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11.3 Shoeing defective feet

Flat feet

Care must be taken to differentiate flat feet which are acquired as the result of disease such as chronic laminitis from those which are congenital and due to conformation.

Shoeing. Pressure on the sole can be alleviated by fitting a seated-out shoe. The sole should not be pared to increase its concavity as this reduces protection to the underlying sensitive foot. Horses with flat feet often have weak walls with flaring quarters and heels curving

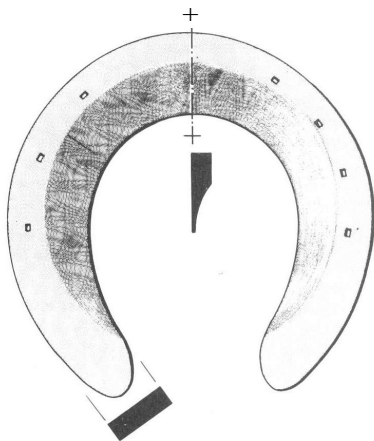


Fig. 11.12 Seated-out shoe. The seating is carried back to the nail holes and around the shoe except at the heels.

forwards. Improving the state of the wall will elevate the sole making it less vulnerable to bruising or to pressure from the shoe.

Seated-out shoe (Fig. 11.12). This is a most satisfactory shoe for flat feet as it relieves pressure on the sole towards its outer border. It should have a wide web with the inner edge of the foot surface seated. The seating can be carried back to the nail holes if necessary and extend around the shoe except at the heels which are left flat to allow normal weight bearing.

A disadvantage of seated-out shoes is that the suction created in heavy going may result in them being pulled off.

Flat bar is easier to seat out than concave bar though it is perfectly possible to achieve a modest degree of seating out in a concave shoe.

Upright feet

Upright feet in adult horses do not require any special shoes. Care must be taken that the hooves are balanced and a correct pastern foot axis maintained. An unnaturally upright foot will be corrected by proper trimming. A naturally upright foot should not be altered.

Unnaturally wry feet

An unnaturally wry foot is due to neglect (Fig. 11.13 a-b). It cannot be accounted for only by the horse's conformation. Attention to dressing the foot and to shoeing will result in a gradual return to a normal shape.

If the ground surface of a hoof is not kept level or wears unevenly there is an uneven distribution of the body weight which results in the wall being deflected. Excessive length of one side of the wall results in it flaring out while the other side wears more heavily, becoming upright or sloping inwards.

An unnaturally wry foot is corrected by gradually lowering, at two-to three-week intervals, the part of the wall which is too long until a level and balanced ground surface is obtained. When this is done the weight over the hoof is correctly distributed.

Shoeing. A standard shoe is fitted but made to conform to the adjudged normal outline of the foot and not to that of the wry foot.

Special horseshoes

On the side of the foot where the wall turns in the shoe is fitted wide, to conform with the adjudged normal outline of the bearing surface, and its sharp outer edge is boxed off. On the side of the foot where the wall flares out the shoe is fitted as close as possible, consistent with being able to drive the nails safely, and the overhanging wall is rasped off flush with the shoe (Fig. 11.14).

In severe cases a bar shoe may be used to transfer some of the weight from the upright side to the frog and to the sloping side of the hoof. A gap may be left between the upright quarter and heel and the shoe.

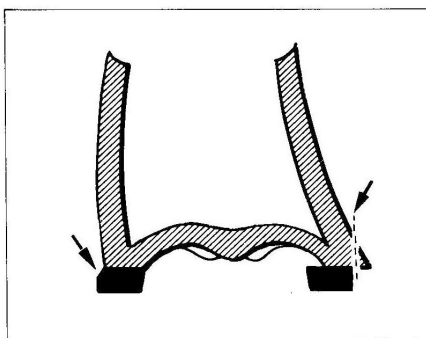


Fig. 11.14 Fitting a shoe to an unnaturally wry foot. The shoe is fitted wide on the upright side and the other side of the wall is trimmed as short as possible, the shoe fitted close and the flare rasped away.

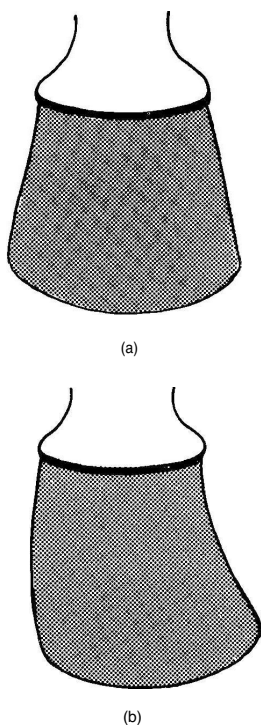


Fig. 11.13 (a) Normal foot. (b) Unnaturally wry foot. Excess wear of one side of the wall results in it turning in while the longer wall flares outwards.

Weak and unnaturally low heels

Unnaturally low heels are caused either by excessive trimming or by excessive wear of the hoof wall if the shoes are left on too long. The cure is to preserve the horn at the heels by fitting the shoes wide and reshoeing regularly.

Weak heels curve forwards and the weight is borne on the outside of the wall. Weak heels are usually also low heels.

Shoeing. Weak heels cannot be corrected until weight bearing is reduced. Weight can be transferred to the quarters by careful fitting of an ordinary shoe. It may be necessary to remove some flare at the quarters to encourage the wall to grow down straight. It is not until strong straight quarters are established that weight can be relieved from the heels.

Wide fitting is essential to prevent further damage due to the wall overgrowing the shoe, and for the same reason the shoes should not be left for more than five weeks at the most without being refitted. In some cases, especially in larger horses, shoeing every three weeks will be required. An egg bar shoe (Fig. 11.15) allows wide fitting of the shoe and eliminates the pointed projections of each heel making the shoe less liable to be pulled off.

A shoe with raised heels or a plastic wedge may be used to produce an immediate improvement in the hoof pastern axis but this

Special horseshoes

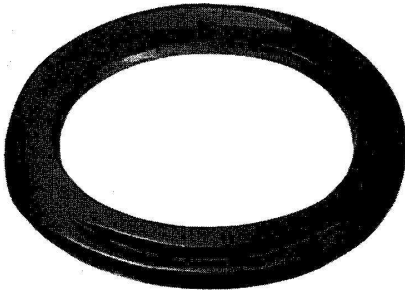


Fig. 11.15 Egg bar shoe.

increases the weight on the back of the foot and may delay any natural strengthening of the heels. An alternative method is to fit a bar shoe to relieve some of the weight bearing on the heels by transferring it to the frog.

Contracted feet

A contracted foot is smaller than normal being narrower at the quarters and heels, has an excessively concave sole and an atrophied frog. The commonest causes are prolonged disuse of the limb due to lameness, and thrush. Methods of shoeing can also contribute, for example calkins reduce frog pressure.

The method of treatment employed to treat a contracted foot will depend on the cause. If it is associated with disease or injury which responds to treatment then as normal function of the limb returns so gradually the foot will regain its normal shape. On the other hand if it is associated with an incurable condition there is no useful purpose in trying to effect expansion.

Conditions due to faulty preparation of the foot or shoeing improve immediately these errors are corrected. For example, curing thrush, lowering calkins to obtain frog pressure or turning out the horse unshod to allow the foot to take weight and function normally. In addition grooving the heels to obtain expansion is helpful in some cases.

Grooving the wall (Fig. 11.16). A number of techniques are employed to obtain expansion

at the heels. The following method is both simple and effective. The foot is brought forward and positioned either on the farrier's leg or on a tripod. Using a drawing knife, three or four parallel grooves are cut at intervals of $\frac{1}{8}$ in. (2 cm) from the coronet to the ground surface. The grooves are placed on both the medial and lateral heel, extend almost down to the white zone and each is $\frac{1}{16}$ in. (5 mm) in width. If the wall is very hard it can be softened by cold water foot baths, one hour daily for two to three days, or by poulticing the foot.

Shoeing. Many ingenious designs of shoes have been used to treat contracted feet. They range from shoes with the foot surface sloped outwards to exert counter pressure, to shoes hinged at the toe and mechanical devices designed to force the heels of the shoes apart. The majority have been based on a misunderstanding of the anatomy and function of the foot which has led to unsound arguments in their support and few have met with any lasting success.

Slipper shoe. The foot surface of this shoe is sloped outwards which allows the wall to expand under the pressure of weight bearing.

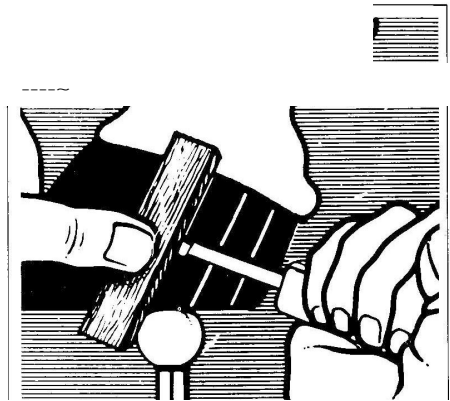


Fig. 11.16 Method of grooving the wall.

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The slope must not be excessive and is confined to the heels. If the outer edge of the foot surface is more than $\frac{1}{8}$ in. (3 mm) lower than the inner edge it puts excessive strain on the white zone which leads to separation of the wall from the sole. For this reason this shoe fell into disrepute but with due attention to the slope the shoe is useful in the treatment of slight cases of contraction.

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