(No Model.)

G. J. DAVISON.

SOLE OR HEEL PLATE.

No. 481,478. Patented Aug. 23, 1892.

Fig. 1.

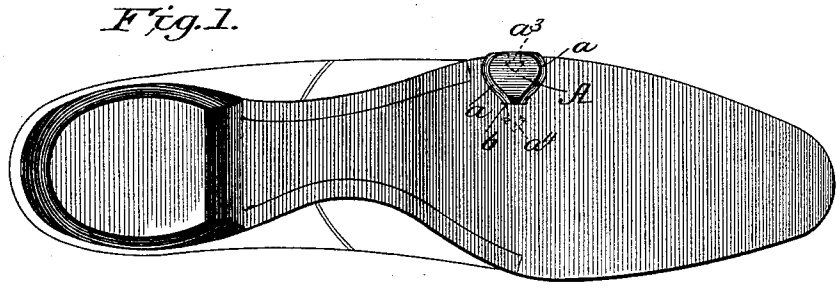


Fig. 2.

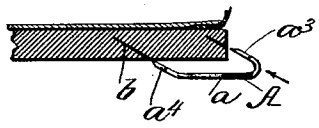


Fig. 3.

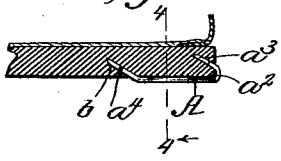


Fig. 5

Fig. 4.

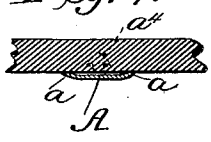
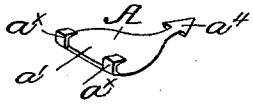


Fig. 6.



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GEORGE J. DAVISON, OF RICHMOND, VIRGINIA.

SOLE OR HEEL PLATE.

SPECIFICATION forming part of Letters Patent No. 481,478, dated August 23, 1892.

Application filed October 17, 1891. Serial No. 409,037. (No model.)

To all whom it may concern:

Be it known that I, GEORGE J. DAVISON, residing at Richmond, in the county of Henrico and State of Virginia, have invented certain new and useful Improvements in Sole or Heel Plates, of which the following is a specification.

My invention has for its object to provide a sole or heel plate which will be simple, easily and cheaply produced, can be quickly attached to the shoe, and which will effectually serve for the purpose intended.

Heel and sole plates now in general use are usually made of iron plates, which renders them thick and clumsy, so that the wearer is conscious of walking on something when they are applied. In attaching the ordinary plates to the sole or heel of a shoe it is usual to fasten them on with screws or to provide such plates with prongs, which are driven vertically up into the sole or heel. This manner of securing them is very objectionable, as the prongs or screws by entering the sole materially interfere with the elasticity or spring of such sole. Furthermore, when such plates are held in place by screws or a number of prongs the sole of the shoe is soon rendered useless, as the leather is broken and soon wears out. To avoid these objections, I provide a plate which consists of a main or body portion formed of thin tempered steel having beveled edges and extensions formed with barbs, such main plate extensions and barbs being arranged and combined substantially in the manner hereinafter fully described in the specification, and pointed out in the claim, reference being had to the accompanying drawings, in which—

Figure 1 is a view illustrating my improved heel and sole plates as applied to a shoe. Fig. 2 is a view illustrating the manner in which my plates are secured to the shoe-sole. Fig. 3 is a section of a portion of a shoe-sole, with one of my improved plates in place. Fig. 4 is a cross-section on the line 4 4, Fig. 3. Fig. 5 is a plan view of the blank from which the plate is formed, and Fig. 6 illustrates a modification hereinafter referred to.

In the accompanying drawings, A indicates one of my improved heel or sole plates, which consists of a thin sheet of tempered steel, which in practice is stamped out in the shape shown most clearly in Fig. 5, its lower or tread face being dished shape and having its edges beveled, as at a a, whereby to add elasticity to the body and also to prevent possibility of the plate catching in the carpet when walking over same.

As shoe-plates are usually placed near the edge of the sole or heel I form the plate shown with an enlarged outer portion a', from which projects an extension a^2, formed with a barbed end a^3, the opposite end of the plate having a like barbed extension, as shown at a^4. These extensions are bent up diagonally to an angle of approximately forty-five degrees and serve as the securing-prongs for holding the plate to the shoe.

The manner in which my improved plates are attached to the shoe is as follows, and is most clearly illustrated in Fig. 4: An incision is made in the bottom of the shoe near the edge and at an angle, as at b', and in this is inserted the barbed end a^4, the other barbed end a^2 being held to engage the edge of the sole. Now by tapping the plate on the outer edge the end a^4 will be driven into the hole b and the end a^2 into the edge of the sole until the parts assume the position shown in Fig. 4. By forming the plate and securing it to the shoe, as described, many advantages are obtained over the old way of securing shoe-plates. It will be seen that the body of the sole is punctured only at one point, and such opening being at an angle will be always pressed together and closed around the barb of the end a^4, thereby securely holding such end in place, the other end being also held secure in the edge of the sole by the compression of the sole during walking. Furthermore, as the prongs enter the sole at an angle, as shown, the danger of the prongs wearing through the sole as the sole wears out is avoided, and, furthermore, by fastening the plate, as stated, it readily adjusts itself to the curve of the sole or heel, and also avoids the danger of cutting into the welt of the shoe.

Instead of employing but one prong to enter the edge of the shoe I may form the plate with two prongs $a^\times$ $a^\times$, as shown in Fig. 6, in which case I find that they need not be provided with barbs and are bent over at right angles and formed with knife-edges, as shown.

By entering the short prong a^3 in the edge

of the shoe at an angle, as stated, and the angles of both prongs being the same makes it easier to drive the plate on, and having but one point entering the sole does not interfere with or break the elasticity of the tread of the sole in walking as it does with devices which have two or more fastening-points in the sole.

I am aware it is not broadly new to make heel and sole plates with upturned fastening-prongs. This I do not claim; but

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

A heel or sole plate consisting of a body portion A, provided with a barbed extension a^3 bent over the body and a barbed extension a^4, projected diagonally outward from such body, said extensions being disposed in a parallel plane and at approximately an angle of forty-five degrees from the body portion of the plate, substantially as and for the purpose described.

GEORGE J. DAVISON.

Witnesses:
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