(No Model.)

W. W. WALLACE.

BOOT OR SHOE HEEL.

No. 321,869. Patented July 7, 1885.

Fig. 1.

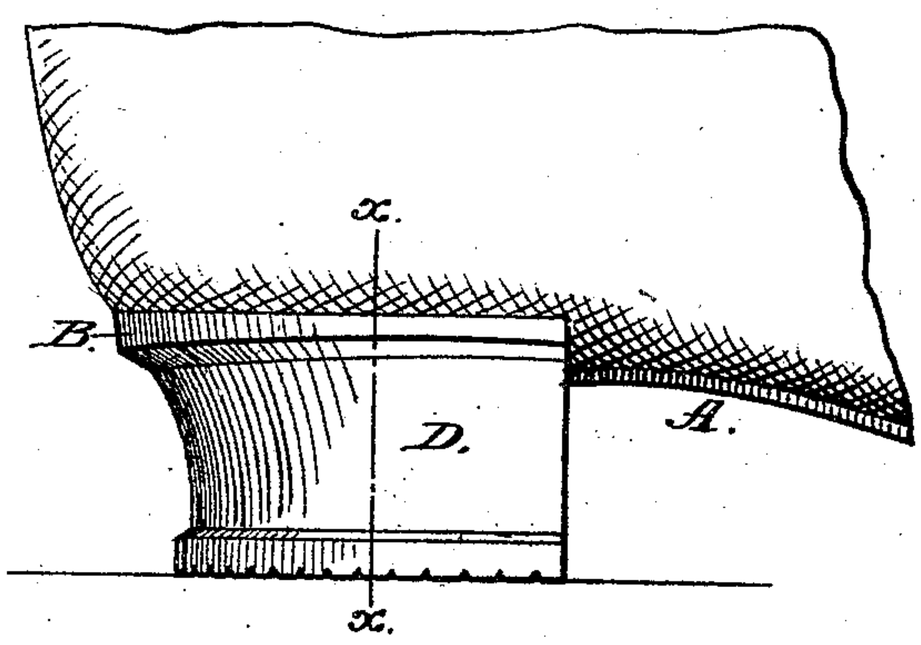


Fig. 2.

Fig. 3.

Fig. 4.

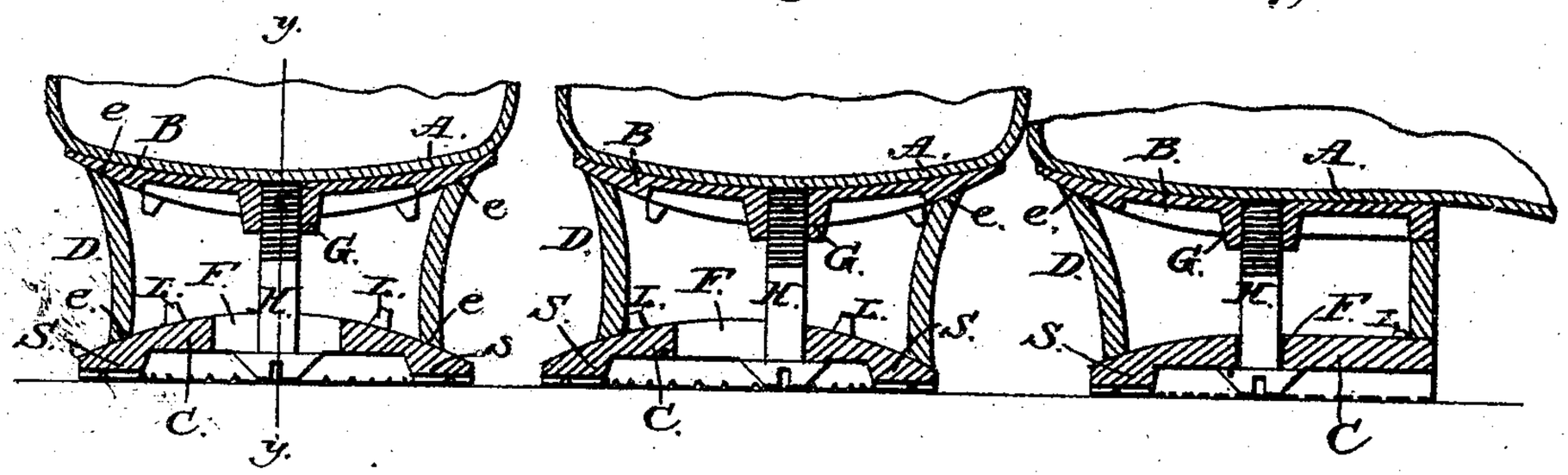


Fig. 5.

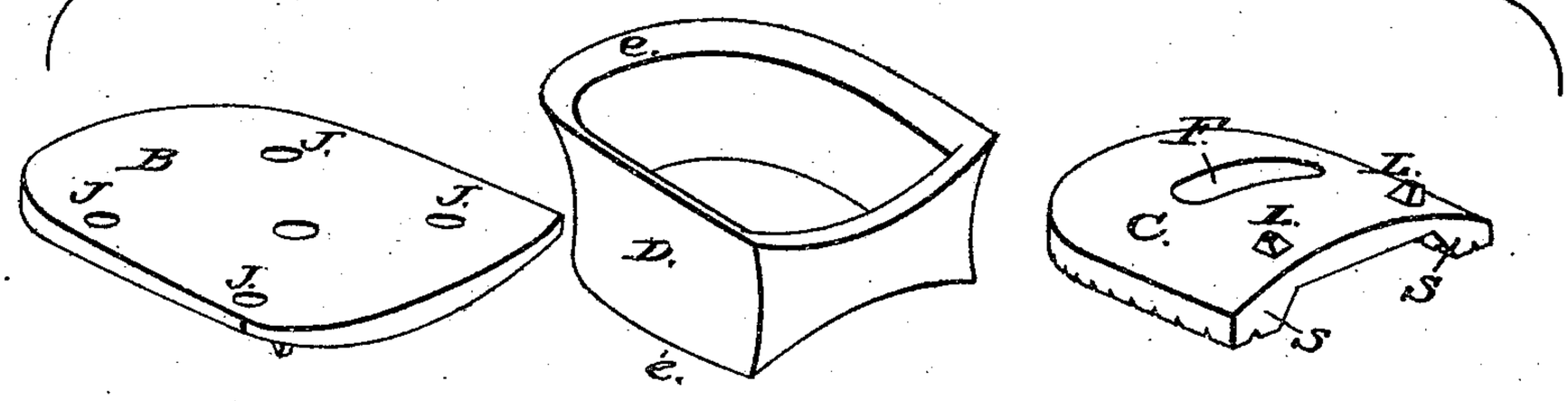
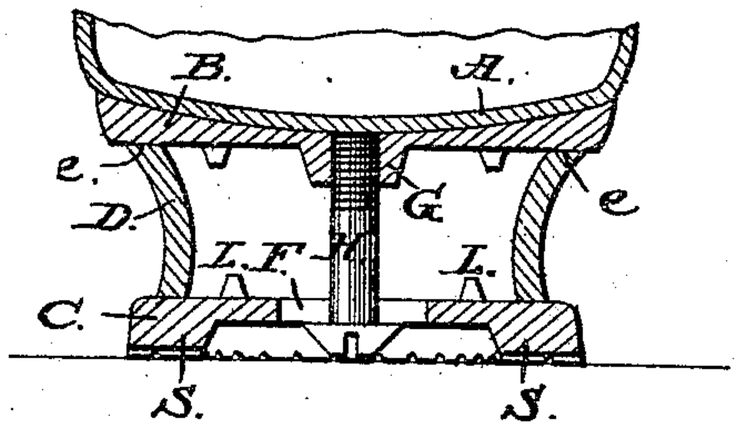


Fig. 6.



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UNITED STATES PATENT OFFICE.

WILLIAM W. WALLACE, OF FLEETVILLE, PENNSYLVANIA.

BOOT OR SHOE HEEL.

SPECIFICATION forming part of Letters Patent No. 321,869, dated July 7, 1885.

Application filed December 30, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. WALLACE, of Fleetville, in the county of Lackawana and State of Pennsylvania, have invented a new and useful Improvement in Adjustable Heels for Boots or Shoes; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

My invention relates to the heels of boots or shoes, and has for its object a construction thereof which shall permit of its ready adjustment to the requirements of persons who are in the habit of running down the heel at one side.

It consists of a plate to be secured to the heel end of the sole of the boot or shoe, a frame in the shape of a heel to fit upon said plate, and an outer plate adapted to fit upon the frame, and which is recessed upon its outer side and slotted transversely to receive a screw or equivalent retaining device, which, passing through the slot, enters the fixed plate and secures the whole. By loosening the retaining device the central frame may be moved between the upper and lower plates and the lower plate be, if desired, moved with it, and when the plates are adjusted they are made fast by said device. By preference the bearing-surfaces of the plates are curved transversely—that of the upper plate outwardly and that of the outer or lower plate inwardly—the edges of the intermediate frame being curved to correspond with the convexity of each plate.

In the accompanying drawings, Figure 1 is a side elevation of my improved heel attached to a shoe; Fig. 2, a central transverse section in line *x x* of Fig. 1; Fig. 3, a similar section illustrating the bottom plate adjusted to one side; Fig. 4, a central longitudinal section in line *y y* of Fig. 2; Fig. 5, perspective views of the two plates and of the intermediate frame detached from each other. Fig. 6 illustrates a modification of my invention.

A represents the sole of the boot or shoe to which the heel is to be fitted; B, a plate of metal or hard rubber or other suitable material, whose outline is in the shape of a heel. The upper side of this plate is adapted to fit the heel end of the sole, and its under side is by preference curved from side to side in convex form, as illustrated in Figs. 2 and 3.

C is a plate substantially the same form and of somewhat smaller dimensions than the upper plate, B. Its upper side is by preference curved from side to side in convex form, as shown in Figs. 2 and 3, to present an arc of the same radius as the curved surface of the plate B. The bottom or outer side of this lower plate, C, is recessed centrally, leaving an offset, S, either around its entire rim or a portion thereof. This offset is by preference notched or serrated to afford a firm footing for the heel.

D represents a frame of metal, hard rubber, or other suitable material, the configuration of whose sides conforms to that of a boot or shoe heel, and whose dimensions are such as to adapt it to fit upon the edges of the two plates B and C, as illustrated in Figs. 2 and 4.

Where the plates B and C are curved in convex form on their opposed faces the top and bottom edges, *e e*, of the frame D are both inwardly beveled and curved or concaved upon arcs of the same radius as the curves of said plates, so that the one shall be a counterpart of the other and fit closely thereon.

A central slot, F, is cut transversely in the bottom plate, C, (see Figs. 2, 3, and 5,) and a boss, G, is formed centrally upon the inner side of the upper plate, B, to afford a bearing for a wide-headed screw, H, carried through the slot to engage a threaded aperture in said boss. Lugs L L, projecting from the upper surface of the plate C, serve to limit its movement by contact with the inner edges of the frame D.

I contemplate the use of more than one slot and screw for securing the plates, and also the employment of keys or wedges led through an eye in the end of a pin projecting from the upper plate, and extending through the slot as an equivalent for a screw to make fast the plates.

The upper plate, B, is secured to the sole of the shoe by means of screws or rivets carried through holes J J, formed in said plate for the purpose, and after the frame D has been fitted thereon and the lower plate, C, superimposed

upon the frame, the lower plate and frame are united to the upper plate and the whole made fast and solid by means of the screw H, whose head, overlapping the edges of the slot in the plate C, binds thereon as the screw is driven home, and thus draws and clamps the plates and frame closely and firmly together.

By loosening the screw H the lower plate, C, may be moved to the one side or the other, the extent of the movement being limited by the engagement of the lugs L L with the sides of the frame D. The parallelism of the plate C with the plate B is preserved by the adjustment of the intermediate frame D, which the equal curvature of the opposed faces of the plates and of the edges of the frame permit, as is illustrated in Fig. 3.

Where desired the bottom plate may be set to make the heel higher on one side than the other by means of the change in the parallelism of the upper and lower plates which their curved bearings upon the intermediate plate, D, permit. Whatever may be the adjustment made of the lower or outer plate, C, either to place it at one side of the center of the heel, as shown in Fig. 3, or to tip it so that one side of the heel shall be higher than the other, it becomes, when adjusted, firmly secured and made fast by screwing up the screw H, the joint between the plates and frame remaining always close and neat.

Although I prefer to use the curved plates illustrated in the drawings, it is evident that by means of two separate detachable plates, B and C, and an intermediate frame, D, I may obtain a lateral adjustment of the lower plate with plane instead of concavo-convex bearing surfaces, and I contemplate as a modification of my invention, the use of plates having such flat bearing-surfaces, as shown in Fig. 6.

I am aware that it is not new to construct a boot or shoe heel of a hollow frame or shell interposed between a heel plate or tap made fast to the shoe, and a suitable bottom or tread-plate, the lower plate, together with the interposed frame, being made fast and secured to the upper plate by means of screws extending from the one plate to the other; but none of these are made adjustable, as hereinbefore described, and my invention differs therefrom, in that it permits of an adjustment, as set forth, of the lower plate and the frame or shell with reference to the fixed heel plate or tap on the boot or shoe.

I claim as my invention—

1. The adjustable heel constructed of an upper plate to be made fast to the sole of a boot or shoe, a separate frame fitted upon the upper plate, and a transversely-slotted bottom or bearing plate fitting upon the frame, in combination with one or more wide-headed screws passing through the slot or slots in the lower bearing-plate to enter and engage the upper plate and unite the whole, all substantially in the manner and for the purpose hereinset forth.

2. The combination, in an adjustable heel for boots or shoes, of a plate, B, curved and hollowed on its inner face to be fitted to the boot or shoe, and transversely convexed on its outer face, detached transversely-slotted outer bearing-plate, C, transversely convexed on its inner side and recessed on its outer face, an intermediate frame, D, whose opposite edges are beveled inwardly to conform to the opposite curves of the plates B C, and a central clamping device, H, extending through the slot in the lower plate to engage the upper plate and unite the two, all substantially in the manner and for the purpose herein set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WM. W. WALLACE.

Witnesses:
SAML. E. RAYNOR,
C. H. SPENCER.