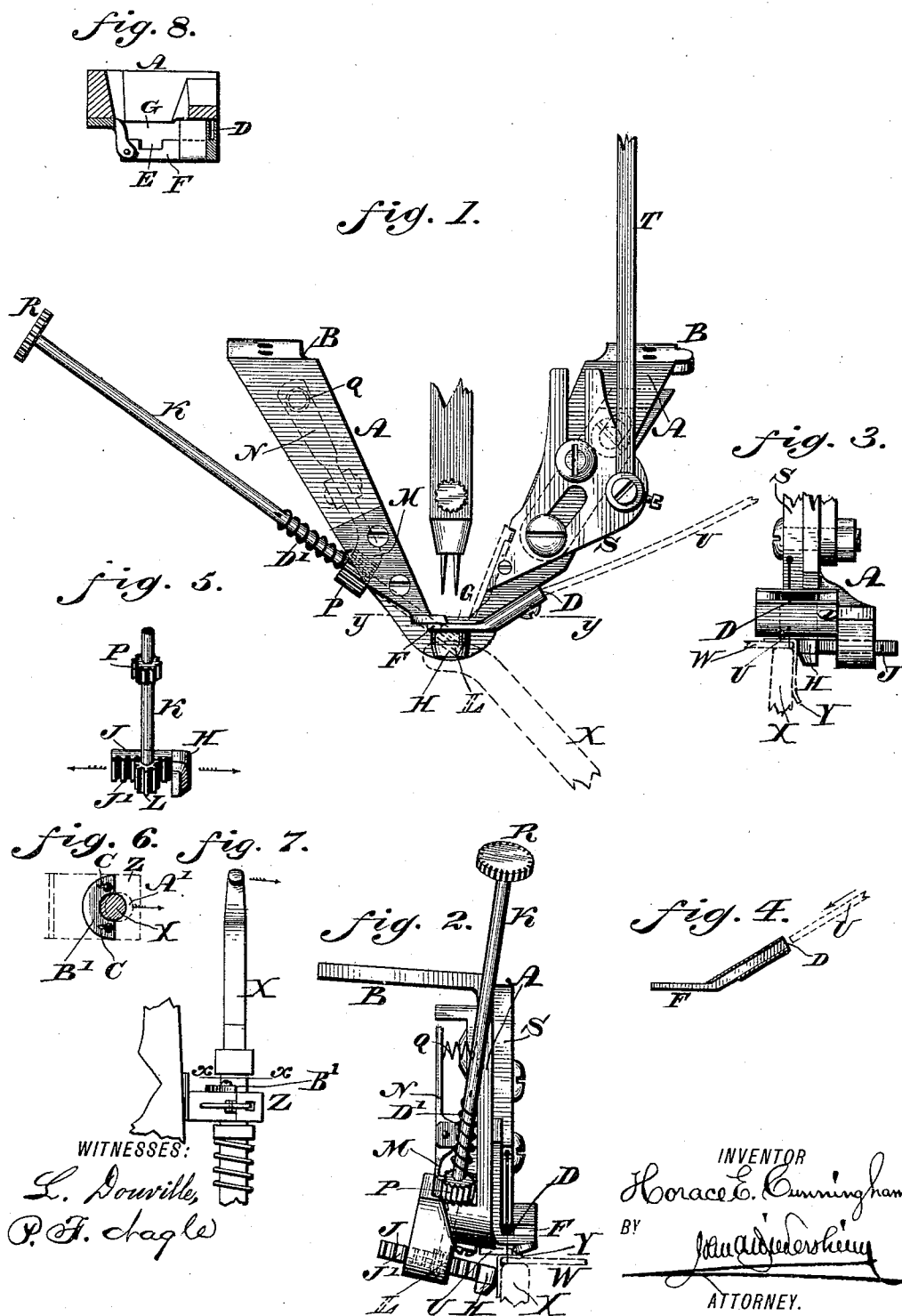


(No Model.)

H. E. CUNNINGHAM.  
ATTACHMENT FOR STAPLING MACHINES.

No. 481,786.

Patented Aug. 30, 1892.



# UNITED STATES PATENT OFFICE.

HORACE E. CUNNINGHAM, OF BROCKTON, MASSACHUSETTS.

## ATTACHMENT FOR STAPLING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 481,786, dated August 30, 1892.

Application filed July 9, 1891. Serial No. 398,902. (No model.)

*To all whom it may concern:*

Be it known that I, HORACE E. CUNNINGHAM, a citizen of the United States, residing at Brockton, in the county of Plymouth, State of Massachusetts, have invented a new and useful Improvement in Attachments for Boot and Shoe Machines, which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to improvements in boot and shoe machines; and it consists of an adjustable welt-guide attachable to said machine.

It also consists of novel means for adjusting the horn or anvil of the machine.

It further consists of the combination of parts hereinafter described.

Figure 1 represents a front view of a portion of a machine having attachments embodying my invention. Fig. 2 represents a side view thereof. Fig. 3 represents a side view of the portion of the machine opposite to that shown in Fig. 2. Fig. 4 represents a sectional view of the welt-guide of the attachment. Fig. 5 represents a perspective view of a portion of the adjusting mechanism for the shoe-guide. Fig. 6 represents a sectional view on line *x x*, Fig. 7. Fig. 7 represents a side elevation of a horn for holding a boot or shoe sole thereon. Fig. 8 represents a sectional view on line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates a bracket or frame having portions or arms B, which are adapted to be connected with the frame of a boot and shoe stapling or other machine. To the lower end of the bracket is secured a throat D and a plane portion F, having a vertical opening G.

H designates a head forming a guide, which is provided with a stem J, having a rack J' thereon, said stem and rack being movable in an opening in the lower end of the bracket A by means of a rotatable shaft or rod K, which has thereon a pinion L, meshing with said rack. To hold the rod K in fixed position, a spring-catch M is employed, said catch consisting of the lever N, having a pawl at one end adapted to engage a ratchet-wheel P, which is secured to said rod, and a spring Q, secured to the other arm of the lever and the

rod and adapted to raise said end, so as to keep the pawl in engagement with the ratchet-wheel. The said rod K has a milled head R for convenience in operating the same.

S designates a welt-feeding device lowered and raised by means of the rod T, which is attached to the same and to any suitable movable part of the machine. The said device S is slotted and connected with the bracket A by studs, which pass through the said slots, whereby the device is so guided in its downward movement that it also has a forward one and in its rising movement so that it has a backward one, whereby as it moves forward across the top of the opening G it engages the welt U, which has been passed through the throat D, and advances the same, and as it moves backward it is free from the said welt.

To regulate the width of the welt outside of the upper or insole welt, the head H is adjusted by means of the rod K and pinion L. It will be noticed that the insole W is shown as in contact with a horn or anvil X, the upper Y being fed above the said insole.

To laterally adjust the horn X, the boss Z, in which it is supported, is provided with an elongated opening A' and a plate B', with a semicircular recess on its side, the walls of which are adapted to bear against the side of the horn, and are adjustably secured to said boss Z by screws or other fastening means passing through the slots C in said plate.

Connected at one end to the rod K and encircling the same is a spring D', having its other end secured to the bracket A. The said spring is adapted to be contracted on the said rod when the latter is turned in the adjustment of the head H, and when the pawl of the lever N is released from engagement with the ratchet-wheel P the unwinding of the spring will actuate the rod, so as to rotate it in the opposite direction from which it was moved when adjusting the head, so that the head will be returned to its normal position, or as it is shown in Fig. 2—that is, in close contact with the bracket. The object of this automatic adjustment is to allow for any difference in thickness of the material around the toes and counters.

In the side of the opening G is a small vertical recess E for the passage of the driver there-through for the clearance of the said driver.

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

- 5 1. A welt-guiding device having a throat and a flat portion in line with said throat and having a vertical opening in line with said throat, and a head with a stem adjustable by a rotatable shaft, said parts being combined substantially as described.
- 10 2. A bracket with an opening and adapted to be applied to a boot or shoe stapling-machine, a plate connected with said bracket having a throat leading across said opening, a feeding device adapted to reciprocate across said opening in the line of the throat, and an adjustable guide adapted to be moved across said opening at right angles to the line of the throat to regulate the projecting width of the welt, said parts being combined substantially as described.
- 20 3. A welt-guiding attachment comprising a support, a head with stem movable in said support, a rack on said stem, and a rotatable rod

with pinion meshing with said rack, said parts being combined substantially as described. 25

4. A welt-guiding attachment comprising a support, a head with stem movable in said support, a rack on said stem, and a rotatable rod with a pinion meshing with said rack, a ratchet-wheel on said rod, and a spring-catch engaging said ratchet-wheel, said parts being combined substantially as described. 30

5. A welt-guiding attachment comprising a support, a head with stem movable on said support, a rack on said stem, a rotatable rod with a pinion meshing with said rack, a ratchet-wheel on said rod, a catch engaging said ratchet-wheel, and a coil-spring encircling said rod and having one of its ends secured thereto and the other secured to the support, said parts being combined substantially as described. 35 40

HORACE E. CUNNINGHAM.

Witnesses:

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A. P. JENNINGS.