

No. 798,582.

PATENTED AUG. 29, 1905.

G. F. HAILMAN.
HORSESHOE CALK.

APPLICATION FILED FEB. 1, 1905.

Fig. 1.

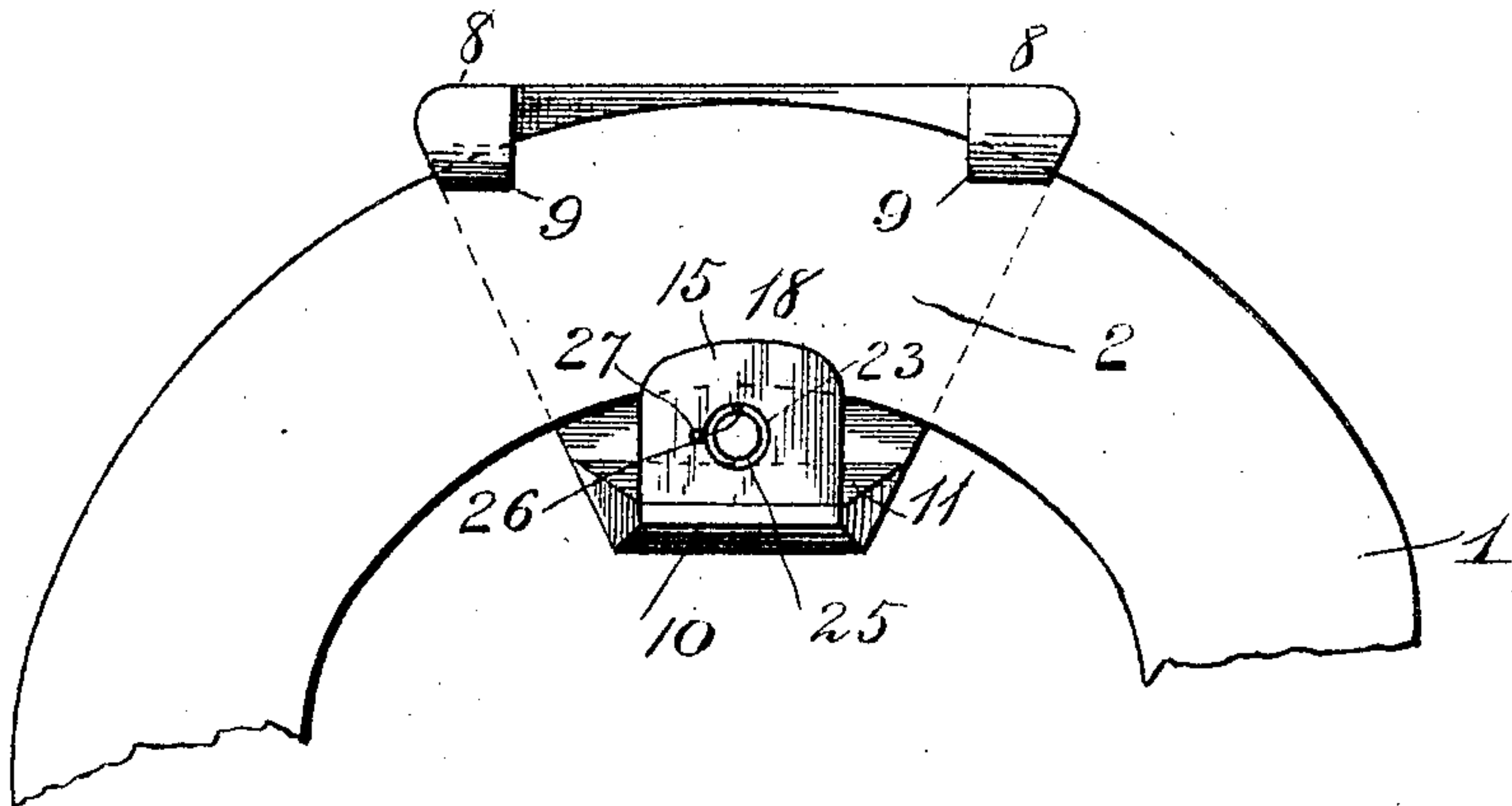


Fig. 2.

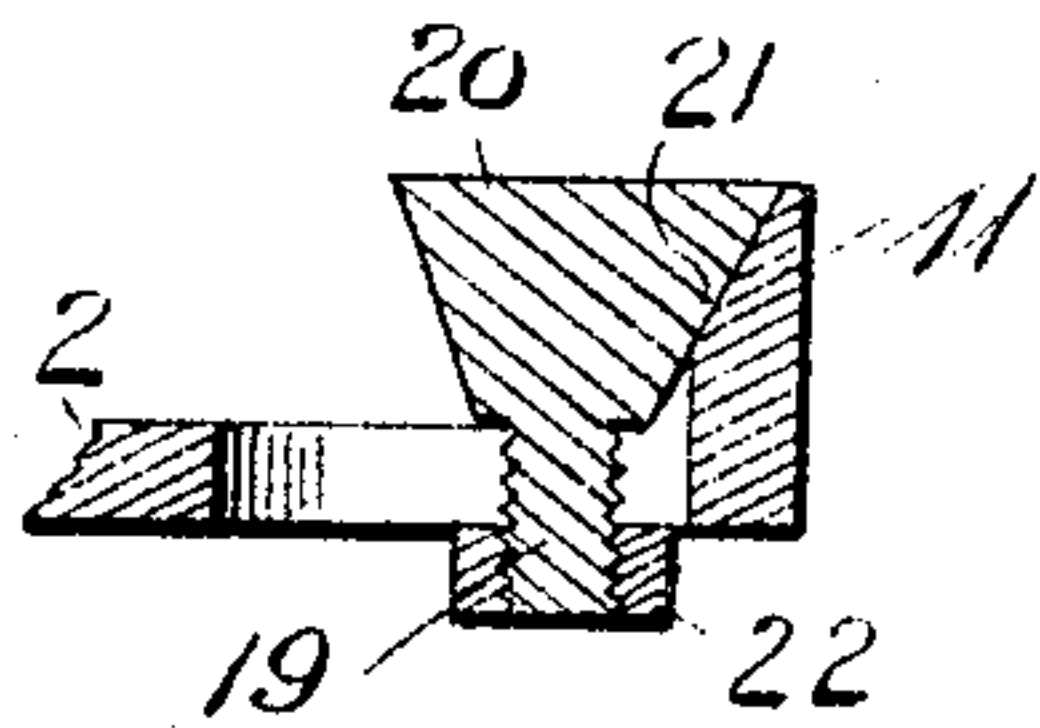
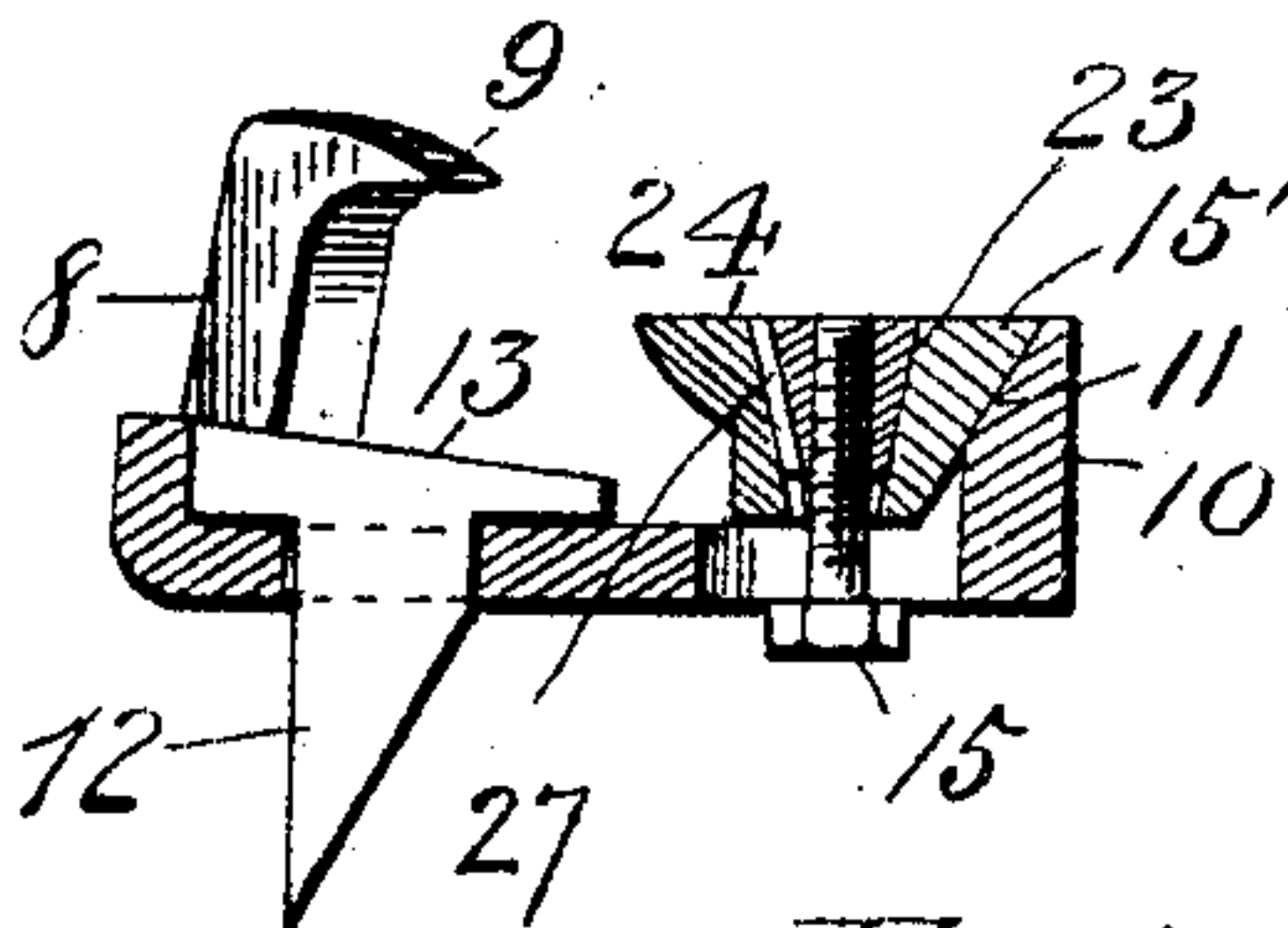


Fig. 6.

Fig. 4.

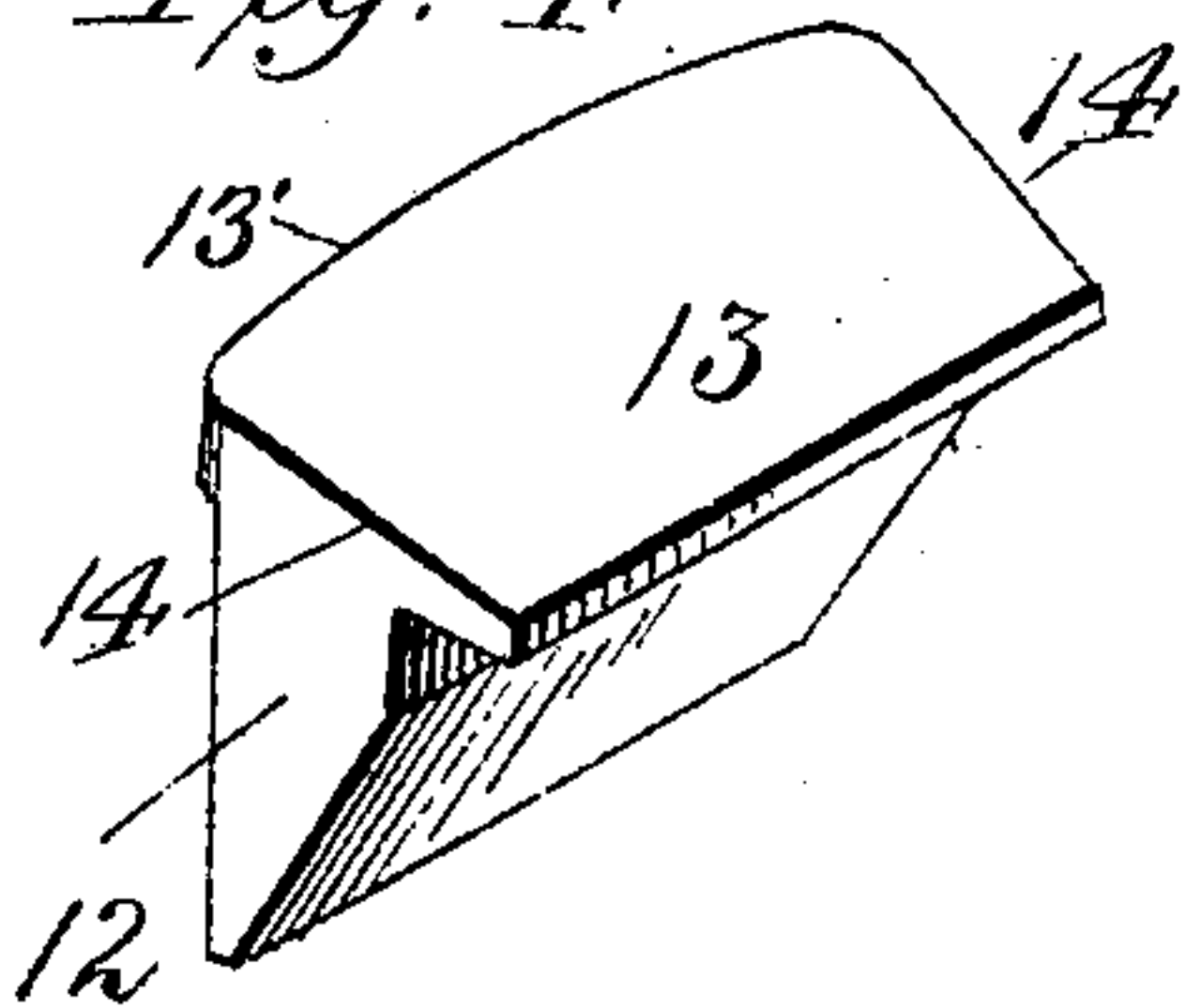


Fig. 3.

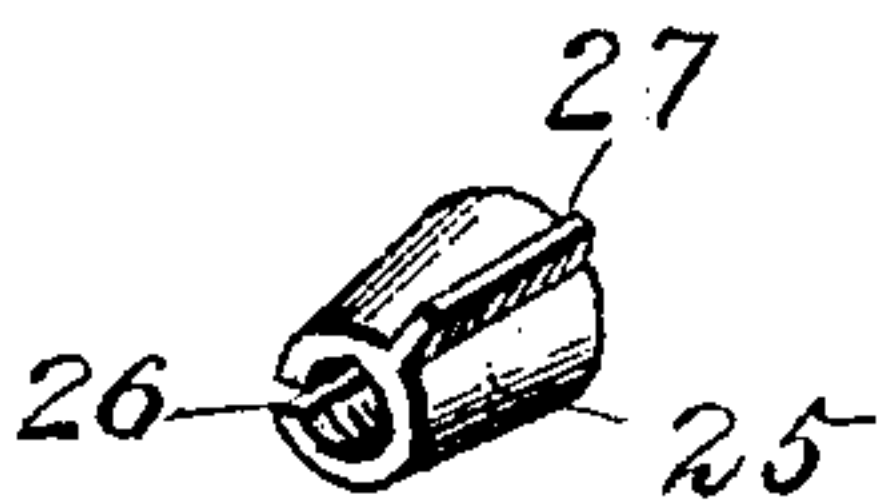
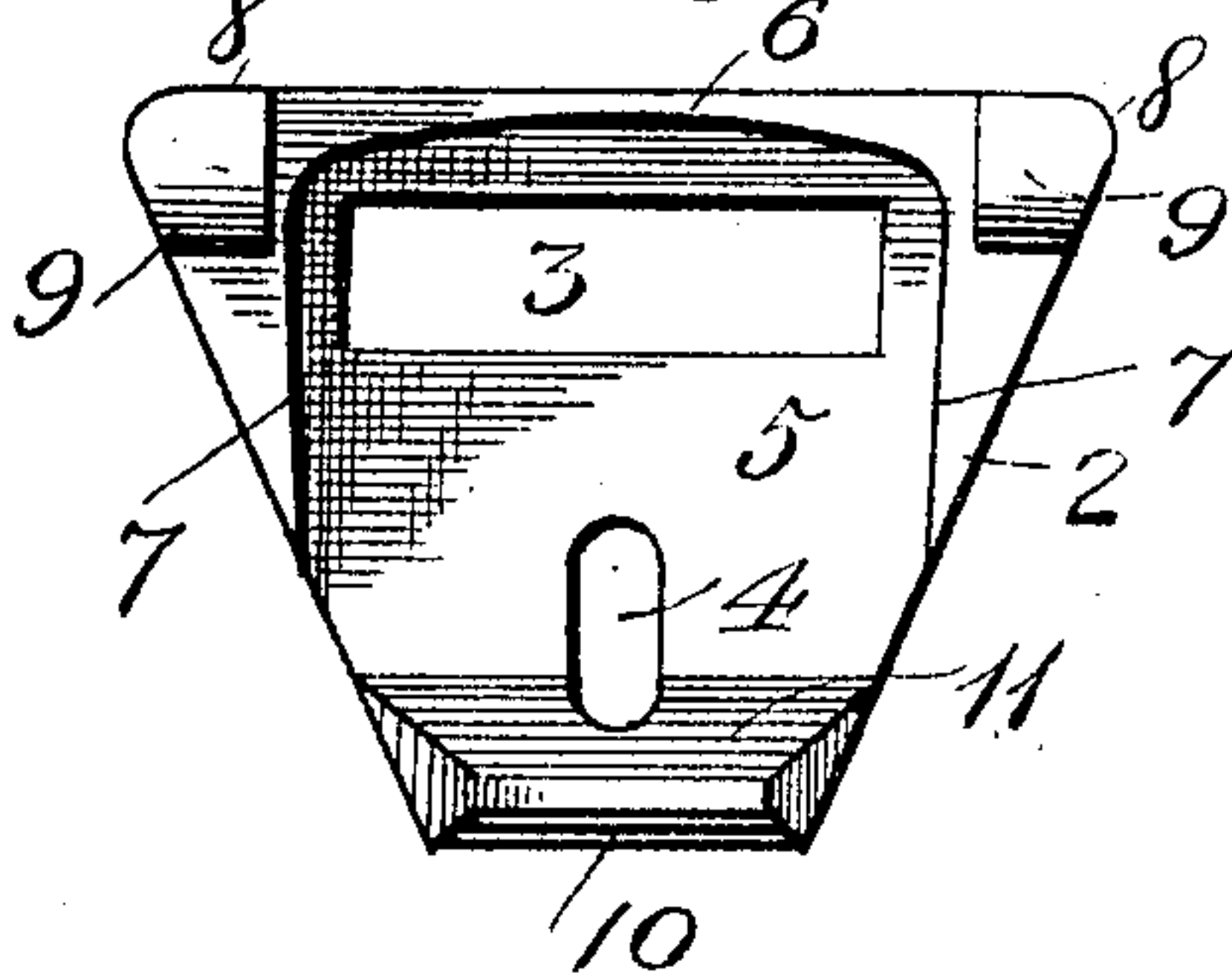


Fig. 7.

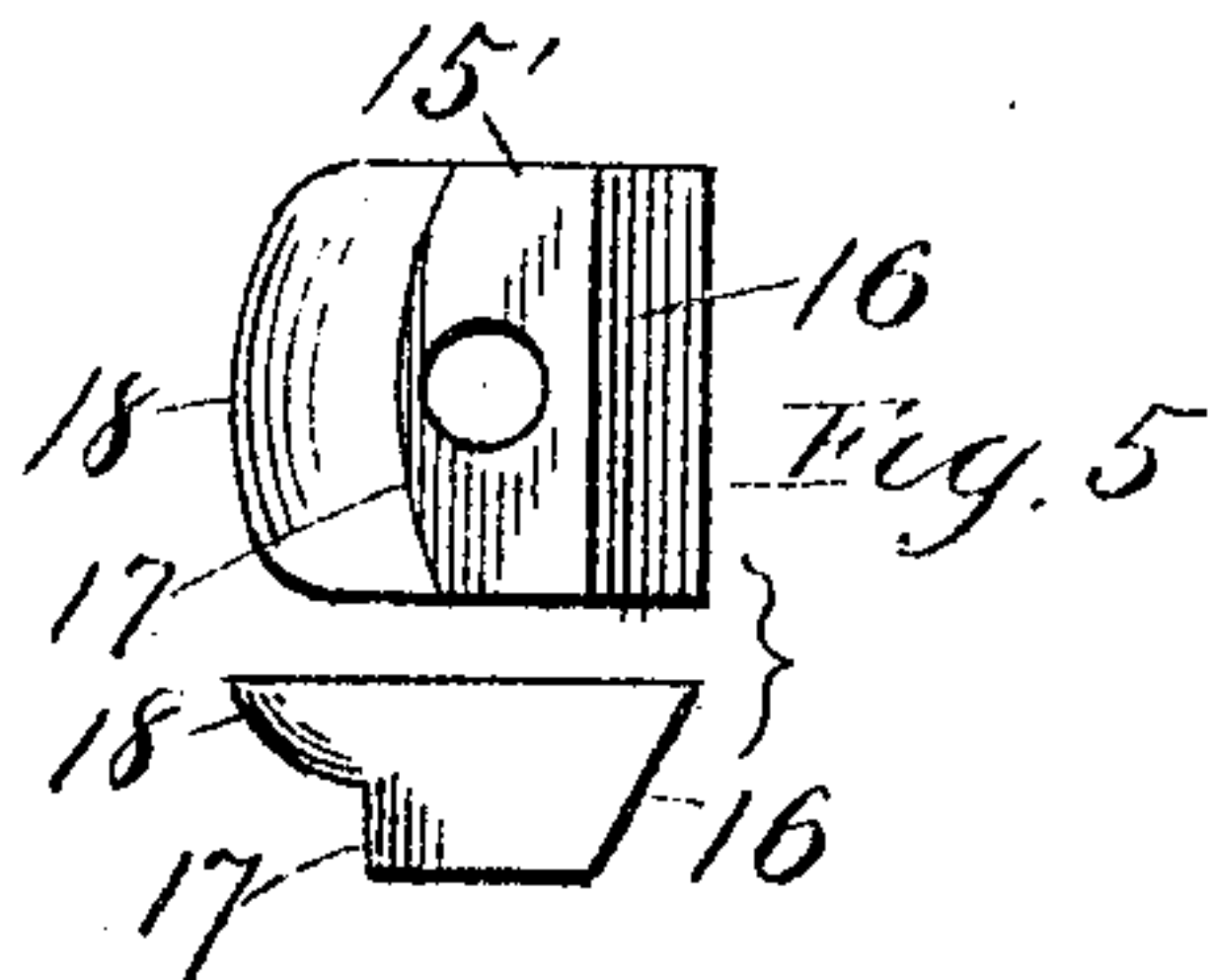


Fig. 5.

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GEORGE F. HAILMAN, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR TO AMERICAN HORSE-SHOE GRIP COMPANY, INCORPORATED, A CORPORATION OF THE DISTRICT OF COLUMBIA.

HORSESHOE-CALK.

No. 798,582

Specification of Letters Patent.

Patented Aug. 29, 1905.

Application filed February 1, 1905. Serial No. 243,689.

To all whom it may concern:

Be it known that I, GEORGE F. HAILMAN, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Horseshoe-Calks; 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 horseshoe-calks adapted to be readily attached to and detached from a horseshoe; and it consists in certain improvements in construction on the devices shown in Letters Patent of the United States No. 779,597, granted to me on the 10th day of January, 1905, which improvements will be fully disclosed in the following specification and claims.

In the accompanying drawings, which form part of this specification, Figure 1 represents a plan view of a horseshoe and a calk-supporting toe-plate attached thereto; Fig. 2, a vertical transverse section of the toe-plate and calk; Fig. 3, a top plan of the same; Fig. 4, a perspective of the calk detached; Fig. 5, an inverted plan and a side view of the clamp-nut detached; Fig. 6, a modification of the bolt-clamp, and Fig. 7 a perspective of the

Reference being had to the drawings and the designating characters thereon, the numeral 1 indicates a horseshoe; 2, a toe-plate in which is an elongated opening 3 to receive a calk and a slot 4 to receive a bolt for clamping the toe-plate to a horseshoe. In the upper face or side of the toe-plate is a rabbet 5, having a curved front wall 6 and side walls 7 7, which decrease in height rearwardly. On the front of the toe-plate and at each end thereof is a lug 8, which engages the outer edge of a horseshoe, and on the ends of the lugs are inwardly-projecting flanges 9, which engage the upper side of the shoe, as shown. The toe-plate is also provided with a lug 10, having an inclined or outwardly-beveled face 11 on the inside thereof.

The toe-plate is preferably made in segmental form, with its sides converging inwardly, and may be of any suitable metal, cast or drop-forged.

12 indicates the calk, which is of form and dimensions to fit the opening 3 in the toe-plate

and is provided with a head 13, which extends beyond the calk in front and rear thereof and is rounded or curved at its front end 13' to fit the front wall 6 of the rabbet 5, while its sides 14 14 correspond with the side walls 7 7 of the rabbet and is of a thickness approximately equal to the depth of the rabbet, and the upper side of the head is preferably inclined or transversely wedge-shaped, as shown, so that the upper side of the head shall bear against the under side of the horseshoe and dispose the calk in an inclined position, and is so maintained by contact or engagement with the shoe.

The depth of the rabbet 5 and the thickness of the head of the calk may be varied to suit the uses to which the calks are applied, such as pleasure or draft horses' shoes.

The head 13 of the calk by fitting into the rabbet 5 in the toe-plate is held securely and firmly, the walls of the rabbet bracing the calk and preventing it being wrenched out of place by any strain that may be brought to bear upon the calk.

15 indicates the clamping-bolt, which is preferably provided with a nut 15' on the inside of the toe-plate, having an inclined surface 16, which corresponds with the angle of the face 11 of the lug 10 and engages therewith, and the opposite edge of the nut is provided with a rounded or convex surface 17, which conforms to the concave part of the horseshoe on the inner edge at the toe. The nut is also provided with a projecting flange 18, which engages the upper side of the shoe and forms a bearing thereon.

In Fig. 6 I have shown a bolt 19, in which the head 20 is provided with an inclined surface 21 to engage the face 11 of the lug 10, and the nut 22 is disposed on the under side of the toe-plate.

The nut 15' is provided with a smooth or unthreaded tapering opening 23, having a groove 24 in the wall thereof, and on the bolt is an internally-threaded and externally-tapered bushing 25, having a slot 26 in its wall to admit of contraction and expansion and a spline 27 on the outer surface to engage the groove 24 to prevent the bushing turning in the nut as the bolt 15 is turned to secure the toe-plate and the calk to a shoe. The bushing 25 is contracted by being drawn into the opening 23, clamps the bolt 15, and forms an

effective lock to prevent accidental disengagement of the bolt from the nut.

Having thus fully described my invention, what I claim is—

5 1. A toe-plate for horseshoes provided with lugs to engage a shoe, a lug having an inclined face, an opening to receive a calk, a calk engaging said opening, and a clamping-bolt having a member engaging the inclined face of
10 said lug, and the shoe.

2. A toe-plate for horseshoes provided with means to engage a shoe, a slot to receive a calk, a calk having a head of greater area than the calk, a lug having an inclined face, and a
15 clamping-bolt having a member provided with a flange engaging the shoe, and an inclined surface engaging the inclined face of said lug.

3. A toe-plate for horseshoes provided with means to engage a shoe, a slot to receive a calk,
20 and a slot to receive a bolt, a lug having an inclined face, a calk, a clamping-bolt having a member provided with an inclined surface engaging said lug on one side and the shoe on the opposite side.

25 4. A toe-plate for horseshoes provided with a rabbet on the inner side of the plate, an elongated opening to receive a calk, a calk having a head of a thickness and contour approximately equal to the depth and contour of the
30 rabbet, and a clamping device for securing the plate to a shoe.

5. A toe-plate for horseshoes provided with a rabbet in the body thereof, an opening to receive a calk, a calk provided with a head approximately the contour of said rabbet, lugs
35 to engage a shoe, a lug having an inclined face, and a clamping-bolt having a member engaging the inclined face of said lug, and the shoe.

6. A toe-plate for horseshoes provided with
40 a rabbet in the body thereof, an opening to receive a calk, a calk having a head extending beyond the sides of the calk and approximately the contour of said rabbet, lugs engaging the outer edge of the shoe and having
45 flanges engaging the inner face of the shoe, a lug having an inclined face, and a clamping-bolt having a member engaging the inclined face of said lug and the shoe.

7. A toe-plate for horseshoes provided with
50 lugs to engage the shoe, a lug having an inclined face, a clamping-bolt extending through said plate and provided with a member constructed to engage the inclined face on said
55 lug on one side, and the shoe on the opposite side.

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

GEORGE F. HAILMAN.

Witnesses:

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