

(No Model.)

W. FROST.
SOLE OR HEEL PLATE.

No. 567,463.

Patented Sept. 8, 1896.

Fig. 1.

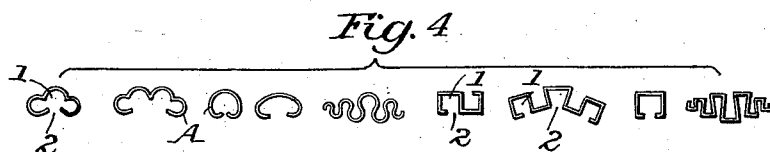
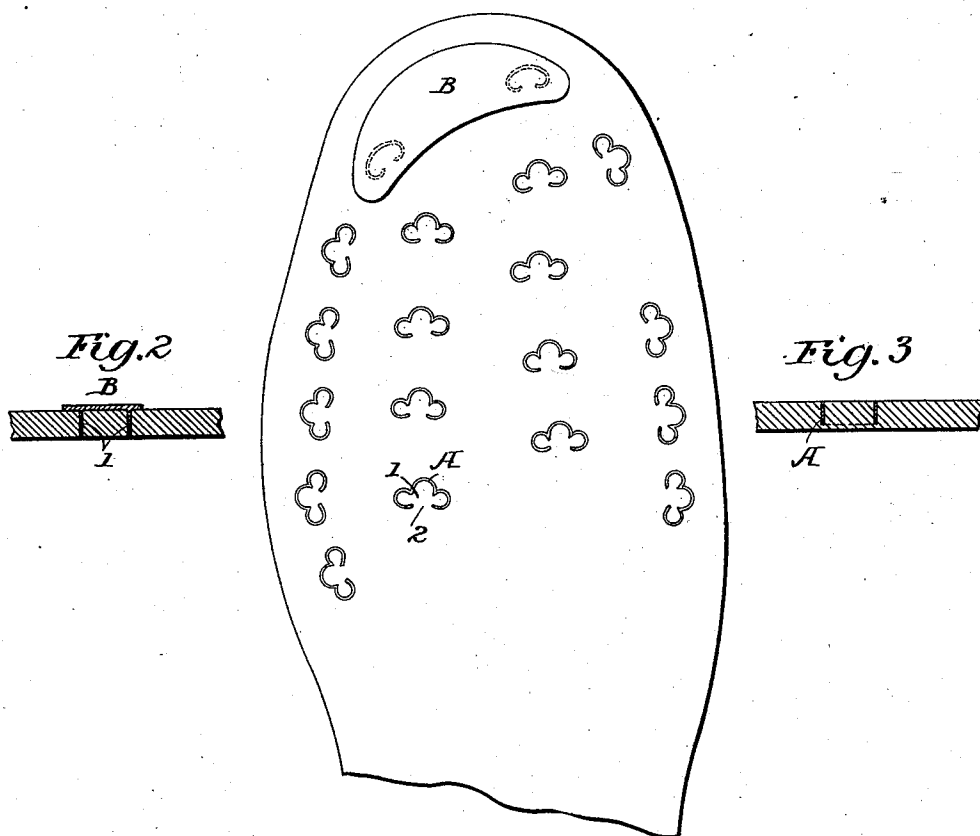
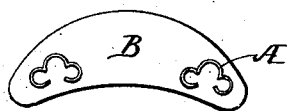


Fig. 5



Witnesses
Lanceo Stevens
J. G. Hinkel

Inventor
William Frost.
by *Arthur Freeman*
Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM FROST, OF LONDON, ENGLAND.

SOLE OR HEEL PLATE.

SPECIFICATION forming part of Letters Patent No. 567,463, dated September 8, 1896.

Application filed May 3, 1895. Serial No. 548,076. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM FROST, a subject of the Queen of Great Britain, residing at London, England, have invented certain new and useful Improvements in the Manufacture of the Soles and Heels or Bottoms of Boots or Shoes, of which the following is a specification.

This invention relates to an improvement in devices for increasing the durability of the soles and heels of boots and shoes; and it consists in the novel features of construction hereinafter more fully described.

In the accompanying drawings, forming a part of this specification, and in which like letters and figures of reference indicate corresponding parts, Figure 1 is a plan view of a shoe-sole with my invention applied thereto. Figs. 2 and 3 are sectional views of portions of shoe-soles, showing different forms of the invention applied thereto, respectively. Fig. 4 is a plan view illustrating several forms of the invention. Fig. 5 is an inverted plan view of one form of my invention.

Heretofore the durability of shoe soles and heels has been increased by inserting nails or plugs therein and by means of plates or protectors secured to the sole by means of nails or spikes. It has also been proposed to drive hollow tubular insertions into the sole. The use of nails as a protector for wearing-surfaces is objectionable for the reason that they do not obtain a firm hold upon the surrounding leather, while the objection to tubular inserting pieces arises from the fact that the leather portion within them is or in time becomes entirely separated from the main body of the shoe-sole and is extremely liable to drop out.

The present invention has for its object the use of a strip of metal or other suitable material, said strip being of uniform thickness and having its ends bent toward each other or contracted in such manner that when the strip is inserted into a shoe-sole that portion of the leather lying within or between the convolutions of the strip will be put into a state of compression when pressure is exerted upon the shoe, tending to firmly hold the strip in place and preventing it from dropping out. The ends of the strip, while they are brought toward each other, are left separated, and consequently the portion of leather which lies within the strip is not severed from the main body of the shoe-sole.

Referring to the drawings, A designates

the strip, which is of uniform thickness and may be made of metal or other suitable material. The strip may be of different widths and lengths and formed into different shapes, some of which are illustrated in Fig. 4. It is essential, however, that the ends of the strips should be contracted or brought toward each other, but left separated, forming pockets 1 with contracted necks or openings 2.

In practice the strips A are inserted into the shoe sole or heel, by driving or otherwise, to such an extent as to bring their outer edges flush with the bottom of the sole of the shoe. In some instances, where a more extended bearing is required than would be offered by the edge of a single strip, I make use of a plate or protector B, formed of suitable material and of the desired shape, and to one face of this plate I secure one or more of the strips A, or said strips may be cast integral with the plate. These strips are then inserted into the sole of the shoe to bring the inner face of the plate B against the bottom of the sole, as shown in Figs. 1 and 2.

What I claim is—

1. As an improved article of manufacture, a protector for wearing-surfaces consisting of a strip of uniform thickness bent to form pockets with contracted necks or openings, substantially as described.

2. The combination with a wearing-surface, of a protector consisting of a plate provided with a strip of uniform thickness bent to form pockets with contracted necks or openings, substantially as described.

3. The combination with a wearing-surface, of a protector protruding beyond said surface and lying closely against the same, the said protector comprising the plate having a strip of uniform thickness bent to form pockets with contracted necks or openings, substantially as described.

4. The combination with a wearing-surface of compressible material, of a protector driven into said surface and comprising a strip of uniform thickness with the ends thereof bent toward each other or contracted, substantially as described.

In testimony whereof I have hereto set my hand in the presence of the two subscribing witnesses.

WILLIAM FROST.

Witnesses:

E. COURTNEY WALKER,
I. SMITH.