

H. F. LOEWER.
SECOND LASTING MACHINE.
APPLICATION FILED AUG. 21, 1903.

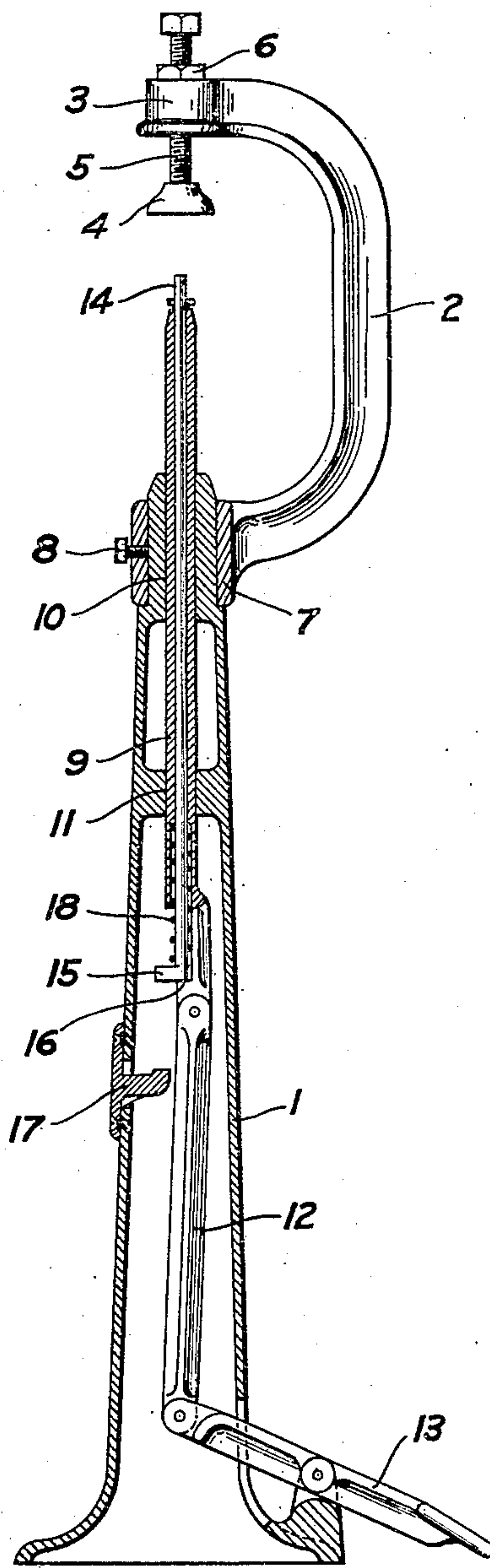
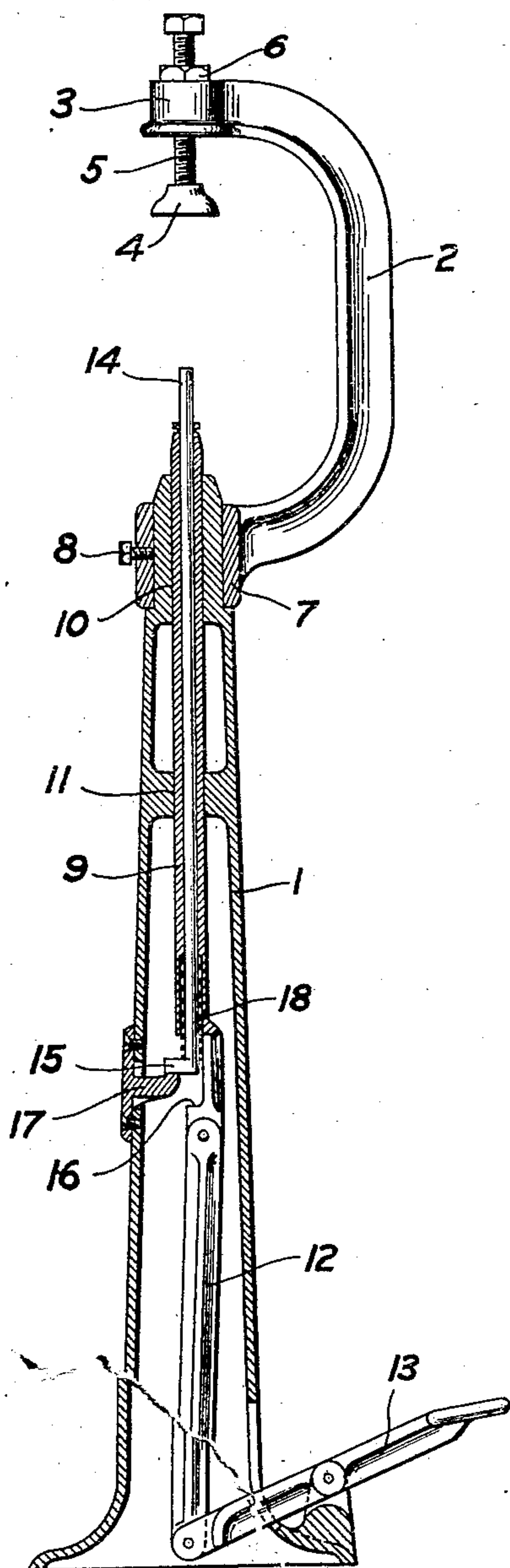
931,443.

Patented Aug. 17, 1909.

2 SHEETS—SHEET 1.

FIG. 1.

FIG. 2.



WITNESSES:

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2 SHEETS—SHEET 2.

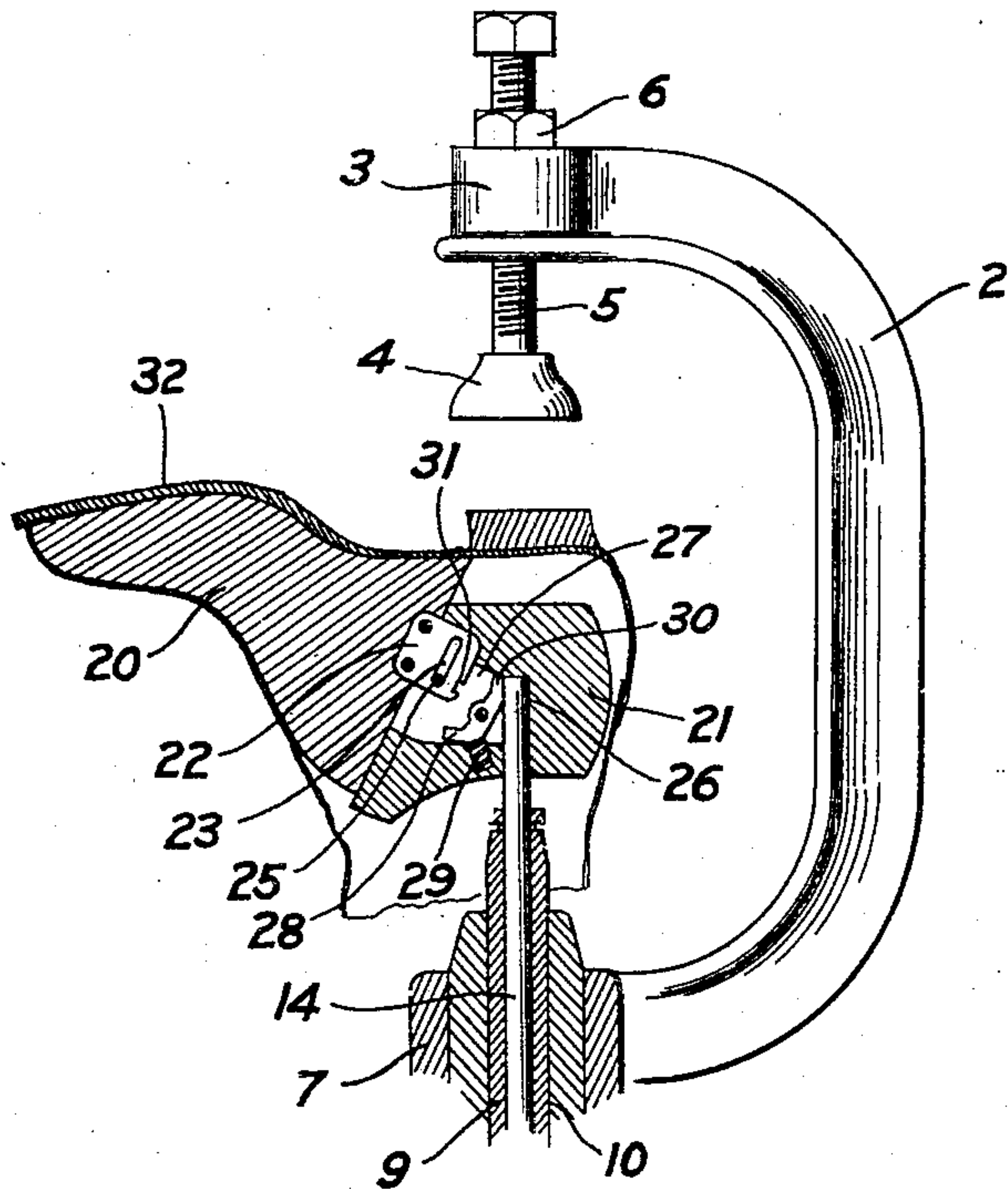


FIG. 3.

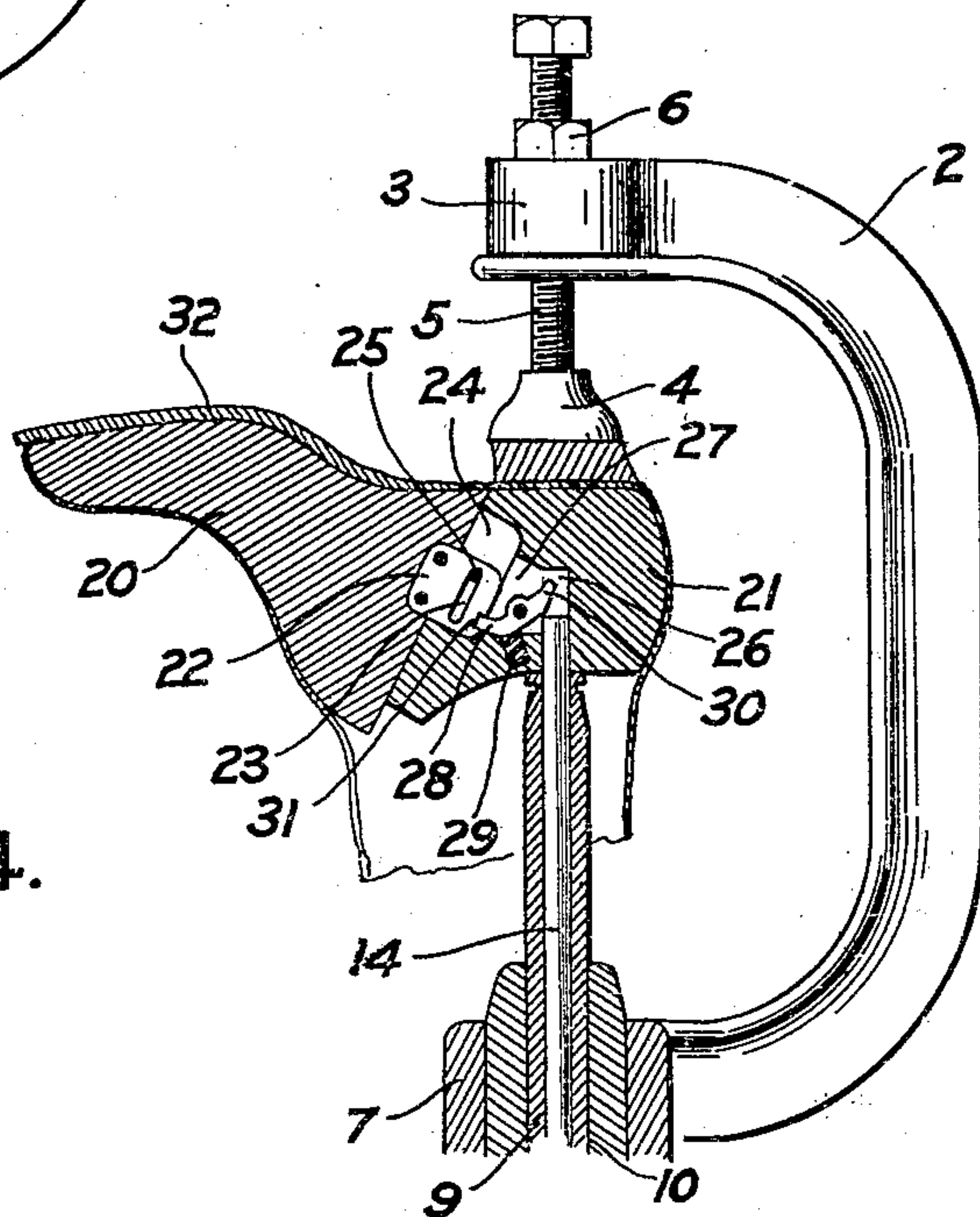


FIG. 4.

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UNITED STATES PATENT OFFICE.

HENRY F. LOEWER, OF ROCHESTER, NEW YORK.

SECOND-LASTING MACHINE.

No. 931,443.

Specification of Letters Patent.

Patented Aug. 17, 1909.

Application filed August 21, 1908. Serial No. 449,712.

To all whom it may concern:

Be it known that I, HENRY F. LOEWER, a citizen of the United States, and resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Second-Lasting Machines, of which the following is a specification.

This invention relates to second-lasting machines, and consists in an apparatus adapted to coöperate with a locking last for purposes that will be described below, and is defined by the claims hereof.

In the drawings: Figure 1 is a vertical section, and a partial side elevation, of an apparatus embodying this invention, showing the parts in one position; Fig. 2 is the same section and partial elevation, showing the parts in another position; Fig. 3 is an elevation, partly in section, of the apparatus in the position shown in Fig. 1, showing the mode of use and the coöperation of a last therewith; and Fig. 4 shows the parts in the position shown in Fig. 2, with a last thereon.

In the drawings, 1 is a standard, preferably hollow, having at the top a yoke 2, and in line with the upper end of the standard an overhanging portion 3 of the yoke having thereon an adjustable abutment 4. This abutment may be adjustable by having a stem 5 screw-threaded into the part 3, and locked in place by a lock-nut 6. The yoke may be made separate from the standard, and may have a collar 7 adapted to fit the upper end of the standard and to be fastened thereon by suitable means, such as a set screw 8. Within the standard is a hollow plunger 9 running in suitable guides 10, 11, and attached at its lower end in any suitable way, as by a link 12, to an operating mechanism, such as the foot lever 13 pivoted in any ordinary way to the standard.

Within the hollow plunger 9 is a rod 14 capable of sliding longitudinally therein within predetermined limits of movement, and which is spring-operated in one direction. For these purposes the lower end of the rod 14 is provided with an offset 15 which strikes against the lower end of the hollow plunger 9, and thus limits the projection of its upper end from the hollow plunger 9. A stop face 16 on the support for said plunger 9 limits the downward movement or withdrawal of the rod 14. The offset 15 is also adapted to strike a lug 17 attached to the standard 1, so that when the

plunger 9 and rod 14 are drawn downward, the rod 14 will project from the upper end of the plunger 9 by reason of the contact of the offset 15 with the lug 17. A spring 18 surrounding the rod 14, and having one end pressing against the offset 15 and the other against a part of the plunger 9, tends to withdraw, or pull downward, the rod 14.

The operation of this device is as follows: When there is no pressure on the foot lever, the weight of the link, plunger and rod draws them down, and the contact of the offset 15 with the lug 17 causes the rod 14 to project normally to the desired degree from the upper end of the plunger 9. When the foot lever is operated to raise the plunger and rod, the latter will be withdrawn by the spring 18 as soon as the offset 15 loses contact with the lug 17 and the parts take the position shown in Fig. 2.

This device is intended for use with lasts that are employed in the second-lasting of shoes, and it is intended particularly for use with a last of the type shown in Figs. 3 and 4. This last consists of a fore-part 20 and a heel block 21 divided on a plane transverse to the length of the last and inclined forward from the sole of the last. This produces a wedge-shaped heel block which, when a shoe is placed on the fore-part, may be forced into the heel portion of the shoe, and, on account of the inclination of the meeting faces of the fore-part and heel block, acts like a wedge to force the fore-part into the toe of the shoe and to stretch the heel part thereof until the shoe is solidly lasted. The two parts of this last are fastened together by a mechanism which permits them to slide on each other, but prevents their detachment. A plate 22 is set in a plane at right angles to the plane of the inclined meeting surfaces of the two parts of the shoe, and is fastened to one of said parts, such as the fore-part 20, as shown in Figs. 3 and 4. This plate has a slot 23 parallel to the plane of the meeting surfaces of the two parts of the last. The other part of the shoe (in this case the heel block 21) has a slot 24 in which the plate 22 lies, and is of such dimensions as to permit the necessary sliding movement of one part of the last upon the other. A pin 25 traverses the heel block 21 and passes through the slot 23, and thus fastens the two parts permanently together. The heel part 21 has a jack-post socket 26, and in a recess 27 extending from the jack-

post socket to the slot 24 is a tilting latch 28 operated in the latching direction by a spring 29. The tail 28 of this latch, when in the latching position (shown in Fig. 4), engages a notch 31 in the plate 22, whereby the two parts of the last are firmly locked in the extended or lasting position. If a pin or rod is projected into the jack-post socket, it will strike the tail 30 of the latch and will tilt it until it releases the plate 21; and if the latch is held in this position, the heel block may be withdrawn from the lasting position until the shoe is released, and then the fore-part of the last may be pulled from the shoe. The latch has a suitable shape to perform these functions, and the tail of the latch is arranged to project into the jack-post socket somewhat near the bottom thereof, so that if a rod or post is projected deep into the jack-post socket, the latch will be tilted; and if it is partly withdrawn, or is not so deeply projected thereinto, the latch will be released to lock the two parts of the last.

In Fig. 3 a shoe 32 is shown with the last inserted in it ready to be forced into the lasting position. In this case the jack-post socket 26 is set upon the upper end of the rod 14, which constitutes the jack-post; and the heel of the shoe is directly under the abutment 4. In this position of the parts, the latch is so held that it cannot engage the plate 22. If now the treadle 13 is operated, and the plunger or rod is raised, the last and shoe will be lifted until the heel of the shoe strikes the abutment 4. Further upward movement of the plunger and rod brings the end of the plunger 9 against that portion of the heel block around the jack-post socket, and at the same time the jack-post rod 14 is withdrawn, so that the parts take the position shown in Fig. 4. Further upward pressure causes the heel block 21 to be forced firmly into its position against the bottom of the shoe and into the heel part thereof, and at the same time the bearing of the heel block 21 against the back of the upper forces the fore-part 20 of the last fully into the toe of the shoe. When these operations have occurred, the latch 28 automatically engages the notch 31, and the two parts of the last are locked. The operator now raises his foot and permits the plunger and rod to drop a short distance, so that the last and shoe may be removed from the rod 14 without disturbing the locking of the two parts of the last. The finishing operations may

then be performed upon the shoe, and after they have been completed, the last may be unlocked by placing it upon a jack-post which extends deep into the jack-post socket of the last, and pulling out the heel block, and thereafter the toe part.

What I claim is:

1. In a second-lasting machine, a standard having an abutment; a plunger moving to and from said abutment; a rod movable within said plunger and adapted to extend into the jack-post socket of a last; actuating means for reciprocating the plunger; and means coöperating with said actuating means for causing said rod automatically to project when the plunger is in one position and to withdraw when the plunger is in the other position.

2. In a second-lasting machine, a standard having an abutment; a plunger movable to and from said abutment; a rod movable within said plunger and adapted to extend into the jack-post socket of a two-part latching last in order to control the automatic latching thereof; actuating means for reciprocating the plunger; and means coöperating with said actuating means for causing said rod automatically to project when the plunger is in one position and to withdraw when the plunger is in another position.

3. In a second-lasting machine, a standard having an abutment; a plunger moving to and from said abutment; a rod movable within said plunger and adapted to extend into the jack-post socket of a last; a spring for retracting said rod in the plunger; actuating means for reciprocating the plunger; and a stop on the standard for striking said rod and causing it to project when the plunger is in one position.

4. In a second-lasting machine, a standard having an abutment; a plunger movable to and from said abutment; a rod movable within said plunger and adapted to extend into the jack-post socket of a two-part latching last in order to control the automatic latching thereof; a spring for withdrawing said rod in the plunger; actuating means for reciprocating the plunger; and a stop on the standard for causing said rod to project when the plunger is lowered.

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Witnesses:

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