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PROBLEMS I HAVE FOUND IN HORSES FEET AND METHODS OF SHOEING

Since forming my own business five years ago, I have found that putting on shoes for customers isn't all one has to know about the job. This essay is about my own experiences with lameness in the horse's foot and the way in which I have delt with these problems. I shall quote customers and their horses names.

LAMINITIS

Laminitis is divided into two types, Acute and Chronic, the latter being sequal to Acute. This disease can occur in front and hind of the horses feet, but is most common in the front feet. The majority of cases of this disease which I have dealt with are in ponies, but sometimes it can be found in horses. Laminitis is caused by inflamation of the sensitive laminae and is very painful for the animal, causing lameness to the extent that the animal might not want to stand on his feet, but to lie down. With Acute laminitis, when you are called out to your horse or pony, you will find that he is standing with his front feet well forward and that his hind feet will be under his body with his weight back on his heels. The reason for this is that upon picking up his foot you will find that the sole of the animal has dropped and that the toe of his foot has divided at the white line. The horny laminae is well forward, showing a cheese like mass, this being the broken down leaves of the horny laminae.

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These leaves will be showing signs of inflamation i.e., redish or pinkie bloodish mass. The other things that you will notice are the horny sole will be thinner and tender, also the quarters on the horses foot will have become weakened and showing some signs of contraction from the quarters back to the heel.

The reason for the foot to change shape like this is that the inflamation and pressure caused by the disease forces the pedal bone in the foot backwards and downwards causing the dropping of the sole and the division of the laminae.

When shoeing for this disease, I usually use a flat seated-out shoe from 1" x ½" flat or ¾" x ½" flat. The shoe is seated out through the toe and round to the quarters, leaving the last 1½" to 2" towards the heel flat. When seating the shoe, make sure that it is not overdone at the toe, being approximately ⅜" to ½" on the outside edge for you to get a bearing surface on the wall, I always use two clips on these shoes, one on each side of the toe, fitting the toe more like a hind shoe where the clips lay.

The nail holes I keep well away from the toe of the foot behind the clips. I personally have never reduced the thickness of the shoe at the heels as I find that this is where the majority of the wear on ths shoe is.

When shoeing the foot, I always dress the toe well back by taking the foot forward on to a stand. On the bearing surface, I always drop the heels well, enabling the horses frog to work properly. The only time I touch the toe of the foot is to make it level with the file side of my rasp.

When fitting the shoe the most important thing to remember is to ensure there is no pressure on the horses sole as this will cause instant lameness. The heels of the shoe I like to see full length and upright and I like to give the horse at least an ⅛" extra length, if possible, as the foot is now always growing forward. I also like to see the horse

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standing on his shoe from the quarters back to the heel, so I ensure that he is shod full length.

The main reasons I have found for this disease are that in ponies, you usually find the pony is turned out in a field getting plenty of rich grass, this is usually the start as he is not getting enough work to keep him in good condition. I have known a brood mare to get laminitus through not clearing her afterbirth properly.

One of my customers had a pony called Tronto. He had had laminitis but the owners kept him shut up allowing only an hour a day in the field. I was called out one evening and the symptoms were there for laminitis. This pony, when he was turned out for his graze started galloping about and got very hot and this started the disease up again. I did not shoe the pony, only trimmed his feet and advised the daughter to ride him every evening and the pony was sound again within three months. I have found that this disease seems to tighten the animal's muscels and with work in the field, once the circulation is working again, can get the ponies feet right quicker by leaving shoes off and letting the weight of the animal, combined with regular work and nature to put their feet in order. This is only my opinion, but one I have found to be effective.

NAVICULAR DISEASE

Navicular disease is found by ex-ray and is not visible from outside the horses foot. The navicular bone is one of the 2½ bones in the foot. It is found at the back of the pedal bone and with the os-coronae helps form the pedal joint. The bone is small and flatish in shape and helps the flexor pedis perforans tendon glide round the pedal joint to affix itself in the semi lunar crest of the pedal bone. Navicular disease is usually found in big flat feet with well formed frogs that are usually hard and not

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taking a lot of the concussion from the foot on the ground. When the bone is affected you get a roughening or exostosis forming on the articular surfaces of the bone. When this occurs one of two things will happen, on the inside of the bone, near the joint, there is a small sack of fluid called a Bursae sack. The growth will rub away the sack and eventually start to rub the pedal bone and the os-coronae bones, this sets up inflamation and also causes irritation, causing lameness. If the growth is on the outer articular surface of the bone it will destroy the mucous bursae, which aids movement of the tendon over the bone, then will start to rub on the tendon sheath causing once again irritation and lameness.

With this condition you will find that the navicular bone will become brittle and might crack or break. There is no cure for this disease and with time the horse will get worse. It is not uncommon for one to find that this disease is hereditary.

The action of the animal is that of going short and trying to take pressure on his toe. He will probably move better uphill than downhill and in the early stages lameness will be inconsistant. In latter stages you will notice upon picking up your horses foot that he will start to grow more heel, that his frog is shrunken and no longer in contact with the ground, also that contraction of the heels is taking place.

For shoeing the foot, I would use a graduated shoe about $\frac{3}{4}$" thick at the heels with plenty of width and graduating to about $\frac{1}{4}$" at the toe, made from either flat or square and could be hand fullered. The toe of the shoe should be rolled, as with the rise on the heels the toe of the shoe will have a lot of pressure on it. All of the edges on the ground bearing surface need to be taken off by rolling them with your rasp, as any edges will not ensure smooth movement over the ground. Another thing is to make sure that all nails fit the holes exactly as once again any jarring in the horses movement will only agrivate the disease.

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When fitting the shoe, I would ensure the heels were not over lowered and that at the same time they were level. The shoe, when fitted needs to be wide and full length on the heels and well boxed off to try and counteract the contraction.

I have a girl customer I go to with a thoroughbred called Gordon, who has been going lame. At first I thought it was thin soles, so I put a flat seated out shoe on him. He went sound for three weeks then when taken into a dressage ring went lame for no apparent reason. I then put pads on him, he went sound for two days then lame again. I suggested the vet was called in as I didn't like the way one foot was contracted. When the vet arrived the horse was sound again. Three days later lameness recurred, so he was taken in for x-ray. The result of the x-rays showed two small spurs growing on the side of the navicular bone. The vet says this is not the cause of lameness, he thinks the horse has pedalositus. I personally feel that with the inconsistant lameness, the spurs might be damaging the Interossius ligaments of the navicular joint. The horse has now been turned out for six months on the Vet's instruction, but is still lame. It will be interesting to see the shape of the foot when he comes back into work as he is growing more heel and his frog has a touch of thrush and is getting smaller.

CLUB FEET

Club feet start when your animal is a foal or still growing. The type of animal this effects is usually one who hasrather long legs and a short neck.

When trimming this type of animal, you will see that the foot is very upright and is growing hardly any toe. The reason for this is that when the animal is grazing he has one foot well forward, whilst the other foot is usually placed backwards and resting on the toe of his foot. As you can imagine the foot that is forward is getting plenty of frog pressure and no

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wear on the toe. The other foot is getting no frog pressure and a lot of wear on the toe. This causes one foot to become upright in the toe and contracted at the heel. Also because of the lack of pressure on the foot the pedal bone will not form to its right size and will stay smaller and under-developed.

One of the problems with this complaint is that if it is not treated, the animal will start to become upright in his joints and start to stand over at (eg.) the pastern joint. The reason for this is that the flexor pedis perforans tendon does not develope properly, this allows the horse or foal to go forward on his joint. One of the main concerns is that if you do not act quickly, you will get wear in the articular surfaces of the joint in un-natural positions, these will obviously effect your animal in his later stages of life.

One way to deal with this problem is to get your owner to feed the animal whenever possible from a manger or bucket which is off of the ground. If the upright foot is in its early stages, then you should when trimming the animal drop the heels as much as possible. If next time you go, there are no signs of improvement, a tip should be fitted.

The tip only needs to be as long as the width of the foal's foot. When making the tip, you reduce the thickness of the ends leaving the toe thick, tapering from the toe each side to as thin as possible. When putting the nail holes in, I do not make the holes too big and use the smallest nails I have, nothing above a size 2 on a foal. The heads of the nails, if protruding above the height of the material, must be filed off, allowing the taper to work. The tip must be clipped and the use of four strong nails in preference to six tightly grouped weak nails. Great care must be taken when nailing on, as it would be very easy to prick this animal.

I have a club footed foal which I am attending. First I dropped his heels and fitted a tip. Although this improved him, it did not help his joints much, so the next time I saw him, I welded a small block of metal in

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front of the clip to stop him rolling over when he was grazing. The combination of that and dropping his heels hard and also the owner leading him out every day had started to stretch his tendons and at four months old he is showing a great deal of improvement in his joints and feet.

The other horse I do with a club foot is a four year old. When I first saw the animal it was about 2½ years old. I first shod it with tips to get the toe forming and developed, but the quarters remained weak. I now shoe the horse with full shoes and with careful shoeing have both feet looking the same size. The club foot is still weak and under x-ray, I am sure would show that the pedal bone is under-developed.

DEEP SEATED ABCESS IN WALL OF FOOT

An abcess in the horny wall is often caused by the animal picking up something and it working up inside the wall of its foot. It can also be caused by a severe blow on the outside of the foot, setting up inflamation, the white line showing an indentation where the injury lays.

I was called out to look at a horse which had gone lame whilst in training for racing, his name was Charlie. When I arrived he was lame in his off hind and after removing the shoe, I found what looked like an ordinary abcess in his foot. I cut it out, allowing it to drain and told the owner to poultice the foot for a week. After he went sound I put the shoe back on and he stayed sound for the rest of the season. At the end of the racing season he was turned out and twice that summer I went and cut the foot out in the same place. The following season he came back into light work and after about three weeks he went lame again. When I removed his hind shoe, I noticed a cavity running up the outside quarter of his hind foot. As I couldn't get to the abcess properly, I suggested removing a section of the wall. The owner, whose son was a vet, agreed. Upon removing the periople and stratum techtorium (the bottom half of the periople), I noticed

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the horny laminae of the wall was lightish in colour. I then took my searcher and grooved down the outside two edges of the lightish horn and with my pincers lifted it upwards. The section of the wall peeled completely away.

The horny and sensitive laminae, whitish and red in colour, was in fact yellowish with dark patches. The horse was also very tender there. The owner poulticed the horse over the weekend and on the Monday, I put his shoe on. I had taken the shoe back to my forge, marking the place where the injury was with chalk. I hollowed or stepped out the section on the foot surface where the abcess was, I also put an extra clip on the shoe behind the quarter on good wall to help stop it moving. When the shoe was put on we trotted the horse out and he went sound. The owner told me he had only treated the foot for two days, the Friday night until the Sunday morning. On the Monday I noticed the sensitive laminae was not tender any more, but the fresh air had started to harden it off. This animal has never gone lame again in this foot and it is nearly a year since I removed the section.

One other customer called me out because her riding school pony, Beauty, had gone lame in its near fore. The riding school had only just come on to my books and the girl in charge told me the horse had been going lame regularly.

The symptoms were the same as Charlie, also the colour of the foot in the wall. I removed the section of the wall and everything was the same as the previous horse. When it came to shoeing, I made a G shoe and put it on, leaving the section of foot without any material covering the infected area. I had the bar across the frog to take some of the pressure off the outside of the foot, this helped the horse because the foot was slightly contracted. In both of these cases, I have noticed the new foot is growing down good but with a bulge in the wall, this I am sure occurs because of the pressure in the wall the sensitive laminae and pedal bone have been damaged. I continued

would like to see the bone to see if it has a growth on it, but both horses are sound and now working hard.

In closing this essay, I must say that although our work is hard, it is very interesting. If I can carry on as I am, learning about these problems with the horses I work with, I am sure that when I can no longer work, my knowledge of my job will still seem very limited. My one aim is to pass this on to my employees so that the standard of work in this country can be maintained for the benefit of the horses that I love to work with.

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