

WILLIAM MAY.

Improvement in Machines for Piercing Side Seams of Boots, &c.

No. 115,493.

Patented May 30, 1871.

Fig. 1.

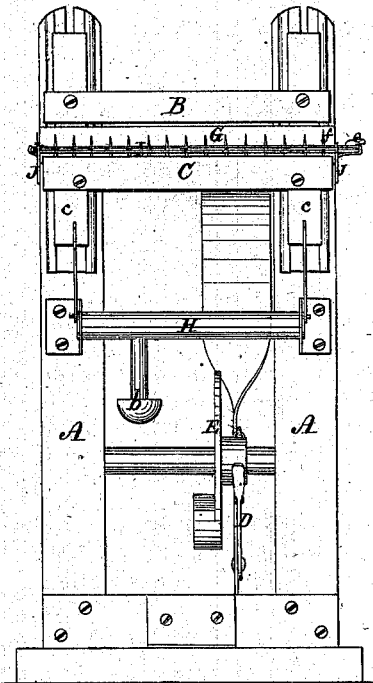


Fig 2.

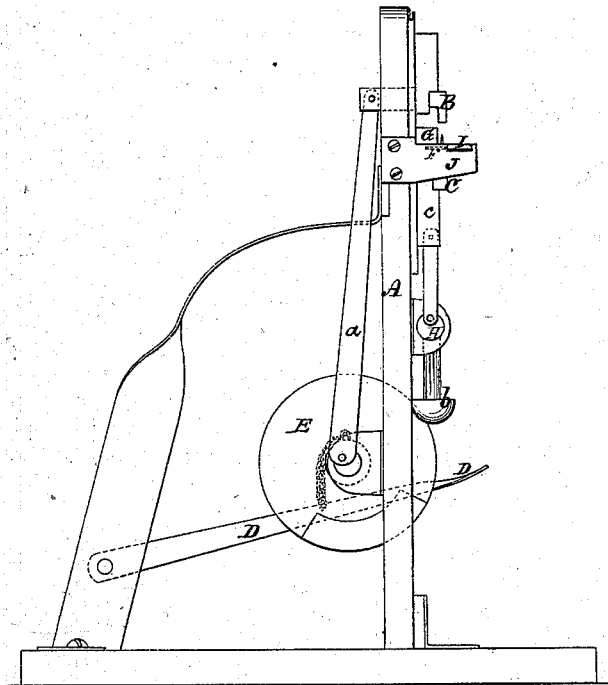
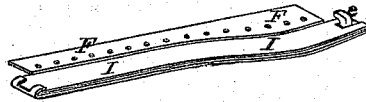


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM MAY, OF BINGHAMTON, NEW YORK.

IMPROVEMENT IN MACHINES FOR PIERCING SIDE SEAMS OF BOOTS, &c.

Specification forming part of Letters Patent No. 115,493, dated May 30, 1871.

I, WILLIAM MAY, of Binghamton, in the county of Broome and State of New York, have invented certain Improvements in the Mode of "Dinking" or Piercing Side Seams of Boots for Hand Siding, of which the following is a specification:

My invention relates to the combination and arrangement of a series of awls set in a plate or carrier, and a corresponding movable plate for pressing the work upon the points of said awls in such a manner that the entire length of the seam may be pierced at one operation or movement of the machine, and the work retained in position for sewing in a removable clamp.

Figure 1 in the accompanying drawing is a front elevation of a machine embodying my invention. Fig. 2 is a side elevation of the same. Fig. 3 is the clamp detached.

A is the frame, which consists of two uprights with a brace on the back side, extending from the base and attached to a cross-piece near the top. B and C are two movable face-plates, attached to slides which work in the upright pieces of the frame. The face-plate B is operated by a treadle, D, and connection-rods *a a* attached to cranks on the shaft of balance-wheel E, which has a weight attached to one side of its rim for the purpose of retaining the face-plate B in an elevated position when not in use. This plate has holes extending upward from its lower edge for the awls to enter after piercing the work. C is the plate that carries the awls, which work through a perforated plate, F, attached to the gage-bar G, which corresponds with the line of awls and is secured to the upright pieces of the frame. The awl *f* on the right of the line projects slightly above the others, for the purpose of facilitating the operation of laying the welt. The plate C, which carries the awls, is operated by turning over the shaft H by means of the weighted arm *b*, which elevates and depresses it by its connection with the cranks and connection-rods attached to the slides *c c*. The crank-pins and connection-rods of this plate are held on a line by the gravitation of the weighted arm *b*, which holds it in position while piercing the work. I is the clamp for retaining the work in position for sewing or "siding" by hand. This clamp is connected at one end by a de-

tachable hinge, and secured by a button, *e*, on the other.

When the work is to be placed in the machine for operation, the lower part or jaw of the clamp I is placed on the brackets J J, the edge of which clamp corresponds and lies flush with the edge of the perforated plate F. The edges of these plates are made to correspond with the edges of the boot front and back, one of which is then placed against the gage-bar G and upon the points of the awls, when the foot is applied to the treadle D, which turns the balance-wheel E one revolution, by which operation the face-plate B is depressed, forcing the work upon the points of the awls, which, after piercing the leather, enter the holes in the lower edge of the plate, which is then elevated to its original position. The welt is then laid by pressing the end upon the projecting awl *f*, and adjusted to its place on the line of awls. The operation of piercing is then repeated, after which the other part of the boot-leg is placed in the same position as the preceding one, and pierced in the same manner. The upper part or jaw of the clamp I is then attached and secured by the button *e*. The awls are now withdrawn from the work by turning up the weighted arm *b*, which depresses the plate C until the points of the awls pass through the holes in the plate F, when the clamp containing the work is removed for sewing or siding.

Claims.

I claim as my invention—

1. The combination and arrangement of the series of awls and awl-plate C, and corresponding movable plate B, perforated plate F, gage-bar G, and removable clamp I, substantially as and for the purpose herein set forth.

2. In combination with the plates B C F, gage-bar G, and clamp I, the balance-wheel E, crank-shaft H provided with weighted arm *b* and their connections, all being constructed and operating as hereinbefore described, for the purpose set forth.

WILLIAM MAY.

Witnesses:

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