

No. 705,574.

Patented July 29, 1902.

A. G. FITZ.
LAST.

(Application filed Oct. 2, 1901.)

(No Model.)

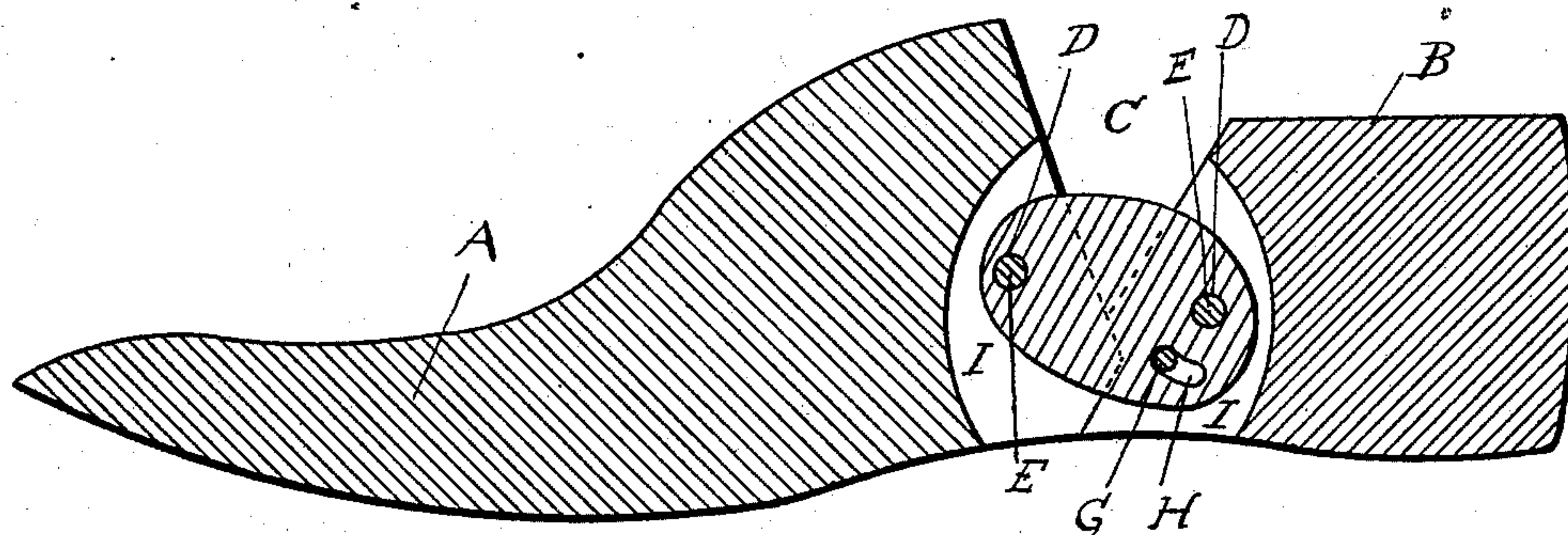


Fig. 1.

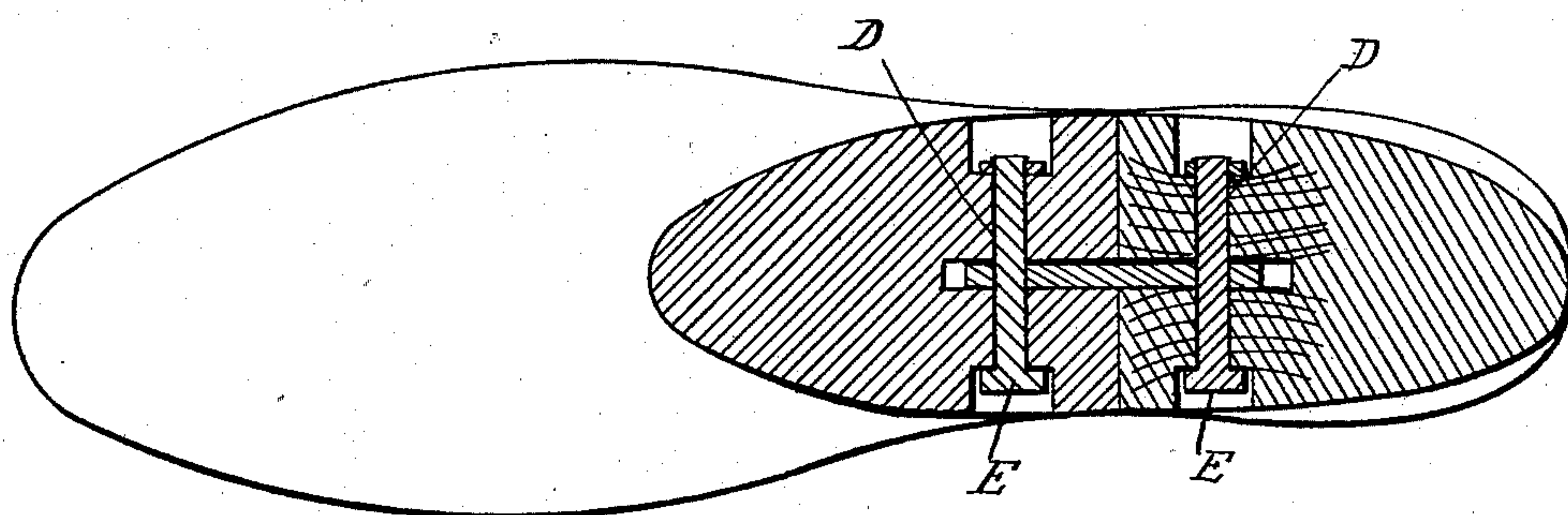


Fig. 2.

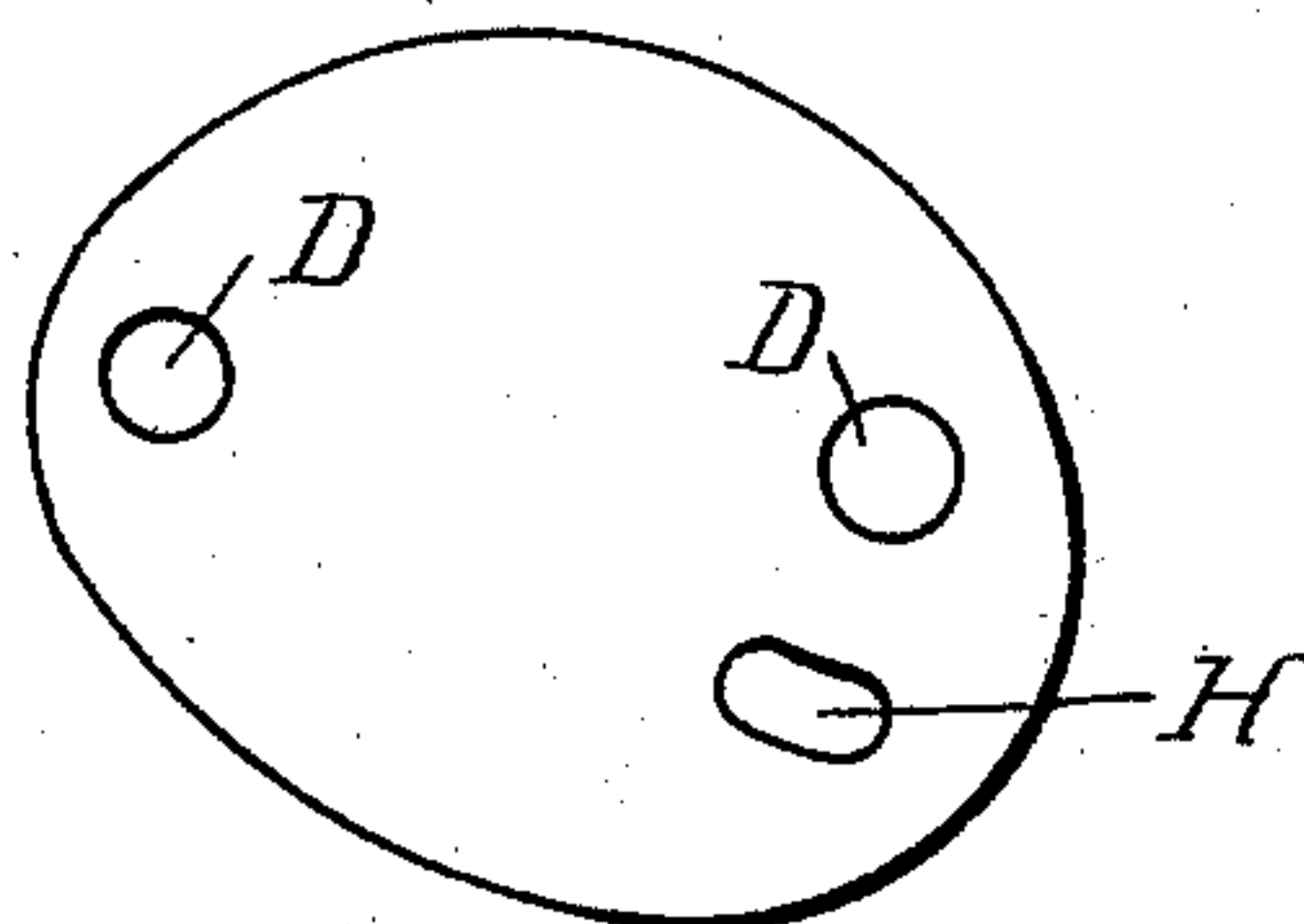


Fig. 3.

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LAST.

SPECIFICATION forming part of Letters Patent No. 705,574, dated July 29, 1902.

Application filed October 2, 1901. Serial No. 77,280. (No model.)

To all whom it may concern:

Be it known that I, AMOS G. FITZ, a citizen of the United States, residing at Auburn, in the county of Androscoggin and State of Maine, have invented certain new and useful Improvements in Lasts; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in lasts, and more particularly to that class of lasts which are divided transversely, forming a gap at the top and abutting surfaces extending from the bottom of said gap to the bottom of the last, the two parts being connected by a union, which permits them to be bent upwardly to shorten the last to enable it to be more readily inserted in and withdrawn from the shoe. In some of these lasts the abutting surfaces extend from the bottom upwardly far enough, so that the abutting surfaces thus serve to prevent the parts of the last from accidentally collapsing upwardly. These lasts are objectionable for the reason that the contacting surfaces extend from the bottom upwardly so far that the last is caused to lengthen too much before it shortens by reason of the fact that the pivot-point cannot be located below the top of the contacting surfaces. In others the contacting surfaces do not extend upwardly far enough to prevent the accidental collapse, and various mechanical appliances have been devised to lock the parts in extended position.

The object of the present invention is to enable the pivot-point to be located below the line of collapsing and at the same time to hold the parts automatically in extended position with sufficient force to prevent accidental collapse, but still leaving the parts free to be turned one relative to the other for shortening on a suitable jack and to avoid the use of special locking devices. To accomplish this purpose, I divide the last transversely, forming a gap extending into it from the top and abutting surfaces below said gap. I then form vertical kerfs in the adjacent walls of the two parts in which is inserted the connecting-union. The last is then bored transversely through the body of the last, the

kerf, and the end of the union. In the hole thus formed a strong rivet is inserted and headed under great pressure, thus drawing the wood of the last on either side of the kerf closely and firmly down upon the sides of the union, the pressure exerted being sufficient to compress the fiber of the wood upon the union. Thus constructed, the fiber of the wood is always pressed firmly against the union and does not become loose relative to the union, as is the case when the same is driven into the kerf, in which case only a driven fit can be obtained. This is insufficient for the purpose designed for the reason specified.

I have illustrated my invention in the drawings herewith accompanying and making a part of this application, in which—

Figure 1 is a longitudinal vertical sectional view of a last embodying my invention. Fig. 2 is a horizontal sectional view taken through the rivet and showing the condition of the wood in the area about the rivet when compressed, and Fig. 3 is a side elevation of a union adapted to be used in lasts involving my invention; but I do not intend to limit myself to this particular form of union nor do I limit myself to a union pivoted both in the heel and fore parts, as my invention may be advantageously used where one end only of the union moves in the kerf, the other end being permanently located in the other member of the last.

Same letters of reference refer to like parts.

In said drawings, A represents the fore part, B the heel part, and C the gap, extending into the last from the top. In the adjacent ends of the two parts are vertical kerfs I to receive the union which binds the two parts together. Through the wood of the last and the end of the union is bored a transverse hole D, in which is inserted a strong rivet E. The wood of the last about the rivet is then subjected to great pressure in the direction of the length of the rivet, compressing it against the sides of the union, and while under this state of compression the rivet is firmly headed, thus effecting a permanent pressure of the wood upon the union, and consequently a permanent friction. The friction thus obtained is sufficient to prevent the last from collapsing when the gap at the top extends into the last nearly or quite to

the bottom thereof. In fact, the frictional resistance is ample to prevent the collapse of the last independently of aid from any other means. At the same time by the exertion of
5 a proper force, which would not be enough to render the last objectionable, it can be turned readily on the pivot passing through the union. The union may be pivoted in both parts of the last or in only one. I have shown
10 it pivoted in both parts. In the heel part, in addition to the rivet passing through the union, I may pass a pin G through an elongated hole H in the union, whereby the turning movement of the heel part on its rivet is
15 limited to the extent of said hole. After the heel part has turned as far as permitted by the pin the turning of the heel part continues, the pivot-point changing to the rivet in the fore part. This structure is claimed
20 broadly in my application for patent filed in

the United States Patent Office June 29, 1900, Serial No. 22,027, and herein I make no claim for the same.

Having thus described my invention and its use, I claim—

In a divided last, vertical kerfs in the adjacent ends, a union inserted in said kerfs to bind the parts together, a rivet passing through the wood of the last and the union, the wood of the last being pressed against the
25 sides of the union in the region of the rivet and the rivet headed upon the wood thus compressed.

In testimony whereof I affix my signature, in presence of two witnesses, this 28th day of
35 September, 1901.

AMOS G. FITZ.

Witnesses:

ELGIN C. VERRILL,
EDNA L. DREW.