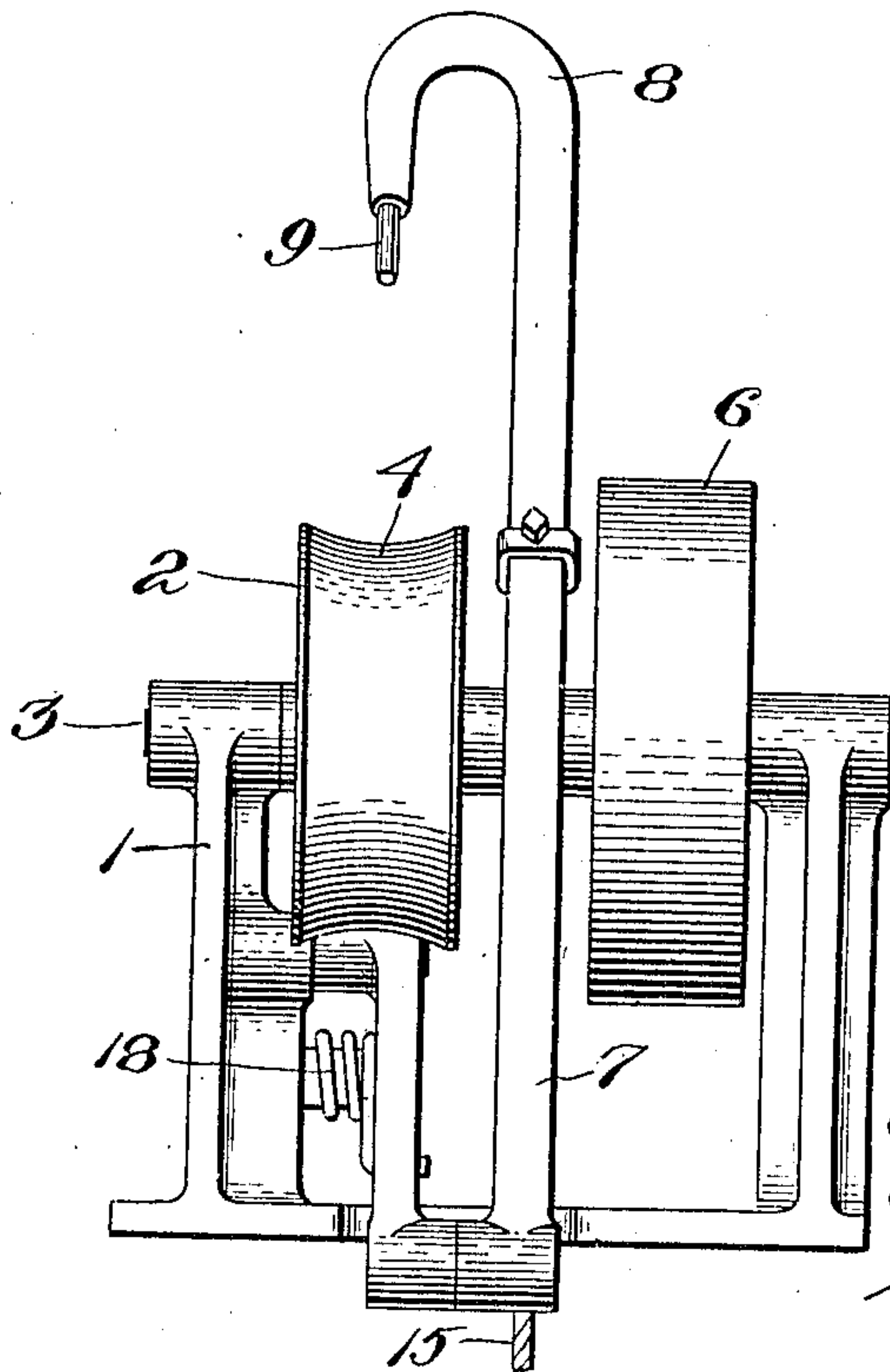
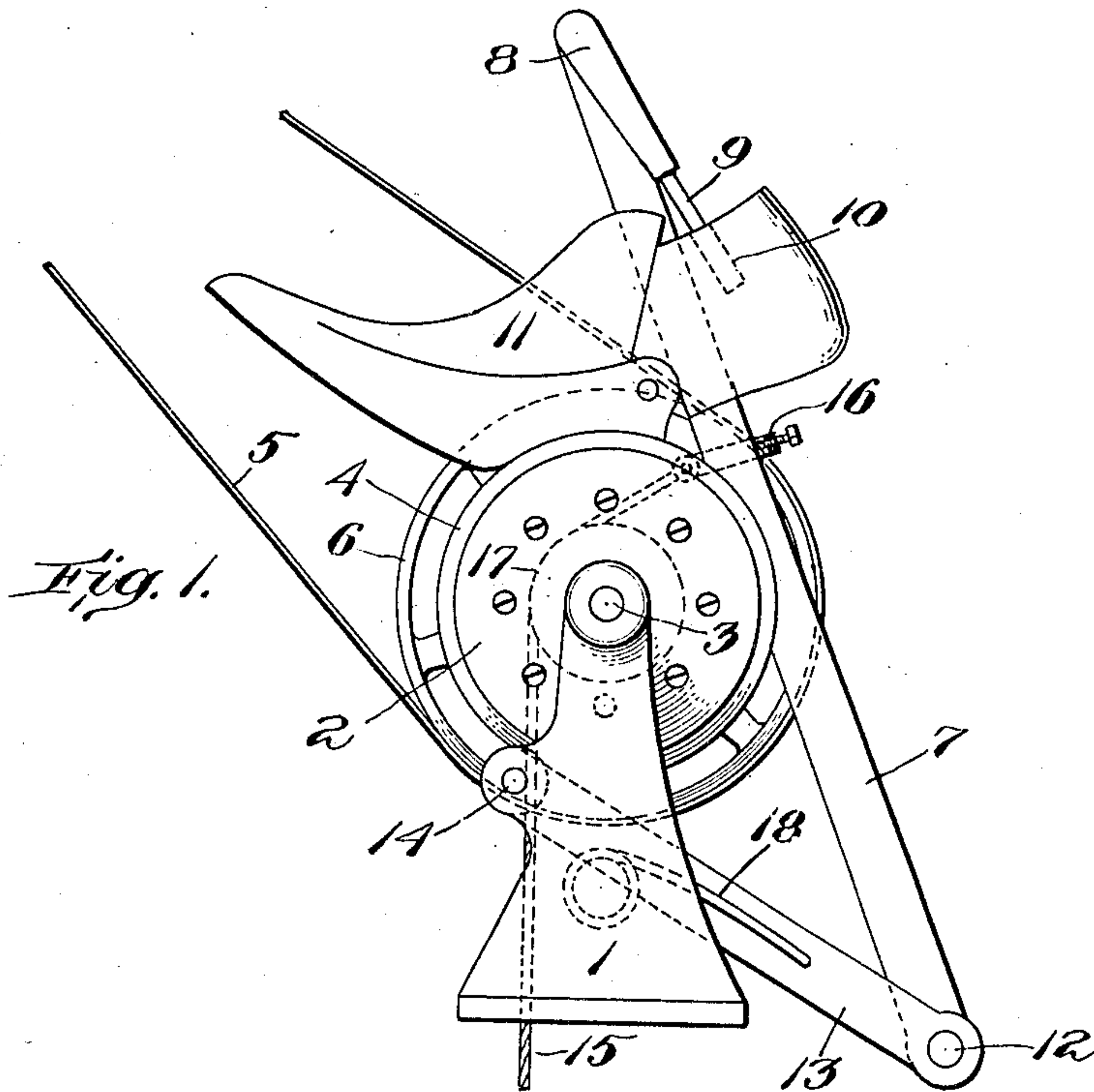


No. 872,318.

PATENTED NOV. 26, 1907.

C. F. PYM.
APPARATUS FOR RELASTING SHOES.
APPLICATION FILED JULY 18, 1906.

2 SHEETS—SHEET 1.



Witnesses:
M. J. Spalding
Wm. J. Pike.

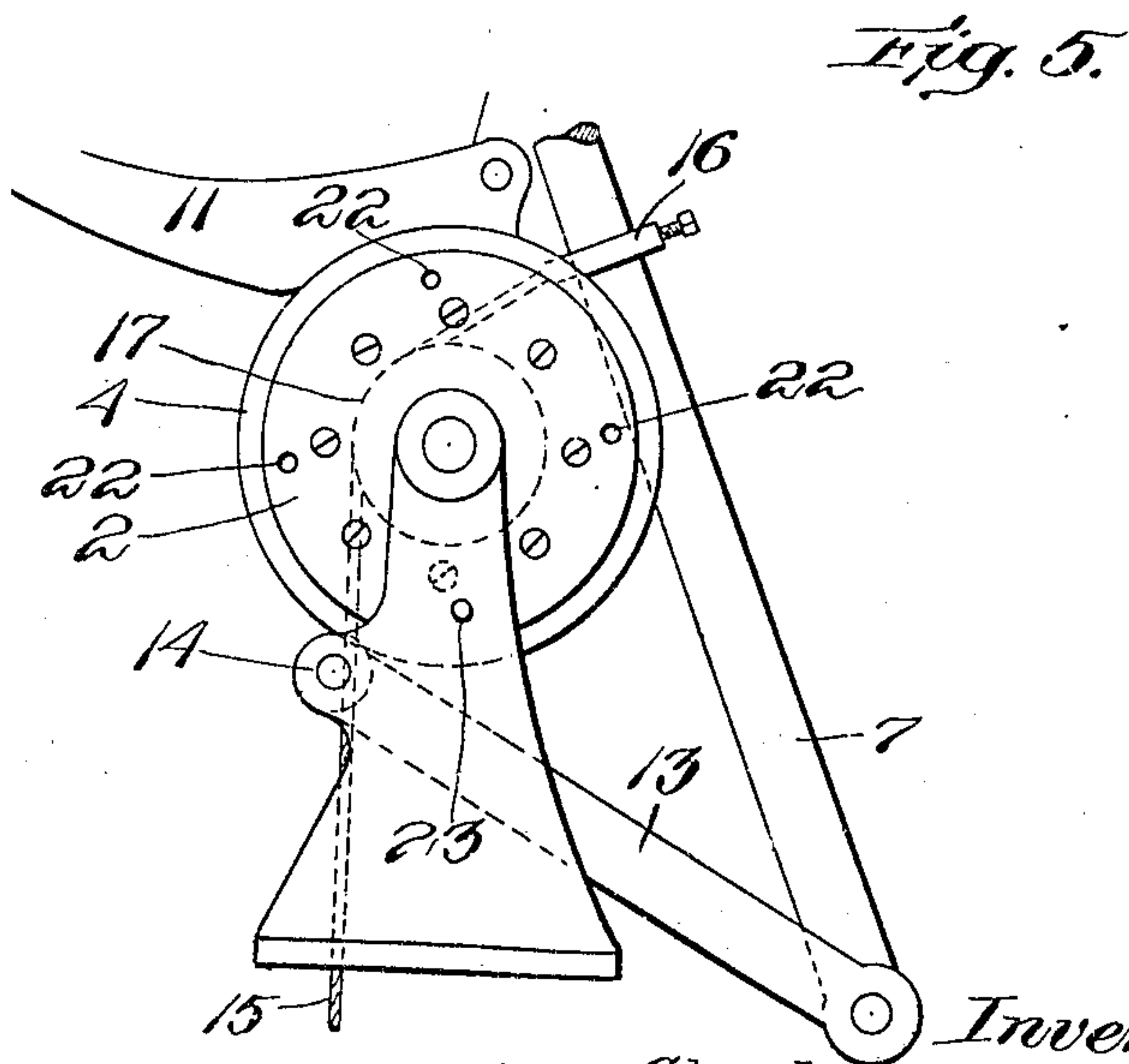
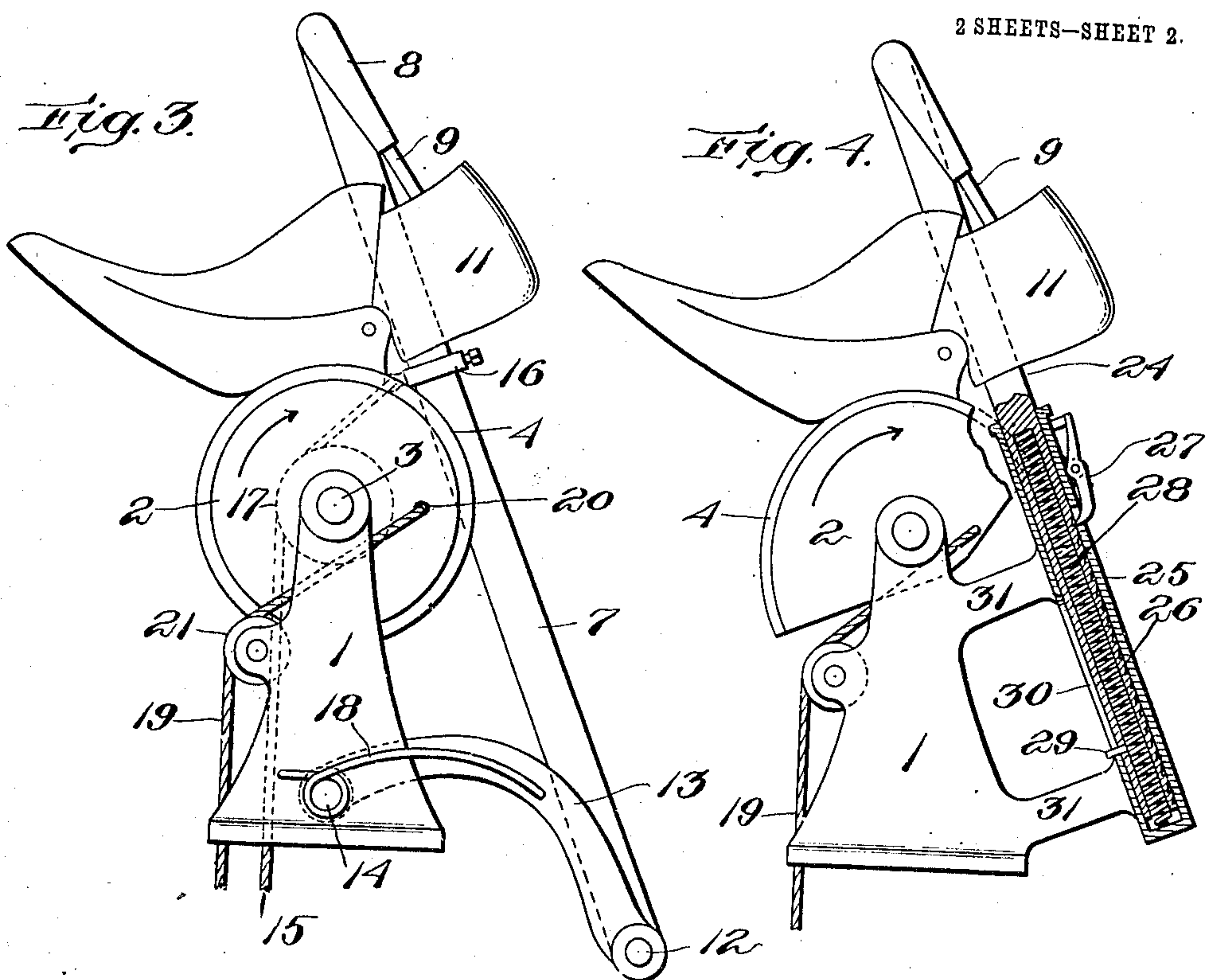
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UNITED STATES PATENT OFFICE.

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APPARATUS FOR RELASTING SHOES.

No. 872,318.

Specification of Letters Patent.

Patented Nov. 26, 1907.

Application filed July 18, 1906. Serial No. 326,684.

To all whom it may concern:

Be it known that I, CHARLES F. PYM, a citizen of Canada, residing at Essex, in the Province of Ontario, Canada, have invented an Improvement in Apparatus for Relasting Shoes, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

My invention has for its object the provision of means for rapidly and with slight manual labor reinserting a last in a shoe which has been partly made, and is particularly adapted for operating on light shoes, such as are commonly made by the turn process.

My invention is adapted to relast sewed heel-seat shoes as well as nailed heel-seat shoes.

My apparatus operates upon the principle of working the leather of the shoe onto the last, the latter being held comparatively steady, although preferably it is given a slight forward and downward inserting movement at the same time that the shoe is being worked back into position over the last. The apparatus does not engage the leather unyieldingly and pull it arbitrarily, but is capable of yielding at all times so as not to tear or distort the shoe.

The mechanical details and further advantages of my invention and the operation thereof, will be pointed out in the course of the following description, reference being had to the accompanying drawings, in which I have shown several embodiments of my invention.

In the drawings, Figure 1 represents in side elevation the most complete embodiment of the invention; Fig. 2 is a front view thereof; Fig. 3 is a similar side elevation of a slightly different construction; and Figs. 4 and 5 are similar views of still other constructions, parts being broken away for clearness of illustration.

Referring to the construction shown in Fig. 1, I have mounted on a suitable base or pedestal 1 a relasting block in the form of a wheel or roll 2 pivoted at 3 and provided with a heavy rubber periphery 4, hollowed transversely as shown in Fig. 2 to fit the curvature of the shank of a shoe for the purpose of frictionally engaging the under side of a shoe and working the leather back on

the last, while at the same time molding and shaping the shank. This wheel or relasting block is continuously driven by a belt 5 and pulley 6. At one side of the relasting block 2 I mount a jack or last retainer 7 in the form of an obliquely extending arm having a goose neck or bend 8 at its upper end, terminating in a downwardly extending jack pin 9 for entering the usual spindle hole or thimble 10 of the last 11. At its lower end the jack or last retainer 7 is pivoted at 12 to a link 13 pivotally supported at 14 on the base or pedestal 1, and is manipulated by a draft device shown as a cable or chain 15 secured thereto by an adjustable ring 16 and passing over an idler or direction pulley 17 downwardly to a foot treadle not shown. The jack or arm 7 is held in normal position by any suitable means, as by a spring 18.

In Fig. 3 very much the same form of apparatus is shown, excepting that the relasting block 2 instead of being constantly rotated is arranged to turn only partially, being actuated by a cable or chain 19 and foot lever (not shown) secured to the block or roll 2 at 20 and passing over a sheave 21. In Fig. 4 I have shown substantially the same kind of relasting block or roll 2, excepting that I have shown the same as not a complete circle or roll, but have limited it to the extent of surface which in practice is used. Of course in the form of roll shown in Fig. 1 the entire roll is liable to be used at one time and another, but in the form of apparatus shown in Fig. 3 only approximately a quarter segment of the roll is used.

In Fig. 5 I have shown the roll or relasting block as stationary, and in order to make every portion thereof available I have provided holes 22 to receive a pin 23 so that as one section of the block gets worn the pin 23 may be pulled out and a new section or block brought into position for use and the pin 23 put back in place to hold the wheel in its new position. In Fig. 4 I have shown a different arrangement of last-positioning jack, consisting of an upper portion 24 which carries the pin 9 the same as before, reciprocating in a holder 25 and provided with a rack 26 to be engaged and locked by a pawl 27, said stem or upper part 24 of the jack being normally impelled upward by a spring 28 and guided against turning by a pin 29 operating in the slot 30. The entire jack is

supported in a bracket 31 at the right angle to cooperate properly with the last, shoe and relasting block.

In use the workman inserts the last by hand as far as practicable into the shoe in the usual manner, and then places the spindle 10 of the socket of the last on the pin 9 of the jack, whereupon he rests the shank of the shoe upon the friction surface 4 of the relasting roll or block 2, presses down upon the treadle controlling the cable 15, thereby positively and forcibly engaging the shoe with the friction surface 4 and at the same time giving a forward and downward impulse to the last. If the continuously rotated relasting block shown in Fig. 1 is being used, the shoe is instantly worked backward upon the last in opposition to the forward impelling movement of the relasting jack, whereas if the apparatus shown in Figs. 3 and 4 is used, the same result is secured by operating the foot treadle which controls cable 19, thereby giving the relasting roll a partial rotation in the direction of the arrow. In the apparatus shown in Fig. 4 the jack accomplishes its relative forward movement between the last and shoe, simply by holding the last positively downward and preventing any backward movement thereof, the shoe receiving all the backward movement required for relasting purposes under the strong rotary movement, and frictional engagement with the bottom of the shoe, of the relasting roll 2. In all instances both hands of the operator are left free to manipulate the leather here and there as required, in order to facilitate the work and quickly relast the shoe without injury thereto. In the apparatus shown in Fig. 5 the relasting block remains stationary and all the relasting operation is performed by the movement of the last retainer or jack 7 accompanied by the hand manipulation referred to.

The pressure, and to some extent the direction of movement, of the jack or last retainer in the forms of apparatus shown in Figs. 1, 2, 3 and 5 is regulated by shifting the adjusting ring 16 up or down upon the stem of the jack or last retainer. The shape and arrangement of the rubber periphery 4 of the relasting roll operates to force the shoe without injury by engaging a large area of the bottom surface, and at the same time operates to shape and mold the shank, particu-

larly when the operator, at the right moment, presses hard down upon the toe of the shoe (and last) in straightening out or lengthening the last in the shoe. When the latter movement has been accomplished the shoe is completely relasted.

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

1. In a relasting machine, a rotatable relasting block shaped to engage and retain the bottom of a shoe, and a last retainer constructed and arranged to force a last into said shoe as the latter is worked back over the last by the rotating relasting block.

2. In a relasting machine, a rotatable relasting block shaped to engage and retain the bottom of a shoe, a last retainer, and means to move the latter downwardly and forwardly with the last.

3. In a relasting machine, a movable relasting block adapted to engage frictionally against the shank of a shoe, a jack provided with means for engaging the last, means for causing a movement of the block, and means for causing the jack to change its position with reference to said block.

4. In a relasting machine, a relasting block having a transversely grooved friction surface adapted to engage the shank of a shoe, a relasting jack and operating means cooperating with said block and jack for permitting relative movement between the last and shoe when the last is inserted within the shoe.

5. In a relasting machine, a relasting block having a transversely grooved friction surface adapted to engage the shank of a shoe, a relasting jack, and means normally impelling said jack upward.

6. In a relasting machine, a relasting block having a transversely grooved friction surface adapted to engage the shank of a shoe, a relasting jack capable of permitting relative movement between the last and shoe when the last is inserted within the shoe, means for moving said jack forward, and means for moving said block rearward.

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

CHARLES F. PYM.

Witnesses:

STELLA KARRER,
AGNES M. KARRER.