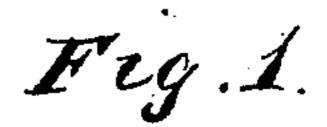
(No Model.)

## I. R. SANFORD.

HEEL PROTECTOR.

No. 318,035.

Patented May 19, 1885.



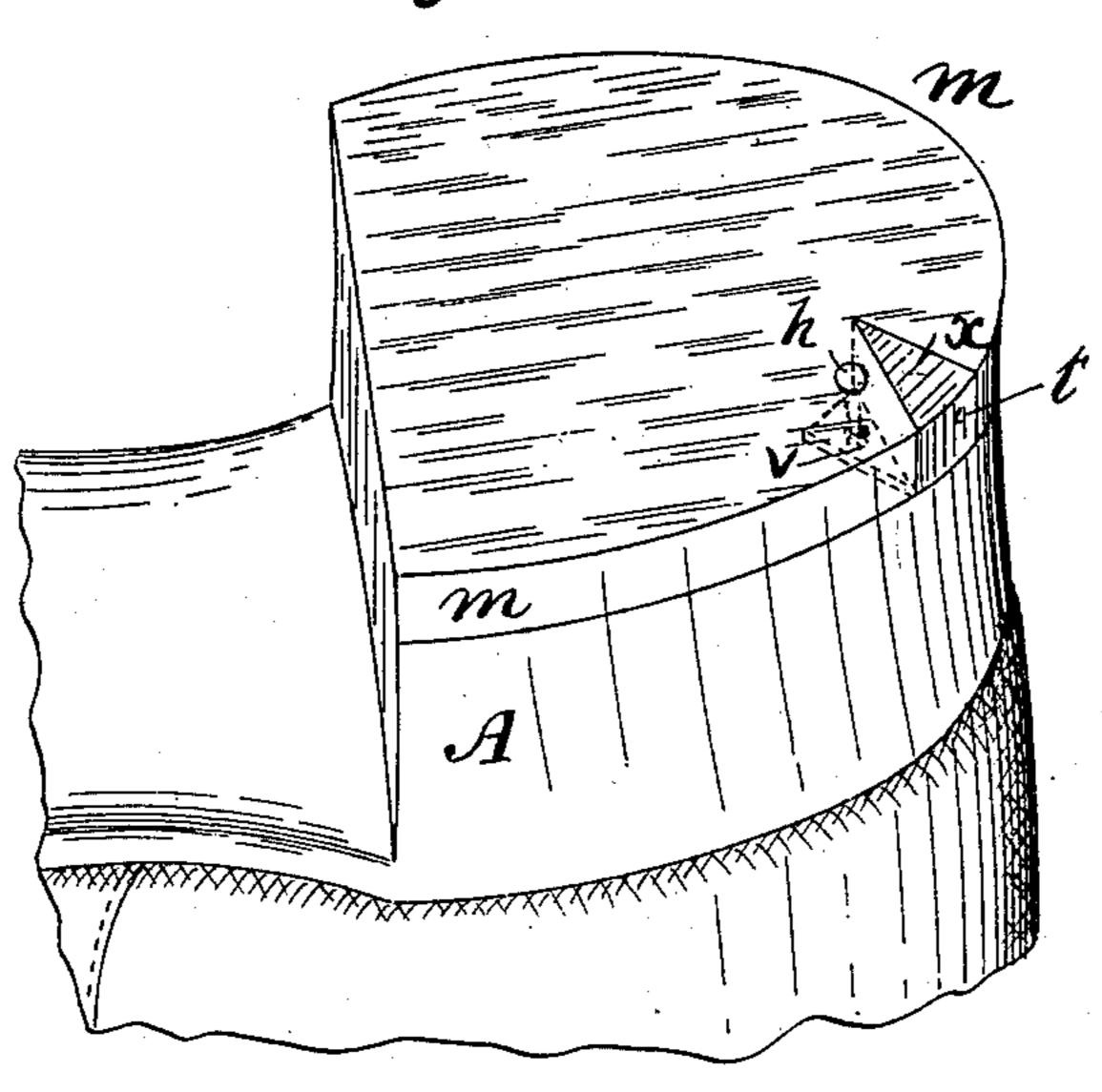
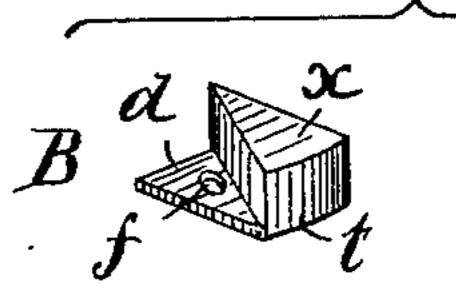
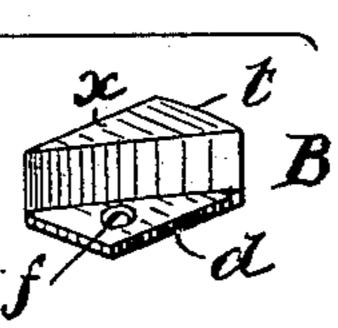
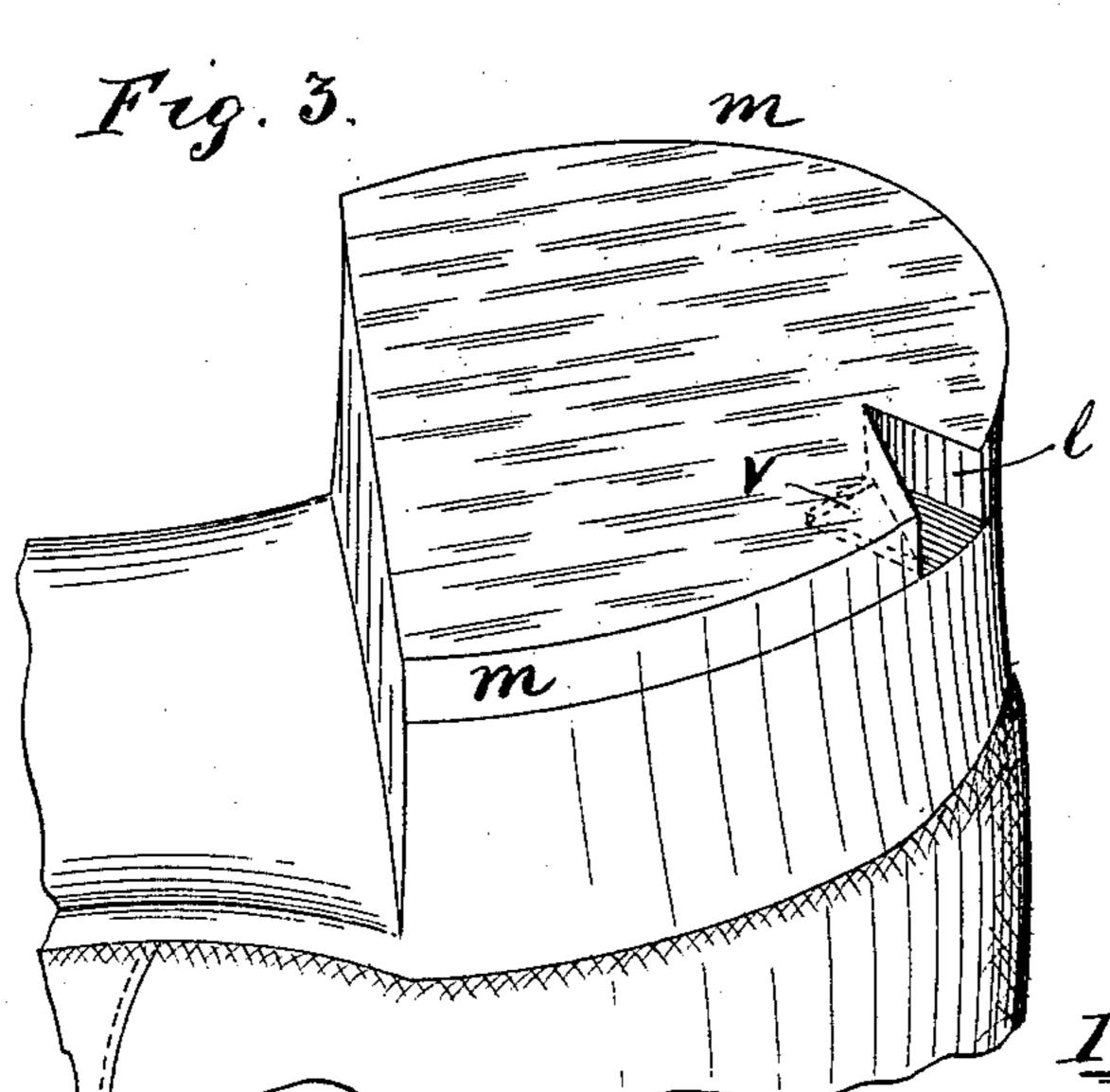


Fig. 2







Wilnesses.

E. Slama.

Inventor.

Per a Cohaw.

-u Attorney.

## United States Patent Office.

ISAAC R. SANFORD, OF BOSTON, MASSACHUSETTS.

## HEEL-PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 318,035, dated May 19, 1885.

Application filed October 17, 1884. (No model.)

To all whom it may concern:

Be it known that I, ISAAC R. SANFORD, of Boston, in the county of Suffolk, State of Massachusetts, have invented a certain new and 5 useful Improvement in Heel-Protectors, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, 10 reference being had to the accompanying drawings, forming a part of this specification, in which--

Figure 1 is an isometrical perspective view representing my improved heel-protector in 15 use; Fig. 2, perspective views of the protector detached from the lift, and Fig. 3 an isometrical perspective view showing a lift as prepared to receive the protector.

Like letters of reference indicate correspond-20 ing parts in the different figures of the draw-

ings.

My improvement relates more especially to | without a more explicit description. that class of heel-protectors for boots and shoes which are designed to be permanently attached 25 to the top lift of the heel when in use; and it consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a more desirable and effective article of this character is 30 produced than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation, its extreme simplicity rendering 35 an elaborate description unnecessary.

In the drawings, A represents the heel of a

boot or shoe, and B the protector.

The protector is preferably made of iron, but may be constructed of brass, steel, or any 40 other suitable material. Its body x is about one-half an inch in length, three-eighths of an inch in width, and corresponds in thickness with the thickness of the top lift m, to which it is attached. In area its shape is preferably 45 that of a right-angled triangle, its outer edge, t, being rounded or curved to correspond with the curvature of the finished lift or heel. Projecting horizontally from the lower portion of the body x there is a thin flange, d, provided 50 with a hole, f, the shape of this flange in area being also that of a right-angled triangle and

widest at its inner end, the hypotenuse of the triangle formed by the body and that formed

by the flange being coincident.

To prepare the lift m for receiving the pro- 55 tector, a notch, l, corresponding with the shape of the body x, is cut by any suitable implement in the edge of the lift, as shown in Fig. 3, and a socket, v, (represented by dotted lines in Figs. 1 and 3,) formed on the under side of 60 the lift to receive the flange d. This socket may be made by indenting the lift with a die, or by removing a piece of the same size as the flange, as preferred. A hole is then punched or formed in the lift in such a position as to 65 register with the hole f in the flange d when said flange is placed in the socket v, after which the protector is inserted in the notch l, with its flange in said socket, and firmly secured to the lift by a rivet, h, passing through said 70 holes and headed down onto the flange and lift, in a manner which will be readily obvious

By making the body x in the shape of a right-angled triangle, as described, the pro- 75 tector "wedges" in the notch l, and thereby makes a better joint with the lift than it would be possible to obtain if the inner end of said body were square, round, or not pointed. I do not, however, confine myself to making the 80 body x in the shape of a right-angled triangle in area, as a V shape and some other forms of body will serve substantially the same purpose, although I deem a right-angled triangle the best form, as it wedges in the notch l with 85 equal facility and enables the flange d to be made to better advantage.

The protectors are designed to be made and kept in stock or sold with the lifts attached

for ready use. I am aware that a heel-protector or heelprotecting plate having a body nearly triangular in area and adapted to be inserted in a notch in the top lift has heretofore been used, and I do not, therefore, claim the same, broadly; 95 but all such protectors of which I have any knowledge are rounded at the inner end and unprovided with a laterally-projecting flange, thereby rendering it difficult to attach them properly to the lift, and also to make them fit 100 closely in the notch in which they are disposed. These objections are overcome in my improved

protector, which is pointed or sharp at its inner end, whereby it is adapted to wedge tightly in the notch, and is provided with a laterally-projecting flange for attaching it to the lift and keeping it in proper position.

Having thus explained my invention, what I

claim is—

A boot or shoe heel protector consisting of a triangular body pointed at its inner end and

rounded at its outer end, said body being provided at its lower side with a laterally-projecting flange having a hole for receiving the rivet by which the protector is attached to the lift of the heel, substantially as set forth.

ISAAC R. SANFORD.

Witnesses:

C. A. SHAW, L. J. WHITE.