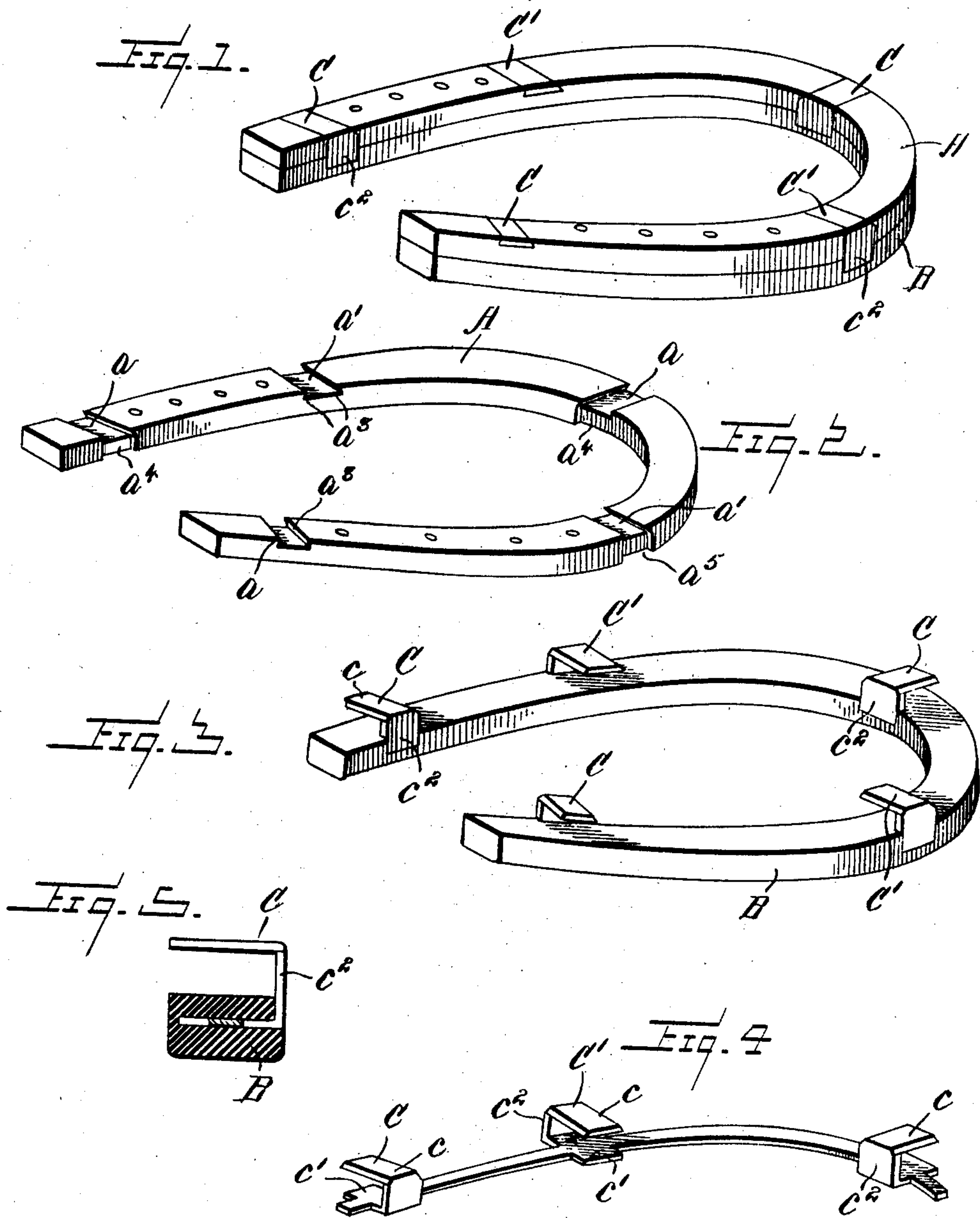


No. 826,959.

PATENTED JULY 24, 1906.

W. D. O'BRIEN.
HORSESHOE.

APPLICATION FILED JAN. 12, 1906.



WITNESSES:

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WILLIAM D. O'BRIEN, OF SNOW SHOE, PENNSYLVANIA.

HORSESHOE.

No. 826,959.

Specification of Letters Patent.

Patented July 24, 1906.

Application filed January 12, 1906. Serial No. 295,795.

To all whom it may concern:

Be it known that I, WILLIAM D. O'BRIEN, a citizen of the United States, residing at Snow Shoe, in the county of Center and State of Pennsylvania, have invented certain new and useful Improvements in Horseshoes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to new and useful improvements in the class of horseshoes of that type provided with a soft tread portion, and relates more particularly to the manner of attaching the soft tread portion to the shoe.

In order that my invention may be more thoroughly understood, I have illustrated the same in the accompanying drawings, and a full and exact description thereof is contained in the annexed specification.

In the accompanying drawings, Figure 1 is a perspective view of my improved shoe. Fig. 2 is a perspective view of the metal portion thereof. Fig. 3 is a perspective view of the soft tread portion thereof. Fig. 4 is a perspective view of a portion of the core and clips which I employ. Fig. 5 is a sectional view through the soft tread portion.

In the several views like letters of reference designate similar parts of my improved device.

A in the drawings designates the metal portion of my improved shoe, the same being of ordinary shape and provided on its upper face with a series of transverse grooves a a' . These grooves a a' are oblong and are wider at the bottom than at the top, thus forming converging sides a^3 a^3 .

a^4 represents slots on the inner edge of the metal portion A and extend downward from the groove a , while a^5 are grooves in the outer edge of the metal portion and extend downward from the grooves a' . As shown in Fig. 1, a groove a is formed at the toe of the shoe, and then the grooves a and a' are formed alternately.

B designates the soft tread portion of suitable thickness and corresponding in shape and size to the metal portion A.

C C' designate a series of clips, preferably of steel, comprising an upper and lower horizontal portion c and c' , respectively, the said horizontal portions being connected by a vertical portion c^2 . These clips C C' are connected by a spring-steel core D, which is pref-

erably integral therewith, and are so arranged thereon that the clips C will engage the grooves a and the clips C' engage the grooves a' , the clips C entering the grooves a from the inside of the shoe and the clips C' entering the grooves a' from the outside of the shoe.

In order that the clips may properly fit into the grooves, I so construct the upper horizontal portions c thereof that they will be the same shape as the grooves a and a' , but sufficiently smaller to enable them to be readily inserted therein. The lower horizontal portions c' c' , together with the core, are embedded in the soft tread portion, as shown in Fig. 5, and in constructing my device the soft tread portion is preferably molded onto the core and clips. The portions c^2 of the clips are of suitable shape and size to fit into the upright grooves a^4 and a^5 , so that they will be flush with the edges of the metal portion.

From the foregoing description the manner of attaching the soft tread portion to the metal portion after the latter has been secured in the usual manner to the hoof is obvious and is as follows: The portion c of the clip C at the toe of the cushion is first inserted from the inside of the shoe into the groove a in the toe of the metal portion, the vertical portion of said clip C fitting into the groove a^4 . The cushion is then sprung, so that the portion c of one of the clips C' can be inserted from the outside of the shoe into the corresponding groove a' , the vertical portion of said clip fitting into the groove a^5 . The cushion is again sprung and the other clip C' inserted in the manner just described. It is obvious that the remaining clips can be then inserted, as described, by springing the cushion in the opposite direction. With this construction when all of the clips have been inserted into the grooves in the metal portion the same will be held against any lateral movement by the spring-core D, and thus the cushion is insured against accidental displacement.

What I claim, and desire to secure by Letters Patent, is—

1. In a horseshoe of the kind described, the combination with a metal shoe portion, of a soft tread portion provided with alternating inwardly and outwardly projecting clips adapted to engage said metal shoe portion, substantially as described.

2. In a horseshoe of the kind described, the combination with a metal shoe portion pro-

vided on its upper side with transverse grooves, of a soft tread portion provided with alternating inwardly and outwardly projecting clips provided with portions adapted to fit into said transverse grooves in said metal shoe portion, substantially as described.

3. In a horseshoe of the kind described, the combination with a metal shoe portion provided on its upper side with transverse grooves, said grooves being wider at the bottom than at the top, of a soft tread portion provided with alternating inwardly and outwardly projecting clips having portions of the same shape as said grooves and adapted to fit therein, substantially as described.

4. In a horseshoe of the kind described, the combination with a metal shoe portion, of a soft tread portion provided with alternating inwardly and outwardly projecting clips adapted to engage said metal shoe portion, and a spring-core in said soft tread portion adapted to retain said clips in engagement with said metal shoe portion, substantially as described.

5. In a horseshoe of the kind described, the combination with a metal shoe portion provided on its upper side with a series of trans-

verse grooves, of a soft tread portion, a series of alternating inwardly and outwardly projecting clips having portions embedded in said soft tread portions and having portions adapted to fit in said grooves in said metal shoe portion and a spring-core embedded in said cushion and secured to said series of clips, substantially as described.

6. In a horseshoe of the kind described, the combination with a metal shoe portion provided on its upper face with transverse grooves, of a soft tread portion provided with a spring-core, a series of clips integral with said core, said clips having horizontal portions adapted to be inserted into said grooves in said metal shoe portion alternately from the inside and outside of the shoe, the vertical portions of said clips fitting in grooves in the edge of said metal shoe portions, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

WILLIAM D. O'BRIEN.

Witnesses:

WILLIAM S. BUDINGER,
M. D. KELLEY.