and learned much from this practice. The public at large did not so much encourage me, and the business that was brought me as soon as the horses were relieved by the shoeing and made to go a little better, were too often taken away again by

* But which has been infamously curtailed by those left in charge of it.

the servants to their old associates and boon companions to the forge they were used to. The cases of surgery that occured were principally of denuded feet from the most dread abuse of the buttriss, and the drawing knife, and then the abraded surface of the quick being exposed to air and wet, and surrounded with impinging horn, were called *cankered cases*, though with nothing of a cancerous nature about them, but through exposure and vile applications were made difficult enough of cure, of which I have given a lengthened sketch and essay among my other works, many of these workmen considered themselves very expert in curing these cases, but my experience did not confirm their pretensions, but on the contrary, for after heavy expences incurred in keep, they were often led ultimately to the slaughter houses to be destroyed

St. Bel also published models in Brass, and in plaster of what he considered perfect shoes, but of little real use, as they only retained the common principle of nailing up both sides of the foot, and the horses did not perform well in them, though we could not guess why for a very long time, indeed long after his death, and indeed not clearly and definately made manifest till the begining of this work, when the two principles are expressly stated and rendered clear.

Coleman with his Frog pressure system, slavishly adhered to and taught, though found to be erronious, to the youths of the college, threw back the art for 40 years, misleading and injuring the success of their practice also wherever occupied with it taking out patents for it, to the day of his death.

The shoeing smiths are not a very numerous class, which makes their wages run high and their conduct somewhat independent and conceited. They are also generally self ap-

pointed to the work,and without any preparation of a specific education, fitting them for the undertaking ; all this ought to be looked into and be brought into more intelligent and useful order, we believe, to fully answer the design intended, and to be a very beneficial association to the public, and the advance of the treatment and extended utility of the animal, and also of his own comforts. And indeed if a catalogue of all the necks broken by the falling of their horses were made out, they would be a frightful and formidable list, that would make people see a little better after the origin and causes of it.

And all privileged incorporated bodies are apt to throw back all improvements made by individuals and not emanating from themselves or advancing their reputation.

The principle of liberty to the foot begining more strongly to dawn upon the public, so slow are first impressions, so these glimpses were met by attempting to shoe with *Tips*, and which became a good deal used. the horses improving in their going in them induced the trial of a three quarter shoe, and this led to very short shoes, and from this came a three quarter shoe, and this led to very short shoes, and from this came a trial of a full shoe, jointed, and a jointed shoe may be seen in old books on farriery, as Blundville &c. Yet they a centuary ago were employed without any notion of the expansive elastic action of the foot, because in the hunting field, a shoe lost would be readily supplied by one that opened to any requisite extent, by a joint in the toe—well this shoe being applied was found to give ease and good action to the horse, and supply the principle wanted, and as it was thought too soon worn out at the joint. The *Tablet Shoe*

which was invented by me, and published in London 1827, it consisted of the common shoe divided at the toe, and united again by a steel tablet, having two strong steel rivets on which these halves played The horse went well in it, and it became extensively used, among others by my worthy friend Joseph Dockwra, of Kelvedon, in Essex, he on one occasion being without a supply from my forge, directed his smith in the country to leave the nails out on one side, this proposition of course occasioned great alarm to the smith, who told him he would never if he went his journey to London see them come back to Kelvedon, he persisted however, and to his great surprize they came back safe, and indeed staid on till they were fairly worn out.

The horse no doubt finding their comfort by taking wider and flatter steps favored their staying on.

In this way for two whole years were they in use before I was acquainted with what was going on, and many hearing his account and seeing the superior going of his horse were induced to try it. I acknowledge on hearing it I was incredulous about them, at length a horse was sent to Wapping to show me, and see the fact, and on his being exhibited I took up his foot and to my astonishment found a single nail inserted in the free quarter, and pointing it out it occasioned a general laughter; the fact was, that the poor simple journeyman who put the shoes on could not bring his faith to believe they could be secure without, and put it in unknown to his master: the nail being drawn out, the shoes staid on their appointed time and no doubt from this time was entertained of their adequacy.

On this mode of defence becoming known in Wapping, it

spread from thence into the City, and the practice did not long want for plenty of claimants, a letter however from me to Joseph Dockwra himself and his answer lithographed from his own hand writing soon put an end to this.

It is a matter of truly painful consideration and regret to look back upon, that for several hundred years the horse has been shod in iron shoes without any sort of principle being known to guide the smith in his labors, that his shoes should be fast, tight on and should not fall off was all that was required, every ignorant individual following his own notions,

The state of the bones of the Eclipse horse, mere rounded knobs which are now before me after 24 years shoeing, manifest the effect of double nailing and confining the arch of the foot for this period and he at length was obliged to be carried about in a box, or van, drawn by another horse and the groom riding inside with him, as do also manifest the more exact and guarded experiments found in the Podophthora.

SUPPLEMENT.

Plain Directions for Nailing on the Shoes. As far as we know no printed instructions has ever appeared on this important department of the art which is well deserving enquiry, and the following imperfect sketch may lead to improvements, that may perfect the art, in obtaining this sketch we have of course availed ourselves of the aid of the most experienced and adroit artificers we could find.

In the first place, obtain a shoe so scientifically holed for permitting an elastic yielding as shall not compress the arch of the foot, and cause those evils to the foot itself and danger to the rider as have hitherto been so lamentably the case.

It is now discovered that both sides of the arch of the foot, should not be held in durance vile by nails, in opposition to each other, but should be so disposed as to give the utmost degree of liberty to the foot, consistent with its security from coming off. And it is well ascertained this can be done by five 6 or seven nails, according to the size of the foot, appropriately placed and duly rivetted. Of these seven nails five circumscribe the pince or toe and one or two extending to the outside quarter not very far along it, the rest of the hoof is left wholly without nails

To prepare the nail for its insertion which comes often very rough from the nail maker, It is taken in the left hand and laid on a steel upright square or cylindrical shaft, firmly fixed on a column of wood, or on a seperate stool on the work bench, laid flat on the stake it receives a good hammering on one side and then on the other, and then on the two edges, so as to render it uniformly tapering, and smooth for passing easily into the hoof, the head also being well figured and made square. The point is next requiring a more scientific and careful attention in being brought to a round clear point, which point is then by an oblique stroke of the hammer reduced to the figure of a half or divided wedge longtitudinally, the slopeing side being directed to the inside and the flat side to the outside of the hoof, thus giving it an inclination to pass outwardly. In making this description, we have not the vanity or ambition of thinking it perfect, but of fixing a point in the art whence future ages can know if they have improved, remained stationary, or retrograded in the art.

The first nail in fixing on the shoe we imagine should be inserted about the middle of the outer pince, this part well presenting, and also part of the hoof being more extended than any other, and especially as the adjustment of the shoe to its exact place, requires often a rectification by the hammer

The first blow given the nail is on the edge of the head outward, and would incline the nail to a course inwards, but the bevilling of its point keeps it making a course outward, and the rectitude of its course is judged of by the degree of resistance it makes to the hammer, especially when approaching the outward hard shell of the hoof, whereas if it has taken a wrong direction towards the quick, this is not experienced, and the nail is then withdrawn, and dressed for passing more externally to assure its passage outward. On its appearing outwardly the nail is driven home less cautiously by sharp blows on the full square of the head but not so fiercely as is often done fearfully lodging the iron against the vein of the foot.

The shank of the nail now appearing outwardly, is by a blow of the hammer turned down against the hoof and wrung off, leaving a small excess to secure the clinch which is then knocked down and polished with the rasp or file.

The last nail should be less than the rest, as the hoof is growing thiner posteriourly, and the inflexural knob should be left as free as possible from impression, and the nails must not be inserted too close for fear of breaking up the intervening horn, nor too wide asunder lest we too much circumscribe the hoof and prevent its elastic action, and the full success of the shoeing can only be known by riding the horse a few miles with an easy rein.

Finally, in finishing the process do not with the rasp, rasp off the very useful cuticular covering which nature has kindly furnished it with to defend it from drying and pinching The young horse in his first shoeing should be treated with the greatest kindness and circumspection

FRAG XII. About seven hundred years ago at the commencement of attaching iron for defence to the horses feet, they did not discover any property in the foot forbidding such a practice, but that all they had to look to was, to fasten them on tight, and to take care they should not fall off, nor did any change take place that we know of in all this long period, little did they dream that their plans was, the subverting one of nature's essential and important qualities, nothing less than that of an elastic yielding to the impression of the weight in the progress of the animal with or without a burthen. Unfortunately they did not perceive that the horse's hoof was by means of the sole of an arched figure, nor did they perceive if they fixed two nails in exact opposition through their iron band, and then through the heels of this elastic arch, that no motion or movement of any kind could have place where they were so blocked and fixed, and a second pair in the same way rendered this arch doubly immovable, in which state of restraint the foot solidly blocked and held night and day for a long period, would soon loose its natural properties and suffer from compression and numbness, and finally loose these properties by the absorption more or less of the parts thus pressed upon, and held under durance vile, first the exterior of the hoof, and then its interior contents, as the nut-bone and coffin-bone, and not discovering what was really taking place, they ingeniously attributed all ill effects they perceived to any thing but the right cause, or to what reflected on their art, and mournful is the reflection that for want of this little bit of science and knowledge of the elastic yielding of the elastic arch of the foot, distributing the nails on each side of the foot, and directly opposite to each other, misery to thousands and tens of thousands of horses has been perpetrated, and thousands of property and lives both human and horses been sacrifieed with sufferings of the animal from compression and distress of countless amount. For the proofs and particulars of which let shem consult the Hippodonomia. For as there is no giving way on the sides, the compression necessarily takes place towards the centre, injuring and destroying those parts, and which shows the new mode of nailing in the segment of a circle, to be imperiously necessary.