

Bar Shoes

By Bruce B. Daniels

If you keep shoeing horses long enough, the inevitable will happen: You will be asked to make a pair of bar shoes. Now this may not be a problem for some farriers, but for quite a few farriers it is an ordeal.

Any open-heel horseshoe might become a bar shoe, and the uses are endless. By joining the heels together you can prevent light race shoes from spreading, or develop greater shoe strength under areas of the hoof that have been removed for corns or hoof cracks.

When the heels of the shoe are united in a bar, low weak heels are subject to less individual abuse and will grow without breaking down. Also, the frog can now bear a portion of the weight again, saving the heels. Bar shoes can provide greater posterior support, can be used to gain greater action, or even prevent a hind foot from sliding under a breaking-over front foot, a condition that creates the interference known as *scalping*.

There are a few instances when bar shoes are not a good idea. With Standardbreds, it is not a wise move to put a bar shoe on the front feet of horses that hit their knees. The bar causes the foot to break over faster. The foot has too much time to spend in the air and trouble results.

Another situation where I try to avoid bar shoes is when a horse has thrush. Bar shoes have a tendency to collect dirt and filth and prevent the frog from hav-

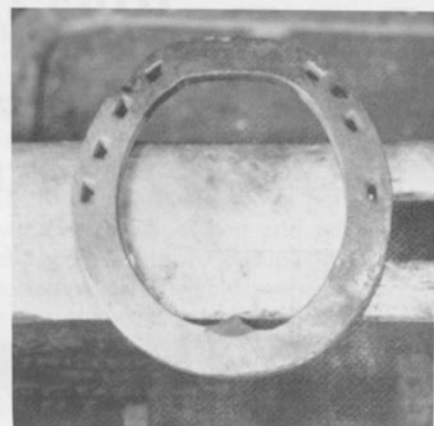
ing a normal compress-and-release function.

If a hoof has a very deep frog and wide heels, but must be shod with a bar shoe, build up the frog area with a piece of rubber or stacked leather to a point that almost touches the frog. This keeps the frog healthy and prevents the bars from bending and breaking.

There are many different types of bar shoes with many names. The *straight bar* across the heel may have a small frog-shaped point in its center. We used to call these *heart bars*, B.C. (Before Chapman). If they are flush on the hoof surface and raised on the ground surface they are called "*setdown bars*." The reverse — flush on the ground surface and dropped down under the frog — are called "*drop bars*." A hind shoe with a trailer that had a bar may be called a "*Canadian bar*," a *crossover bar* or even a *whip-around bar*.

A bar made round at the heels is called an *egg bar*. A shoe with two trailers that has a bar welded in is called a "*double trailer*" bar or a "*jump-in*" bar. There are even more, such as *three-quarter bars* and *Memphis bars*.

The three bar shoes I'd like to talk about are the setdown heart bar, the egg bar, and the jump-in bar. Egg bars, named for their shape, have to be the easiest of the welded bar shoes to make and fit. They take a bit more stock than a heart bar — usually three or four inches more than an open-heeled shoe.



The egg bar shoe. Simple to make, easy to fit, pleasing to the eye.

TO MAKE AN EGG BAR

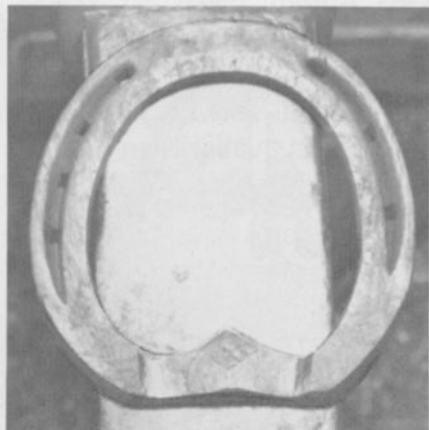
Measure the length of the foot from the point of the toe to where you want the bar to reach. Now measure the width of the foot. Average the two dimensions, subtract the width (web) of the stock the shoe is to be made of, and multiply that number by three. With few exceptions, this is an accurate system of determining the length of stock needed. You can either bend it into shape, weld it, and then stamp nail holes; or as I would do it, turn the shoe, stamp it, fit it, and then weld the heels together.

However you proceed, here is a small tip to keep your nail holes in the proper location: Center punch one-quarter the width of the foot either side of the center of the stock. This is an excellent guide to use when stamping the toe nails.

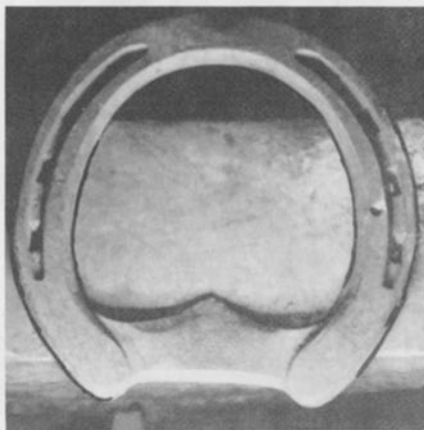
When fitting egg bars to front feet, remember they are there for heel support, but don't get silly and allow them to extend too far. Box (round) off the hoof surface to prevent lost shoes.

More often than not, egg bars are combined with squared or rolled toes, which emphasize the heel support by removing resistance to the toe area on breakover.

Plain bars are used to extend support on feet that are weak or have areas of support missing. They are also a great tool to promote heel growth on weak-heeled horses. By catching some of the weight on the frog and insuring that both heels bear equal weight, it is possible to protect the new growth on weak heels.



The setdown heart bar shoe. Bar should be as wide as the shoe stock and perfectly flat against foot. Point can be half again width of the shoe stock and centered.



The jump-in bar shoe. You can make the bar as wide or as narrow as you desire with this method.

EGG BAR

Bar Shoes


There are quite a few ways to make plain bar shoes, but there are some rules of thumb that should be followed. The width of the bar should be equal to the web of the shoe. The heart, or point, should extend forward half again that measurement. The back of the bar should be straight and finished off on the same angle as the heels of the foot, extremely undershot heels exempted, where the shoe should be set full for support.

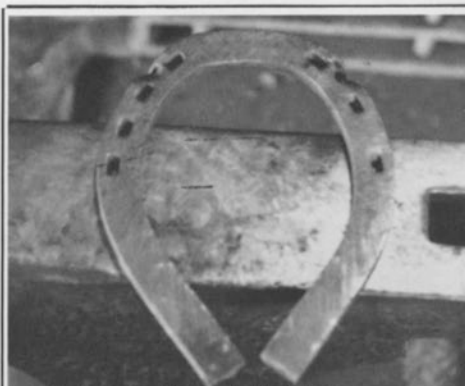
The simplest method of making a bar from an open shoe is to cut and weld a separate piece between both heels with either an oxyacetylene or arc welder. This allows you to use a factory-manufactured shoe or even a shoe that has already been fitted to the foot.

Another simple method of capitalizing on a factory shoe is to "jump weld" a section of steel over the hoof surface of the shoe. If you have decent coal, this is very quick. In situations where a great deal of frog protection is required, a piece of an old rasp makes an excellent bar. I have never tried to make this jump weld bar in my gas forge but I think it could be done.

If you are making your own shoes and need a bar, it just takes one more heat in the fire than an open shoe. If you are going to take two heats to hot-rasp the heels, it now takes one heat to cut, scarf the ends, bend them in, and flux. Then use one heat to weld and shape. Now use a final heat to hot rasp the proper bevels on the heels and bars.

These bars can be made in three ways: 1) full thickness; 2) set down (so called because of the method of forging) or 3) drop bar, which allows the frog more clearance. The drop bar is used when there is a large protruding frog or low heels. It is also a nice bar for a foot with sheared heels, which are normally accompanied by a very sensitive frog.

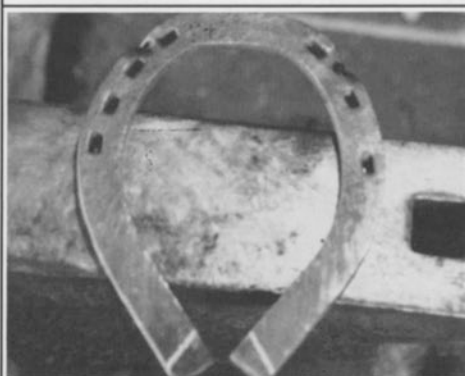
I've taken photos illustrating the making of three different types of bar shoes: the egg, the jump-in, and the setdown heart bar. Read the captions carefully and mentally rehearse. You should be able to do all your forging work in your head before you can expect your hands to work properly. As with any coordinated effort, it will take practice. But once learned, it will stay with you. Keep your fire high (built up) and clean, watch the heats, and you'll find bar shoes much easier than you thought. 



1. Fit shoe to the widest part of the foot first.



5. With a good heat, cut both heels in a line toward the opposite toe nail.



2. To fit, roll the shoe around the heel. Mark the shoe on the center of the frog with soapstone.



6. Hold the shoe almost to the anvil edge. Scarf the heel. Note thumb position on the side of handle. For a good weld, keep scarf short.



3. Use an anvil devil or hardy to mark both heels.



7. Turn shoe over and scarf other heel. To be accurate, lean over your work.



4. Marks should be deep enough to remain visible when hot and covered with scale.



8. Properly scarfed, swelled out, and thin on ends. Again, keep scarves short.