

(No Model.)

J. B. WHITE.
HORSESHOE.

No. 369,827.

Patented Sept. 13, 1887.

Fig. 1.

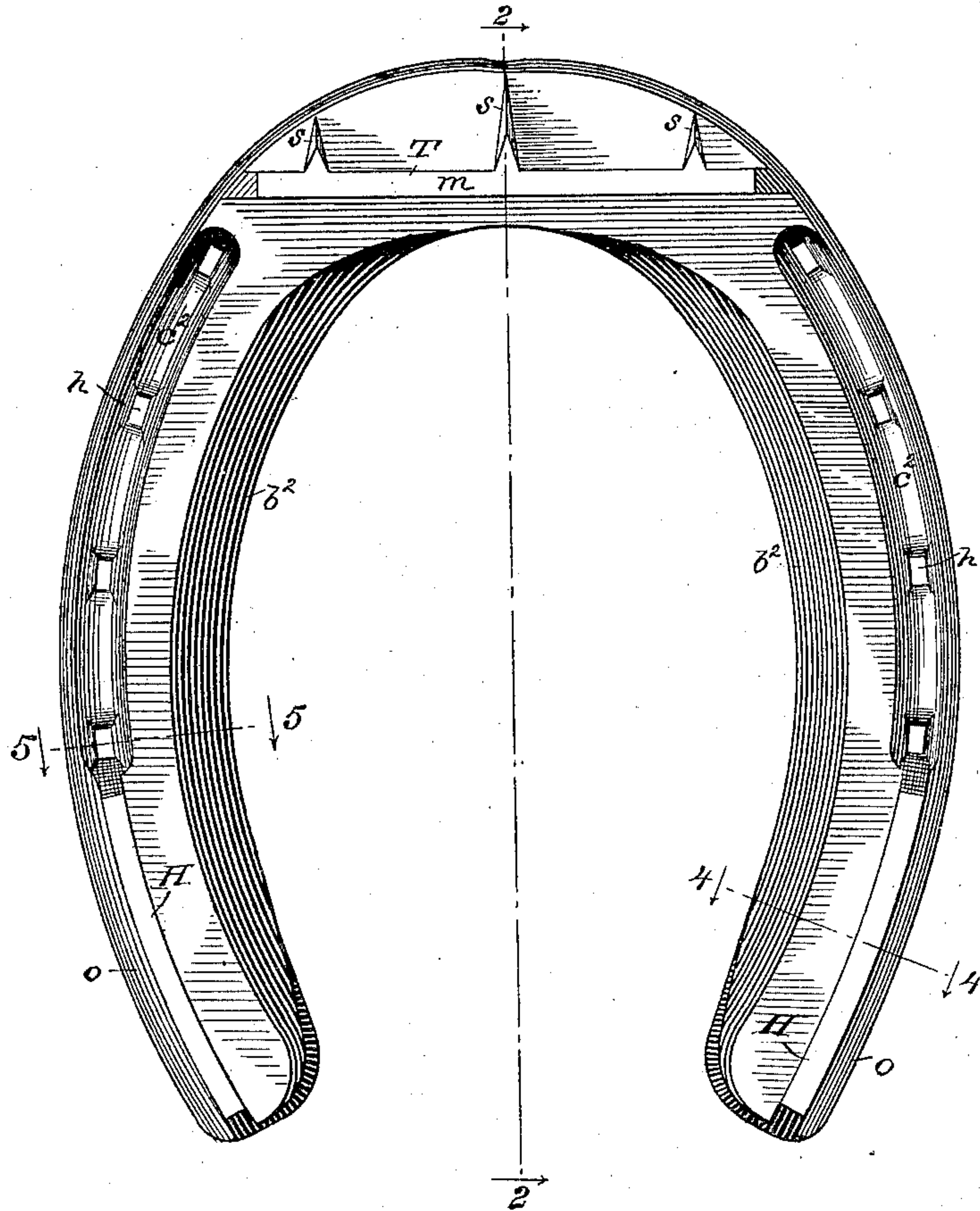


Fig. 2.

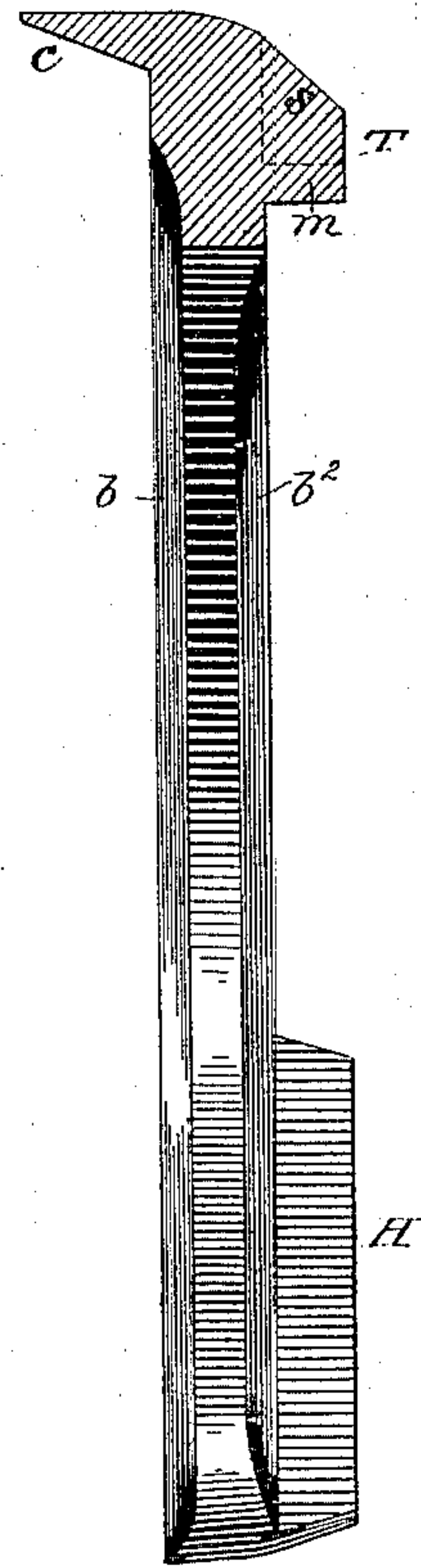


Fig. 3.

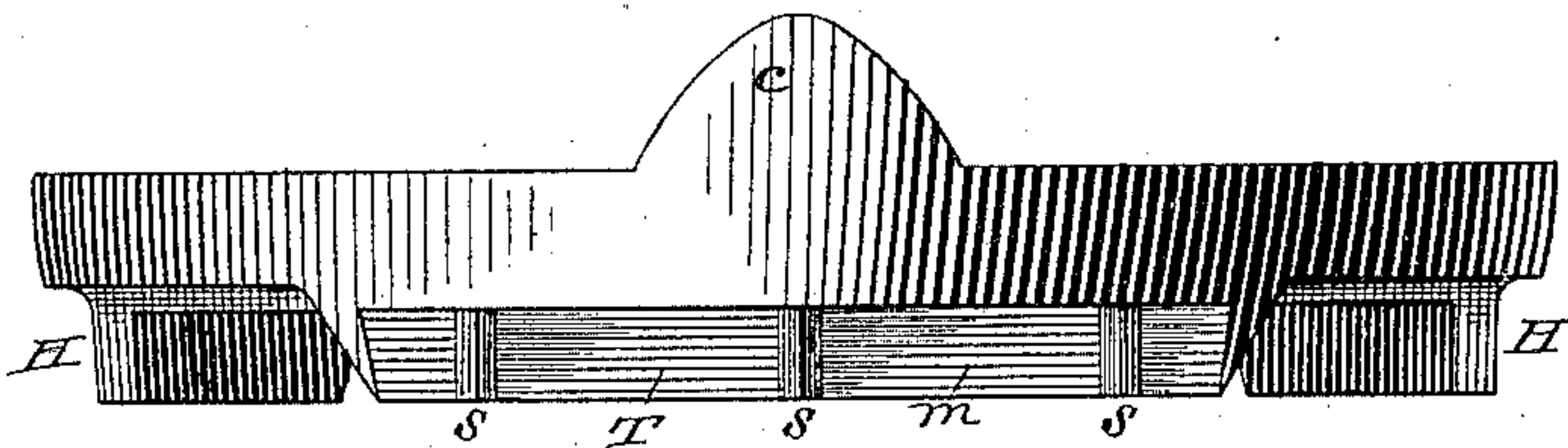


Fig. 4.

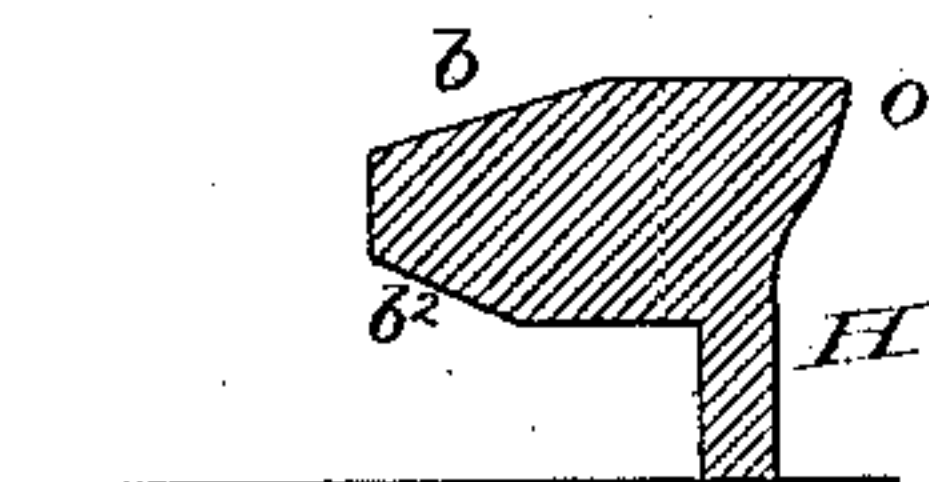
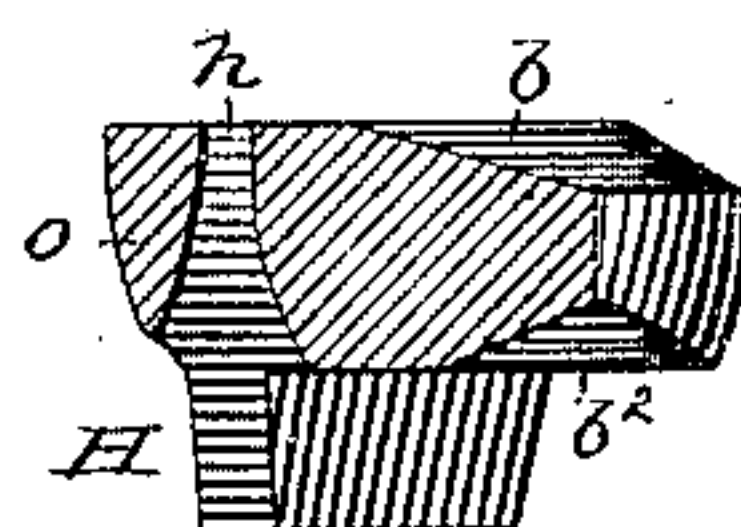


Fig. 5.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN B. WHITE, OF BUFFALO, NEW YORK.

HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 369,827, dated September 13, 1887.

Application filed April 7, 1885. Serial No. 161,457. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. WHITE, a citizen of the United States, residing at Buffalo, in the State of New York, have invented a new and useful Improvement in Horseshoes, of which the following is a specification.

This invention relates to improvements in sharp-calked horseshoes.

The general object of this invention is to so construct a horseshoe having sharp calks integral with the body of the shoe that the calks shall be adapted by their construction to remain sharp until wholly worn off, thus adapting such shoes for use on street-car horses and horses otherwise so employed that very expensive shoes and shoes requiring frequent attention are unsuited to them.

A sheet of drawings accompanies this specification as part thereof.

Figure 1 of these drawings is a bottom or face view of a horseshoe embodying this invention. Fig. 2 represents a longitudinal section thereof on the line 2 2, Fig. 1. Fig. 3 is a front end view thereof; and Figs. 4 and 5 represent detail cross-sections on the lines 4 4 and 5 5, Fig. 1.

Like letters of reference indicate corresponding parts in the several figures.

This improved horseshoe is constructed with a toe-clip, *c*, top bevel, *b*, an under bevel, *b*², nail-creases *c*² *c*², and nail-holes *h h*, which form no part of the present invention. It is furthermore constructed with "sharp" toe and heel calks *T H H* integral with the body of the shoe, perpendicular to its sole, and of uniform thickness from top to bottom, so as to remain sharp and uniformly effective until they are wholly worn off. They will not wear off on street-railways in less than from four to eight days, with an average life of, say, six days, which is ample to render their use economical. The smooth shoes may then be removed and preserved for summer use. Said toe-calk *T* is supported by a thick toe end and is composed

of a main portion, *m*, at right angles to the hauling strain, and braces or stays *s* perpendicular thereto in front, whereby the thin main portion or calk proper is adapted to sustain said strain, while they wear away therewith, so as not to impair the aforesaid mode of operation. More or less of such stays will be employed on shoes for different grades of work.

The heel-calks *H H* are preferably longitudinal and in line with the respective nail-creases, as shown in Fig. 1, and are supported externally by ogee edges *o* projecting beyond them, as best seen in Figs. 4 and 5.

One-eighth of an inch is considered a maximum thickness for the calks. A less thickness will afford sufficient strength in die-swaged shoes for medium work. The shoes are designed to be so made; but my present invention is not intended to be limited to any particular mode of manufacture.

Having thus described my said improvement in horseshoes, I claim as my invention and desire to patent under this specification--

1. An improved sharp-calked horseshoe having thin calks integral with the body of the shoe, perpendicular to its sole, and of uniform thickness from top to bottom, the toe-calk being at right angles to the direction of hauling strain, and braced in front by stays integral therewith and adapted to wear away with the calks, substantially as herein specified.

2. An improved sharp-calked horseshoe having thin calks integral with the body of the shoe, perpendicular to its sole, and of uniform thickness from top to bottom, the heel-calks being longitudinal and supported externally by ogee edges projecting beyond them, substantially as herein specified.

Dated at New York this 2d day of April, 1885.

J. B. WHITE.

Witnesses:

CHARLES NETTLETON,
CHAS. EDGAR MILLS.