No. 861,947. PATENTED JULY 30, 1907.

H. BRENNAN.

SHANK FOR SHOES.

APPLICATION FILED NOV. 27, 1906.

Fig. 1.

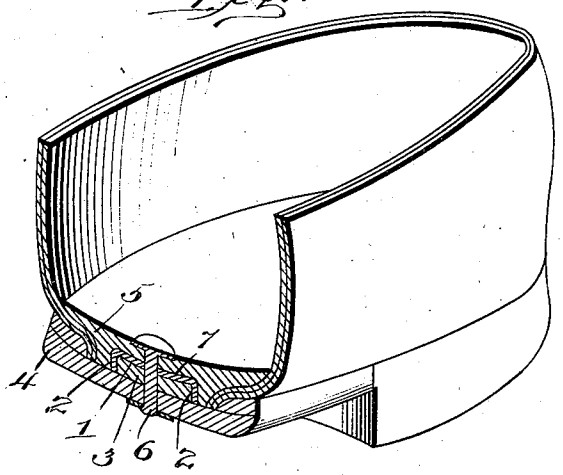


Fig. 2.

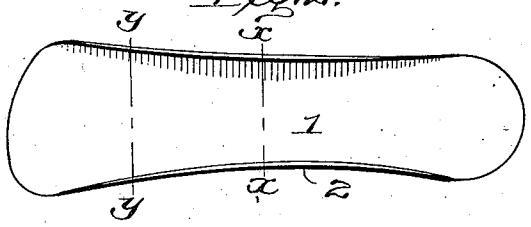


Fig. 5.

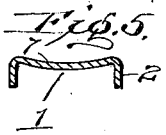


Fig. 6

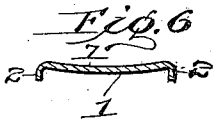
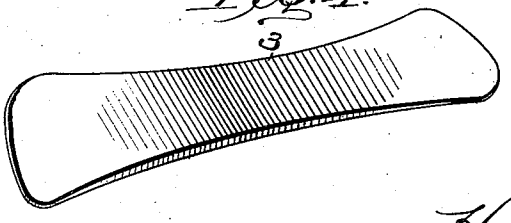


Fig. 3



Fig. 4.



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SHANK FOR SHOES.

No. 861,947. Specification of Letters Patent. Patented July 30, 1907.

Application filed November 27, 1906. Serial No. 345,417.

To all whom it may concern:

Be it known that I, HUBERT BRENNAN, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Shanks for Shoes; 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.

The present invention has for its object to provide a novel and efficient shoe shank which is so constructed as to possess great strength and to form a firm and lasting support for the arch of the foot. As commonly constructed these shanks are formed of a flat strip of tempered metal, which is not sufficiently rigid to properly support the arch of the foot, and which has an objectionable yielding action permitting the heel and toe of the boot or shoe to twist in opposite directions and thereby cause the boot or shoe to quickly run down on the side. In order to obviate these difficulties, the present shank is in the nature of a soft metal blank provided along its opposite, longitudinal edges with outwardly extending reinforcing flanges which are so constructed as to enable the shank to readily resist any bending strain to which it may be subjected.

With these and other objects in view the invention comprises certain novel constructions, combinations and arrangements of parts as will be hereinafter more fully described and claimed.

In the accompanying drawings:—Figure 1 is a perspective view, partly in section, of a shoe having the improved shank applied thereto. Fig. 2 is a bottom plan view of the metallic shank. Fig. 3 is a side elevation of the shank as shown in Fig. 2. Fig. 4 is a perspective view of the filler. Fig. 5 is a transverse sectional view on the line x—x of Fig. 2. Fig. 6 is a similar view on the line y—y of Fig. 2.

The numeral 1 designates the body of the shank which is in the nature of an elongated tempered blank of soft metal and is curved longitudinally to conform to the arch of the foot. Extending longitudinally along the opposite edges of the body of the shank 1 are reinforcing flanges 2 which are preferably formed by bending the edges of the metal.

In the preferred construction illustrated in the drawings it will be observed that the flanges 2 have their maximum depth at approximately the middle portion of the shank and gradually decrease in depth toward the opposite ends of the shank at which points they entirely disappear. This construction not only enables the shank to be readily inserted between the inner sole and the outer sole of a boot or shoe, but it also places the greater depth of the flange where the maximum bending stresses occur. It will also be observed that the width of the shank gradually increases toward the opposite ends thereof, being the least where the flanges have the greatest depth.

A strip 3 of some suitable flexible material such as leather is located between the reinforcing flanges 2 and corresponds in shape to that of the body of the shank, the ends of the filling strip extending slightly beyond those of the shank. It will also be observed that the filling strip gradually decreases in thickness toward the opposite ends thereof, and has its maximum thickness at the point where the flanges 2 have a maximum depth. Owing to this construction the filling strip 3 exactly fills the space between the flanges 2 and the outer face thereof lies flush with the edges of the flanges.

In applying the shank to a shoe, the same is interposed between the outer sole 4 and the inner sole 5, and is held securely in position by means of fastening members such as rivets 6 passing through the three before-mentioned members. Owing to the fact that the shank is formed of a soft metal, the same can be drilled to form the rivet openings after being placed in position between the inner sole and outer sole, thereby obviating the difficulty which would otherwise be caused in bringing the openings in the various members into registry. Where the shank is formed of tempered metal, as is commonly the case, the said metal must be punched before being tempered, and owing to the difficulty of causing the openings to register with each other, it has become customary to rivet the shank to the outer sole only. It will be readily apparent however, that a much more desirable and rigid construction is produced where the fastening members or rivets extend through both the plate and the inner and outer soles, as in the present invention. When in position between the two soles of the shoe the flanges 2 project downwardly, and the body 1 of the shank is preferably bent transversely, as seen at 7, in order to enable the inner sole 5 to assume a slightly concaved position for the reception of the foot.

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

1. In a shoe, the combination of an inner sole, an outer sole, a shank formed of a soft metal which enables openings to be drilled therethrough after being placed in position between the inner sole and the outer sole, and fastening members passed through said openings drilled through the inner sole, the shank and the outer sole.

2. A shoe shank comprising a plate curved transversely and provided with flanges at opposite sides extending from the convex side of the plate and tapered toward each end.

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

HUBERT BRENNAN.

Witnesses:
L. L. MORRILL,
HUGO MOCK.