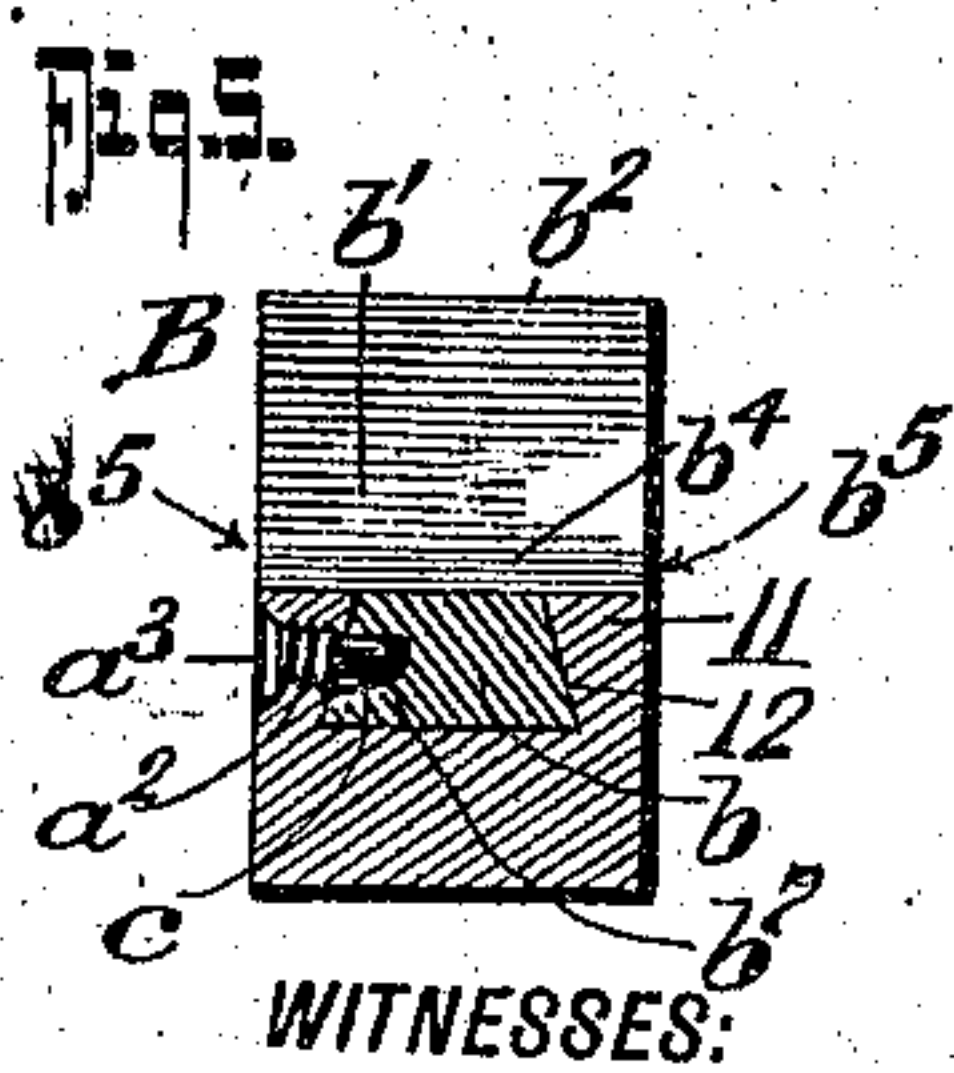
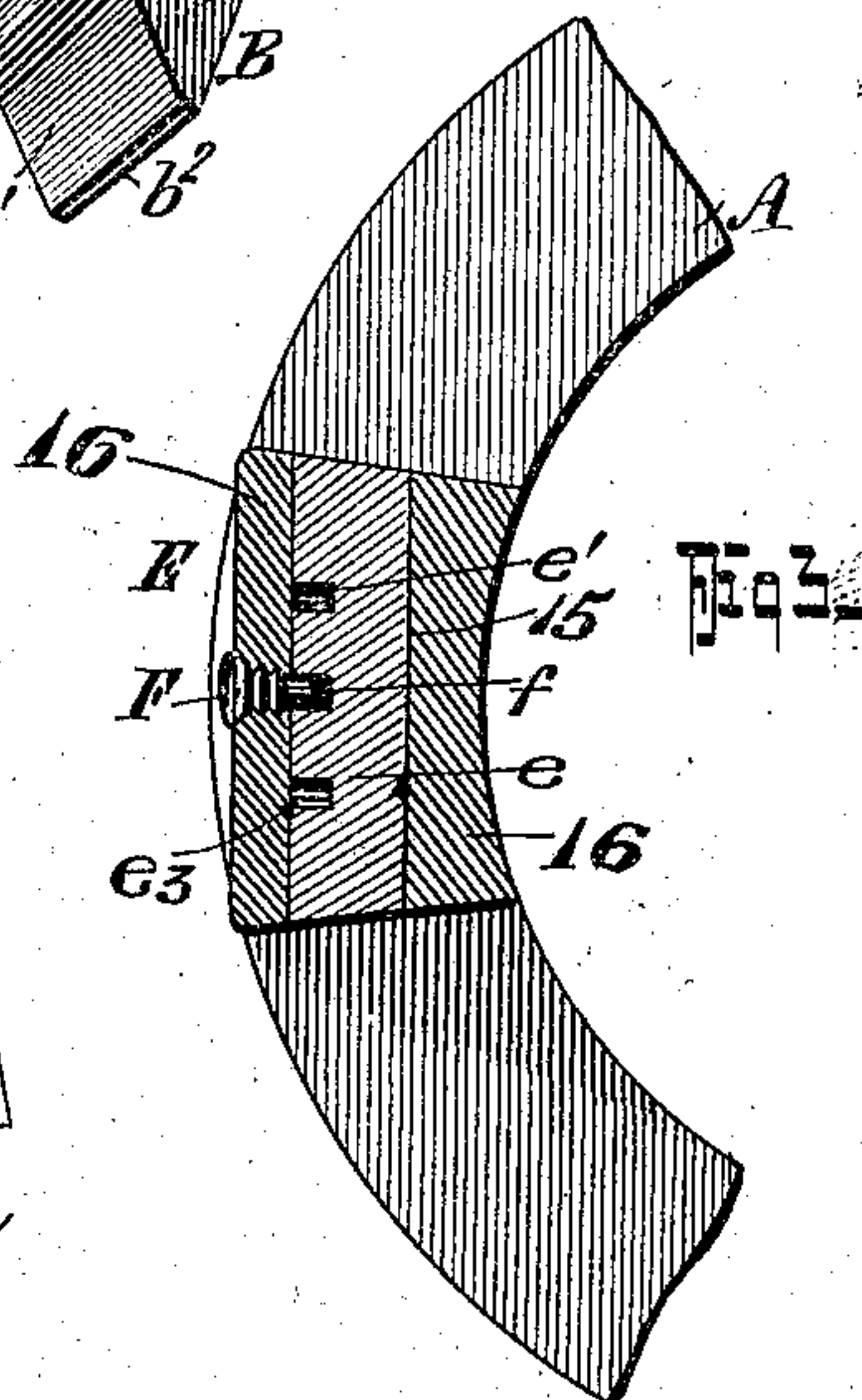
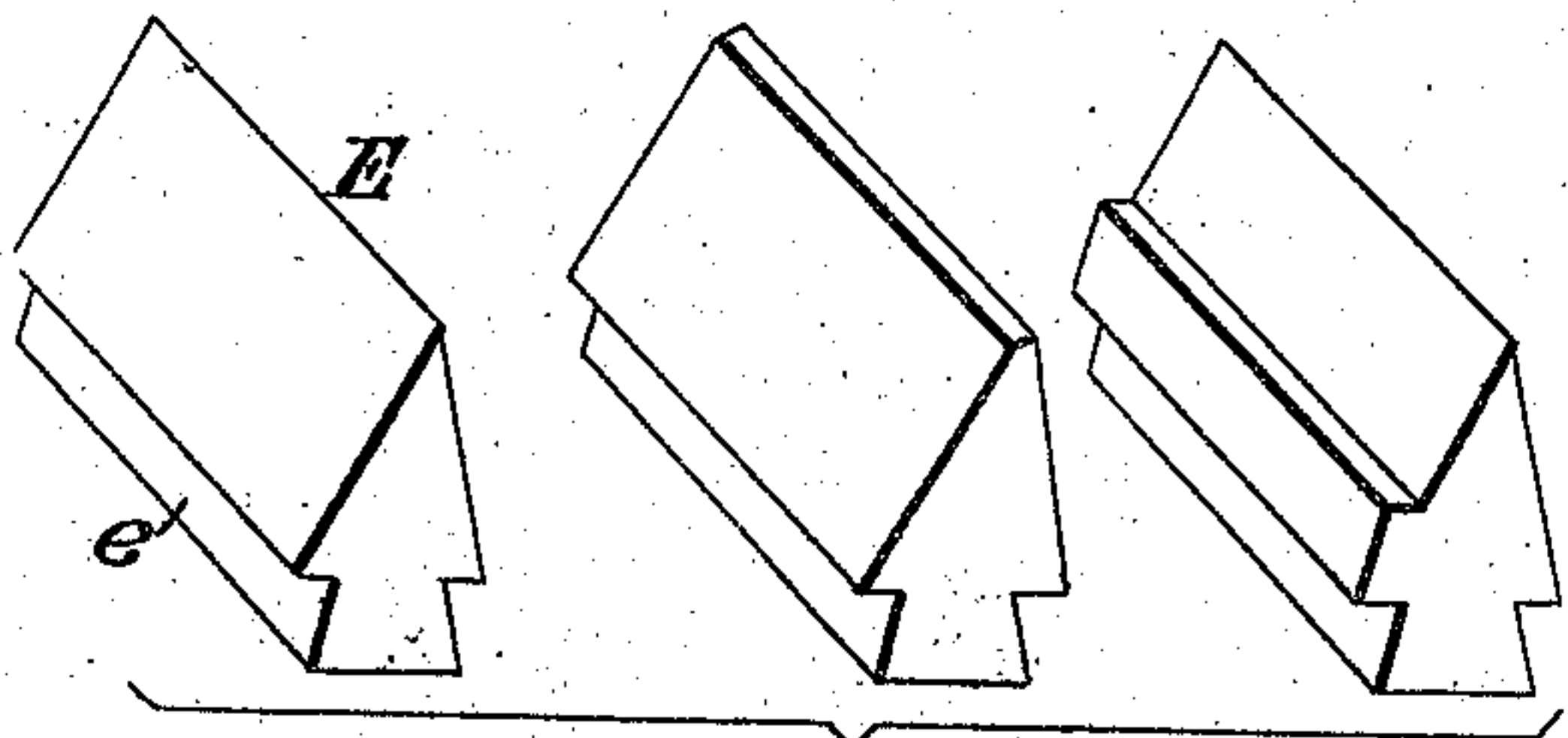
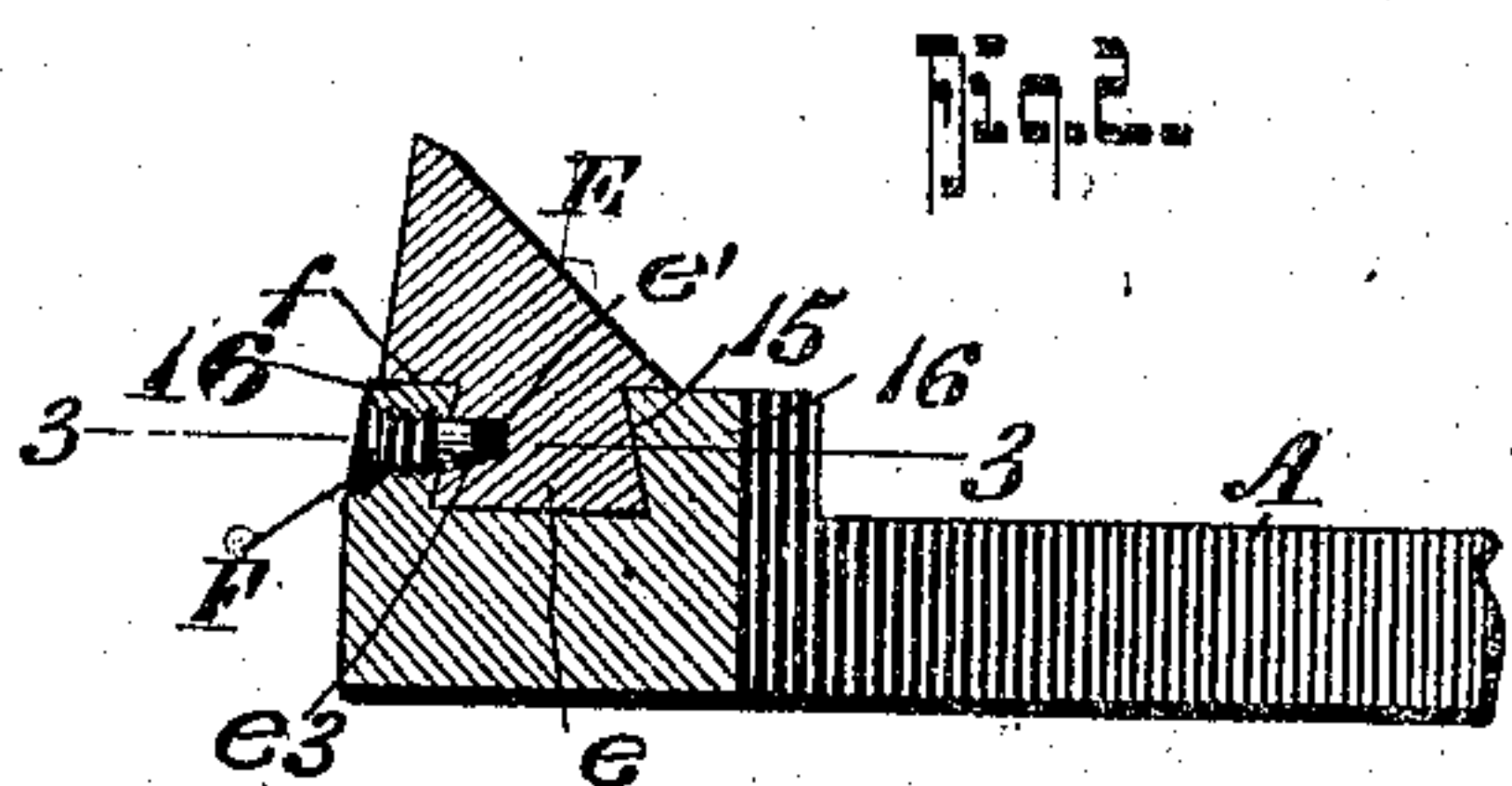
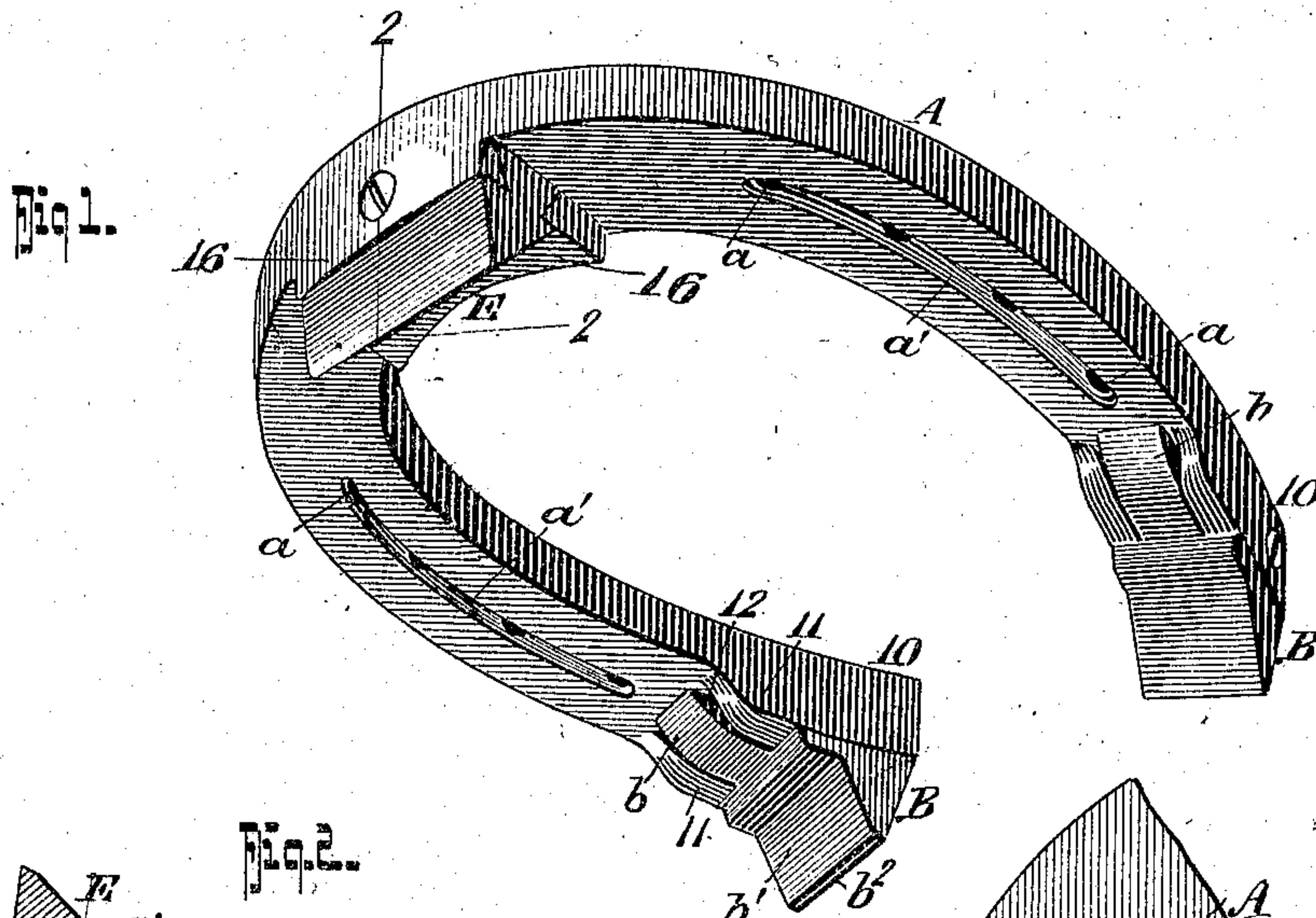


No. 885,090.

PATENTED APR. 21, 1908.

J. N. SHIPPEN.  
HORSESHOE.

APPLICATION FILED FEB. 3, 1908.



WITNESSES:

John T. Schrott.  
Charles H. Wagner.

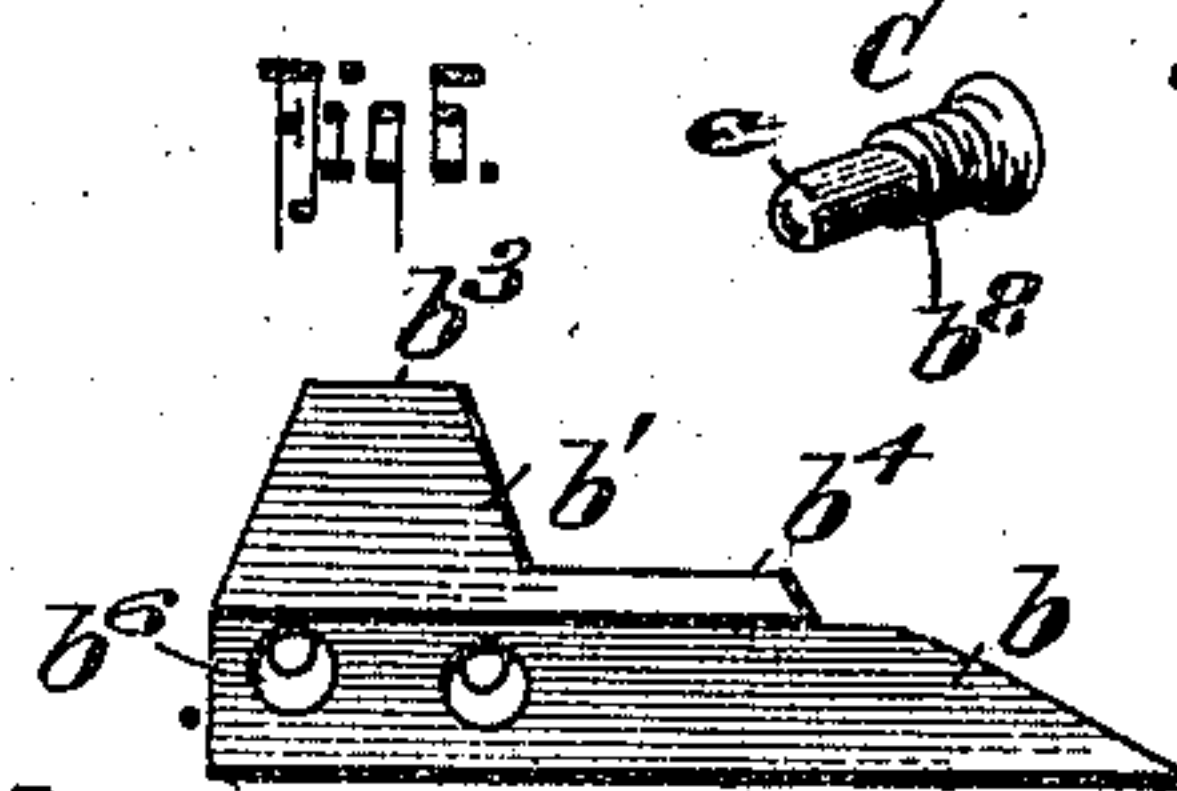
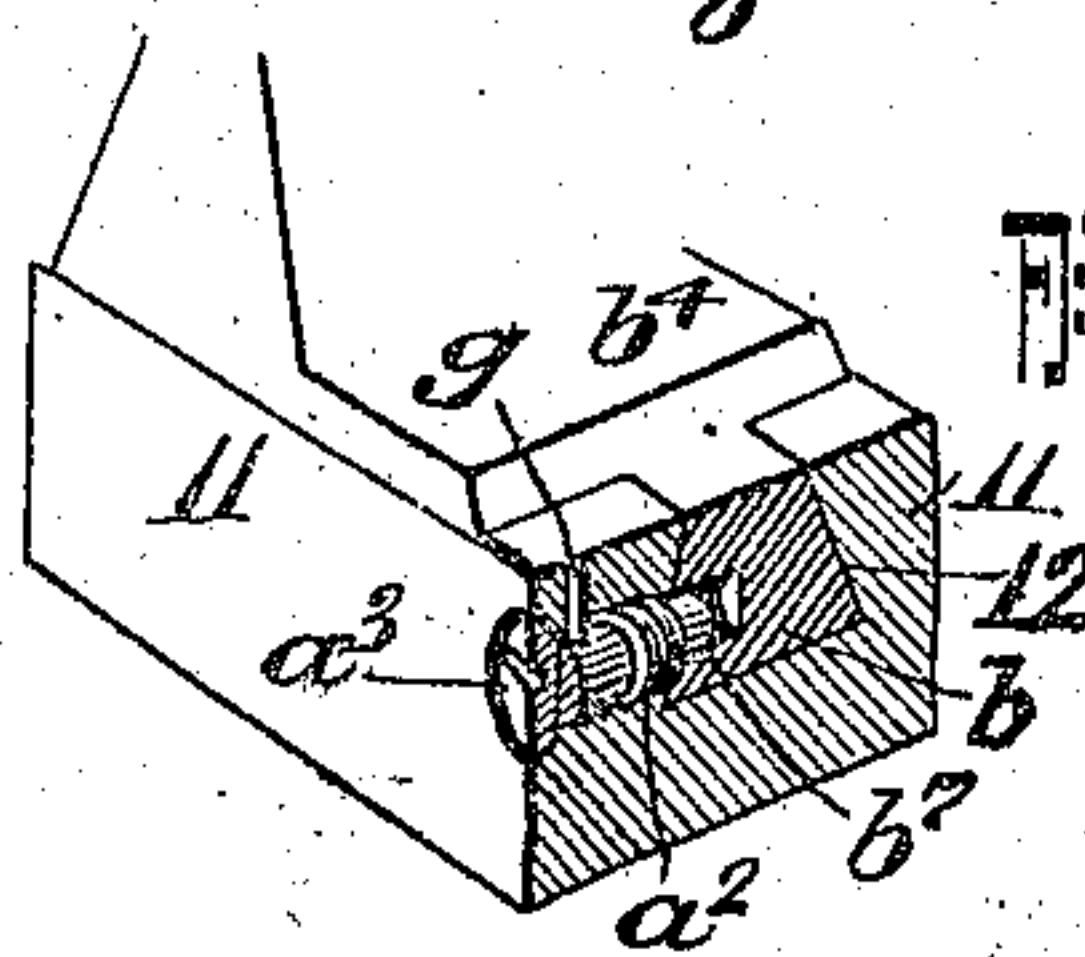
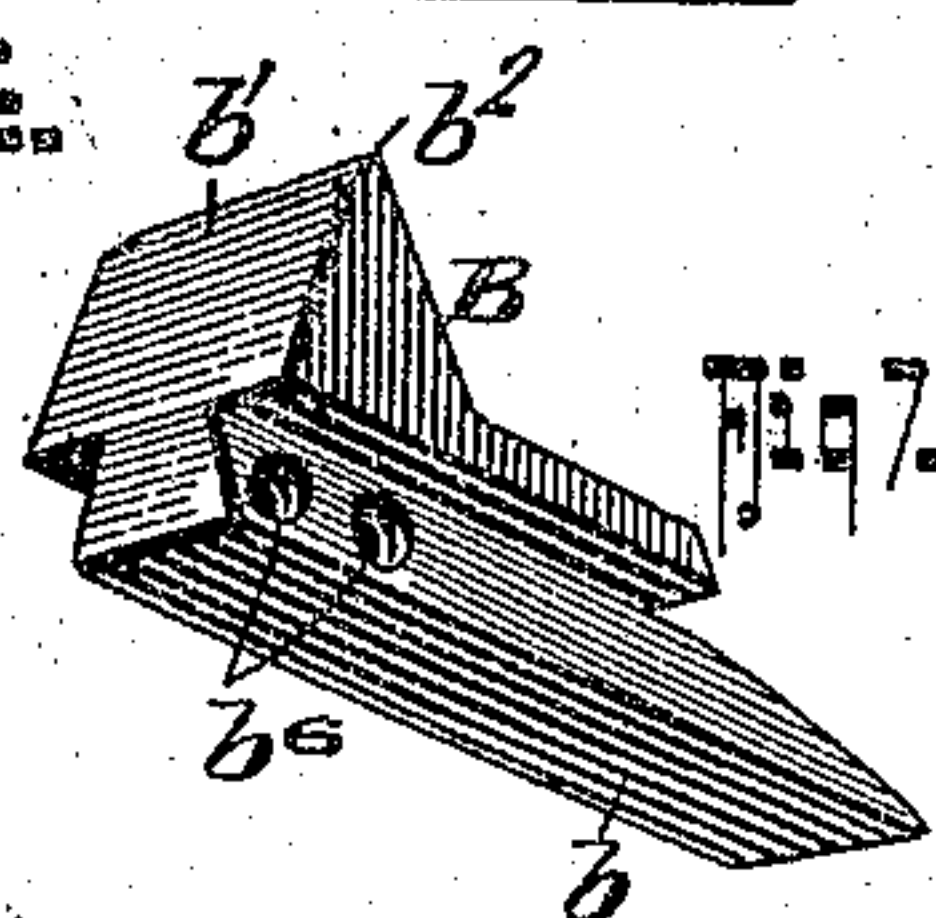


Fig. 8.

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# UNITED STATES PATENT OFFICE.

JOHN N. SHIPPEN, OF BUFFALO, WYOMING.

## HORSESHOE.

No. 885,090.

Specification of Letters Patent.

Patented April 21, 1908.

Application filed February 3, 1908. Serial No. 414,009.

*To all whom it may concern:*

Be it known that I, JOHN N. SHIPPEN, residing at Buffalo, in the county of Johnson and State of Wyoming, have invented a new and Improved Construction of Horseshoe, of which the following is a specification.

This invention has for its object to provide an improved construction of horse shoe having a special coöperative arrangement of toe and heel calk receiving portions adapted for detachably and adjustably holding the peculiarly shaped toe and heel calk pieces that are more especially designed so as to provide for quickly and conveniently changing the calks from sharp shoes to mud shoes or semi-mud shoes, and also for replacing worn out calks.

My invention also has for its object to provide a horse shoe and calk members coöperating therewith, of a simple and economical construction in which means are provided for holding the several calks to their adjusted or set positions, all of which will be hereinafter fully explained, pointed out in the appended claims and illustrated in the accompanying drawings, in which:—

Figure 1, is a perspective view of a horse shoe construction in accordance with my invention. Fig. 2, is a transverse section of the toe calk end of the shoe, taken substantially on the line 2—2 of Fig. 1. Fig. 3, is a horizontal section of the same on the line 3—3 on Fig. 2. Fig. 4, is a perspective view that illustrates three different forms of toe calks. Fig. 5, is a cross section of one of the heel calk sections of the shoe. Fig. 6, is a side elevation of the heel calk. Fig. 7, is a detail view of one of the heel calks. Fig. 8, is a perspective view of one of the calk locking or holding screws or studs, hereinafter referred to, Fig. 9, is a detail cross section, partly in perspective, that illustrates a modified construction of the shoe and the screw stud or calk holder.

The body of the shoe A is of the usual shape and it has the ordinary arrangement of nail holes *a* and countersunk grooves *a'* for receiving the heads of the nails flush with the under side of the shoe. The heel ends 10—10 of the shoe are constructed alike for receiving the heel calk B—B and each of the said heel ends is formed with parallel flanges 11—11 pendent from the under faces, which flanges form the side walls of the longitudinal sockets 12 for receiving shanks *b* on the heel calk B. The

side walls of the flanges 11—11 are undercut or beveled as at 12 for the beveled shanks *b* that, in practice, are made to so snugly fit the recesses as to necessitate their being driven in place by a hammer or other implement. The heel calks B, one of which is shown in detail in Fig. 7 comprises a shank member *b*, preferably longer than the length of the socket 12 so as to provide a tough bearing for the calks against which the under side of the face of the shoe bears. The outer end of the calk portion *b'* proper of the member B may be formed with a sharp impacting edge *b<sup>2</sup>* as shown in Fig. 1 or with a flat or dull edge as at *b<sup>3</sup>* as shown in Fig. 6, or when "mud" shoes are required. At the rear of the base of the part *b'* the member B is formed with a transverse bearing extension *b<sup>4</sup>*, which, as also the part *b'*, has the full width of the heel end of the shoe so as to provide lateral extensions *b<sup>5</sup>* for bearing against the under edges of the flanges 11. So far as described, it will be readily apparent that by reason of the under base bearing, the dove tailed shank connection and the lateral bearing extensions *b<sup>5</sup>* that engage the shoe head flanges 11, the solid connection of the calk with the shoe heel is provided for and in such manner that the impacting strain thereon is uniformly transmitted to the heel end of the shoe.

To provide for setting the heel calk to or near the extremity of the shoe heels, one edge of the shank *b* is provided with a plurality of recesses *b<sup>6</sup>—b<sup>6</sup>* disposed in the same horizontal plane for receiving the inner end of a lock member which is in the nature of a set screw C having a countersunk head for engaging the countersink *a<sup>3</sup>* around the screw tap *a<sup>2</sup>* formed in one of the flanges 11, as best shown in Fig. 5 by reference to which it will be also observed that the screw C has a reduced non-threaded plug end *c* for entering either one of the recesses *b<sup>6</sup>—b<sup>6</sup>* when the screw is forced home.

To further provide for solidly and positively locking the calk of the shoe and also for reducing the danger of the screw C working out of its tap in the flange 11, I make the upper edges of the recesses *b<sup>6</sup>—b<sup>6</sup>* tapering as shown at *b<sup>7</sup>* so that when the screw C is forced home the plug *c* will frictionally engage the taper edge *b<sup>7</sup>* and thereby force the plug *c* upwardly to cause the base of the shank to the more tightly engage the heel end of the shoe.



E designates the toe calk, the tread portion of which may be of the conventional form, either the sharp, the mud or the semi-mud shape, as clearly shown in Figs. 4.

5 The shank member *e* of the calk E has a dove tailed form in cross section for lateral adjustment within the dove tail recess 15 that is formed between the laterally extended and parallel flanges 16—16 integrally

10 formed on the toe end of the shoe and the said shank *e* also has a plurality of recesses *e'*—*e'* in its front face for co-acting with the stud end *f* of the set screw F that has a countersunk head for engaging the counter-

15 sunk end of the screw tap in the outer flange 16 and the recesses *e'* in the said shank *e* are also formed with a tapering edge *e''* so that the forcing home of the screw F will cause the toe calk E to bind tightly against the shoe

20 face. By making the toe calk E heavy and adjustable in the manner shown and described, the shoe can be weighted to one side or the other by simply loosening up the set screw F and shifting the calk E laterally in

25 either direction and then tightening up the screw F again when its stud edge is in alignment with either of the recesses *e''*.

To further provide against accidental loss of the set screws, they may be made as shown

30 in Fig. 9, by reference to which it will be noticed that the outer wall of the set screw F may be smooth and of slightly less diameter than the threaded portion thereof, whereby to provide a shoulder portion *b''*, the said

35 shoulder serving as a stop for engaging with a pin *g* driven through the flange portion 11 and relatively at such point that a sufficient free movement of the screw is permitted to

40 allow of it being threaded back to move its stud end out of engagement with the recesses *e''*, the said pin *g* however, arresting further outward movement of the screw and thereby preventing the screw coming out

45 under ordinary circumstances even if loosened.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is:—

1. The combination with a shoe having

50 pendent enlargements formed with recesses

that extend their full length, said recesses being of uniform width throughout, screw bolts adjustably mounted in one flange of the said enlargement, said bolts having studs for projecting in the recesses; of calks 55 having shanks of uniform width throughout their length for closely fitting the recesses in the shoe enlargements, said calks having cavities in one edge for receiving the stud ends of the screw bolts, that portion of the 60 cavities next the body of the shoe being inclined to the plane thereof, whereby in the act of tightening the screw bolts their sides will engage said inclined portions and cause the calks to tightly bind against the shoe 65 body.

2. In a horseshoe of the character described, the combination with the heel member having a pendent enlargement, said enlargement being formed with a recess its full 70 length, said recess being dovetailed in cross section; of a calk having a shank dove-tailed in cross section for fitting the recess in the shoe; said shank having a cavity in one side, the adjacent flange of the pendent enlarge- 75 ment of the shoe having an aperture threaded a part of its length, a bolt projected through the said aperture having a threaded portion for engaging the threaded portion of the aperture in the pendent enlargement 80 and having a reduced portion between its head and the said threaded portion, its outer end forming a stud to enter the cavity in the calk shank, that portion of the cavity next the body of the shoe being inclined to the 85 plane thereof, whereby in the act of tightening the screw bolt, its sides will engage the said inclined portion and cause the calk to tightly bind against the body of the shoe, and a lock pin mounted in the shoe that pro- 90 jects in the reduced portion of the bolt, said bolt having endwise movement with respect to the lock pin, the latter forming a stop for limiting the outward adjustment of the screw bolt, as set forth.

JOHN N. SHIPPEN.

Witnesses:

BURT GRIGGS,  
T. P. HILL.