

C. B. KOSTERS.
SHOE STRETCHER.
APPLICATION FILED JAN. 26, 1909.

982,369.

Patented Jan. 24, 1911.

Fig. 1.

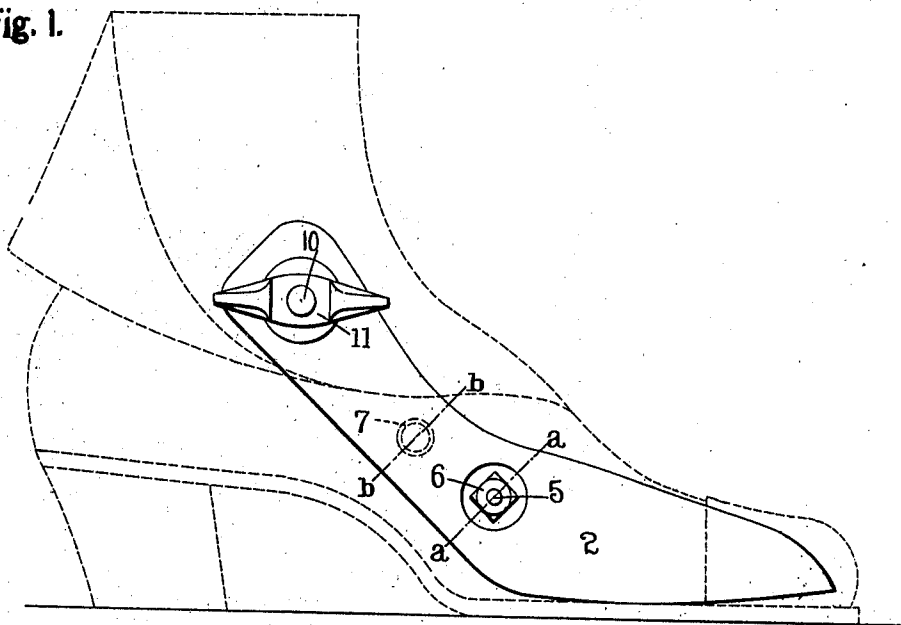


Fig. 2.

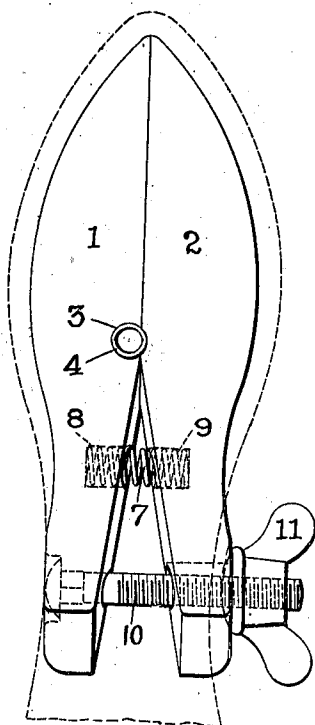


Fig. 3.

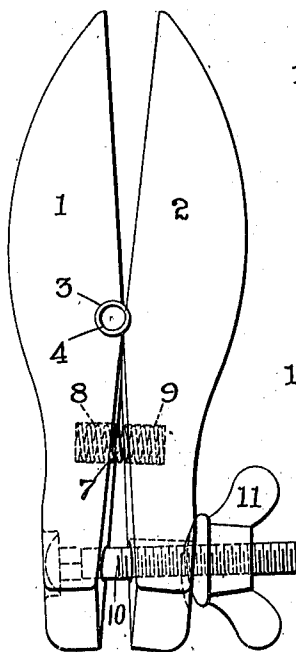


Fig. 4.

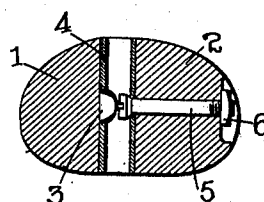
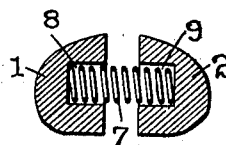


Fig. 5.



Witnesses.

L. M. Braugster.
George A. Neubauer.

Clements B. Kusters, Inventor.

By *L. M. Braugster* Attorney.

UNITED STATES PATENT OFFICE.

CLEMENTS B. KOSTERS, OF BUFFALO, NEW YORK.

SHOE-STRETCHER.

982,369.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CLEMENTS B. KOSTERS, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented a certain new and useful Improvement in Shoe-Stretchers, of which the following is a specification.

This invention relates to stretchers for shoes and the like, and the object of the invention is to make an extremely light and compact device of that class.

The invention also relates to certain details of construction which will be hereinafter described and perhaps claimed reference being had to the accompanying drawings, in which,—

Figure 1 represents a side elevation of the improved shoe stretcher showing it in place inside a shoe which is shown in elevation in dotted lines. Fig. 2 is a top plan view of the stretcher with its members in non-stretching position, the outline of a shoe being shown in dotted lines. Fig. 3 is a top plan view of the stretcher with its members in stretching position. Fig. 4 is a transverse section through the stretcher on line *a a*, Fig. 1. Fig. 5 is a transverse section through the stretcher on line *b b*, Fig. 1.

In referring to the drawings in detail like numerals designate like parts.

The improved stretcher is very compact, and when fitted in stretching position is entirely within a shoe, with but a short projecting portion of its bolt extending laterally over one side of the shoe vamp.

The body of the stretcher is composed of two members 1 and 2 arranged side by side which are substantially duplicates with the exception that they are arranged oppositely to each other.

Each of the members constitute substantially one half of the stretcher and has a curved upper surface which is shaped more or less to the contour of the shoe upper and against which it is adapted to press when stretching the shoe.

The bottom surface of the forward portion is flat, or nearly so, and when the stretcher is in the shoe fits against the upper surface of the shoe sole, and the inner side surface is flat and extends at approximately a right angle to the bottom surface.

The rear portion of each member forms a partial support for the operating mechanisms of the stretcher and extends upward at an obtuse angle from the forward or front

portion and its inner side surface is flat and extends at a slight angle to the inner side surface of the front portion sufficiently to permit the necessary rocking movement of the members with respect to each other to operate the stretcher.

The two members are hinged or pivoted together at a point located approximately central.

The pivoting mechanism consists of a transverse recess 3, cut in the member 1 and curved to the greater portion of a circle and a tube 4, which fits in the recess 3, and is secured to the member 2 by a bolt 5 which passes through the member 2 and is provided with a fastening nut 6 on its outer end located in a counter-sink in the outer surface of the member 2.

The two members are normally maintained in non-stretching position by a coil spring 7, the opposite ends of which are seated in depressions 8 and 9 formed in the opposed flat inner side surfaces of the rear portions of the members, see Figs. 2, 3 and 5.

The mechanism for opening the forward portions of the members of the stretcher consists of a horizontally and transversely arranged bolt 10, which has its head unrotatably secured in a counter-sunk transverse opening located near the rear end of the rear portion of one member and its screw threaded shank fitted loosely through an opening in the other member and projecting sufficiently to permit the screwing thereon of a butter-fly tightening nut 11, as shown in Figs. 2 and 3.

The two members of the stretcher are preferably formed of wood, although they may, if it is desired, be cast or otherwise constructed of metal or other suitable material.

The stretcher is so small and compact that it fits entirely within the shoe and the rear portions are bent upward at a sufficient angle to the forward stretching portions to clear the arch of the shoe and also to permit the tightening nut to be exposed for manipulation by the fingers of the operator by turning down one side of the upper of the shoe.

The object in locating the hinge or pivot at or near the middle of the members is to bring the hinge or pivot vertically below or in the immediate vicinity of the vamp seam and thus avoid any appreciable stretching of the vamp seam while stretching the for-

ward portion of the shoe at any desired point.

If it is desired to stretch the shoe at the vamp seam the stretcher may be moved 5 sufficiently rearward from the position shown in Fig. 1 to bring the forward stretching portions in stretching position with respect to the vamp seam.

The operation of this improved stretcher 10 will be easily understood from the foregoing description and drawings.

Referring to Fig. 1, the stretcher is introduced into a shoe which it is desired to stretch at some point and the tightening nut 15 is exposed at one side of the shoe by turning down the upper on that side.

The shoe is stretched by screwing the tightening nut on the shank of the bolt and thereby moving the rear portions of the 20 members toward each other and separating the forward stretching members, as shown in Figs. 2 and 3.

The principal advantages of this stretcher reside in its compactness and cheapness, in 25 that it is considerably smaller than a shoe and can be fitted completely within, that the stretching is accomplished by a nut exposed at one side of the shoe and screwing upon a short projecting portion of the 30 shank of a bolt which is arranged transversely in the stretcher, and that owing to the location of the connecting hinge or pivot, the forward portion of a shoe can be stretched without perceptibly stretching the 35 vamp seam.

I claim.

1. In a shoe stretcher comprising members arranged side by side in opposed posi-

tion, each member having a forward stretching portion and a rear portion extending at an obtuse angle to the forward stretching portion, one of said members provided with a recess located at the juncture 40 of the forward and rear portions, a tube fitted in the recess and having an aperture 45 in the side thereof, a bolt passing through said aperture and transversely through the other member adapted to form a hinge, means for automatically returning the forward portions to closed position and means 50 for applying pressure on the ends of the rear portion adapted to separate the forward stretching portions.

2. In a shoe stretcher comprising members arranged side by side in opposed position, each member having a forward stretching portion and a rear portion extending at an obtuse angle to the forward stretching portion, one of said members provided with a recess located at the juncture 60 of the forward and rear portions, a tube fitted in the recess and having an aperture in the side thereof, a bolt passing through said aperture and transversely through the other member adapted to form 65 a hinge, a coiled spring interposed between the rear portions adapted to hold the spreading portions in closed relation, a bolt passing transversely through the ends of the rear portions, and a tightening nut on 70 said bolt whereby pressure is applied for separating the forward stretcher portions.

CLEMENTS B. KOSTERS.

Witnesses:

L. M. SANGSTER,
GEORGE A. NEUBAUER.