

(No Model.)

D. FLETCHER.  
SHOE STRETCHER.

No. 565,341.

Patented Aug. 4, 1896.

Fig. 1.

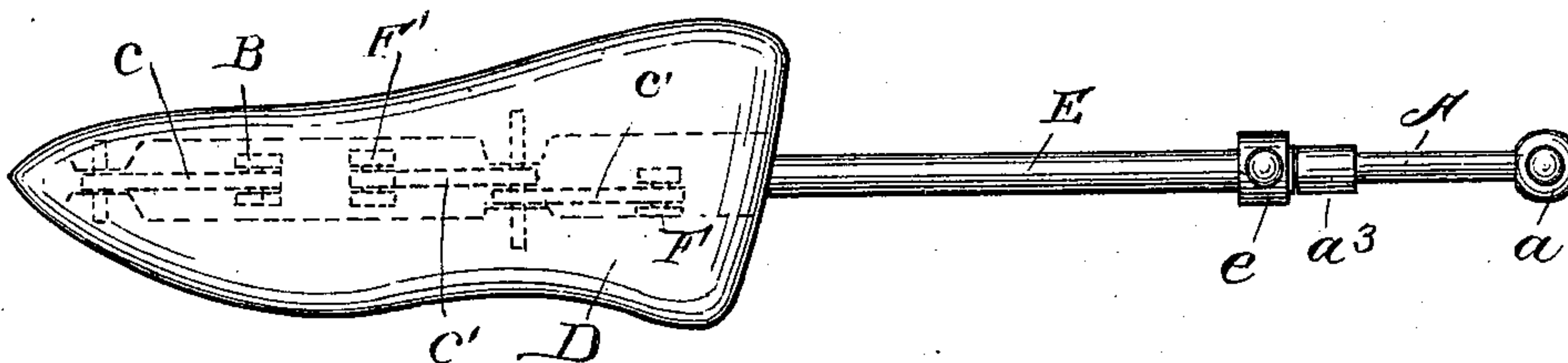


Fig. 2.

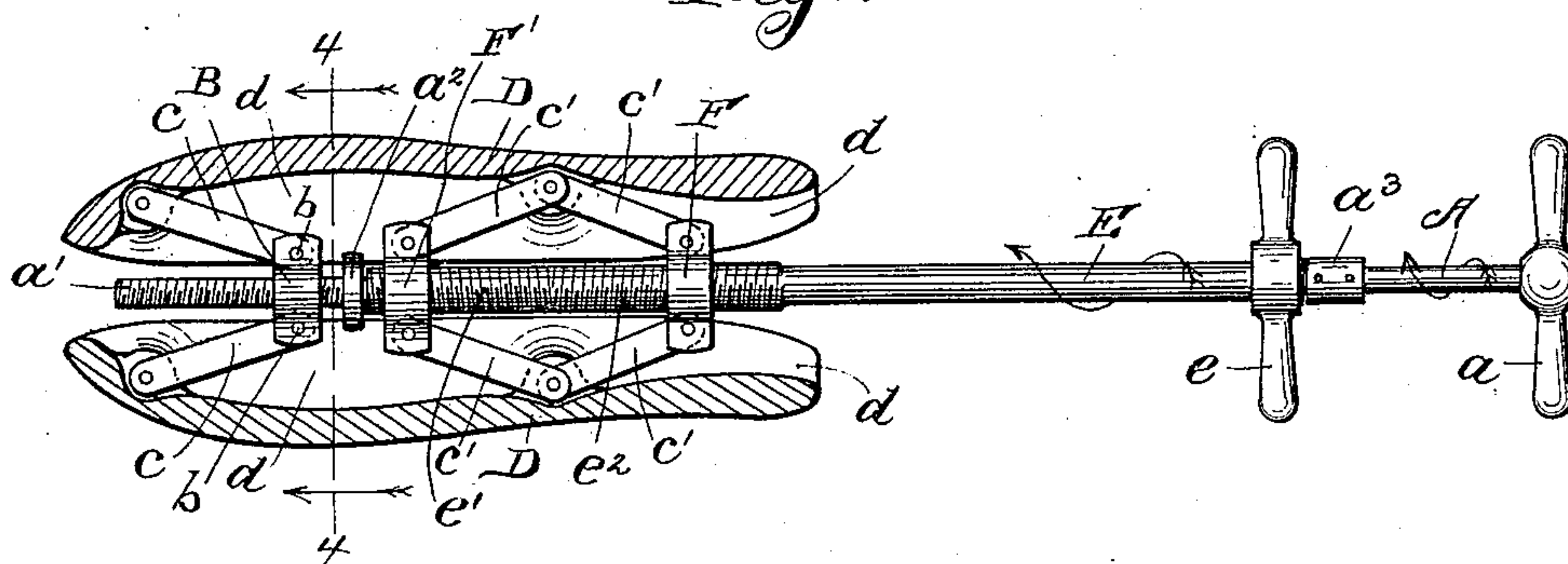


Fig. 3.

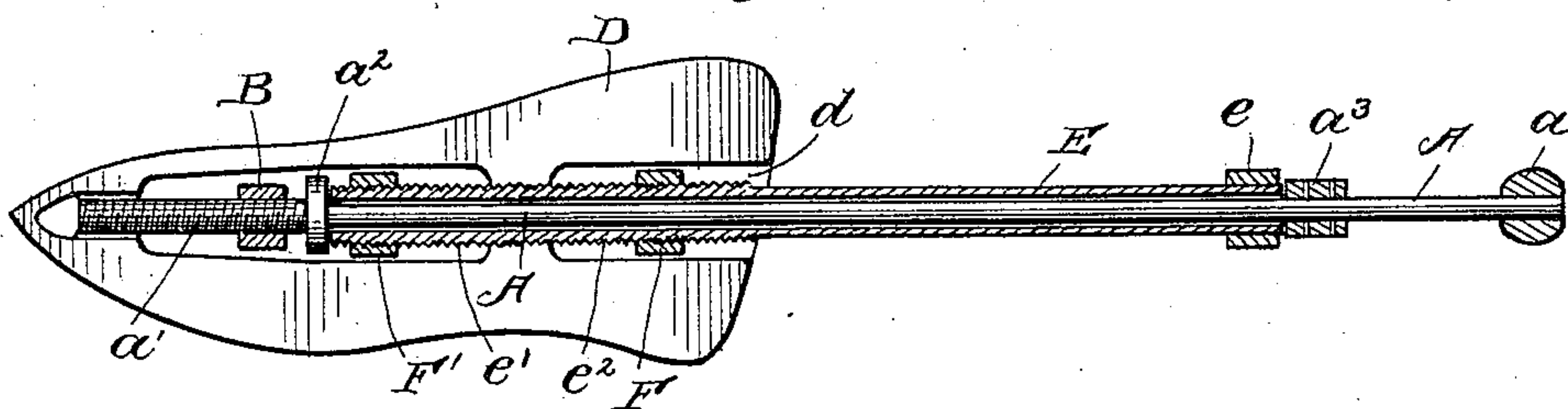
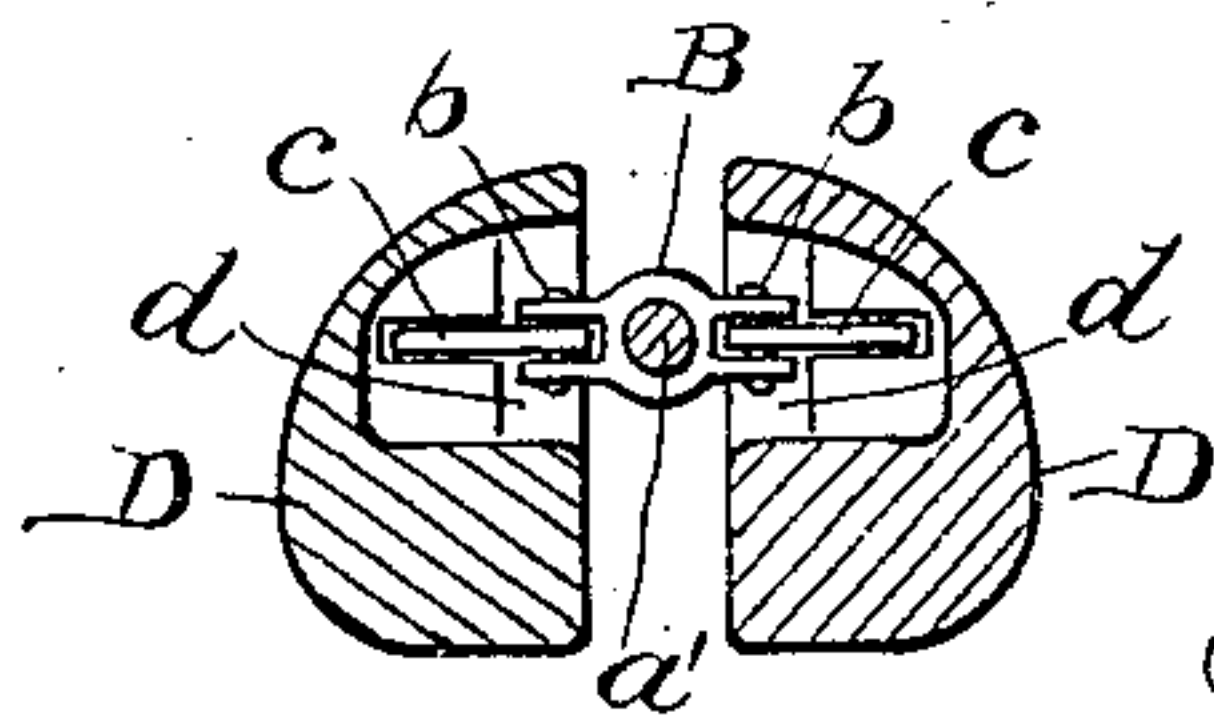


Fig. 4.



Witnesses:

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By

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# UNITED STATES PATENT OFFICE.

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GEORGE KURZ, OF SAME PLACE.

## SHOE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 565,341, dated August 4, 1896.

Application filed March 14, 1896. Serial No. 583,173. (No model.)

*To all whom it may concern:*

Be it known that I, DALTON FLETCHER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Shoe-Stretchers, of which the following is a specification.

This invention relates to improvements in a device to be used for stretching boots and shoes; and it consists in certain peculiarities of the construction, novel arrangement, and operation of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

The objects of my invention are, first, to provide a shoe-stretcher which shall be simple and inexpensive in construction, strong and durable, and effective in operation, and, second, such a stretcher which by reason of the peculiar construction and operation of its parts can be made to distend or stretch the shoe, either at the toe or "ball," or to stretch any portion of the shoe from the toe to the shank.

In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

Figure 1 is a view in side elevation of my stretcher as it appears when ready for use. Fig. 2 is a plan view, partly in section and partly in elevation, showing the divided or sectional last partly distended. Fig. 3 is a longitudinal view, partly in section, of the operating-rods, showing one of the sections of the last in elevation; and Fig. 4 is a cross-sectional view taken on line 4 4 of Fig. 2.

Similar letters refer to like parts throughout the different views of the drawings.

A represents a main or operating rod, which is provided at one of its ends with a handle *a* for turning the same, and is formed with screw-threads *a'*, near its other end, to engage a screw-threaded nut B, located thereon, and which nut is provided with lateral extensions *b*, which may be forked, as shown, and to which are pivotally secured one of the ends of the arms *c*, which are pivoted at their other ends to the sections D of the last, and near the front ends thereof. The last is divided

longitudinally through its center to form the two sections D, which are counterparts of one another and are provided on their adjacent surfaces with longitudinal recesses *d* for the reception and operation of the pivoted arms for extending, dividing, and contracting the said sections.

As is clearly shown in Figs. 2 and 3 of the drawings, the rod A is provided with a ring or enlargement *a<sup>2</sup>*, which may be made integral therewith or secured thereon in any suitable manner. This ring or enlargement is located on the rod A at about the inner termination of the screw-threads *a'*, and acts as a stop for the sleeve E, which surrounds a portion of the operating-rod, and is provided at its outer end with a handle *e* for the convenience of turning it, and is held in position on the operating-rod by means of a collar *a<sup>3</sup>*, located on the rod A near the handle *e* of the sleeve.

As is clearly shown in Fig. 2, the threads *a'* on the operating-rod are left-handed threads, and that portion of the sleeve adjacent to the enlargement *a<sup>2</sup>* is formed with right-handed threads *e'*, which extend some distance toward the handle thereon and are met by left-handed threads *e<sup>2</sup>*, which latter threads engage the screw-threaded nut F', while the threads *e'* engage the nut F', to each side of which nuts are pivotally secured at one of their ends the arms *c'*, which arms are pivoted at their other ends to the sections D, forming the last, and within the recesses thereof.

The operation of my device is simple and as follows: When it is desired to use the stretcher, the sections D, forming the last, are drawn together by turning the operating-rod and sleeve thereon in the proper directions, when the last may be readily inserted into the boot or shoe. If it is desired to stretch the toe portion of the shoe, the operating-rod may be turned by means of its handle *a* in the direction of the arrow, which operation will force the nut B toward the opposite end from the handle, and through the pivoted arms *c* will divide the front ends of the sections D, as is apparent. Should it be required to stretch or distend the "ball" portion of the shoe, the operating-rod A may be



held in a fixed position with one hand and the sleeve E turned by means of its handle e in the direction indicated by the arrow, which operation, by reason of the right and left handed screws thereon, will force the nuts F and F' toward each other, and through the pivoted arms divide or separate the rear part of the sections forming the last. If a uniform distention or expansion of the entire foot portion or upper of the shoe is desired, both the operating-rod and sleeve may be turned, as the requirements may demand. To retract or draw together the sections of the last, so that the stretcher may be removed from the shoe, it is only necessary to turn the rod and sleeve in the opposite direction from that indicated by the arrows in Fig. 2 of the drawings.

By forming the sleeve with right and left handed screw-threads and placing thereon the correspondingly-threaded nuts pivotally united to the sections of the last, as shown, it is apparent that the last will always be held in the same relative longitudinal position to the operating-rod and sleeve, whereas if a left-handed thread were employed on the operating-rod and a right-handed thread on the sleeve and one nut only on each threaded portion there would be nothing to prevent the sections of the last from moving longitudinally. While I have shown the sleeve formed with right and left handed screw-threads, yet in some instances I may form the operating-rod with such threaded portions and the sleeve with a right or left handed threaded portion only.

As shown by dotted lines in Fig. 1 of the drawings, the arms c' are pivotally secured parallel with each other on each side of the sleeve, so that when the sections of the last are brought together they will lie closely against said sleeve.

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

1. The combination with an operating-rod, provided with screw-threads, of a sleeve mounted thereon and having right and left handed screw-threads, a last composed of lon-

gitudinal sections, a screw-threaded nut on the threaded portion of the operating-rod, arms pivoted to said nut and to the sections of the last, right and left handed threaded nuts located on the right and left handed screw-threaded portions respectively on the sleeve, and arms pivotally secured to each side of said nuts and to the sections of the last, substantially as described.

2. The combination with an operating-rod, provided at one end with a handle, and at its other end with screw-threads, a sleeve on the operating-rod, provided at one of its ends with a handle, and on its portion adjacent to the screw-threaded part of the operating-rod with right and left handed screw-threads, a last composed of longitudinal sections, having internal recesses, a screw-threaded nut on the threaded portion of the operating-rod, arms pivotally secured to said nut and to the sections of the last near their front ends, right and left handed screw-threaded nuts located on the right and left handed screw-threaded portions respectively of the sleeve, and arms pivotally secured to each side of said nuts and to the sections of the last, substantially as described.

3. The combination with an operating-rod, having at one of its ends a handle, and at its other end screw-threads, a sleeve having at one of its ends a handle, and near its other end right and left handed screw-threads, and secured against longitudinal displacement on the operating-rod, a last comprising longitudinal sections, provided with internal recesses, a screw-threaded nut on the threaded portion of the operating-rod, arms pivoted to said nut and the sections of the last near their front ends, right and left handed screw-threaded nuts located on the right and left handed screw-threaded portions respectively of the sleeve, and arms pivotally secured to said nuts and to the sections of the last within the recesses thereof, substantially as described.

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Witnesses:

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