

AMERICAN FARRIERSTM JOURNAL

APRIL, 2003
VOLUME 29
NUMBER 3
\$8.00

www.americanfarriers.com

SHOEING SHOWCASE
Annual Farrier Product
& How-To Issue

Get More Efficient When Applying Polysteel Shoes

These flexible shoes from EquiFlex and Equine Digit Support Systems are ideal for horses facing interfering or forging concerns

By Richard Evans

NON-TRADITIONAL horseshoes are becoming increasingly popular among both farriers and horse owners. However, these shoes often require application methods that are considerably different from traditional steel shoes.

Since these synthetic shoes are flexible, they are ideal for use with horses that are interfering or forging. If a horse steps on the heel of the shoe, the branch can bend, making it less likely to pry the shoe off of the other foot. These polysteel shoes are also wide webbed, which makes them helpful for feet that are prone to sore soles. A number of clients have also reported that horses move well in these shoes, possibly because the shoes are lightweight.

On the other hand, any hooves that require a support shoe, such as for sheared heels or cracks, are not good candidates for these synthetic shoes since the plastic materials are not rigid enough to



FIGURE 1. (Top) Toe clips are easily removed with nippers. A screw-on bridge is used to adjust shoe width and comes in two halves. The heels can be nipped and rasped to form the approximate heel check after the shoe is nailed on. **FIGURE 2.** (Left) Because the nail head is below the ground surface of the shoe, EquiFlex offers a round-headed nail set tool. At right is a homemade punch that does the same job. In addition, the lower jaw of a nail clincher will not touch the nail head. A projecting attachment for the lower jaws of a pair of clinchers is also available.

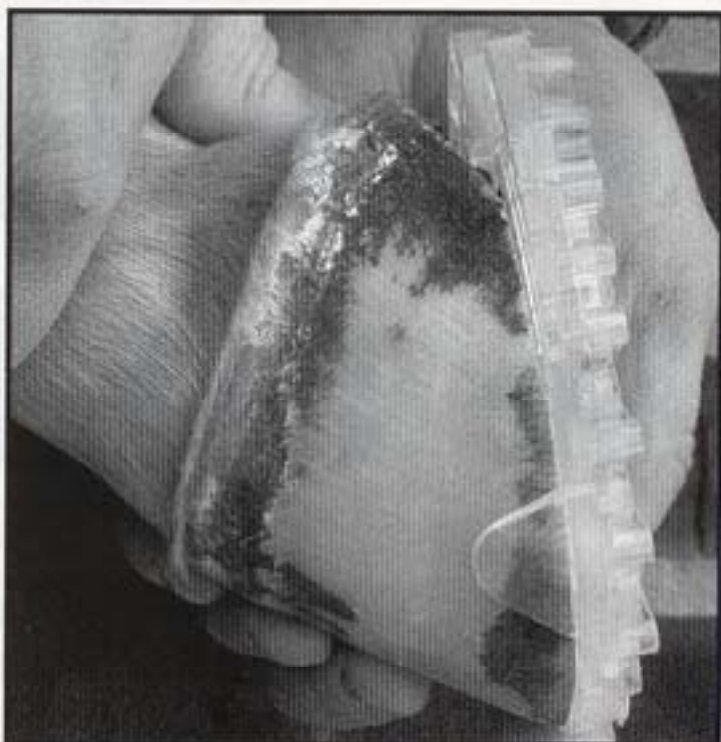
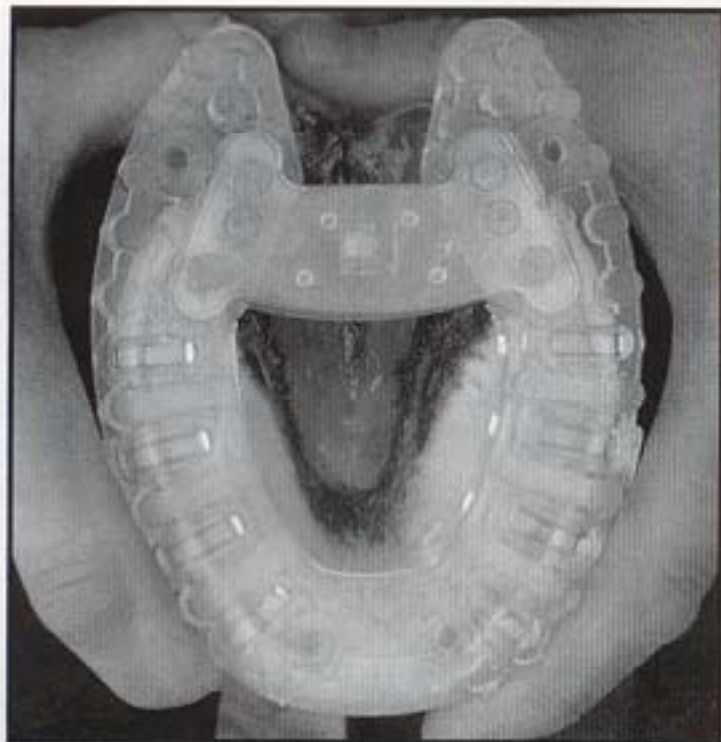


FIGURE 3. (Left) With an unshaped shoe held against a trimmed foot, the heels of the shoe extend past the buttresses and will need to be trimmed back with nippers before nailing. The yellowish white line is clearly visible through the nail slots. **FIGURE 4.** (Right) A lateral view of an unshaped shoe held against a trimmed foot.

BAG BALM.
SINCE 1899

TACK MASTER®
LEATHER CARE

BAG BALM

GREEN MOUNTAIN®
HOOF SOFTENER

DAIRY ASSOCIATION CO., INC.
P.O. BOX 145, DEPT. AFJ03, LYNDONVILLE, VT 05851/TEL: 802-626-3610/WWW.BAGBALM.COM
WEST OF ROCKIES: SMITH SALES SERVICE, 16372 S. W. 72ND ST., PORTLAND, OR 97223

FOR THE HAPPY HORSE.

BAG BALM® Ointment

A trusted friend for more than 100 years, Bag Balm is proven to help heal cuts, scrapes, chapping, galls, and hobble burns. A great sweat. At tack shops, farm, drug, and hardware stores.

If unavailable, order direct: 10 oz. can \$7.99; 1 oz. can \$5.50.

GREEN MOUNTAIN® Hoof Softener

For softening hardened, dry, pinched, or contracted hoofs and quarter cracks. At tack shops, farm, and hardware stores.

If unavailable, order direct: 10 oz. can \$6.30; 28 oz. can \$8.70; \$6.45 non-freeze liquid pint.

TACKMASTER®

Leather cleaner, conditioner, preservative. Penetrates leather thoroughly, helps restore original life with natural oils.

If unavailable, order direct: Gallon \$77.50; quart \$7.80; pint \$5.00; 4 oz. \$3.00.

Add \$3.50 handling for your order. Prices subject to change without notice. To order, send check or money order to (no credit cards please):

stabilize the foot.

The polysteel shoes are available from two firms. Besides EquiFlex, Equine Digit Support System sells a Natural Balance Shoe in a polysteel material that is much lighter than steel shoes.

What's Different?

The primary differences between steel shoes and polysteel horseshoes are the techniques involved in preparing (boxing, etc.) and shaping the shoe. While steel shoes are prepared and shaped before being nailed to the foot, these synthetic shoes may be boxed, safed and shaped after being nailed to the foot. The material can be rasped, so that the shoe is nailed coarse and then rasped to fit the foot. The shoes are not worked hot and can't be hot seated.

Cost Vs. Time

These synthetic shoes are about five times more expensive than plain open-heeled steel shoes. However, they can be applied very quickly and easily because they do not require any trips to the anvil and do not need any of the tools required to bend steel. The shoe does not

Circle Reader Service No. 193

How To

need to be leveled and the heels can't be sprung. As a result, the time saved somewhat offsets the cost of the shoe.

The firm synthetic material's flexing property has some important benefits. If the ground surface of the hoof has trimming imperfections (such as low quarters or rolled heels), the shoe will deform slightly to fit these imperfections. This fit is similar to hot shoeing, which gives a good fit by burning away the imperfections. However, it is best to have a level ground surface on the hoof.

These shoes can be applied with standard farrier tools. While EquiFlex sells two additional tools that aid in application, they are not absolutely necessary for using the shoes. The first tool is used to set the nail head below the ground surface of the shoe (another difference from steel shoes), although a homemade tool or a nail punch can also be used to set the nail. The tool with the round head (see Figure 2) is the nail set tool while the

other punch is homemade.

Because the nail head is below the ground surface of the shoe and the lower jaw of the nail clincher tool does not touch the nail head, the company also

"These synthetic shoes are about five times more expensive than plain, open-heeled steel shoes, but can save you considerable shoeing time..."

sells a projecting attachment for the lower jaw on clinchers (bottom of Figure 2). However, this attachment is not required and some valuable clinching tricks are included in this article.

Method Of Application

1. Foot Preparation. Trim the foot in the same manner as when

applying steel shoes. While feet are often trimmed so that it's easier to shape the steel shoe to the foot, this material is rasped to shape on the foot and can be shaped more easily to accommodate difficult foot patterns.

2. Shoe Preparation. The shoes come clipped. The clips can be easily removed with nippers if they are not needed. The shoe on the left side of Figure 1 is shown with the toe clip removed. A bridge screwed onto the shoe is used to adjust the width of the shoe. Available in six sizes, the correct bridge should be selected so that the shoe is coarse on the foot.

The bridge comes in two halves, with the shoe sandwiched between them (Figure 2). The half with the pre-drilled holes is placed on the foot surface of the shoe. If the bridge is mounted upside-down, part of the bridge is higher than the foot surface of the shoe and may contact the sole. Since the Phillips head screws

Meet Our Family...

VALENTINE'S HOOF OINTMENT

Prepared for the specific purpose of maintaining the natural moisture content within the hoof. Used in the treatment of brittle, ringy and shelly hoofs, hard frogs and contracted heels where healing and flexing is desired.

KWIK FREEZE

For relief of soreness in superficial muscles and tissues.

KWIK LINIMENT AND TIGHTENER

Effective cooling tightener which will help reduce swelling.



WILCOXSON'S PERFECTION LINIMENT

A counter-irritant-rubefacient for treatment of sore and swollen muscles and joints.

FRANKLIN'S OINTMENT

An aid to relieve soreness and lameness in tendons and ligaments as well as sore muscles.

KWIK LEG PAINT

Helps relieve certain conditions such as tendonitis, splints, ring bone, muscular and bone soreness.

Dealer Inquiries Welcome

W.F. VALENTINE & COMPANY • 7633 Quackenbush Road • Reading, Michigan 49274

Phone: (517) 283-3143 or (800) 331-6728 • Fax: (517) 283-2997

Web site: www.wfvalentine.com or www.wfvalentineandcompany.com

Circle Reader Service No. 273



Serving Your Needs Since 1880

FIGURE 5. With this finished shoe on a foot, boxing and shaping of the shoe branches was done after the shoe was nailed to the foot. Since the clips fit snugly, no epoxy was needed.

require considerable force to drive into the bottom half of the bridge, it is easier to use a Phillips bit with a drill. After the bridge is installed, the heels can be nipped and rasped to form the appropriate heel check and then be boxed, as shown on the left shoe in Figure 1.

3. Nailing. These shoes do not have nail holes, but instead have unopened nail slots that go through most of the thickness of the shoe. Nail holes can be marked with a pen and even be pre-drilled or the nail can simply be driven through the remaining material.

Since the white line can be seen through the nail slot, accurate nail placement is easy and is a useful feature for horses with thin hoof walls. The nail must be set below the ground surface of the shoe with E head or MX nails. The shoe material firmly grips the nail and the driven nails are twisted off in the usual fashion.

4. Clinching. Blocking the nails is more challenging because the setting tool must strike the nail head (below the ground surface of the shoe), leaving no free hand to hold the block. One option is to hold the block and hammer, and strike the ground surface of the shoe over the nail. The shoe material holds the nail securely, so the nails block adequately.

Another option is to strike the hammer into the nail slot and hit the nail head. The edge of a small, square hammer works (Figure 2), as does an old hammer with its surface ground down to fit the slot. After the nails are blocked, the nails and hoof can be prepared for clinching in the usual fashion.

The foot is then brought forward and the nails can be clinched using the modified clincher. Hammer clinching works well, even though the nails can't be blocked from the bottom surface of the shoe.

5. Shaping The Shoe. Once the shoe is securely on the foot, excess shoe material can be rasped off to the shape of the foot. Place the foot on a hoof stand



and shape the shoe using the same type of rasp strokes that are used to shape the hoof wall. Leave enough shoe material for the final rasp strokes to box the shoe.

The company recommends that the shoe be fit coarse. It is often easier to box the heels before nailing on the shoe since it is difficult to rasp under the bulbs. Rolling the toe or branches can also be done after the shoe is nailed on the foot.

6. Clips. These can be removed with nippers, but can't otherwise be adjusted. Clips often do not fit well due to leaving too much space between the hoof wall and the clip, with only the bottom of the clip touching the foot. One option is to use a hoof knife to carve out a small area of horn at the clip site. Then, the clip will sit back into the hoof wall. The clips are thick and will never be flush with the hoof wall.

Another approach is to use a small amount of epoxy to fill in the area between the clip and hoof wall. Since the epoxy doesn't have to adhere to the hoof wall, you can provide a snug fit between the clip and horn that is similar to a cold-seated steel clip. The horn side of the clip will have to be scraped for the epoxy to adhere.

Get The Right Fit

These shoes come in five sizes (based on toe-to-heel length) and the bridges offer a half dozen width choices. For example, a size 03 front shoe with a toe-to-heel length of 5 5/8 inches can have widths ranging from 5 inches (a size 1 bridge) to 5 5/8 inches (a size 6 bridge).

To select the correct shoe and bridge combination, simply measure the toe-to-heel length and the width of the trimmed foot. Compare your measurements to a shoe and bridge selection chart that is provided by EquiFlex and is available on their Web site (www.equiflex.net).

The chart indicates the correct shoe and bridge for any particular foot. Information on different shoes for pavement and other types of terrains, setting studs, application instructions and much more information is also available from this Web site. Ω

Richard Evans is a farrier at Ames, Iowa, and is also a biostatistician in Iowa State University's College of Veterinary Medicine. He holds a PhD and designs research programs for investigators throughout the college.