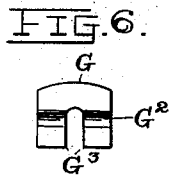
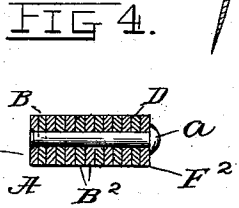
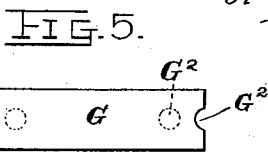
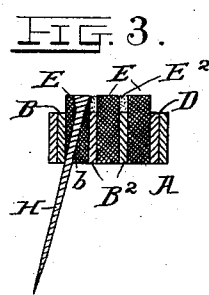
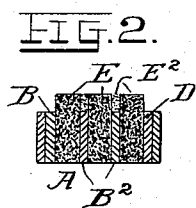
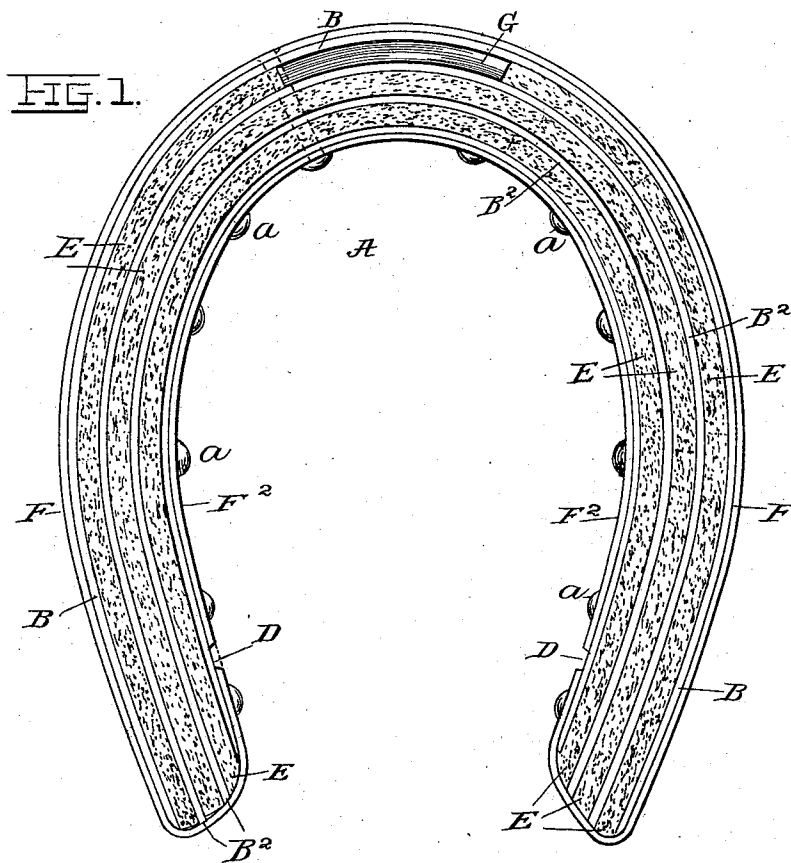


(No Model.)

S. B. JEROME.
HORSESHOE.

No. 506,820.

Patented Oct. 17, 1893.



WITNESSES:
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UNITED STATES PATENT OFFICE.

SAMUEL B. JEROME, OF NEW YORK, N. Y.

HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 506,820, dated October 17, 1893.

Application filed December 17, 1892. Serial No. 455,503. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL B. JEROME, a citizen of the United States, and a resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Horse-shoes, of which the following is a specification.

The object of my invention is to produce a horseshoe that shall be flexible or yielding to permit expansion of the horse's hoof, and yet be strong and durable, and which also shall have a wearing surface or tread of a tenacious or friction-like character to reduce the danger of slipping on smooth roadways, floors, &c., and produce a cushioning effect as the hoof is brought down upon the roadway.

The invention consists in the novel details of improvement and the combinations of parts that will be more fully hereinafter set forth and then pointed out in the claims.

Reference is to be had to the accompanying drawings forming part hereof, wherein—

Figure 1 is a face view of the wearing side of my improved horseshoe. Figs. 2, 3 and 4, are cross sections thereof as hereinafter more fully explained. Fig. 5 is a side view of a toe-calk and Fig. 6 is an end view thereof.

In the accompanying drawings the letter A, indicates my improved horseshoe. The shoe is constructed of rows of strips or layers of suitable material, some or all of which strips are preferably placed on edge, and firmly bound together. In constructing the shoe I use two or more rows of thin metal strips B, D, preferably steel, placed on edge, and between said strips B, D, I place other rows of strips of suitable material, and bind them all firmly together by cross bolts, rivets, screws or the like *a*, that pass through the strips (see Figs. 1 and 4). The strip B is on the outer side of the shoe and the strip D on the inner side thereof, and these strips are bent to the desired shape to form the contour of the shoe, as in Fig. 1.

Between the metal strips B, D, I place parallel strips or layers E, of somewhat softer or yielding, yet tenacious and tough, material. I find that strips of cork or similar substance E give good results (see Figs. 1 and 2), as this acts as a cushion under the horse's foot, or I may use fabric, felt or leather E as indicated

in Fig. 3. When the latter is used I preferably treat it with a waterproofing composition, such as cement, asphaltum, tar or their equivalent, which will also harden the fabric or leather, and cause its particles to adhere. Between the strips E of yielding, yet tough, material, I place strips B², of hard material, say metal, thereby forming alternate rows of rigid and yielding, yet tough, material. The rivets *a*, pass through and hold all these rows of strips firmly together.

I prefer that the strips of yielding material E should project beyond the outer edges of the rigid strips B, B² and D, to form the tread or wearing side of the shoe, whereby a friction surface will be formed to reduce the danger of slipping. These yielding strips E act to cushion the blow when the horse's foot is brought down upon the pavement or roadway. Even after the strips E have worn down level with the surfaces of strips B, B² and D, they will present an adhesive, yet yielding, surface, making it easier for the animal. Between the projecting edges of the strips E, I preferably fill in a hardening yet waterproofing substance E², such as tar, asphaltum, emery, sand or other suitable substance or cement. This strengthens the projecting edges of strips E and also keeps moisture from between strips B² and E. I may also make all the strips composing the shoe of metal (see Fig. 4), or may use strips E interchangeably as desired, that is to say, one strip E of one material, say cork or wood, and the other of fabric, or leather, as desired, and do not confine myself to making all the strips E of the same yielding material.

Around the outer sides of a shoe constructed as above I preferably place a band F of metal, and if desired an inner band F², and rivet, screw or bolt the entire series of strips together, as in Fig. 4. Or I can make the strips F and F² in one continuous piece (as indicated by dotted lines in Fig. 1), the ends projecting together as at the right in Fig. 1. The strip F is carried around the ends of strips B, B² and D at the heel of the shoe, to protect the ends of said strips and form a firm and secure structure, as shown, in which case the ends of strip F will extend partially or wholly along the inner side of the shoe. This construction overcomes any danger of

the ends of metal strips B, B² and D injuring the animal, and prevents the softer or yielding strips E from being chipped or broken off.

At the toe of the shoe I may place, between
5 the metal strips, a short hard metal strip or
calk G, to prevent undue wear at that point.
This strip or calk G may be suitably fastened
between the other strips, say by rivets or
screws *a*, passing into sockets or recesses G²
10 or through apertures therein, as in Fig. 5.
The strip or calk G, may also straddle a strip
B², in which case the under side of strip G
would have a groove or recess G³, to receive
strip B², see Fig. 6. This arrangement will
15 constitute a firm structure for holding the
strip or calk G.

The nails H for holding the shoe upon the
hoof are driven between two metal strips, as
in Fig. 3, and pierce one of the yielding strips
20 E, passing through an aperture *b* therein.
The nail head is of such a width that it can
be forced between the metal strips, but will
not pull entirely through between said strips,
whereby the shoe can be securely attached
25 to the hoof.

A shoe constructed as above, will be flexi-
ble to allow for spreading or bending of the
hoof in either direction, yet it will be strong
and durable. By having a yielding surface
30 the impact upon the roadway will be cush-
ioned and the strain upon the horse of an or-
dinary iron shoe will be lessened or over-
come. The shoe is light, cheap to manufac-
ture and comfortable to the horse, as well as
35 easily applied to the hoof.

Having now described my invention, what
I claim is—

1. A horseshoe composed of separate strips
or layers of material bent to conform to the
40 contour of the shoe, placed on edge and bound
together by laterally extending rivets or the
like passing through all the layers, and an
outer band F passing around the other lay-
ers and around the ends of said layers at the
45 heel substantially as described.

2. A horseshoe composed of interior strips
or layers of different materials with their
edges vertical to the tread surface, and hav-
ing an outer band of metal, substantially as
50 described.

3. A horseshoe composed of alternate lay-
ers of contrasting material with their edges
vertical to the tread surface, and having an
outer band of metal that passes around the
55 heel of the shoe, substantially as described.

4. A horseshoe composed of alternate strips
or layers of rigid material B², and yielding
material E, with an outer layer of metal B,

and an exterior layer of metal F passing
around the layer B and around the ends of
60 layers B, B², and E, substantially as described.

5. In a horseshoe, an inner portion com-
posed of an outer and an inner strip of metal
B, and D, with other strips B² and E, between
B and D, all bound firmly together by rivets
65 or screws, substantially as described.

6. In a horseshoe an inner portion composed
of outer and inner strips of metal B, D, and
alternate strips of metal and yielding mate-
rial located between B and D, the strips be-
70 ing placed on edge, and bent laterally to con-
form to the shape of the shoe, substantially
as described.

7. A horseshoe composed of alternate strips
of metal and two or more strips of yielding
75 material, the yielding material projecting be-
yond the edges of the metal strips, and form-
ing a space between them at their projecting
parts, substantially as described.

8. A horseshoe composed of strips of metal
80 and yielding material, the yielding material
projecting beyond the edges of the metal
strips, and with a filling E² of hardening sub-
stance between the projecting parts of strips
E, substantially as described.

9. A horseshoe composed of strips of mate-
rial bound together and having a strip or calk
of metal G placed between other strips at the
toe, and held in place by rivets or screws
90 substantially as described.

10. A horseshoe composed of strips of ma-
terial bound together with rivets or screws,
and a calk or strip G having recesses or ap-
ertures to receive said rivets or screws, sub-
stantially as described.

11. A horse shoe composed of strips of ma-
terial bound together, and a calk or strip G
having a longitudinal groove G³ to receive
one of the other strips, and rivets for holding
said strip G in place, substantially as de-
100 scribed.

12. A horseshoe composed of strips or lay-
ers of metal and intermediate strips of yield-
ing material, the space between the metal
strips being of such a width that the head of
105 the nail to be used for holding the shoe upon
the hoof will not pull through, as and for the
purposes specified.

Signed at New York, in the county of New
York and State of New York, this 15th day of
December, A. D. 1892.

SAMUEL B. JEROME.

Witnesses:

T. F. BOURNE,
E. P. HITCHCOCK.