

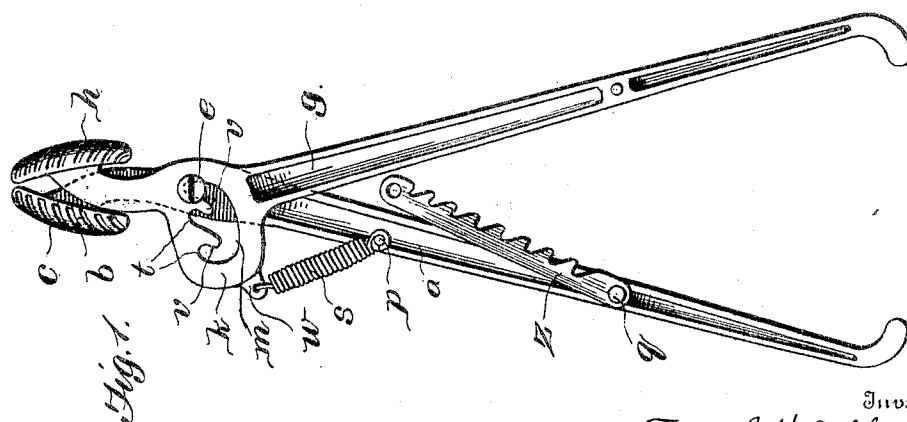
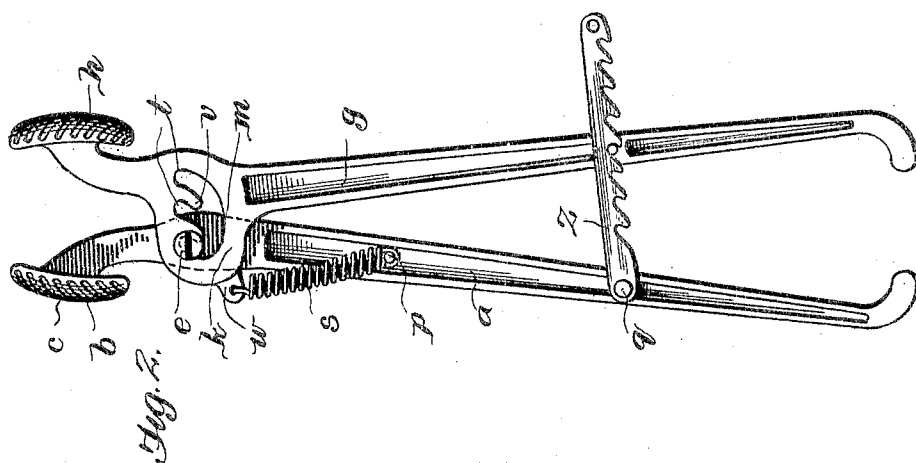
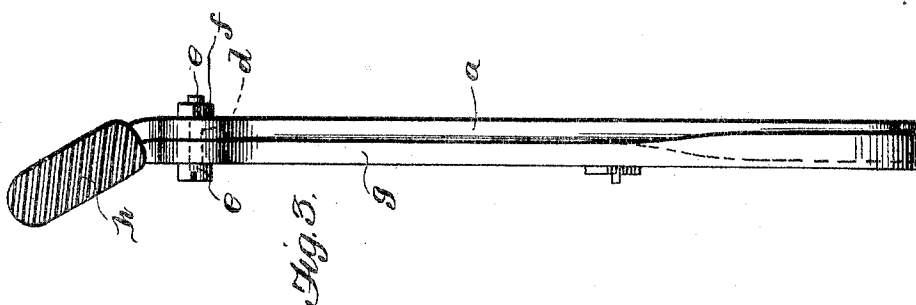
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PATENTED AUG. 15, 1905.

F. L. WALKER & C. F. SMITH.

SHOE STRETCHER.

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Witnesses

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UNITED STATES PATENT OFFICE.

FREDRICK L. WALKER AND CHARLES F. SMITH, OF BURLINGTON, IOWA.

SHOE-STRETCHER.

No. 797,541.

Specification of Letters Patent.

Patented Aug. 15, 1905.

Application filed January 12, 1905. Serial No. 240,807

To all whom it may concern:

Be it known that we, FREDRICK L. WALKER and CHARLES F. SMITH, citizens of the United States, and residents of Burlington, in the county of Des Moines and State of Iowa, have made a certain new and useful Invention in Shoe-Stretchers; and we declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the invention, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 is a front view of our invention adjusted for a narrow shoe. Fig. 2 is a similar view of the device adjusted for a broad shoe. Fig. 3 is a side view of the invention.

The invention relates to means for stretching shoes; and it consists in the novel construction and combinations of parts as hereinafter set forth.

The object of the invention is mainly to reduce the angular motion of the stretching-heads in their operations upon shoes of different size.

In the accompanying drawings, illustrating the invention, the letter *a* designates one of the lever-arms of the stretcher provided with the outward-facing head *b* at its end, said head having an outward convex surface *c* of elongated form. This surface is corrugated in the manner indicated. The jaw extends generally in a plane substantially parallel to that of the lever, but is slightly oblique or laterally directed with reference thereto, so that when the jaw is in the toe or front portion of the shoe the lever-arm will project upward and backward therefrom. This lever is provided at the pivotal portion with a threaded aperture *d* for the reception of the end of a stud *e*, which forms the fulcrum of the instrument. A nut *f* is provided to secure the stud more firmly in position. The other lever *g* of the stretcher is provided with a similar outward-facing jaw *h*. At the fulcrum portion of the latter lever an extension or offset *k* is made inward or transversely over the fulcrum portion of the jaw *a*, this fulcrum portion being slotted at *m*. The fulcrum portion is finished with upper and lower smooth parallel surfaces, so that it can be readily adjusted with reference to the jaw *a*. The slot *m* extends transversely and is provided on the part nearest the jaws with the series of oblique offset recesses or notches *t*, which are separated from each other by the

oblique projections or bearing-lugs *v*. The end of each recess is rounded to form a suitable bearing for engagement with the fulcrum-stud *e*. The obliquity of the recesses *t* is such that when the jaws are brought close together their lines of direction will correspond with that of the lever *a*, carrying the stud *e*, so that by pulling backward on this lever the fulcrum-stud can be readily disengaged from the recess with which it may be in engagement and slipped into one of the other recesses, whereby the instrument will be reduced or narrowed in the spread of the heads to better correspond with the width of the front portion of the shoe which is to be operated upon. The heads are normally held in the closed position ready for adjustment by means of the spring *s*, which is connected to a lug *w* at the outer end of the slotted extension of lever *g* and to a stud *p* of the other lever located at a proper distance therefrom on the handle of said lever *g*. This spring also maintains the adjustment of the fulcrum-pin in its bearing-recess. To a stud or post *q*, near the handle end of this lever, is pivoted a tie-bar *z*, which is provided with a series of catches or teeth on one side adapted to engage a stud *n* on the slotted lever located opposite the stud *q*. When not in use, the tie-bar *z* is connected by its free end, which is perforated for the purpose, with the spring-holding stud *p*.

The fulcrum-recesses *t*, on account of the transverse arrangement of the series at right angles or nearly so to the direction of the head of the slotted lever, are designed to facilitate the adjustment of the head *a* to or from the head *h*, so that the fulcrum-stud will be operative whether said jaws are set wide apart or nearer together, said heads at the same time having their outward-pressure faces substantially parallel or in position conforming to the sides of the shoe-wall in the front portion thereof, where the stretching is usually required. After their adjustment to proper spread to suit the size of the shoe, the heads are introduced into the shoe in comparatively closed relation, and their levers are operated to force the heads outward against the lateral walls of the shoe. The pressure of the heads will be equalized along their length and angular pressure avoided because of their adjustment to substantial parallelism. When the heads are forced sufficiently apart to stretch the shoe to the required degree, they are held in position for such time as may be advisable by means of the tie-bar.

Having described the invention, what we claim, and desire to secure by Letters Patent, is—

1. A shoe-stretcher having in combination two pivoted levers provided with stretching-heads, a fulcrum-pin carried by one of said levers, the other of said levers having a lateral extension provided with a plurality of fulcrum-bearing notches leading into a common opening, and means for fixing the adjustment of said stretching-heads, substantially as specified.

2. A shoe-stretcher having in combination two pivoted levers provided with stretching-heads, a fulcrum-pin carried by one of said levers, the other of said levers having a lat-

eral extension provided with a plurality of fulcrum-bearing notches leading into a common opening, a spring connecting the outer end of said lateral extension of one lever with the other lever to maintain the engagement of said pin with one of said notches and to hold the stretching-heads closed, and a tie-bar to fix the adjustment of said heads, substantially as specified.

In testimony whereof we affix our signatures in presence of two witnesses.

FREDRICK L. WALKER.
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Witnesses:

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