

No. 657,814.

Patented Sept. 11, 1900.

C. W. CROZIER.
SHOE STRETCHER.

(Application filed Apr. 27, 1900.)

(No Model.)

Fig. 1

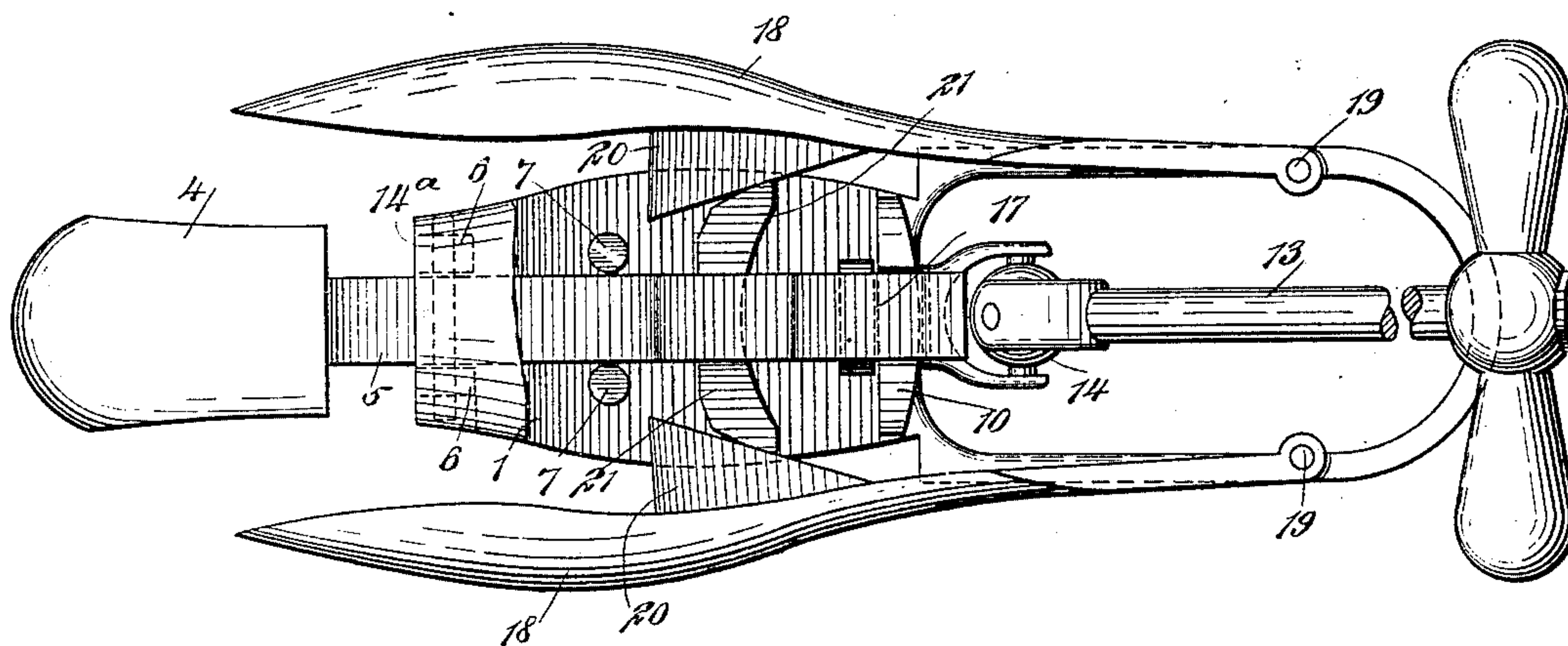


Fig. 2

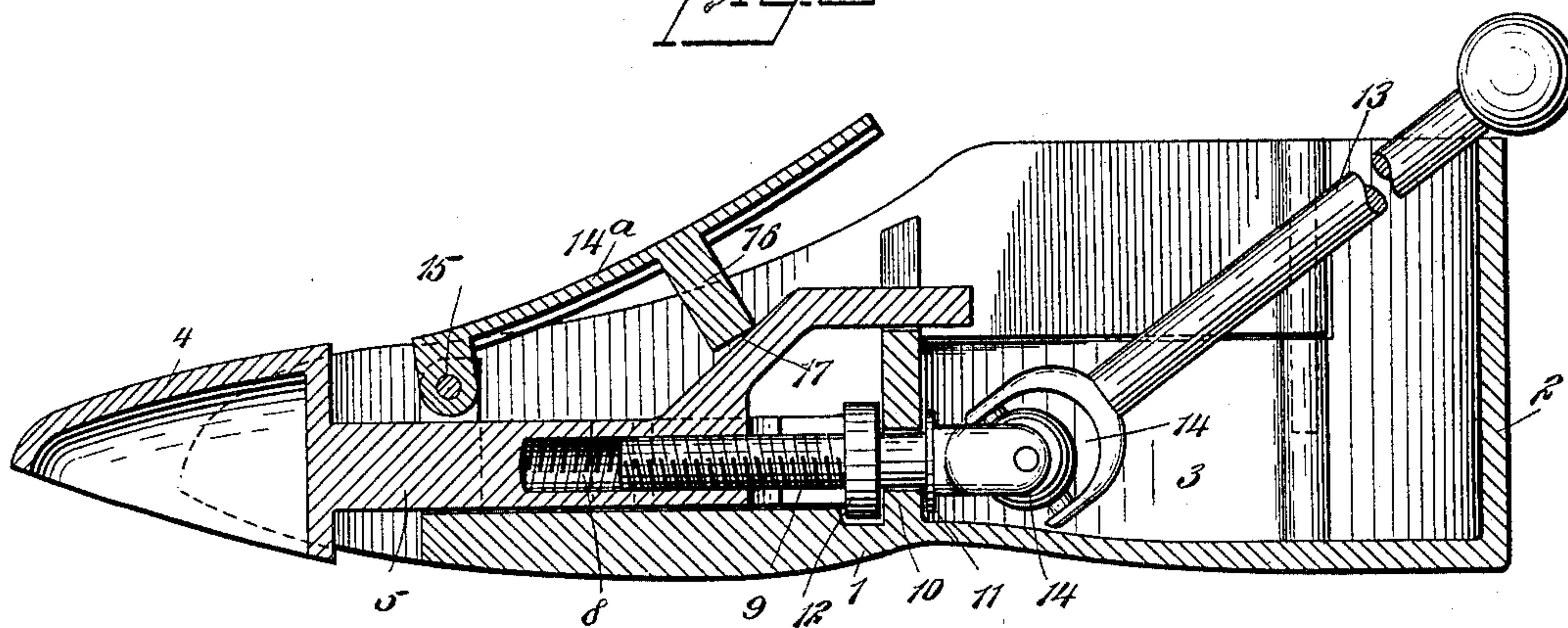
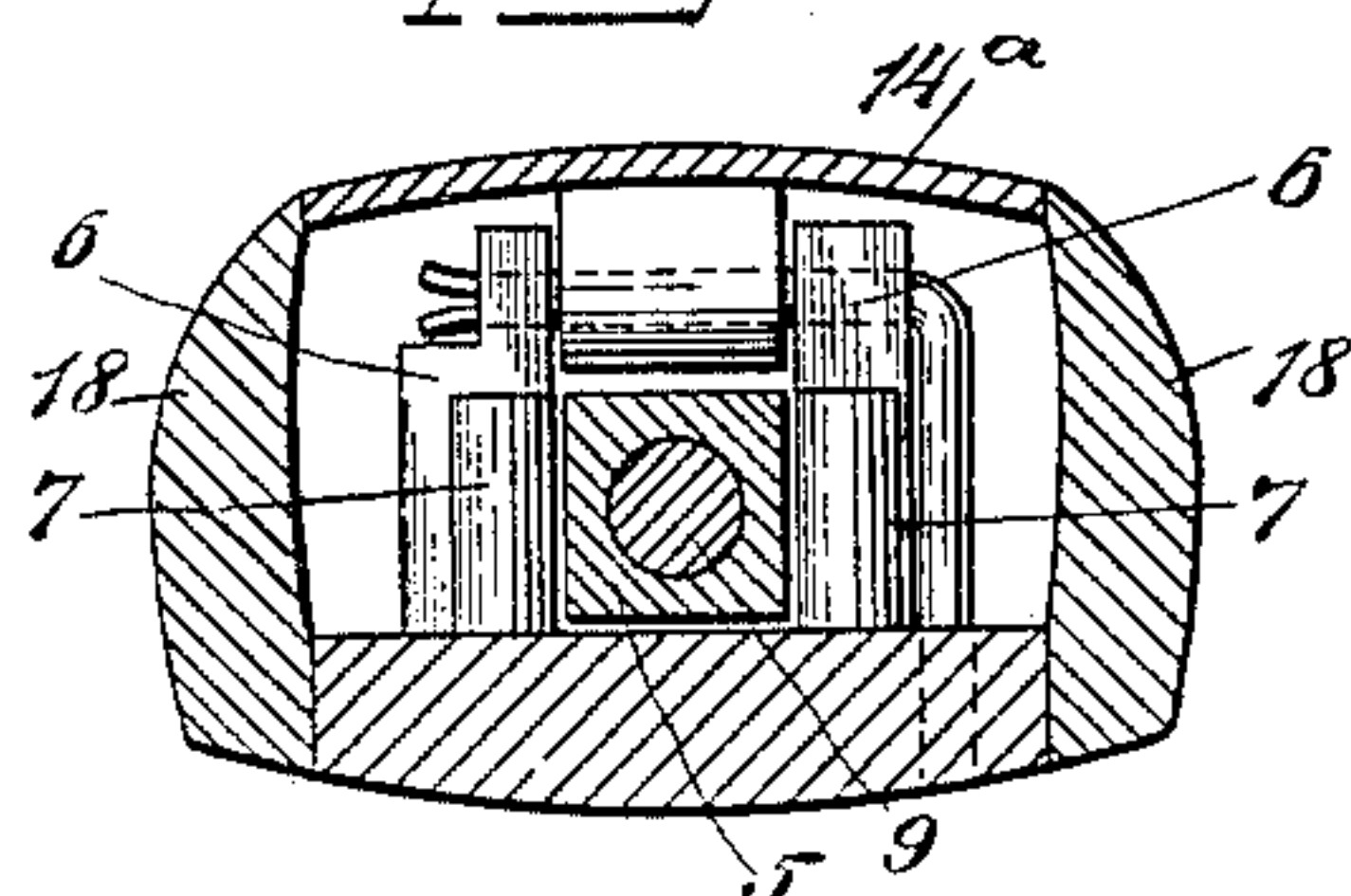


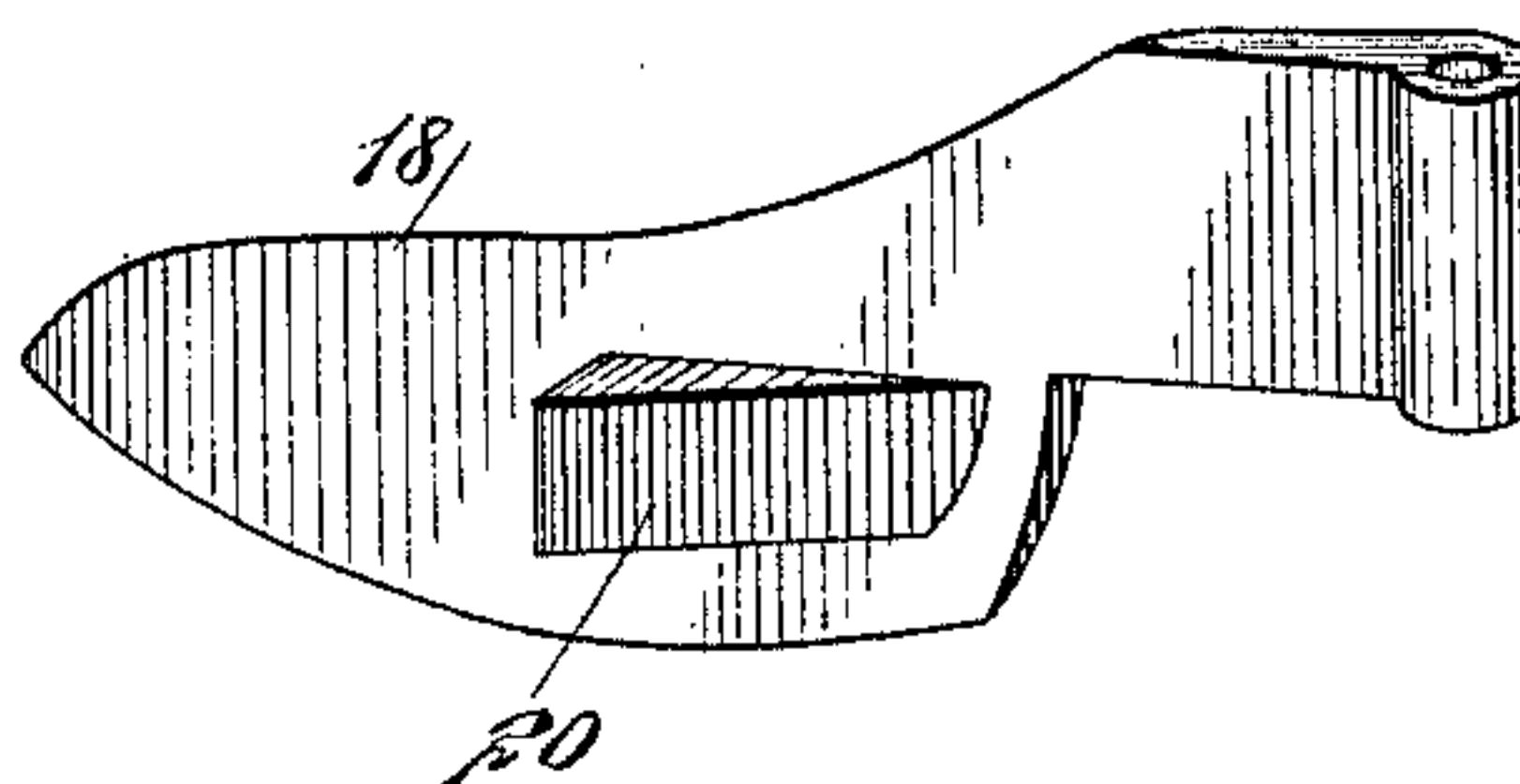
Fig. 3



WITNESSES:

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Fig. 4



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SHOE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 657,814, dated September 11, 1900.

Application filed April 27, 1900. Serial No. 14,567. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. CROZIER, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Shoe-Stretcher, of which the following is a full, clear, and exact description.

This invention relates to improvements in devices for stretching shoes; and the object is to provide a device by means of which a shoe may be simultaneously stretched at the sides, toe, and instep and that may also be adapted to stretch the toe and instep without stretching the sides.

I will describe a shoe-stretcher embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of a shoe-stretcher embodying my invention. Fig. 2 is a sectional elevation. Fig. 3 is a cross-section, and Fig. 4 is a perspective view of one of the side-stretching wings employed.

The stretcher comprises a bottom plate 1, adapted to conform substantially to the inner side of the sole of a shoe, and at the rear or heel end of this plate is an upwardly-extended counter or heel portion 2, from the ends of which side plates 3 extend forward and terminate at about the shank of the shoe.

The toe-stretcher consists of a block 4, made to conform substantially to the toe of the shoe, and extended from this toe-stretcher is a tang 5, guided between uprights or posts 6, arranged at the forward end of the bottom plate 1, and it is also guided between pins 7, extended upward from said bottom plate. The tang 5 has a longitudinally-threaded opening 8, in which an operating screw-rod 9 engages. This rod has a bearing in a bridge-piece 10, extended upward from the bottom plate 1, and to prevent longitudinal movement of the rod relatively to the bridge-piece collars 11 and 12 are attached to the screw-rod and bear upon the opposite sides of the bridge-piece. An operating-rod 13 has a universal-joint connection 14 with the end of the screw-rod. This universal joint obviously

permits of the operating-rod 13 being moved to any convenient position for turning the screw-rod.

The instep-stretcher consists of a longitudinally-curved plate 14^a, mounted to swing on a rod 15, supported by the uprights 6. A downwardly-extended lug 16 on the lower side of the instep-stretcher is designed to engage with an upwardly and rearwardly inclined arm 17, extended from the tang 5.

The side-stretching devices consist of wings 18, which are suitably curved to conform substantially to the shape of the shoe, and at the rear end these wings are removably mounted on pintles 19, arranged just forward of the ends of the counter portion 2. On the inner sides of the wings 18 are rearwardly and outwardly inclined cam-blocks 20, adapted to engage arms 21, extended laterally from the tang 5.

In operation after inserting the stretcher in a shoe by rotating the screw-rod 9 in the proper direction the toe-stretcher 4 will be moved forward, the portion 2 will be forced snugly against the inner side of the shoe-counter, thus preventing its possible breaking, the instep-stretcher 14 will be swung upward by means of the incline 17 engaging with the lug 16, and the wings 18 will be forced outward by the arms 21 engaging with the cams 20. If it is desired to stretch the toe and instep only, the side wings 18 may be removed from the pintles.

In the stretching of a shoe the portion 2 will operate to straighten a crushed or broken counter of the shoe.

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

1. A shoe-stretcher, comprising a bottom plate, a toe-stretcher movable longitudinally with relation to the bottom plate, an instep-stretcher mounted to swing vertically, side-stretchers adapted to swing laterally, means for moving the toe-stretcher, and devices carried by the toe-stretcher for moving the instep and side stretchers, substantially as specified.

2. A shoe-stretcher, comprising a bottom plate, a movable toe-stretcher, a movable instep-stretcher, laterally-swinging side-stretchers, pintles on which the side-stretch-

ers are removably mounted, and means for simultaneously moving the several stretching devices, substantially as specified.

3. A shoe-stretcher, comprising a bottom
5 plate, a toe-stretcher having a tang movable lengthwise, guides on said bottom plate, a screw-rod engaging with said tang, an operating-rod having a universal-joint connection with the screw-rod, a vertically-swinging in-
10 step-stretcher, means carried by the said tang for moving said stretcher upward, laterally-swinging side-stretchers, and means carried by said tang for swinging the side-stretchers outward, substantially as specified.

15 4. A shoe-stretcher, comprising a bottom plate, having a counter portion at its heel end, a toe-stretcher block having a tang movable between guides on the forward portion of the bottom plate, a screw engaging in said

tang, a bridge-piece on the bottom plate 20 through which said screw passes, an operating-rod having connection with the screw, a swinging instep-stretcher plate having a downwardly-extended lug on its under side, an inclined arm carried by said tang for en- 25 gaging with said lug, laterally-swinging side-stretching plates, cam-blocks on the inner sides of said plates, and arms carried by the tang for engaging with said cam-blocks, substantially as specified. 30

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

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Witnesses:

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WM. E. GOOD.