P. E. BASSETT.

SHOE STRETCHER.

APPLICATION FILED SEPT. 1, 1910.

**999,144.** Patented July 25, 1911.

Fig. 1.

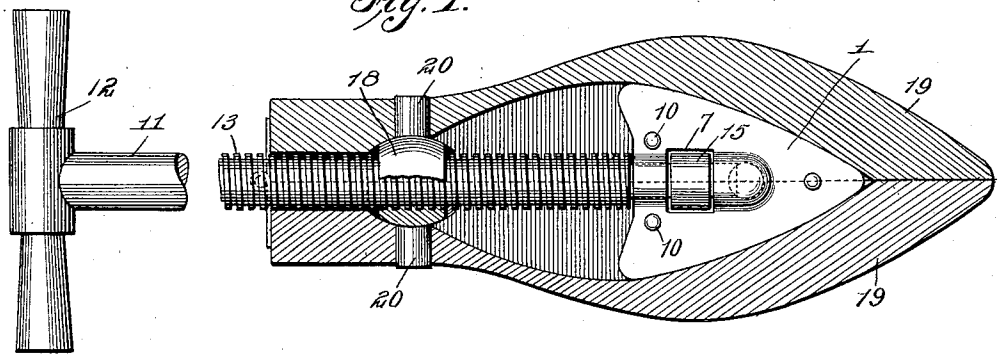



Fig. 2.

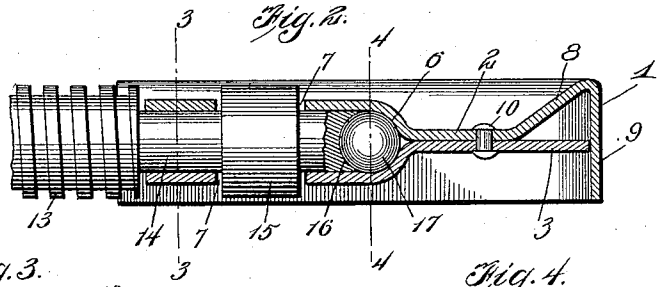



Fig. 3.

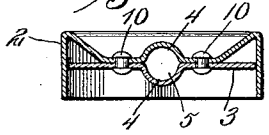



Fig. 4.

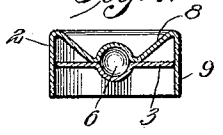



Fig. 5.

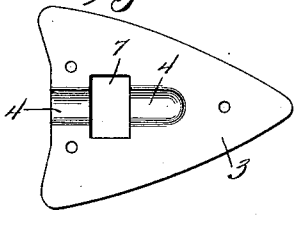
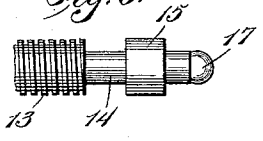



Fig. 6.




Inventor

P. E. Bassett

Witnesses

Louis R. Heinrichs

C. H. Griesbauer

by H. B. Williamson & Co

Attorneys

# UNITED STATES PATENT OFFICE.

PLINY E. BASSETT, OF WORCESTER, MASSACHUSETTS.

## SHOE-STRETCHER.

999,144. Specification of Letters Patent. Patented July 25, 1911.

Application filed September 1, 1910. Serial No. 580,032.

*To all whom it may concern:*

Be it known that I, PLINY E. BASSETT, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Shoe-Stretchers; and I do 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.

This invention relates to improvements in shoe stretchers.

One object of the invention is to provide a shoe stretcher having an improved construction and arrangement of expanding wedge and stretching rod, and means whereby said rod is revolubly and anti-frictionally connected to said wedge.

With this and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings: Figure 1 is a horizontal sectional view of a shoe stretcher showing my improved stretcher rod and expanding wedge arranged therein; Fig. 2 is an enlarged vertical sectional view of the rod and expanding wedge; Fig. 3 is a cross sectional view on the line 3—3 of Fig. 2; Fig. 4 is a similar view on the line 4—4 of Fig. 2. Fig. 5 is a plan view of the lower section of the expanding wedge; Fig. 6 is a plan view of the stretcher rod and bearing ball.

Referring more particularly to the drawings 1 denotes the expanding wedge of my improved stretcher, said wedge comprising an upper section 2 and a lower section 3 each of which is formed of sheet metal cut in the shape shown. The sections 2 and 3 have pressed or otherwise formed in their inner sides longitudinal centrally disposed semi-cylindrical grooves or channels 4 which, when the sections 2 and 3 are brought together, form a cylindrical passage 5. The passage 5 terminates at its inner end in a spherical socket 6 which is formed by alined recesses pressed in the opposite sections of the wedge as shown.

In the sections 2 and 3 of the wedge are formed alined, rectangular openings 7 which are cut or punched out of the metal. The side edges of the upper section 2 of the wedge are bent upwardly as shown at 8 and on said upwardly bent edges are formed downwardly projecting flanges 9 which closely engage and are braced by the outer edges of the lower section 3 of the wedge. The sections 2 and 3, when thus formed are rigidly secured together by rivets 10 or other suitable fastening devices.

The stretcher rod is in the form of a cylindrical bar 11 of suitable length having on one end a handle 12. The outer portion of the rod is threaded as at 13. The outer end of the rod is reduced as at 14 and on said reduced end is formed a head 15. In the extremity of the reduced end 14 is formed a recess or shallow socket 16.

In assembling the parts, the reduced end of the rod is revolubly engaged with the passage 5 formed by the channels or grooves 4 in the sections of the wedge. The head 15 is disposed in the passage formed by the rectangular openings 7 in the sections and provides a stop whereby the end of the rod is revolubly secured to the wedge. In the socket 6 is revolubly mounted an anti-friction bearing ball 17 with which the socket 16 in the end of the rod is engaged and by means of which the thrust of the rod is resisted without friction, thus reducing the wear on the wedge and end of the rod to a minimum as well as greatly facilitating the operation of the rod. The threaded portion 13 of the rod is operatively engaged with an interiorly threaded bearing sleeve 18 arranged in the adjacent inner surfaces of the expansible sections or members 19 of the last or stretcher and secured therein against revolution by laterally projecting fastening lugs 20 arranged thereon and engaging the sections 19, of the last as shown. By thus constructing and arranging the stretching rod and wedge it will be seen that an efficient and easily operated stretching mechanism is provided for shoe stretching lasts.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as defined in the appended claims.

Having thus described my invention, what I claim is:

1. In a shoe stretcher, an expanding wedge consisting of upper and lower sections secured rigidly together and having longitudinal, tubular struck up portions and alined openings in said portions, the front ends of said portions being closed and the rear ends thereof open, a stretching rod revolubly mounted in said tubular portions and having a bearing in the front closed end of the same, and a head on said rod engaging the alined openings.

2. In a shoe stretcher an expanding wedge formed in upper and lower sections, said sections having formed therein alined apertures, and coacting grooves and recesses to form a cylindrical passage and a spherical socket, an anti-frictional bearing ball arranged in said socket, a stretching rod having a reduced outer end adapted to revolubly engage said cylindrical passage and said bearing ball, and a retaining head formed on the reduced end of said rod and adapted to engage the apertures of the wedge.

3. In a shoe stretcher, an expanding wedge constructed in upper and lower sections, having formed therein alined apertures and coacting grooves and recesses forming a cylindrical passage and a spherical socket, said upper section having upwardly bent side edges and downwardly extending side flanges engaging the outer edges of said lower section, means to fasten said sections together in operative engagement, a bearing ball in said socket, a stretching rod having a threaded operating portion, and a reduced inner end adapted to revolubly engage the grooves in said wedge sections and having a socket in its end to engage said bearing ball, and a head formed on the reduced end of the rod to engage the apertures in the wedge sections.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

PLINY E. BASSETT.

Witnesses:

GOTTFRID HANSON,

SVEN JOHN JACOB HANSON.