

# D. Lenain, Shoe Heel.

N<sup>o</sup> 32,300.

Patented May 14, 1861.

Fig. 1.

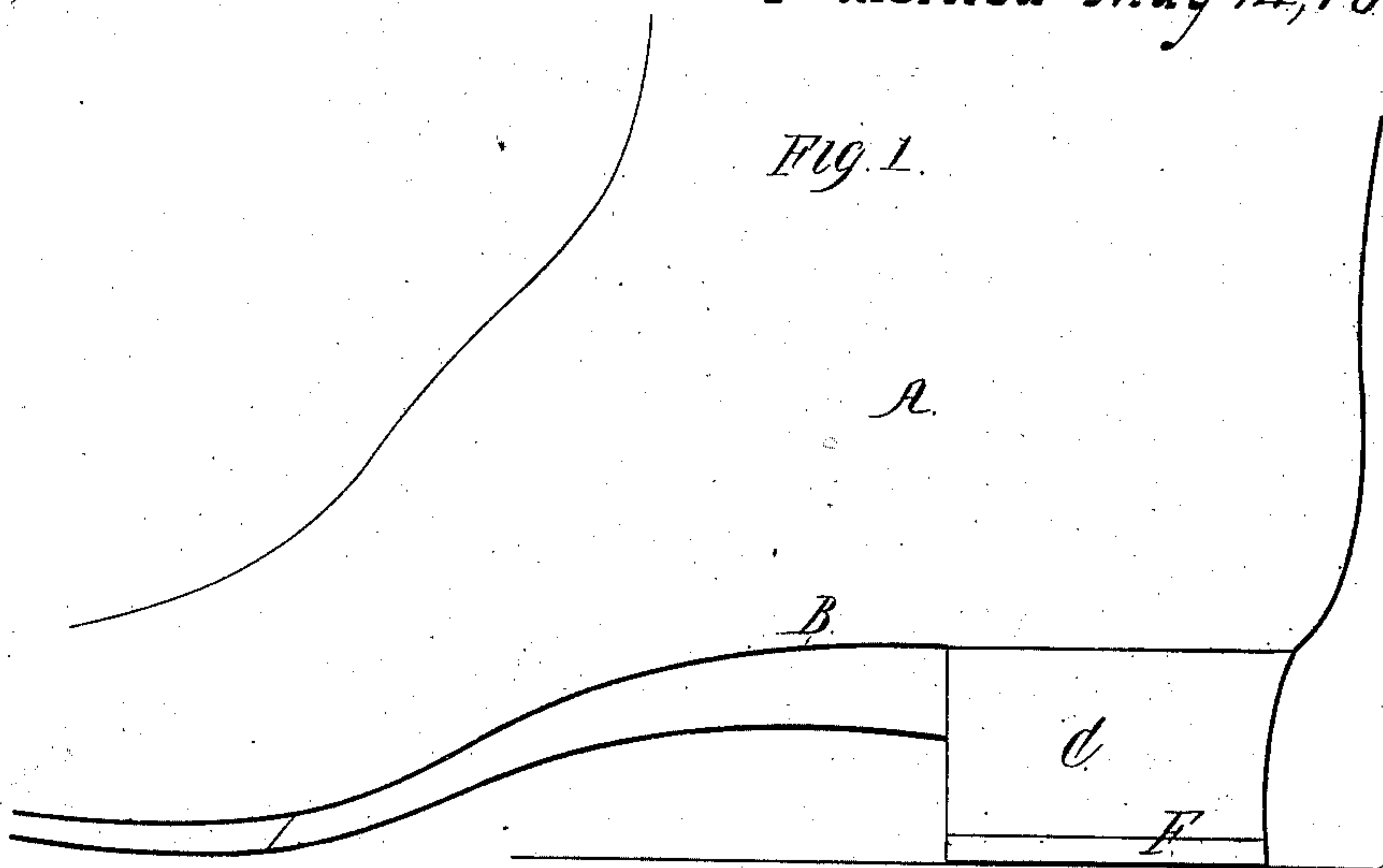


Fig. 2.

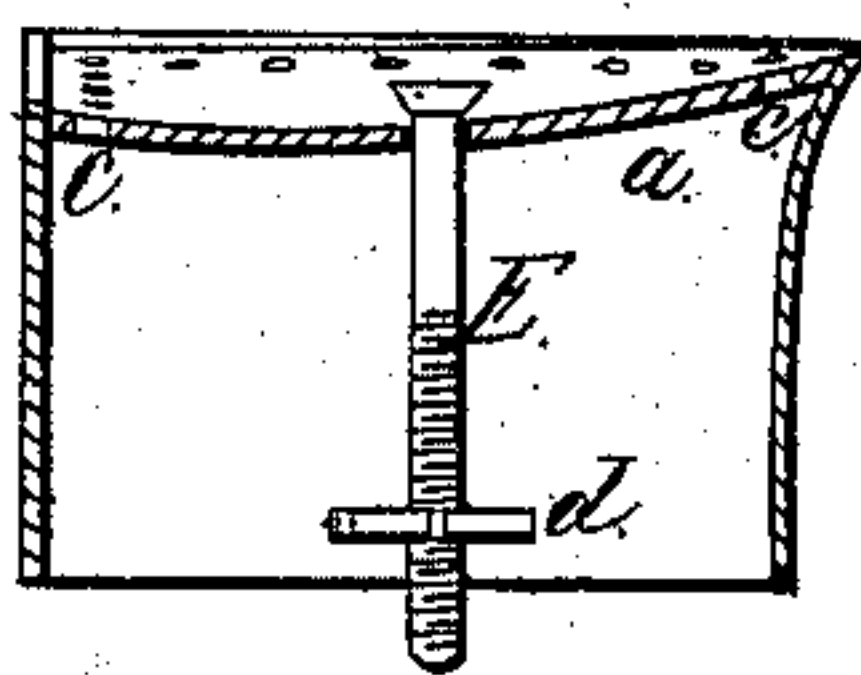


Fig. 3.

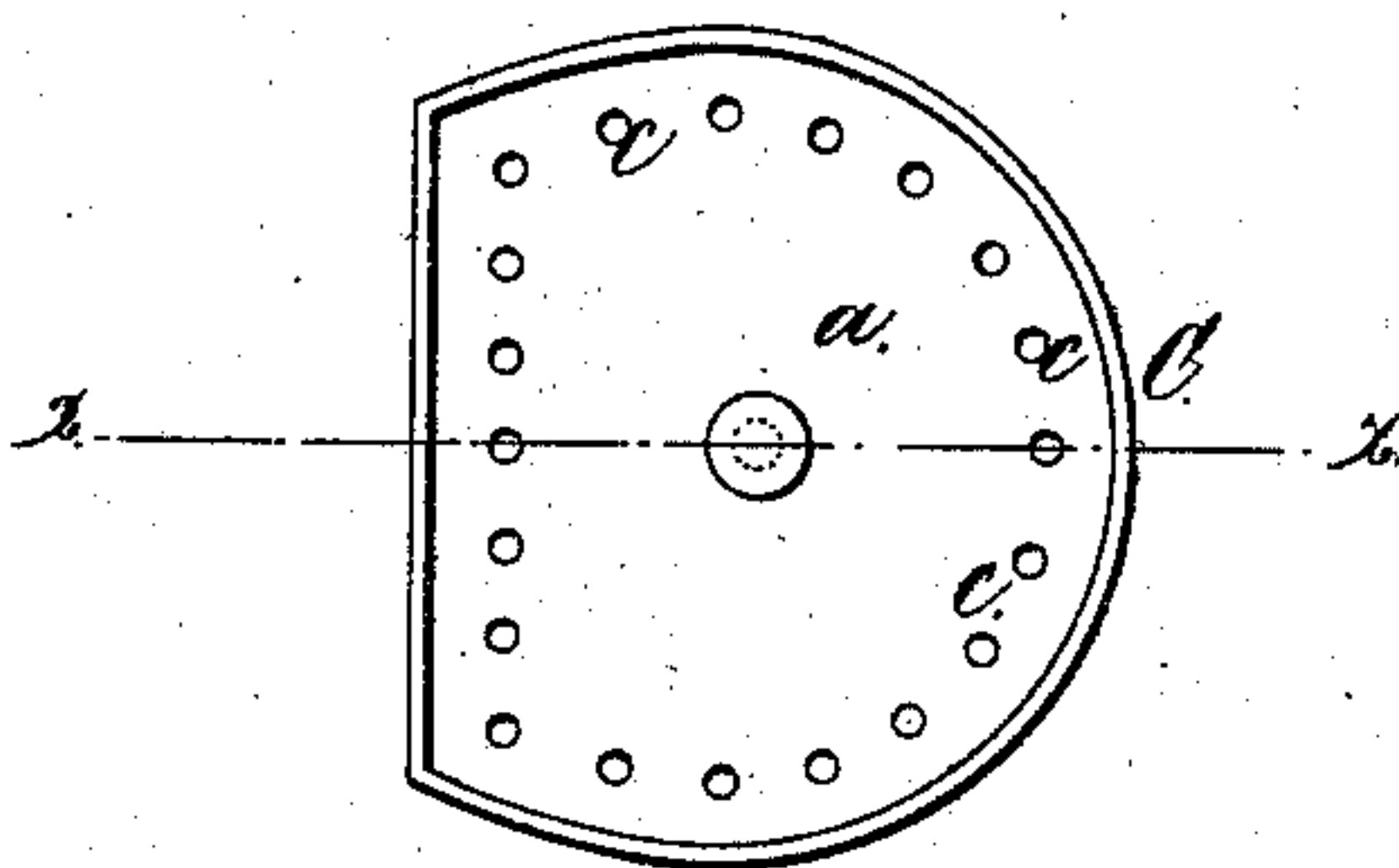
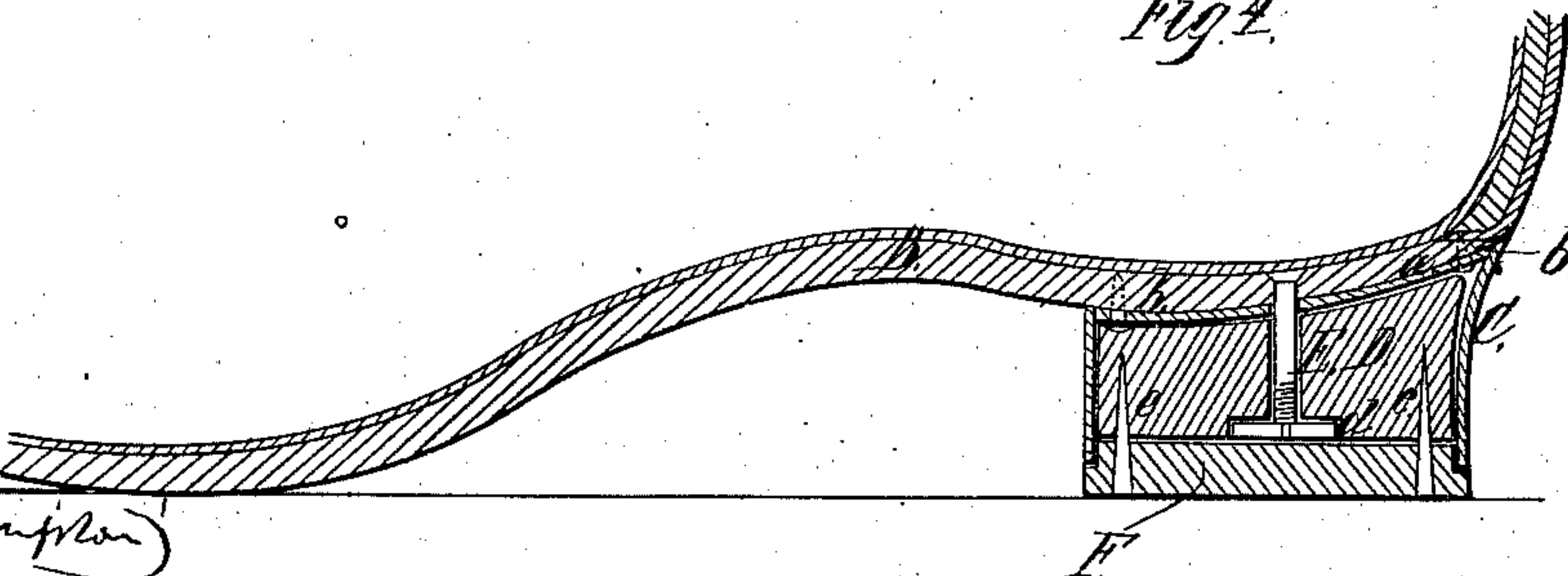


Fig. 4.



Witnesses:

*Chas. W. Reed*

Inventor,

*D. Lenain*

# UNITED STATES PATENT OFFICE.

DENIS LENAIN, OF NEW YORK, N. Y.

## BOOT AND SHOE.

Specification of Letters Patent No. 32,300, dated May 14, 1861.

*To all whom it may concern:*

Be it known that I, DENIS LENAIN, of the city, county, and State of New York, have invented a new and useful Improvement in Boots and Shoes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a side view of the foot portion of a boot with my invention applied to it. Fig. 2, a detached vertical section of the shell of the heel of the same, taken in the line *x, x*, Fig. 3. Fig. 3, a detached plan or top view of the shell of the heel. Fig. 4, a vertical central longitudinal section of the boot and heel complete.

Similar letters of reference indicate corresponding parts in the several figures.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A. represents the upper part of a boot and B. is the sole. These parts may be constructed in the usual way and therefore do not require a minute description.

C. is a metal shell which is made of a form corresponding to the desired form of the heel of the boot. This shell may be of cast metal or it may be of sheet metal swaged in proper form. The top plate *a*, of the shell is made concave so as to conform to the back part of the sole B. against which it is placed and the shell is secured to the sole by means of screws *b*, which pass through holes *c*, in the top plate near its edge. Instead of a top plate *a*, a flanch only may be used extending all around the shell and of sufficient width for the screws *b*, to pass through and secure the shell to the sole.

Within the shell C. there is inserted a piece of wood or cork D. This piece of wood or cork does not extend quite down to the bottom of the shell C. and it is secured in the shell by a screw bolt E. which passes down through the center of the top plate *a*, if one be used. If the flanch be used instead as previously mentioned, the bolt E. is made to

pass through the sole B. of the boot. The nut *d*. of the screw bolt fits within a recess in the lower surface of the wood or cork D. the lower end of the bolt being flush with the lower surface of the wood or cork.

Into the lower part of the shell C. a piece of leather F. is fitted and secured by nails *e*, which pass into the wood or cork D. The leather F. extends down below the bottom of the shell C. as shown clearly in Figs. 1 and 4.

From the above description it will be seen that the heel may be very cheaply constructed, and be quite light, as the shell C. may be of quite thin metal, and the wood or cork of course has not much weight.

When the leather F. becomes worn it may be readily detached from the shell and a new piece inserted in its place. The shell C. and wood or cork D. will last indefinitely.

The shell C. may be blacked to correspond with the other parts of the boot or shoe. The shell C. may if preferred be secured to the sole B. by sewing or stitching instead of screws *b*.

The invention is applicable to all kinds of boots and shoes, and both for ladies' and gentlemen's use.

I do not claim a metallic shell for boot and shoe heels for such device has been used and filled with india rubber to form elastic heels. The parts however have been arranged differently from the within described invention, the latter being for an entirely different purpose.

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

The construction of boot heels with a bolt E passing down through the sole into the shell C, and through the filling block D, where the screw receives a nut *d*, all of the above parts being arranged as shown and employed in connection with the bottom leather cover F as set forth, for the purposes described.

D. LENAIN.

Witnesses:

M. M. LIVINGSTON,  
G. W. REED.