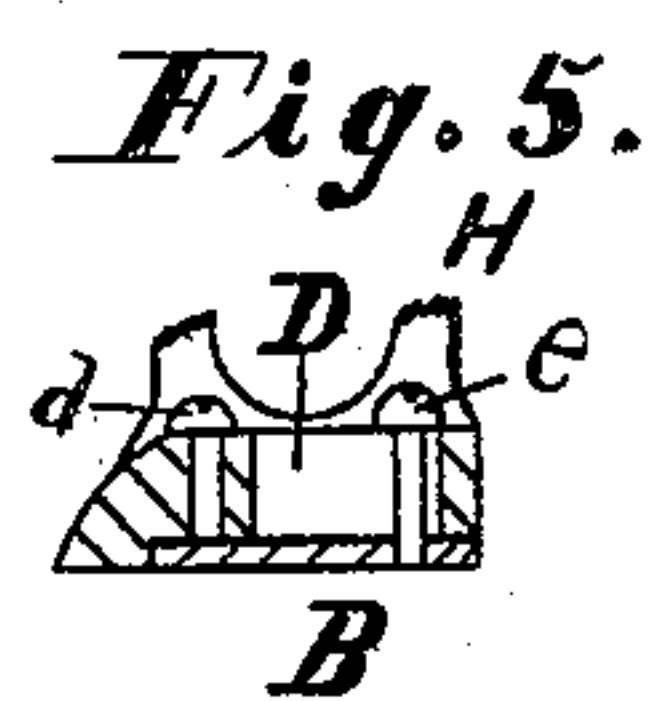
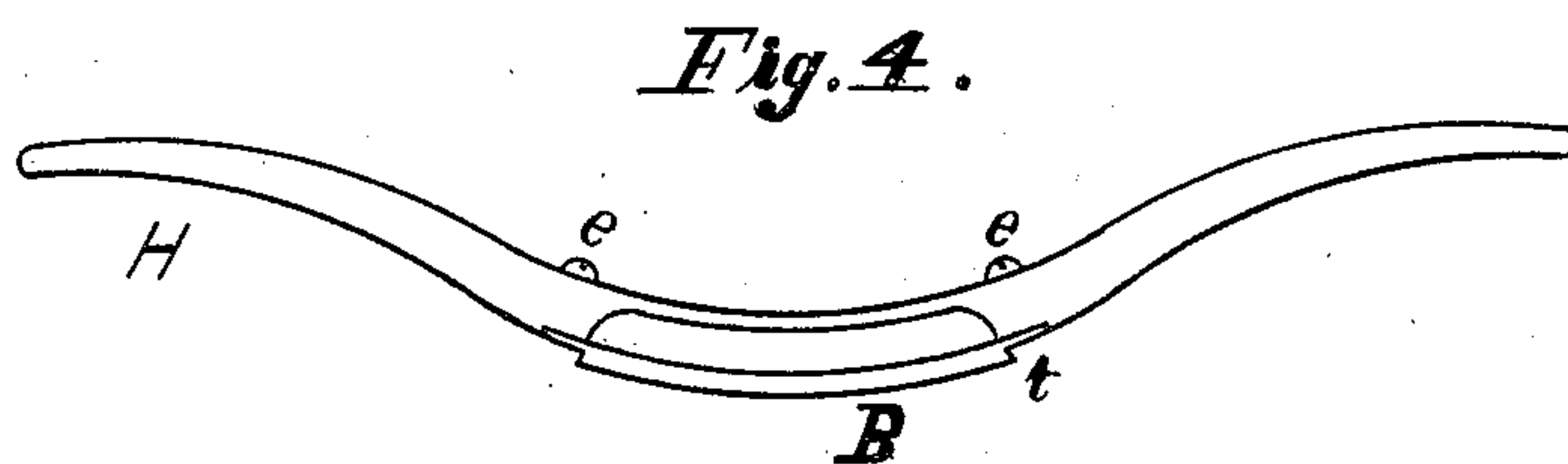
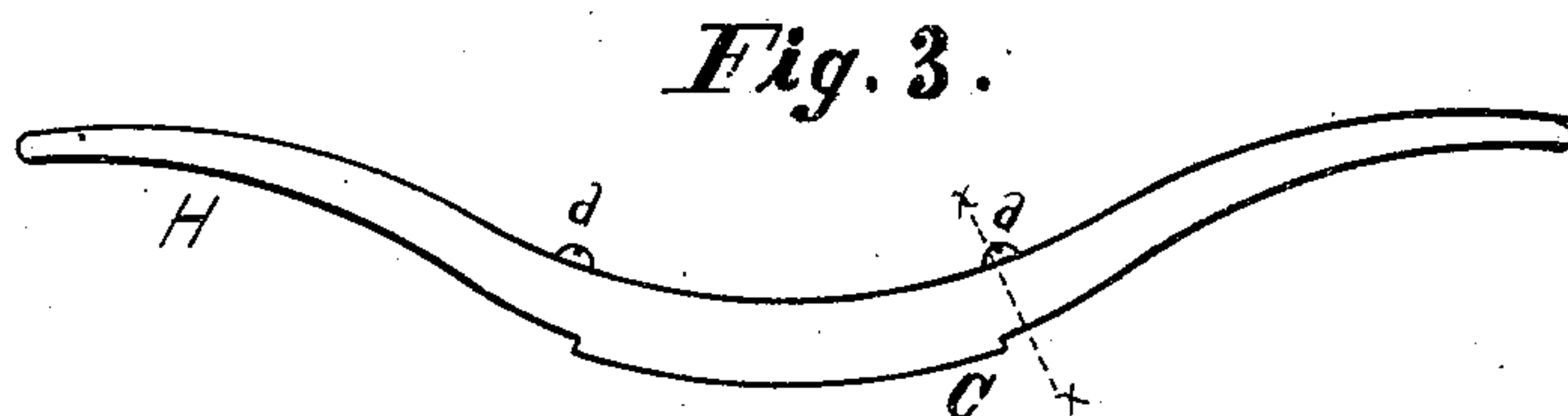
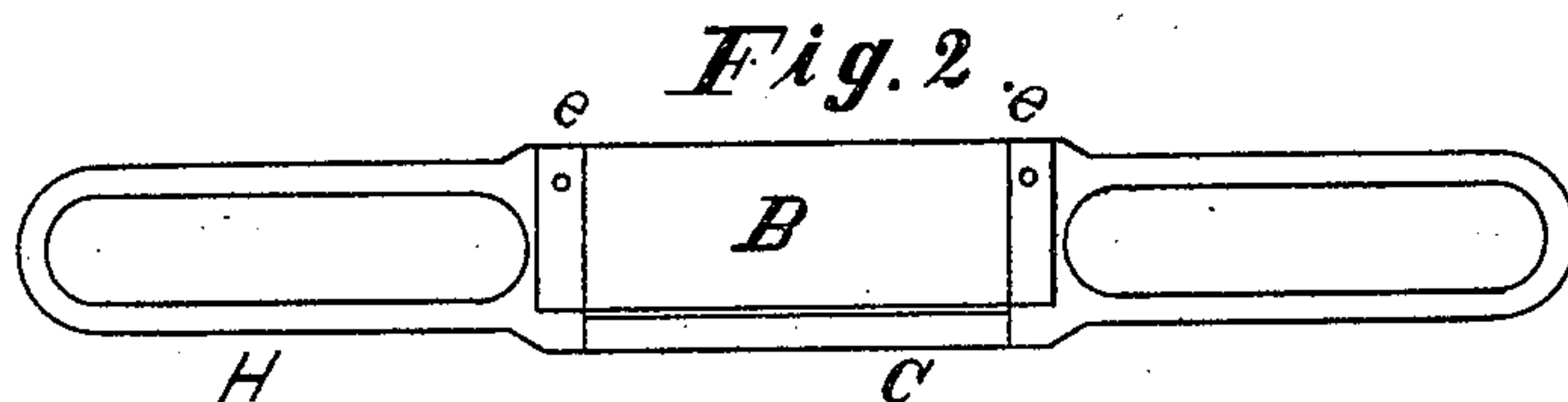
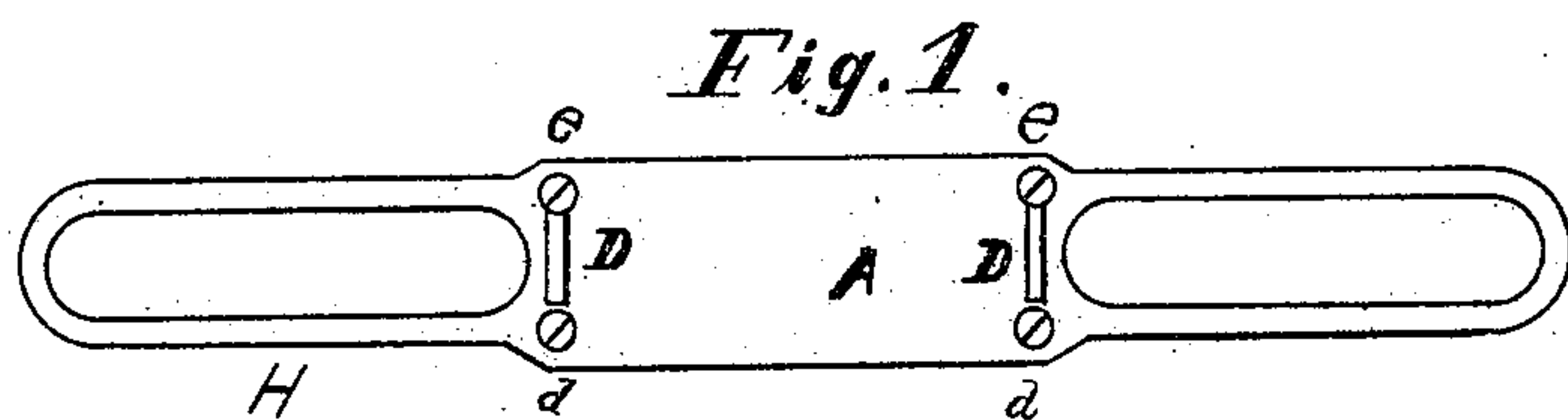


F. P. WARREN.  
Heel-Shave for Boots and Shoes.

No. 205,593.

Patented July 2, 1878.



Witnesses  
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# UNITED STATES PATENT OFFICE.

FRANK P. WARREN, OF SPRINGFIELD, MASSACHUSETTS.

## IMPROVEMENT IN HEEL-SHAVES FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. **205,593**, dated July 2, 1878; application filed October 10, 1877.

*To all whom it may concern:*

Be it known that I, FRANK P. WARREN, of Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Shaves, which improvements are fully set forth in the following specification and accompanying drawings.

This invention relates more particularly to shaves for shoemakers' use, styled "heel-shaves," but may be used to advantage in other shaves.

Heretofore heel-shaves have been made some with adjustable gages and others with adjustable blades. In the first but a small part of the blade can be used without so opening the throat as to make it difficult to cut a thin shaving; they are expensive, and easily get out of repair. In the latter, when the blade is raised a corner is presented beyond the cutting-edge, which cuts the uppers; and, further, in either, there being nothing to indicate just how far the cutting-edge extends, the operation often thrusts the shave too far toward the upper, thus cutting the same.

The object of my invention is to do away with the above objectionable features.

My invention consists in the peculiar shape of the body of the shave.

In the drawings, in which similar letters of reference indicate like parts, Figure 1 is a top view. Fig. 2 is a view of the shave inverted. Fig. 3 is a front view. Fig. 4 is a back view; and Fig. 5 is a transverse sectional view of the part nearest the handle through the line *x x*, Fig. 3.

In the manufacture the handles and body are cast in one piece. The face C is raised, as shown in Fig. 3. The body is cut away on the

under side to allow of the free passage of the shaving. The recess for the blade is made deeper in the front than the thickness of the blade at that place, to allow of the blades being thrust outward without presenting the corner beyond the cutting-edge, as the ends of the blade are below or flush with the body; or the same result is accomplished by making that part of the blade thinner at the front than at the back.

Two slots, D, Fig. 1, are made in the body, through which the adjusting-screws *e* pass and screw into the blade B, Fig. 4. Two holes are tapped in the front of the body, through which the screws *d*, Fig. 1, pass, and bear against the forward part of the blade to thrust the same outward, as shown in Fig. 5. The blade is made with raised cutting-surface, to correspond with the raised face C. As the blade is worn away the slots D allow of it being moved forward.

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

1. As an improved article of manufacture, a shave consisting of the combination of the body A, having raised face C and slots D, the blade B, and set-screws *e d*, all arranged substantially as specified.

2. As an improved article of manufacture, a shave the body of which has the raised part C, for the purposes stated, and provided with slots for the adjustment of the blade, substantially as specified.

FRANK P. WARREN.

Witnesses:

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