(No Model.)

2 Sheets—Sheet 1.

# F. WINSLOW

## Boot and Shoe Press.

**No. 240,487.** **Patented April 19, 1881.**

Fig. 1.

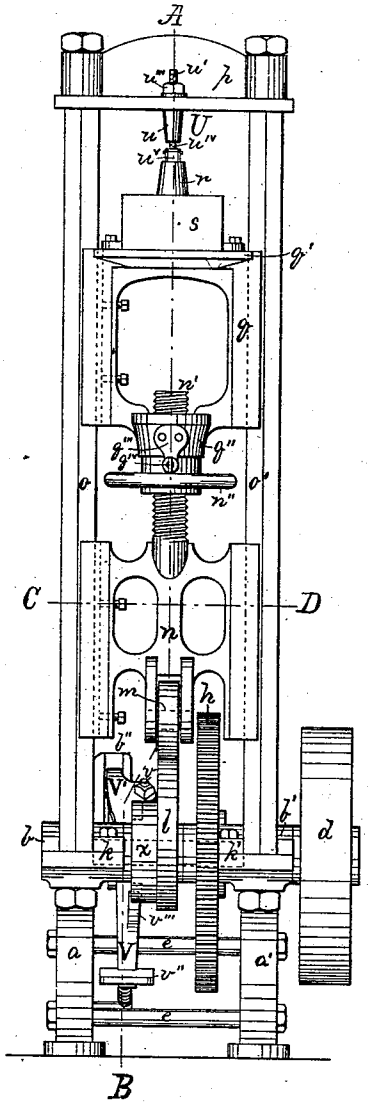



Fig. 3.

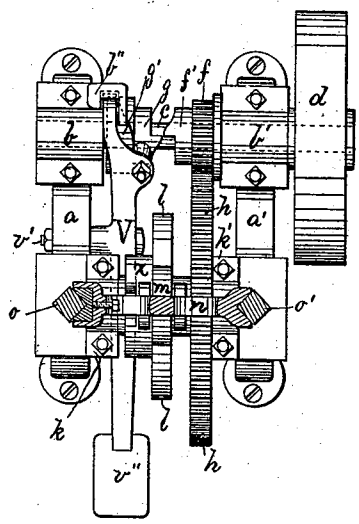
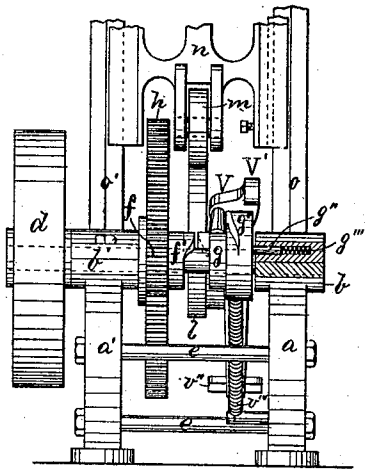


Fig. 2.



Witnesses.

Henry Chadbourn.

F. Allen.

Inventor

Freeman Winslow.

by Albert Gudrich

his atty.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

# F. WINSLOW.

## Boot and Shoe Press.

**No. 240,487.** **Patented April 19, 1881.**

Fig. 3.

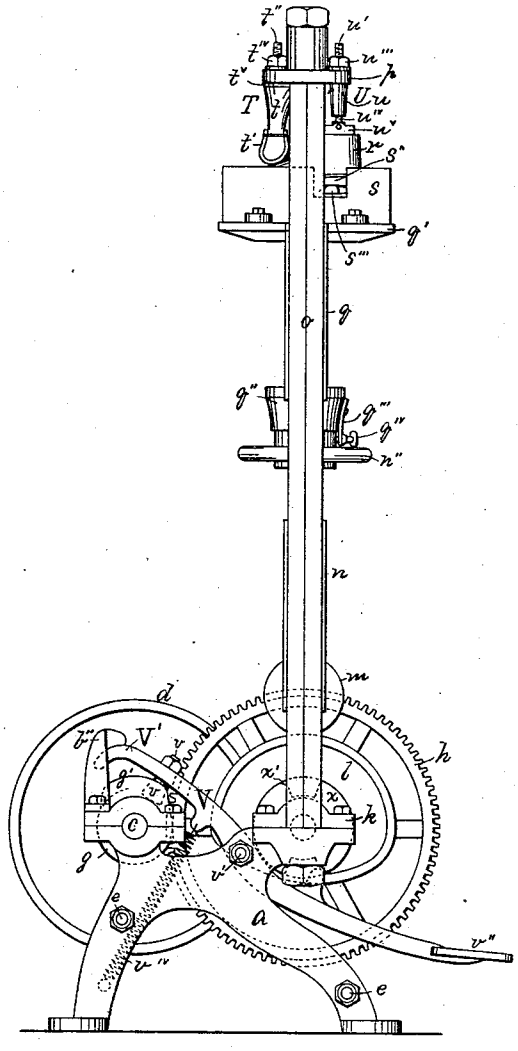
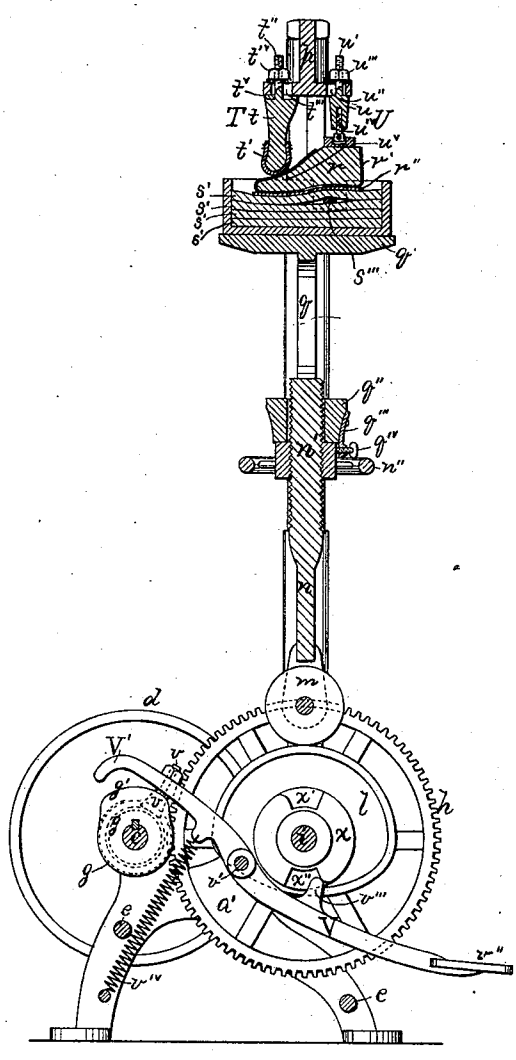


Fig. 4.



Witnesses.

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F. Allen.

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# UNITED STATES PATENT OFFICE.

FREEMAN WINSLOW, OF SALEM, MASSACHUSETTS.

## BOOT AND SHOE PRESS.

SPECIFICATION forming part of Letters Patent No. 240,487, dated April 19, 1881.

Application filed February 5, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, FREEMAN WINSLOW, a citizen of the United States, residing at Salem, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Boot and Shoe Presses; and I do hereby declare that the same are fully described in the following specification and illustrated in the accompanying drawings.

This invention relates to improvements in boot or shoe presses for the purpose of uniting the soles and uppers together on boots and shoes by means of cement or adhesive substance, as required in the manufacture of what is termed "compo-work." The invention, although principally designed for the above-named purpose, is equally useful as a beating-out machine; and it is carried out as follows, reference being had to the accompanying drawings, in which—

Figure 1 represents a front elevation. Fig. 2 represents a sectional rear elevation of the lower part of the machine. Fig. 3 represents an end elevation, as seen from C in Fig. 1. Fig. 4 represents a longitudinal section on the line A B, shown in Fig. 1; and Fig. 5 represents a horizontal section on the line C D, also shown in Fig. 1.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

*a a'* are the frames or lower supports for the machine, provided with bearings *b b'* for the driving-shaft *c*, which is given a rotary motion by means of belt-power applied to its pulley *d*.

*e e* are stays for holding the frames *a a'* together.

On the driving-shaft *c* is loosely journaled the pinion *f* and the half-clutch *f'*, which are together rotated with the driving-shaft when the other half-clutch, *g*, is moved laterally on the shaft *c* to effect a lock between said clutch parts. The clutch *g* is provided with a suitable key fitting into a corresponding longitudinal groove on the shaft, as usual in clutch mechanisms, to allow the clutch *g* to move with the shaft *c* in a circular motion, as well as to be moved laterally on the said shaft to lock and unlock with the loose clutch part *f'*. The clutch part *g* is operated for this purpose, as will hereinafter be fully described. The pinion *f* gears into the gear-wheel *h*, which is secured to the cam-shaft *i*, that is loosely journaled in the bearings *k k'*.

To the cam-shaft *i* is also secured the cam *l*, which acts upon the anti-frictional roller *m*, that is journaled to the lower forked end of the sliding block *n*, as shown.

*o o'* are upright guide-posts, on which the sliding block *n* is guided in its up-and-down motion. The guide-posts *o o'* are secured in their lower ends, respectively, to the frames *a* and *a'*, and secured in their upper ends to the horizontal beam *p'*, as shown.

*q* is the upper sliding block, also guided on the uprights *o o'*, which is provided in its upper end with the table *q'*, on which the elastic matrix is supported, hereinafter to be described. The lower end of the sliding block *q* is provided with a perforated hub, *q''*, through which extends the screw-threaded projection *n'*, that is attached to the lower block, *n*.

*n''* is a screw-threaded hand-wheel nut, which is adjustable up and down on the screw-threaded projection *n'*, by which arrangement the upper block, *q*, may be vertically adjusted accordingly to compensate for variations in the sizes of shoes to be pressed and variations in the pressure desired. The perforated hub *q''* rests on the upper end of the adjustable nut *n''*, as shown in Fig. 4; and, to prevent the said nut *n''* from a rotary motion on its screw when the press is being used, I attach to the hub *q''* a projection, *q'''*, provided with a set-screw, $q^{iv}$, in its lower end, which may be caused to impinge firmly on the nut *n''*, for the purpose set forth.

*r* is the last, *r'* the upper, and *r''* the outer, sole of a boot or shoe, as usual.

On the top of the table *q'* is secured the matrix-box *s*, into which is laid a series of india-rubber sheets or blocks, *s' s' s'*, as shown in Fig. 4.

On two opposite sides of the box *s* are made slotted openings *s'' s''*, through which the additional rubber or elastic shank-piece *s'''* can be inserted between two of the successive rubber sheets or blocks *s' s'*, as shown in Fig. 4, so as to raise the rubber matrix at the shank part of the shoe to more properly correspond to the curvature of the sole of the boot or shoe that is being pressed. This shank-piece *s'''* I dis-

pense with when pressing slippers, &c., made on what are termed "rocker-lasts"—that is, lasts without a concavity at the shank part.

When the table $q'$, matrix $s'$ $s'$ $s'$, and last $r$, with its shoe thereon, is moved upward, the latter is pressed against the adjustable heel-jack U and adjustable toe-jack T. (Shown in Figs. 3 and 4.)

The heel-jack U is composed of the piece $u$, having a screw-threaded pin, $w'$, in its upper end projecting through a slotted perforation, $w''$, in the cross-beam $p$, and secured in place thereon by means of a suitable nut, $u'''$. By means of the nut $u'''$ and slotted perforation $w''$ the said heel-jack U may be adjusted to and from the center of the press, as may be desired for different sizes of shoes. The lower end of the piece $u$ is provided with a female screw-thread, into which is adjustably secured the screw-threaded pin $w^{iv}$, that is jointed in its lower end to the swivel-piece $w^{v}$, as shown, by which arrangement the said heel-jack U may be vertically adjustable to various sizes of lasts or to variations in the pressure caused to bear on the last. The swivel-piece $w^{v}$ allows the heel-jack U to adjust itself automatically to the shape and position of the last.

The toe-jack T is composed of the piece $t$, covered in its lower end, which is brought to bear on the upper of the shoe, with a pad or cushion, $t'$, made of felt or other suitable yielding material, so as not to injure the upper of the shoe while it is being pressed. The piece $t$ is provided in its upper end with a screw, $t''$, that projects through a slotted perforation, $t'''$, in the cross-beam $p$, to which it is secured after being adjusted to and from the center of the press by means of a suitable nut, $t^{iv}$, as shown in Fig. 4. If it is required to lower the toe-jack T, this may be done by interposing between the under side of the beam $p$ and the upper end of the piece $t$ a slotted washer, $t^{v}$, of more or less thickness, as may be desired, for different sizes or shapes of boots and shoes, or for the purpose of increasing the pressure on the toe part of the boot or shoe.

The clutch $g$ is made in one piece with an inclined face-cam, $g'$, that acts upon a stud, $v$, secured to the upper end of the treadle-lever V, that is hung on the fulcrum-pin $v'$, around which the treadle-lever V swings for the purpose of setting the press in motion and to stop it when the foot-pressure on the treadle $v''$ is relieved. The lever V is furthermore provided with a stop-projection, $v'''$, that is caused to enter one of the two recesses $x'$ $x''$ on the stop-cam X, secured to the cam-shaft $i$ or to the side of the cam $l$ by the influence of the spring $v^{iv}$, and thereby to stop the cam-shaft $i$ from further rotary motion at or about the same time as the clutch $g$ is moved away from contact with the clutch $f'$ by the action of the stud $v$ on the inclined face-cam $g'$, and in this manner the press may be automatically stopped when at or about the end of its upper or its under stroke, as may be desired, at the upper stroke to keep the shoe in press, and at the lower stroke to remove the pressed shoe and replace it with another.

In a cylindrical perforation in the bearing $b$ is located a push-pin, $g''$, that is held against the rear of the cam $g'$ by means of the coiled spring $g'''$, and this device serves for the purpose of automatically pushing the clutch $g$ to lock with the clutch $f'$ as soon as the treadle $v''$ is depressed (the locking projection $v'''$ being at the same time disengaged from the recess $x'$ or $x''$ on the stop-cam $x$) and the stud $v$ raised above the inclined cam $g'$, by which arrangement the press is set in motion by the intermediate connecting mechanism from its driving-shaft, as heretofore described, and is so kept in motion until the foot-pressure on the treadle $v''$ is again relieved, and so on.

To prevent the upper end, V,' of the treadle-lever V from a lateral motion when acted upon by the inclined cam $g'$, it is guided in a forked piece, $b''$, secured to the bearing $b$, as shown in Figs. 1, 3, and 5.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent and claim—

1. In a shoe-press, the matrix-box $s$, having recesses $s''$ $s''$, in combination with the elastic blocks $s'$ $s'$ $s'$ and the adjustable shank-piece $s'''$, as and for the purpose set forth.

2. In a shoe-press, the adjustable heel-jack U, consisting of the piece $u$, having screw-threaded pin $w'$ passing through slot $w''$ in the beam $p$, nut $u'''$, screw-piece $w^{iv}$, and swivel-piece $w^{v}$, as and for the purpose set forth.

3. In a shoe-press, the adjustable toe-jack T, consisting of piece $t$, having elastic cushion or covering $t'$, screw $t''$, passing through slot $t'''$ in the beam $p$, and fastening-nut $t^{iv}$, as and for the purpose set forth.

4. In a shoe-press, the upper adjustable matrix carrying and sliding block, $q$, and lower sliding block, $n$, in combination with the screw $n'$, perforated hub $q''$, nut $n''$, roll $m$, and rotary cam $l$, as and for the purpose set forth.

5. In a shoe-press, the clutch mechanism and stopping device as described, consisting of clutch parts $f'$ $g$, driving-shaft $c$, inclined cam $g'$, elastic push-pin $g''$, treadle-lever V, with its stud $v$, spring $v^{iv}$, and stop-projection $v'''$, and the stop-cam $x$, with its recesses $x'$ $x''$, as and for the purpose set forth.

In testimony whereof I have affixed my signature in presence of two witnesses.

FREEMAN WINSLOW.

Witnesses:
NELLIE F. SAUL,
LIZZIE L. FERGUSON.