

No. 639,776.

Patented Dec. 26, 1899.

D. ROUNDS.
SHOEMAKER'S REPAIR JACK AND LAST.

(Application filed June 21, 1899.)

(No Model.)

2 Sheets—Sheet 1.

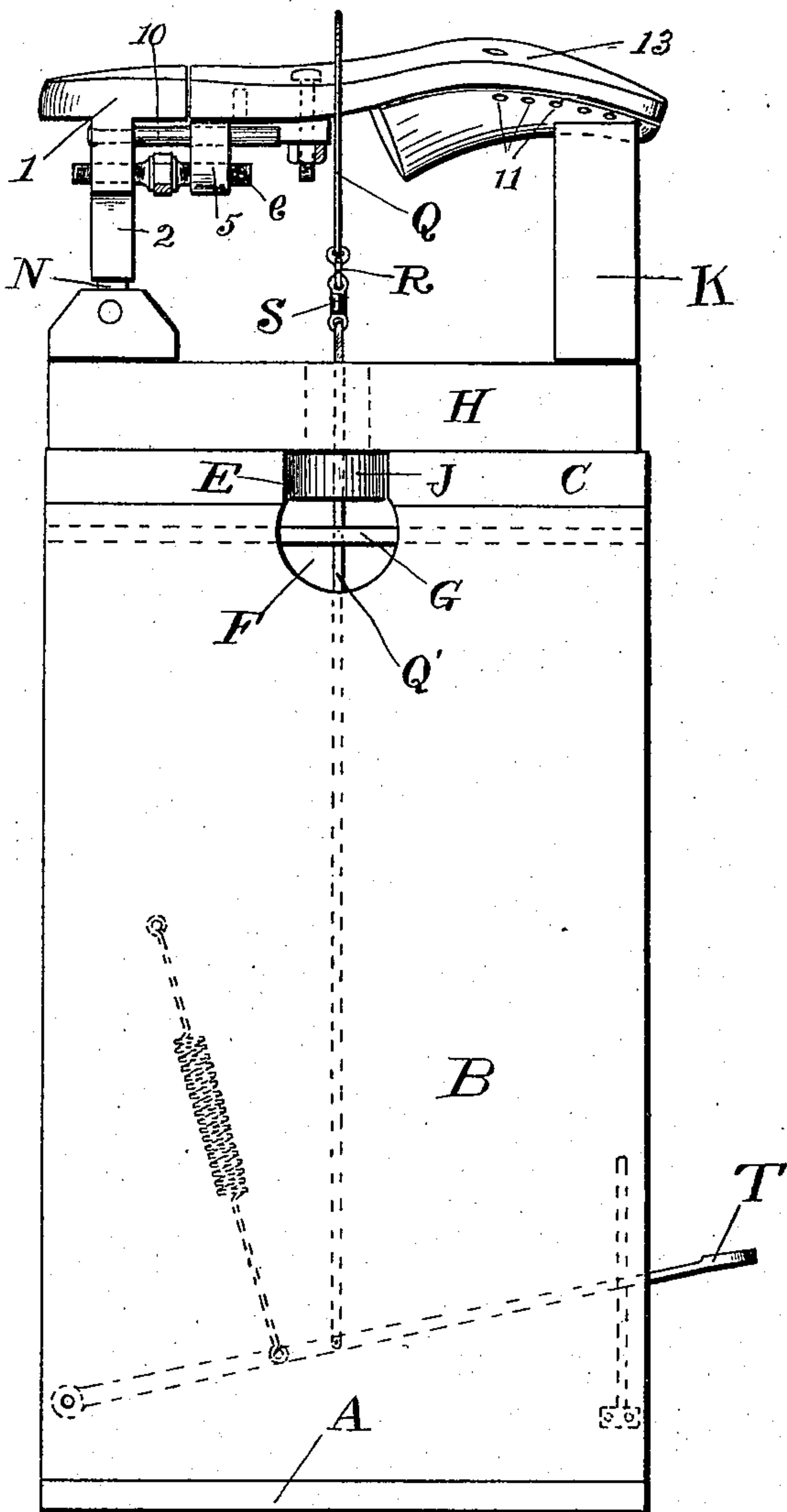


Fig. 1

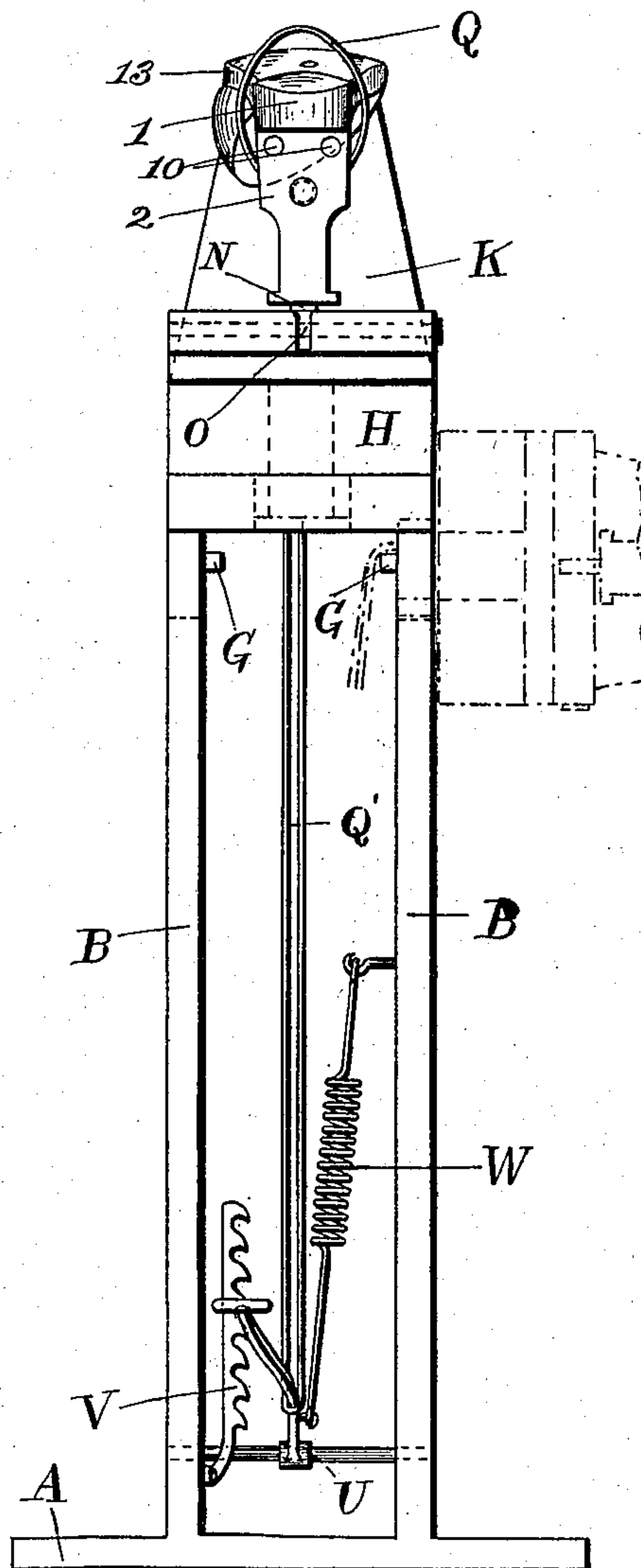


Fig. 2

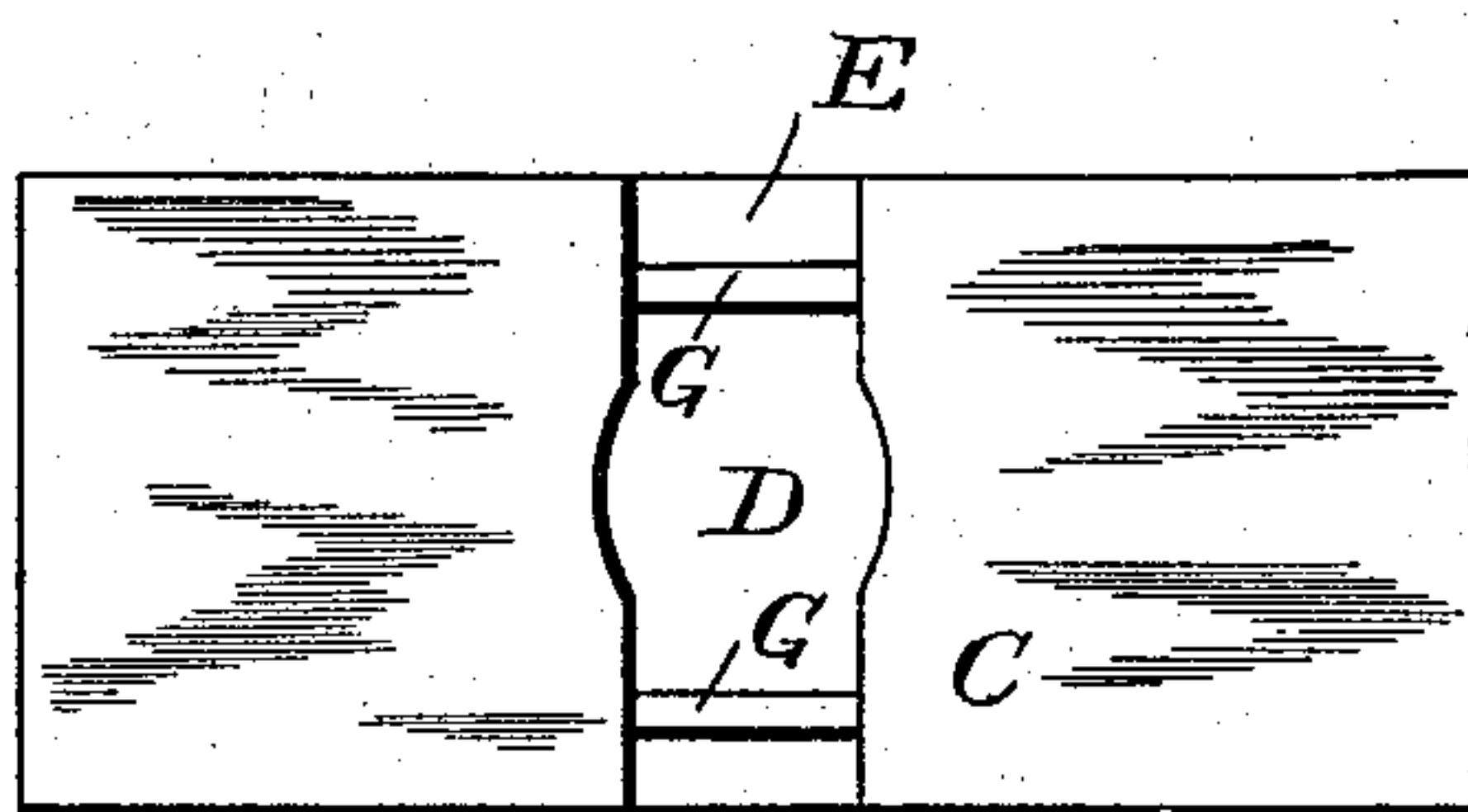


Fig. 3

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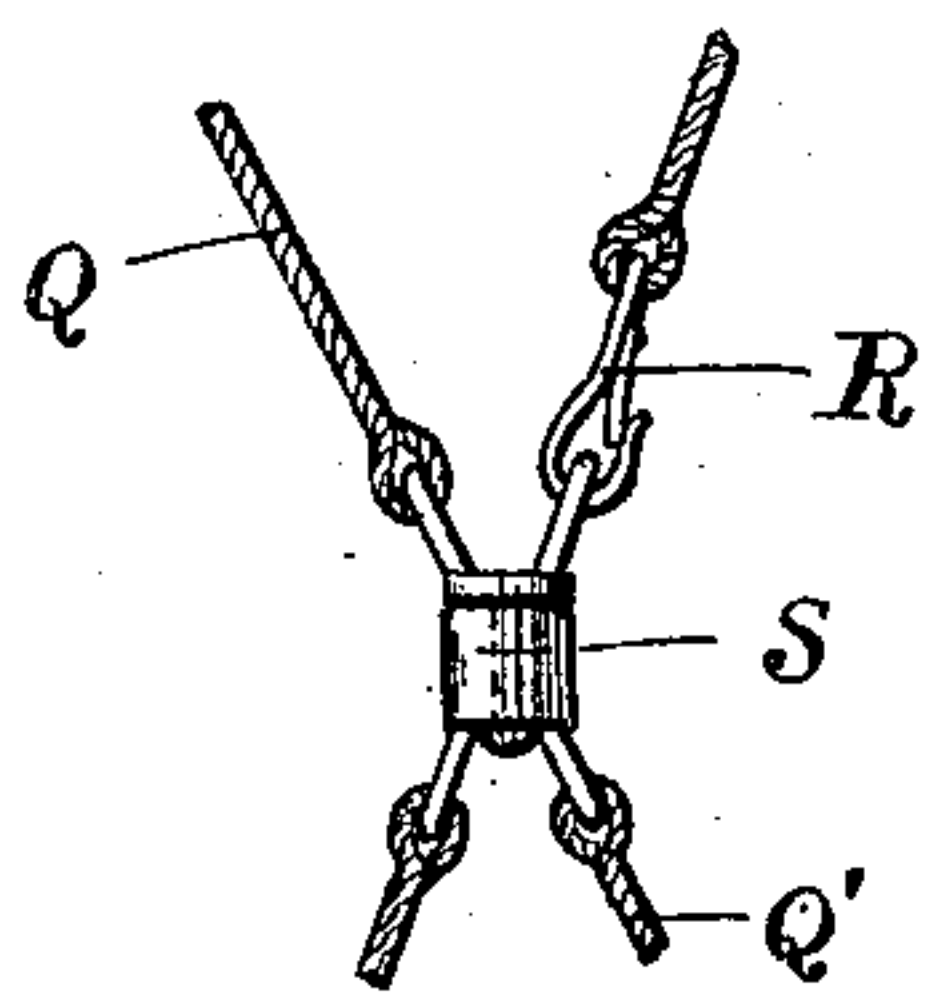
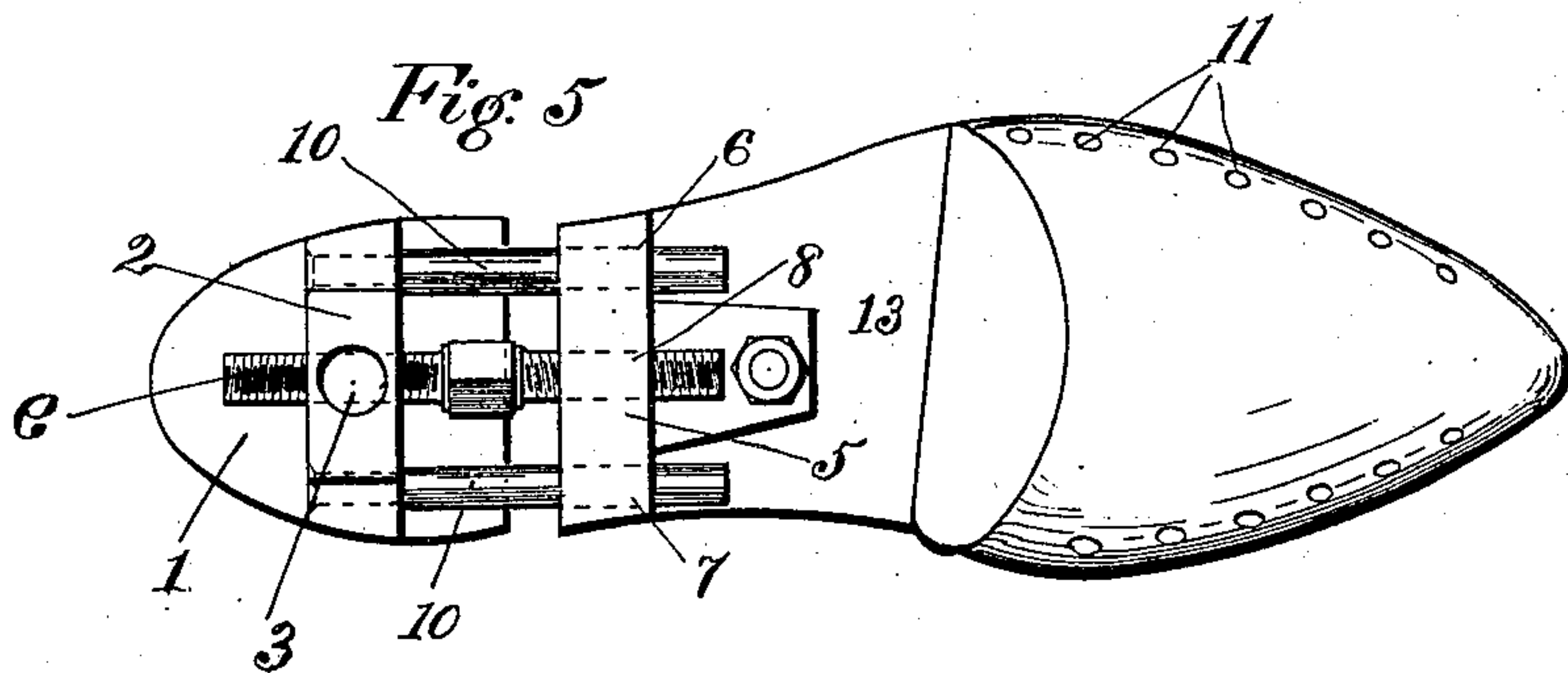
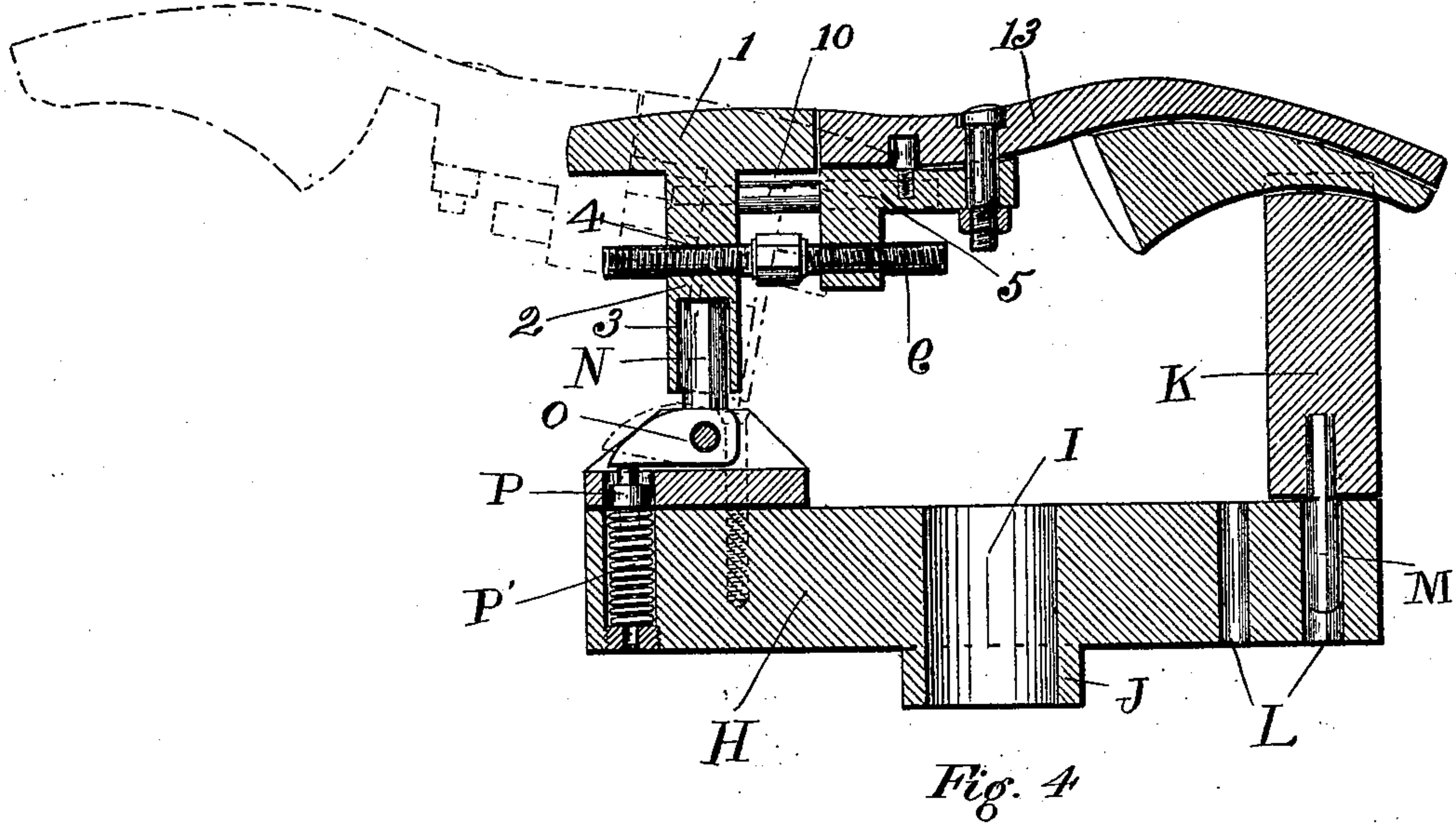
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2 Sheets—Sheet 2.



Witnesses:
Henry L. Cheney.
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Inventor:
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UNITED STATES PATENT OFFICE.

DANIEL ROUNDS, OF PORTLAND, MAINE.

SHOEMAKER'S REPAIR JACK OR LAST.

SPECIFICATION forming part of Letters Patent No. 639,776, dated December 26, 1899.

Application filed June 21, 1899. Serial No. 721,320. (No model.)

To all whom it may concern:

Be it known that I, DANIEL ROUNDS, a citizen of the United States, residing at Portland, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Shoemakers' Repair Jacks or 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 shoemakers' repair-jacks and lasts therefor.

It consists of an arrangement of the head-block and in certain other improvements in the last which allow it a longitudinal motion and, further, that the heel part can be used on any number of toe parts.

In the drawings herewith accompanying and forming a part of this application, Figure 1 is a side elevation of my improved jack and last in position, dotted lines showing the position of the strap and pedal for contracting the strap. Fig. 2 is an end elevation of the same, dotted lines showing the head-block dropped to one side, so as to enable the shoemaker to work on one side of the shoe. Fig. 3 is a top plan view of the jack. Fig. 4 is a longitudinal section of the head-block and last, dotted lines showing the position that the last assumes when revolved upon its shaft preparatory to taking it from the block. Fig. 5 is a top plan view of the last. Fig. 6 is a perspective view of the stretchers adapted to be fitted on the toe portion of the last, and Fig. 7 is a detail of the connection between the lower and upper strap of the jack.

The same letters and figures refer to like parts.

In said drawings, A represents a suitable base, from which arise standards B, joined at the top by a double cross-piece or cap C. The cross-piece is provided with an opening D, extending across the top, the purpose of which will be hereinafter more fully set forth. On the sides of the standards and at the top thereof are slots E and circular openings F. Running lengthwise of the standards across the openings and at the inner side thereof are stops G.

H is a head-block which is provided with an opening I in the center and having a down-

wardly-extended lip J, adapted to fit into the opening D in the top of the jack. Said head-block is provided with an adjustable rest K. The base of the head-block may be provided with any number of sockets, as L, into which opening pins M, rigidly attached to the rest, may be inserted, so as to hold it securely in place. At the rear end of the head-block is a shaft N, pivoted to said head-block and provided with an offset O, which offset is adapted to bear against a shoulder P, which in its turn bears upon a spiral spring P', confined within the bottom of the base, the object of this being that when the shaft has been inserted in the hole in the heel of the last and the last swung around, so that the toe bears upon the rest, the last will be held downwardly with some force on the forward rest, for the shaft will be slightly raised from its normal position, thereby causing the spring to be compressed, and as the natural tendency of the spring is to force the shaft forward the last will be held firmly on the rest. In order to hold the last more firmly on the head-block and also to keep the shoe firmly in position on the last, I use a strap Q, provided with a snap-hoop R and a swivel S. Connected to said swivel S at its lower extremity is another strap Q', which extends downwardly between the standards of the jack and passes over a lever T. The lever is pivotally connected, as seen at U, to the bottom of the jack. It will be readily seen that when the lever is depressed the strap will be tightened and an additional force will be brought to bear on the last and hold it firmly. In order that the lever may be held firmly in position, I use a ratchet V, adapted to engage one edge of the lever T when depressed and hold the same in the position desired by the operator. In order that the lever may quickly assume its normal position, I attach a spring W in any suitable manner at one end to the lever and at the other end to the standard, so that when the lever is released from its ratchet it will quickly resume its normal position and release the pressure on the strap.

As to the construction of my last, it consists of a heel-piece 1, with the usual heel-post 2, having a socket 3 therein to receive the shaft on the head-block. This heel part

is also provided with a socket 4 to receive one end of a right-and-left screw of the jack. Attached in any suitable manner to the fore part 13 of the last is an angle-iron 5, provided with sockets 6 and 7. Said angle-iron is also provided with a socket 8 for the reception of one end of the right-and-left screw 9. This right-and-left screw I preferably operate by a simple nut and wrench; but I do not wish to limit myself expressly to the means as shown in the drawings for operating the right-and-left screw, for other means may be employed—as, for instance, a ratchet and pawl—without departing materially from the device as shown. Extending from the post on the heel part and made rigid therewith are parallel rods 10. These rods travel in the sockets 6 and 7 in the angle-iron 5 and serve as guides when the fore part is forced away from or drawn toward the heel part and at the same time give the last an additional rigidity, which could not be obtained were the last held in position entirely by the right-and-left screws.

In lasts as used by repairers it has involved more or less expense to supply lasts of sufficient size and form to fit all kinds and styles of shoes and shoes both for men and women. By the use of my improved repair-last the shoemaker need only have two sets of the heel portion—one for men and the other for women—and these are adapted to be fitted to any style of fore part. I also provide the fore part with a series of sockets 11, in which may be placed formers 12, as shown in Fig. 6, so that any part of the shoe may be stretched out more or less in order to accommodate itself to any disfigurement or peculiar shape in a person's foot.

The operation of my improved device is as follows: The last is placed within the shoe to be repaired, and then it is lengthened so as to bring the pressure upon all parts of the shoe to such an extent as is desired by means of the right-and-left screw 9. The shoe containing the last is then placed upon the shaft N, as shown in dotted lines in Fig. 4. The last is then swung around so that the toe part bears upon the rest on the forward part of the head-block. The strap is then brought up over the sole of the shoe and hooked. The lever is then depressed, and the shoe is thus held firmly on the last and on the block. It sometimes is necessary that one side of the shoe be repaired, and in order to enable the shoemaker to do this easily I provide the top part of my jack with the transverse slots, as shown in Fig. 3. This enables the head-block to be turned sidewise, and as the slot in the top of the jack registers with the slot on the uprights the head-block can be moved to one side and down on one side of the standard. The object of making the cross-piece or cap as shown is to allow the head-block, when it is in its normal position—that is, on the top of the jack—to be turned about easily and quickly without binding in any way

in its socket. It further serves to indicate the center of the jack, so that the head-block, when the operative wishes to work upon the sole of the shoe, can be kept at the center of the jack. The slots which run from the side of the opening are made slightly smaller than the annular opening and of sufficient width so that they may serve as a guideway for the lip J on the bottom of the head-block when it is moved from the center to one side or the other. The strap is then tightened by the depression of the lever, and thus the last-block is held firmly in position.

The advantages of my improved jack and last are that it provides an easy machine to operate, saves the shoe repairer the expense of keeping on hand a number of lasts, and enables him to work to advantage on the shoe either on the bottom or on either side, as occasion requires. The head-block can also be revolved into any position desired by the operator without interfering at all with the working of the strap, for the reason that the strap is swiveled, as previously described.

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

1. In a shoemaker's jack or last, in combination, a base, standards rising therefrom and joined at their tops by a double cross-piece or cap, said standards having vertical openings in their ends, said double cross-piece or cap having an annular opening and slots extending from said opening to each side thereof, said slots adapted to register with the vertical opening in the standards, a head-block fitted in said annular opening, said head-block adapted to be revolved in said openings and moved to either side through said slots and means for holding said head-block in position, substantially as and for the purposes set forth.

2. In a shoemaker's jack or last, in combination, a base, standards with vertical slots in the upper ends thereof, a double cross-piece or cap joining said standards, said double cross-piece or cap having an annular opening in the center and slots extending therefrom to each side adapted to register with the openings in the standards, a head-block fitted in said annular opening adapted to be revolved therein and moved to either side, said head-block having a shaft adapted to move horizontally, means for imparting a horizontal movement to said shaft and means for securing said block to the standards, substantially as and for the purposes set forth.

3. In a shoemaker's repair jack or last, in combination, a base, standards provided with vertical openings in the top thereof, a double cross-piece or cap provided with an annular opening and slots extending from said annular opening to the sides of said double cross-piece or cap, said slots adapted to register with the slots in the standards, a head-block removably mounted on said double cross-piece or cap adapted to be revolved therein and moved to either side without being re-

5 moved from said head-piece, a last adjustable longitudinally pivotally mounted on said head-block and means for holding said last and block in any required position on said standards, substantially as and for the purposes set forth.

10 4. In a shoemaker's repair-last, in combination, a heel portion, parallel rods rigidly attached to said heel portion, and extending substantially at right angles therefrom, a toe portion, an angle-iron removably attached thereto, said angle-iron being provided with annular sockets for the reception of said par-

allel rods and of sufficient diameters to allow said rods to move freely therein, and means 15 for causing said heel and toe portions to travel toward and away from each other and to be locked in a required position, substantially as and for the purposes set forth.

In testimony whereof I affix my signature, 20 in presence of two witnesses, this 10th day of June, 1899.

DANIEL ROUNDS.

Witnesses:

NATHAN CLIFFORD,
MARION RICHARDS.