Guide to the shoeing-forge, or plain directions to gentlemen going to have their horses shod, of what they should observe in seeing it properly executed

GUIDE TO THE SHOEING-FORGE,

OR,

PLAIN DIRECTIONS TO GENTLEMEN GOING TO HAVE THEIR HORSES SHOD, OF WHAT THEY SHOULD OBSERVE IN SEEING IT PROPERLY EXECUTED.

By BRACY CLARK, F.L.S. *Foreign Member of the Royal Academy of Sciences of Paris, &c. &c.*

There are many persons not deeply initiated in the knowledge of the Horse that would be at a loss, on these occasions of entering the Shoeing-Forge, to know what they ought to require to be done, or what they ought to require to be left undone; and such would we believe not be unthankful for a few plain directions in these matters, from the more informed and experienced; that they might be able to prevent injury to their Animals, through ignorance or carelessness; or, which is more to be feared, through over-activity and officiousness of these men.

Having been nearly forty years extensively engaged in these pursuits, and in that time erected several Forges for shoeing in various parts of the kingdom, at the solicitation of individuals, as well as for my own use, I have taken upon me the attempt of supplying to the public this desideratum, though, perhaps, but very imperfectly qualified for the undertaking. And my labors in this line having been blessed with some very valuable discoveries, respecting the foot and shoeing, do the more encourage me to this task; which appeared to me to be much wanted, in order to assure and confirm the public; that by their having simple, plain, and intelligible directions on these occasions, they might be enabled to act with decision and effect, and also such instructions might sometimes be of use to the artificers themselves, as well as to the public in general.

The more ignorant of the Shoeing-smiths often corrupt stable-servants, by cramming them with their own follies and absurd notions, and these in their turn convey them to their masters, who, deceived by them, often send orders the most preposterous to the Forge, for the guidance of the Smiths; and then, if you remonstrate with these men on the impropriety and folly of their conduct, and mischievous tendency of their practices, instead of replying to your arguments, which they know very well they cannot meet, they artfully cut the matter short by saying, "*it is the masters who will have it done:*" and so effectually close all avenue to common sense and improvement. They also resort to this crafty mode of defence, when the master has never sent any such ridiculous orders. It therefore behoves every discreet owner of a Horse to make himself acquainted, which is easily done, of what is necessary to the welfare and preservation of his Horse's feet, it being very simple.

In the present day, whilst such baneful practices are seen in almost every Forge, it becomes an imperative duty for the master to see after these matters himself, and give a personal attendance on these occasions, which may be done by setting aside about one hour in every month for this purpose, which is surely no very great difficulty or sacrifice of time; by which he might save many a valuable Horse, many an accident, and probably render many a journey pleasant, that might otherwise be both painful and dangerous, which would amply requite his labour and attention.

In entering upon this requisite duty, he would do well to chose an hour of the day when the shop is least likely to be thronged with horses, and whilst the light is yet good.

The Shoeing-forge, to be a good one, should have plenty of light, not from sky-lights only over the Horses' backs, but side lights also, that a good view may be obtained of what is passing. If much drink is going about the Forge, or there is much noisy talking or bawling to the Horses, or cant among the men, and a self-sufficiency and saucy indifference, such a shop at once shun, and if there be no better, endeavour to get others established, by due encouragement held out to more reasonable individuals; for there is no want of hands in this very necessary department of human labor at this time, nor is ever likely to be; or if they are observed to treat the Horses roughly with their hammers, or terrify them unnecessarily, take them elsewhere; since gentle measures will nearly always succeed best with these animals, as the truly experienced in Horses can well testify.

In tying the Horse up, see that the halter or rope does not offend his ears or his fore-top, or rub his eye, or damage his throat, for they are often rudely treated in this respect, and vice generated by it, which will not afterwards perhaps be very easily subdued.

In proceeding to take the shoes off, observe that he unclenches every nail, and does not cut pieces out of the hoof with his buffer* in doing it; after the nails are unclenched, let him pull off the shoe with his pincers, for some lazily rip it off without doing this, or but very imperfectly, and so tear away whole pieces of the horn, by which future shoeings are rendered difficult, the want of horn making it necessary to go too near the quick; and this evil may so increase at every shoeing, that it shall become highly dangerous or absolutely impossible to drive the nails without compressing the quick, and occasioning lameness or accidents, or finally perhaps the loss of the Horse. Also, if the nails are not duly unclenched, the force with which the pincers meet the sole to wrench it off, shall bruise this part, and give unnecessary pain, especially if it be thin and tender, it is therefore well, in such feet, to see that as many of the nails as may be are not only unclenched, but individually drawn out by the pincers: for a broken hoof, getting often from bad to worse, is a long time in being brought about again, and sometimes the horse is ruined before it is accomplished by untoward accidents: for the hoof grows but slowly, and fresh breakages easily follow the first.

Many persons have been led into frightful notions about the burning of horses' feet with red hot shoes; but here the alarm has been greater than the need; a man cannot put on a red hot shoe, as it is necessary he should first take it into his hands; he may however in fitting the shoe burn the sole, and the heat passing through scorch the quick, and therefore, in nag horses at any rate, if more than the slightest touch is used with the red hot shoe, just sufficient to mark the bearings, you should make him desist, and the heat of the shoe need not be more considerable, than is just sufficient to blacken the points of contact, as it shows them the bearings better than by any other way: it is not however often that mischief arises from this source.

* A square, short, iron knife, to cut off the clenches with.

The Shoeing-smiths have long tyrannized it over the public, as well as over the Horses, and have prejudices almost insurmountable. I dont know whether it would not be better for the public to institute a new race of artificers altogether, and under some new name, as *Stereoplists* or *Hippopodists*, or something of this sort, who would embrace, without so much opposition and rancour, any improvements which the advancing knowledge of the times, and progress of the art might demand, and forward by perhaps a whole century the adoption of salutary measures: the word *veterinary*, recently introduced among them, has already effected much good, and removed much of this tyranny, prejudice, and ignorance, and its accompanying obstinacy.

The shoe being removed, and the foot bare, it is to be well examined, and any broken nail, or *stub*, as they call it, drawn out. And next any loose, exfoliating horn of the sole to be taken away by the drawing knife, not so much by cutting it, as by pulling it out; then let him, in the lightest manner, shave over the whole surface of the sole, just to renew and clean it merely: if a piece of the bar, or inflexion is dead and exfoliating, this he may also freely remove, but on no account let him touch, on any pretence, the horn of the frog, as all the horn it can carry is necessary to its defence; let no rags even, which can do no harm and are easily worn away on the roads, furnish him with a pretext for this most baneful practice; this rule should be made absolute now, whilst there is such a disposition to mangle and scalp this tender part, which never has too much horn for its defence, but is often left by these tyrants with not even a protection sufficient to keep it from bleeding, much less to meet the stones of the road; and all this for no reason at all but their humor and egregious folly.* Let there be no notching of the duplicature or intortional column of the heels, under any pretence of opening the feet, which will in the end only invariably close them, by weakening the frame of the foot, and giving the iron more power over them, and by drying after this cutting, they will necessarily harden and contract, from the inner soft horn being exposed. How many thousands, and tens of thousands of Horses have been ruined in this way!

To finish preparing the hoof for the shoe, let him take his broad rasp, the broader the better (I use two rasps set in wood with a handle at the back, or rather loop of webbing, and this is used in the way of a brush, giving a very true level surface) and level the foot, that is, the wall, leaving the inside quarter and heel rather the highest; nature having ordained this, as a careful study of the hoof will show,† in order as it would appear to give this weaker and more elastic heel a power over the opposite one, its position being nearer the centre of gravity and weight, which falls in a line from the *sternum* between the fore legs, and therefore more to the inside; for it is obvious if this heel had been only equal or was lower than the outside heel, it must have borne a very increased and disproportionate weight; which is beautifully removed by this compensating advantage of the elevation given to it. In this way we shall avoid bruises, which are occasioned most often by this heel getting injured by the iron through ignorance of this, and then the fault is concealed by calling it a *corn*, setting people to believe it is like the human *corns*, whereas, in reality it is the very reverse; viz. a point bruised and red with extravasated blood from ruptured vessels by the bruise; where no *corne*, *cornu*, or *horn* can grow, or be formed, at least that is good and wholesome, whereas real horn is formed by the human skin, where no horn grew before.

The foot being nicely levelled, the shoe is applied, but we may remark another circumstance previous to the application of it, which is the vulgar notion that the toe should be considerably

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* See the full reasoning on this point in a sheet published by me ten years ago, on this important abuse, price 6d., entitled "Directions to Farriers, &c.;" also p. 31, pt. 1, Dissertation on the Foot. † See Dissertation on the Foot, p. 48.

shortened, and we once were captivated with this doctrine, but more full experience has taught us it is more often injuriously than beneficially attempted: tripping, we find, is not so much from length of toe, as from the benumbed and bound up state of the hoof, generally impeding its feeling and circulation; for with expansion shoes, which give them liberty in this respect, they rarely or never trip, however long the toe; so that, foolishly taking this part away, which is necessary for the bearing of the shoe, is wrong, and is apt if carried at all far, which it generally is, to bring the iron to bear upon the front of the sole, when the impression is ten times more injurious than the fault it is meant to prevent, and not only lameness but accidents, will afterwards generally ensue; that we recommend this part to be left pretty much *au naturel*, or in other words of moderate length, and it will be found to succeed best.

There are some workmen, who, to save trouble in fitting the shoe properly all round, make it to bear chiefly on the toe and heels, and so at once prevent its rocking about, but this is an injurious practice, as by such severe pressure at the heels, it is liable to produce bruises or *corns*, as they are called, especially in weak and flat feet,—and the toe also is not benefited by such severity. The quarters ought rather to receive the weight than any other part in good shoeing,—or at any rate, a general level bearing upon the whole surface of the wall; and if the feet be thin and tender, diminishing the pressure at the heels, by a blow given to the shoe, forcing the extremities downwards at these parts, after it has been fitted.

The next thing to observe is, that the shoe be of the same outline or figure and dimensions as the wall of the hoof, or a little wider than it, especially in contracted feet; as this will extend the bearing surface of the shoe on the ground usefully, and render the pressure less severe: expressions of danger from cutting will immediately be urged, and sometimes not without reason, but not generally so, and when expansion shoes are used, not the least regard need be paid to this suggestion, they never cut in these, even though truly large and rank, which shows clearly that it is in general the locked up and confined state of the foot that occasions this cutting, and not the excess of the shoe; and even if the foot be naturally large, let them not fit out the shoe much if any less, but follow the natural mould; Horses thus served with narrow shoes, often cut, and then they attribute it to the large shoe, whereas in reality, it is from the numbness of the foot, from its being too small; and again, they stupidly go to work to make it still smaller, which without remedying the evil, rapidly contracts and destroys the foot, and as it often does not cure the cutting, they say it is an incurable malady;—this folly is often called *neat shoeing*. The poet knew better, who says something after this manner:—

Still what end you have in view,
Be to nature ever true.

The handsome little Horses of Sweden and Norway travel often at the rate of ten, twelve, and even fourteen miles an hour, in their usual work, with a gaiety and vivacity never seen in our Post Horses, as Dr. Edward Clarke (Travels, vol. 9, 8vo. ed.) assures us. The Horses of the West Indies travel delightfully over the rocky ground of those regions, and nearly all the Horses of North and South America, go equally well, and are admired by all strangers for their sound pacing, yet to all these Horses are the blessings of shoeing happily unknown, and they are used entirely without shoes! that is, without irons. Let these facts sink deep into the minds of those who ride the cripples of the blacksmiths, maimed, wounded, and disabled, in this country,—let these boasters lay the finger on the lips when they are told these facts, and when they see the roads thronged with the disabled steeds of their making, feetless, ever tripping, stumbling, and tumbling, with iron

levers in their mouths (to detract by the infliction of greater pain, or the apprehension of it,) from the feelings of their feet, the cunning antidote of the collar maker, for averting the dangers their state leads into, and all brought about by this glorious art of theirs, rendered still more destructive by follies not necessarily belonging to it.

It will be hardly possible to make posterity believe that such gross follies were ever committed by Shoeing-smiths, not rarely, but almost universally; and although the consequences of it have been exposed, explained, and fully proved, nearly twenty years,* and though such a thing exists as a Veterinary College,—yet has no mandate ever been issued, or step taken by it to prevent or diminish this flagrant evil,—many of the finer kind of Horses with the foot so hacked, becoming perfectly useless at the end often of three or four years!

Let the shoe be well relieved from the sole, and concaved inside to lighten and extend its bearing surface, and to let out stones and dirt, and fully wide to the foot, as we have stated; that it break not the edges, and impoverish the wall. Let the inside of the shoe or web be also ample, to give bearing surface as well as protection. Let the nail-holes in the shoe not be too crowded or near each other, as this will be liable to break up the hoof, as they act like wedges and may remove the entire piece; avoid also, on the other hand, too much distance, as this will bring the last nails too much behind, and near the heels: this last nail should not very far exceed the middle of the foot, and when two clips are used in front, four nails on each side will be sufficient; in large feet let there be five, or in feet somewhat less, five outside and four inside. Three quarters or seven-eighths of an inch is a good distance for the nail holes from each other. To nail round the toe, unless in very thick hoofs, is not so well, as if it be not very happily executed, they may be oppressive in opposing the step. Some Smiths are particular in fileing the shoe bright after it is made, but this is an useless waste of labor and without any advantage. They often remove in this way the upper edge of the shoe, which rising up, is useful in meeting and retaining more firmly the exterior shell of the hoof upon the upper surface of the shoe, and nothing can look better than a shoe does from the hammer of a good workman; any accidental asperity on the inside edge of the shoe may however be removed, if such occur, by the file, but this will be truly rare.

The *nail holes*, it is to be especially observed, should be brought under the middle of the wall, or in a line somewhat within this, but by no means opposite the sole, as in the French shoes, which renders oblique nailing necessary, which is obviously unmechanical and bad. Observe also that the nails be not too large, and so endanger splitting the hoof.

The *nails* should be seen hammered smooth in their shank, and a little bent or curved to the inside next the foot, that they may not be so liable to compress the vein, and with a sharp clear point: in this you discover the goodness of your workman as much as in any thing. In driving them they should be brought out as near as may be, about one inch and a half up the side of the hoof, if higher of no consequence, as some have apprehended danger from this, supposing that the hoof was thinner upwards, but this is not the case, it being every where of equal thickness. The nails when even, or in line, is thought workmanlike; but if unequal in height it is of no consequence in real use. It is worth observing here, that the hard and feverish brittleness of the hoofs, in common shoeing, is found to be removed by the use of the expansion shoes, and many a workman has been surprised with the feet shod with these shoes, to find that his nails glided so easily

* See Dissertation on the Foot and Shoeing, from p. 57 to 90.

through the horn; no doubt from the freer circulation of fluids in the hoof, and its increased succulence arising from a free liberty and motion in these parts.

If the holes in the shoes are large, it is not necessary to take a large nail to fill it, as is generally done, but to use a pointed hammer to follow it into the hole: and such should be always kept in shops for this purpose.

The nail I like best is the rose-headed nail, with a sudden blunt head and thin shank, as it is less liable to compress the vein than the long conical head, or countersink nail, as it is called; part of which head sometimes enters the hoof, distressing if not splitting it, and the shanks of these are often very thick. The other will hold the shoe on fast enough, if properly used, in a general way. The other nail, on some occasions, may be however necessary; when horses strike hard; but there is no reason, on this account, why it should be *always* used. The shoe should, for nag horses, be *fullered*, as it lightens it, and spreads it, and gives more liberty for pitching the nail, and for the final repose of its head, which in a confined hole may be forced into a new direction, with injurious effect, by the last blows given.

In driving his nails, the workman should be careful not to use too much violence, and also in hammering them all round after they are inserted, for this they often do in a most unmerciful manner, and which may compress and benumb the foot; the last nail should be less than the rest, especially if driven near the heel. The front nail is apt to carry the shoe inwards, and disturb it from its place, being driven in an oblique direction; so the driving it requires particular care, for it is the obliquity of its direction, and the softer material within, which appears to draw it, and to give it this tendency; and it is often corrected by rudeish blows on the opposite side of the shoe, which may bend the nail against the quick, or force the hoof and break it: this nail therefore requires both care and judgment in driving, to avoid this. The hindmost nail can hardly be too fine, as it lies under the oblique cylinder of the hoof as it were, and if driven at all coarsely, is apt to bind, and to become troublesome and painful from its resistance to the incumbent weight. I have often been obliged to have this nail withdrawn, on finding the Horse not travel well, and it has proved an immediate relief: for these smiths only shoe horses, they rarely ride them to any distance to ascertain the effects of their own work.

The points of the nails are now wrung off with the pincers, and then the rasp generally goes to work, to file a notch under the clinch for it to lodge in, as they say; in this way they often make a deep transverse line of some length and depth upon the hoof, which is injurious and often productive of mischief, by occasioning all the piece below to become dry, rotten, and break off; its connexion, and consequently the circulation of juices from the upper part of the hoof to it being cut off and destroyed. This notch for the clench always appeared to me pretty much unnecessary, even on the inside, but totally so on the outside, where any danger of its injuring the opposite leg can have no existence; that where I have insisted on its not being done, I never experienced any ill from it; on the other hand, proper care should be used by the rider to examine the inside clenches, from time to time, to see that they rise not up and stand out, after the Horse has been sometime in use; and he may keep a hammer in the stable, always ready in such cases to knock them down again: not that notching will always prevent this: quite otherwise. As this pretence for notching is so injurious, I have kept a fine gouge or very small drawing knife to remove a small portion of horn, not sensibly larger than the clench itself, on these occasions, which accommodates all objection if this practice is thought indispensable.

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* A deep channel for receiving the heads of the nails.

Next, under pretence of rasping these hateful clenches quite smooth, they not only rasp them (which unless the foot is very much benumbed and bangs the other leg, is not necessary) but they busily sweep their vile tool over the whole surface of the hoof, and thereby remove from it the necessary and beautiful glossy covering, the *epidermis*, or *cuticle*, its only safeguard against the drying effects of the air; this most ignorant proceeding should in no respect, for a moment, be suffered; others only rub the lower parts below the clenches, but this also should not be permitted, as it dries and rots the horn wherever it is done. It is not amiss, after the Shoeing is done, to rub the hoof over, and fill any holes of the former shoeing with some thick sebaceous unguent, or tallow, or hoof ointment;* such is more especially useful in summer time, to keep the hoof kindly and supple, and prevent dryness and brittleness; in winter, or in the rainy and dirty months, it is not of so much consequence.

We may now conclude with some useful hints which long experience has taught us, if, after all these attentions, the horse should not be found to go to your mind.

If he appear to step short, and want freedom in his going, or still worse than this, if he stumbles or goes lame, examine well the nails, and draw any suspicious one out that appears to have been inserted too deep; if none such appear, draw the hind one in the inside; this will frequently give relief; if this does not improve his going, and especially if he hangs heavily upon the bits, carrying his head low, take the shoe off, and knock down the inner heel from contact with the hoof; this often succeeds. If however it does not bring relief, take the shoe entirely away and make a new one, the nailing will generally be different, and so will the bearings be, which will probably afford relief. Also let him try calkins at the heels, which, raising the heel, throws the bearing of the weight more upon the toe, and so relieves the hind and often more tender parts of the foot: most horses are wonderfully improved in their going by this means; and if this succeed not, try a wide bar shoe, which having a very extensive bearing on the ground, is particularly easy to the foot, as well as by its protection of the tender parts, especially in small, tender, weak, feverish feet; and finally, and above all (and from no interested motive myself, having no pecuniary interest in it whatever) *an expansion shoe* of wideish bearing, a little turned up at the heels, with the inner heel relieved; this, if well made and well applied, will usually succeed in making the Horse go well, and keeps the hoof also always free from contraction and from fever, and will ensure a full, free, handsome stroke of the limb, and the day's journey, though long, will not produce any fever or heat in the feet in these shoes, if well made and applied properly. The golden rule for all shoeing seems to be—LIBERTY TO ALL PARTS OF THE FOOT, AND MORE ESPECIALLY TO THE SOFT AND ELASTIC PARTS.

*** *For the treatment of Frushes, Canker, and Corns, Sandcrack, or Ring-bones, the reader is referred to the individual Essays on these respective subjects.*

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* See Pharmacopœia Equina, p. 34.

FINIS.

C. RICHARDS, PRINTER, ST. MARTIN'S-LANE, CHARING-CROSS.