

No. 775,737.

PATENTED NOV. 22, 1904.

R. C. SMITH.

STRETCHER.

APPLICATION FILED OCT. 20, 1903.

NO MODEL.

Fig. 1

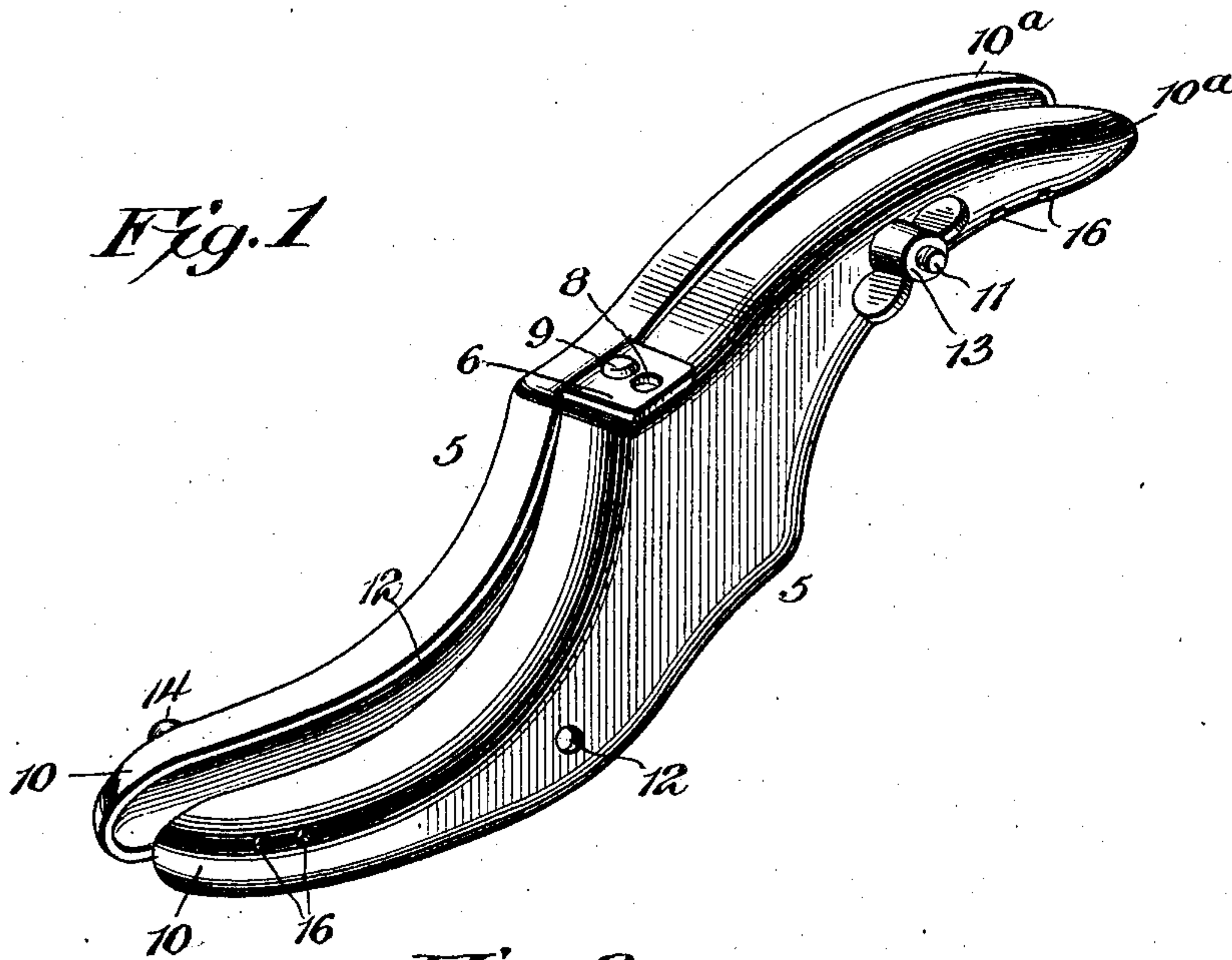


Fig. 2.

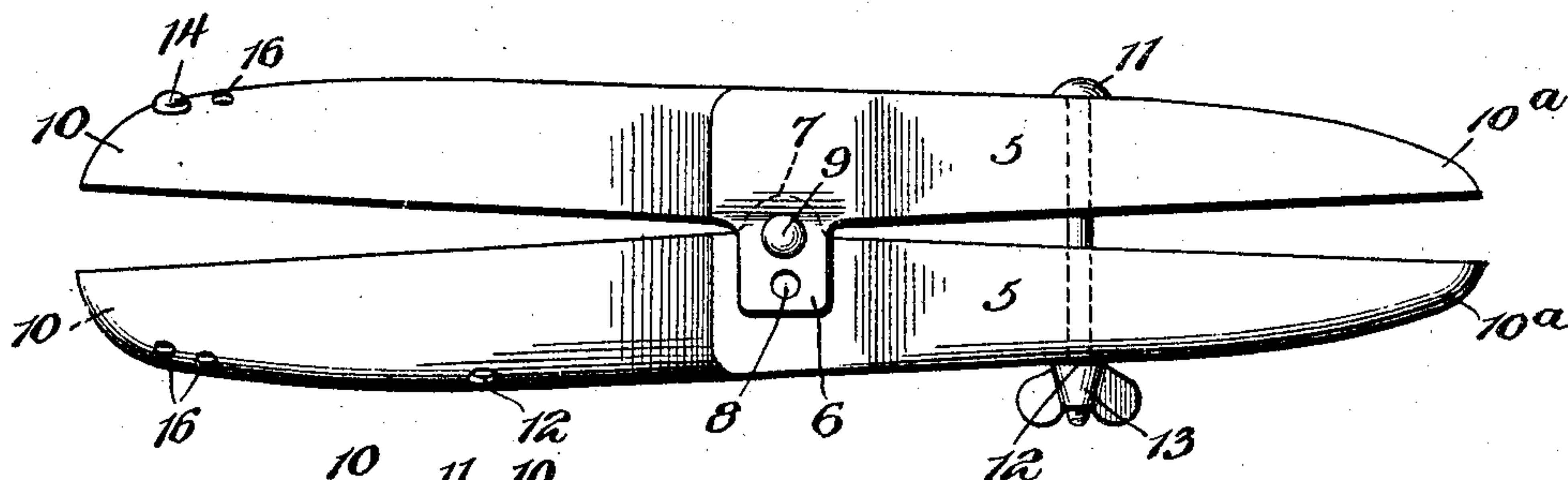


Fig. 3.

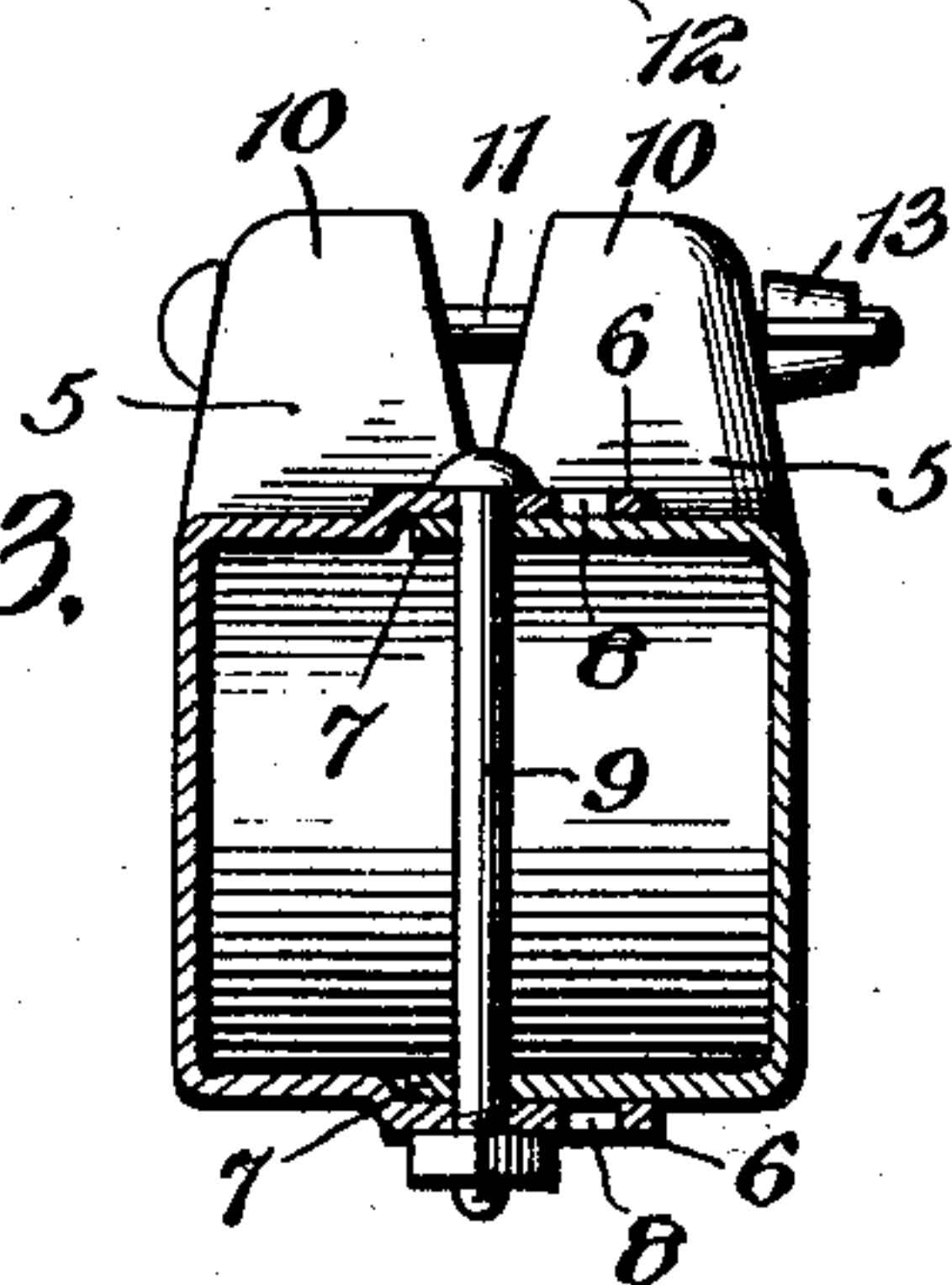
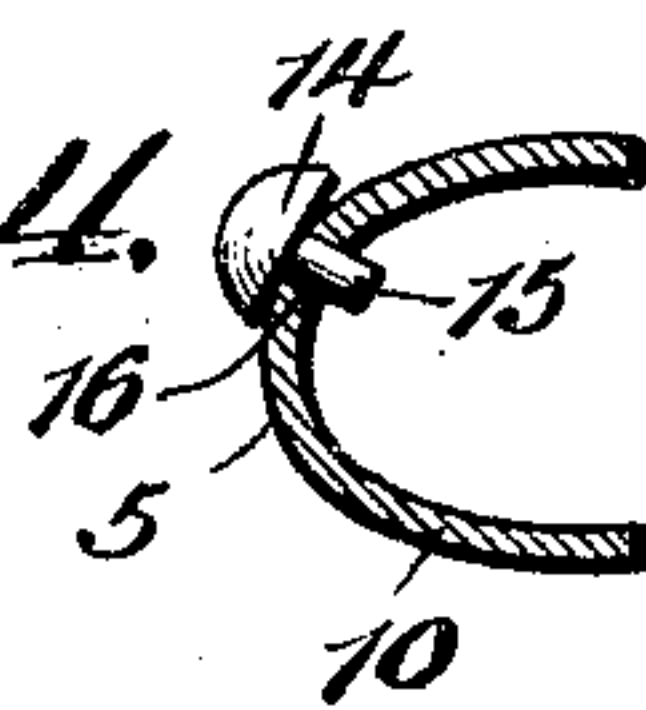


Fig. 4.



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RUFUS CATTRELL SMITH, OF CHATTANOOGA, TENNESSEE.

STRETCHER.

SPECIFICATION forming part of Letters Patent No. 775,737, dated November 22, 1904.

Application filed October 20, 1903. Serial No. 177,786. (No model.)

To all whom it may concern:

Be it known that I, RUFUS CATTRELL SMITH, a citizen of the United States, residing at Chattanooga, in the county of Hamilton and State of Tennessee, have invented a new and useful Stretcher, of which the following is a specification.

This invention relates to that class of stretching devices employed in expanding shoes or analogous articles of wearing-apparel.

The object is to provide a device of this character which will operate efficiently to stretch shoes and at the same time has a wide range of action, is powerful in operation, and extremely simple in construction.

The preferred embodiment of the invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a perspective view of the stretcher. Fig. 2 is a top plan view of the same. Fig. 3 is a cross-sectional view, and Fig. 4 is a detail sectional view showing the manner of mounting the supplemental stretching device.

Similar reference-numerals indicate corresponding parts in all the figures of the drawings.

In the embodiment illustrated a pair of similarly-shaped levers 5 are employed, these levers being preferably constructed of metal and substantially concavo-convex in cross-section. They are provided at intermediate portions with inwardly-extending overlapped ears 6 and 7, the ears 6 of one of the levers being elongated and provided with a plurality of openings, as 8. A pivot-bolt 9, passing through the ears, pivotally connects the levers, and by being placed in any of the series of openings 8 said levers can be pivotally connected at different distances from each other.

It will be observed by reference to Fig. 2 that the inner edges of the levers on opposite sides of the pivot are not parallel nor alined, while their outer faces are convex and taper to the terminals. These terminal portions constitute stretching-horns 10 and 10^a, which are located on opposite sides of a plane passing through the center of the pivot and at right angles thereto, as illustrated in Fig. 1. They are of substantially the same shape, but of

different sizes, so that the horns 10 are adapted for broader-toed shoes than the horns 10^a, as will be evident by referring to Fig. 2. The stretching action is obtained by means of a bolt 11, adapted to be passed through openings 12, formed in the different horns, said bolt being provided with an adjusting-nut 13, threaded on one end of the same.

In order that certain portions of the shoe may be abnormally stretched in the region of corns and the like, a supplemental stretching device is employed, comprising a head 14, provided with a shank 15, which shank is adapted to be inserted in any of a series of openings 16, formed in the horns.

It is believed that the action of the device will be clearly apparent. The levers are held in special relation by means of the pivot-bolt to suit the size of the shoe, and if said shoe is a comparatively large one the horns 10 are inserted therein and the adjusting-nut 11 is passed through the opposite horns. The horns 10 are then separated by screwing the nut 13 upon the bolt 11 until the desired stretch has been obtained. In case of a narrow or lady's shoe the horns 10^a are inserted and the bolt 11 transferred to the horns 10.

It will be evident that this structure can be manufactured at very small cost and at the same time will fit shoes of different sizes and shapes. Moreover, the stretching action is a powerful one, as both the lever and screw is made use of.

The reversibility of the device and the ease with which it may be reversed are important features of the invention.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. In a stretcher of the character described,

the combination with levers arranged side by side, of a pivot connecting the levers between their ends, the inner side portions of each lever on opposite sides of the pivot being disposed in angular relation to each other and the outer intermediate face portions of each being substantially flat, the said levers tapering at their ends and having their outer terminal sides convexedly curved, the corresponding ends of the levers being of substantially the same size and contour and different in size from the opposite ends, forming stretcher-horns adapted to be inserted into the toe of a shoe or like article for the purpose of stretching the same.

2. A structure of the character described, comprising correspondingly-shaped levers having an intermediate pivot connection, the portions of the levers on opposite sides of the pivots being disposed on opposite sides of a plane passing through the central portion of and substantially at right angles to the pivot, said portions of the levers constituting stretcher-horns of the proper shape to fit within a shoe.

3. A structure of the class described, comprising correspondingly-shaped levers having an intermediate pivot connection, the portions on opposite sides of the pivot being disposed on opposite sides of a plane passing through the central portion of and substantially at right angles to the pivot, said portions of the levers having their outer sides convexed and tapering at their ends to constitute stretching-horns of proper shape to fit within a shoe.

4. A structure of the class described, comprising correspondingly-shaped levers having an intermediate pivot connection, the portions on opposite sides of the pivot being disposed on opposite sides of a plane passing through the central portion of and substantially at right angles to the pivot, said portions

of the levers having their outer sides convexed and tapering at their ends to constitute stretching-horns of proper shape to fit within a shoe, and a device connecting the portions of the levers on one side of the pivot for drawing said portions together and separating the opposite portions.

5. A structure of the class described, comprising correspondingly-shaped levers having an intermediate pivot connection, the portions on opposite sides of the pivot being disposed on opposite sides of a plane passing through the central portion of and substantially at right angles to the pivot, said portions of the levers having their outer sides convexed and tapering at their ends to constitute stretching-horns of proper shape to fit within a shoe, the corresponding portions of the levers being furthermore provided with alined openings, and a bolt detachably passing through the alined openings on either side of the pivot for swinging the levers upon said pivot.

6. A structure of the class described, comprising levers that are substantially concavo-convex in cross-section, the convex faces being outermost, said levers being located side by side and having intermediate extensions of their walls, said extensions being overlapped and forming intermediate ears, a pivot connecting the ears, and means detachably connected with the levers at one side of the pivot for swinging said levers about the pivot, and provisions on the other side of the pivot whereby said means may be detachably connected with the levers.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

RUFUS CATTRELL SMITH.

Witnesses:

L. H. TUCKER,
E. S. SMITH.