

I. FRÉCHETTE.

## TRIMMING ATTACHMENT FOR PEGGING MACHINES.

(Application filed July 27, 1899.)

(No Model.)

2 Sheets—Sheet 1.

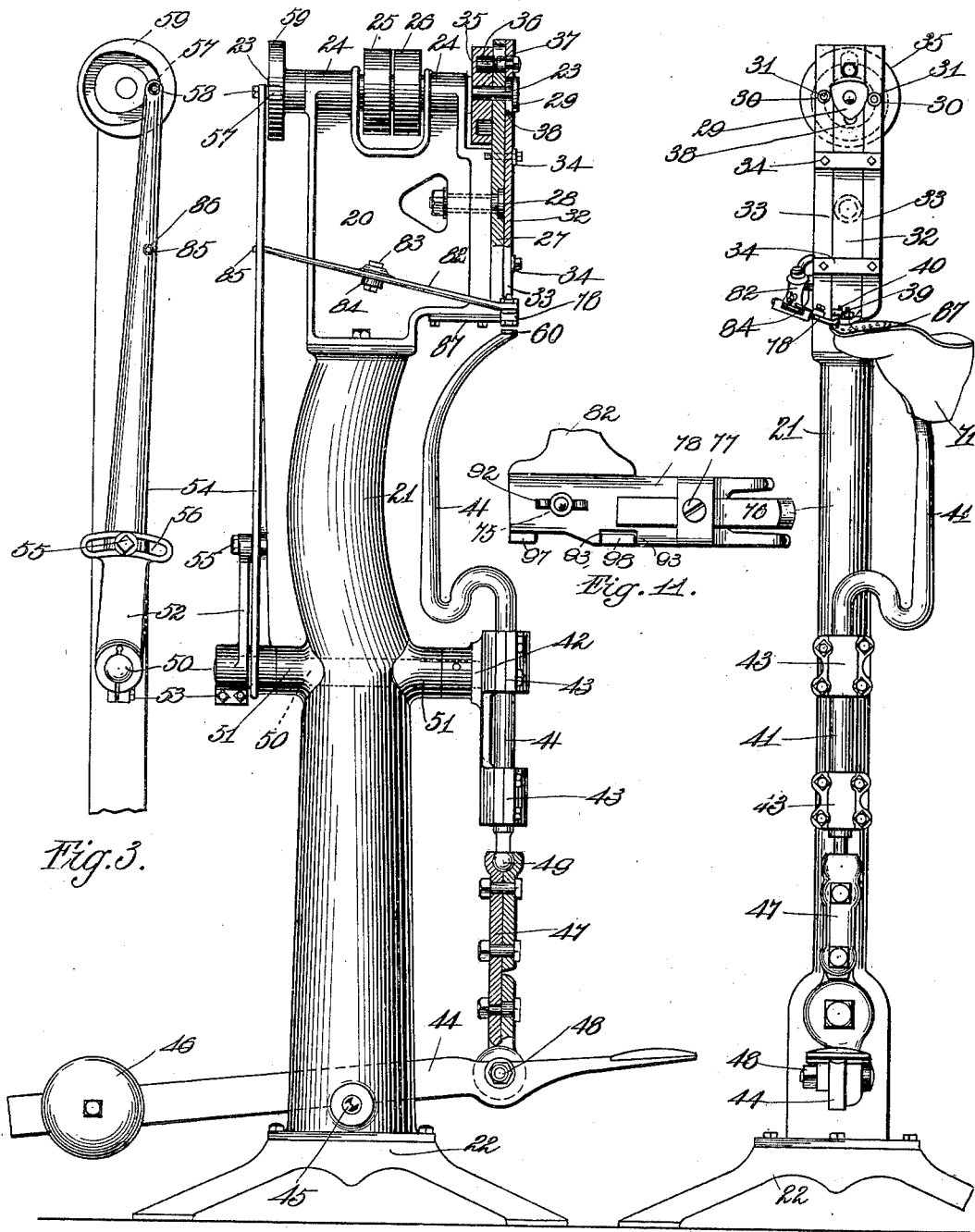


Fig. 1.

Fig. 2.

Witnesses:

Wm. H. Varnum.

Sydney C. Taft.

Inventor:

Isaie Fréchette,

by his atty, Charles S. Gooding.

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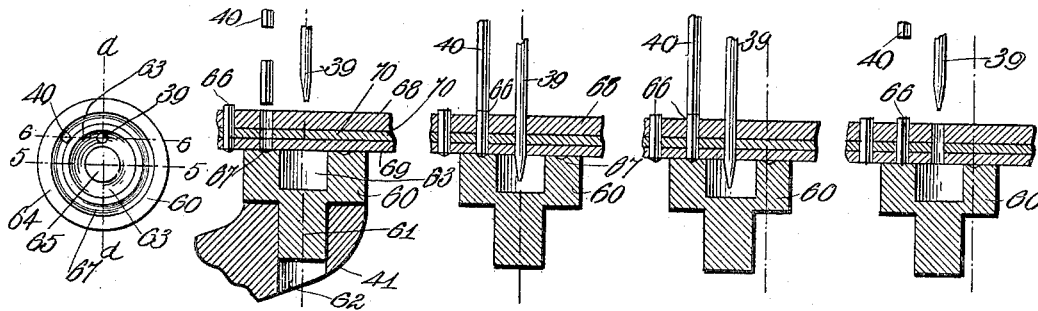
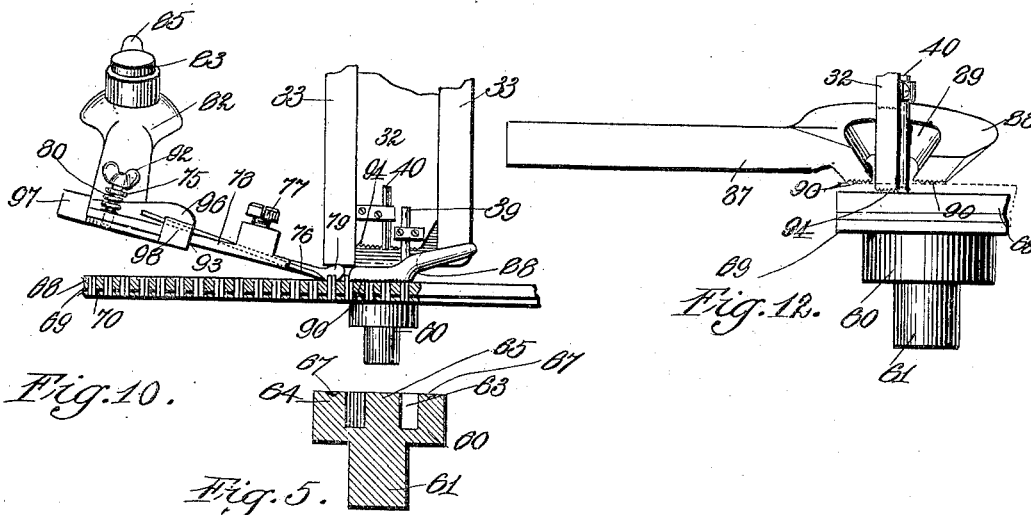


Fig. 4. Fig. 6. Fig. 7. Fig. 8. Fig. 9.



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# UNITED STATES PATENT OFFICE.

ISAÏE FRÉCHETTE, OF MONTREAL, CANADA.

## TRIMMING ATTACHMENT FOR PEGGING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 647,599, dated April 17, 1900.

Application filed July 27, 1899. Serial No. 725,260. (No model.)

*To all whom it may concern:*

Be it known that I, ISAÏE FRÉCHETTE, a subject of the Queen of Great Britain, residing at Montreal, in the Province of Quebec and Dominion of Canada, have invented new and useful Improvements in Trimming Attachments for Pegging-Machines, of which the following is a specification.

The object of this invention is to provide an attachment for pegging-machines which may be applied to different styles of machines for pegging boots and shoes and to provide an attachment which shall be simple and economical in construction and convenient and efficient in operation.

The invention consists in an improved anvil for the horn of a pegging-machine.

The invention further consists in certain combinations and arrangement of parts described in the following specification and particularly pointed out in the claims thereof.

Referring to the drawings, Figure 1 is a side elevation of a machine for pegging boots and shoes with my improved attachment attached thereto. Fig. 2 is a front elevation of the same. Fig. 3 is a rear elevation of the horn-rocking mechanism. Fig. 4 is a plan view of one form of my improved horn-anvil. Fig. 5 is a vertical section, line 5 5, Fig. 4. Fig. 6 is a vertical section through the anvil, line 6 6, Fig. 4, showing in their relative location thereto a portion of the outer and inner soles and the upper of a shoe and the awl, driver, and pegs. Figs. 7, 8, and 9 are views similar to Fig. 6, showing the relative position assumed by the different parts at different times during one rotation of the machine. Fig. 10 is an enlarged detail front elevation of the mechanism for trimming the ends of pegs which project outside the sole of the boot or shoe, together with certain parts of the pegging-machine. Fig. 11 is a detail plan of the trimming-knife and holder. Fig. 12 is an enlarged side elevation of the presser-foot, driver-bar slide, and horn-anvil.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 20 is the frame of a machine for pegging boots and shoes of the usual construction, 21 is the column, and 22 the base thereof. The main driving-shaft 23 has bearings 24 24 in the frame of the machine

and has fast and loose pulleys 25 26 thereon. A rocking head 27 is pivoted on a stud 28 to the frame 20 and is rocked upon said stud by a cam 29, fast to the shaft 23 and engaging cam-rolls 30 30, said cam-rolls being free to rotate upon studs 31 31, fast to the rocking head 27. A slide 32 is arranged to move vertically in ways 33 in the rocking head 27, being held in said ways by caps 34 34. A longitudinally-reciprocating motion is imparted to the slide 32 by a cam 35, which engages a cam-roll 36 on a stud 37, fast to the slide 32. The slide 32 is slotted at 38 to allow said slide to move up and down without striking the shaft 23, which passes through said slide. To the slide 32 is fastened an awl 39 and a driver 40. By means of the combined vertical motion of the slide 32 and lateral motion of the head 27, in which said slide reciprocates, a resultant "four motion" is imparted to the awl 39 and driver 40, by which the sole of the shoe is pricked, the pegs driven therein, and the shoe fed.

The hereinbefore-described pricking, driving, and shoe-feeding mechanism is old and well known to those skilled in the art.

In my improved attachment I provide a horn 41, similar in construction to the horn ordinarily used in boot and shoe nailing machines, but differing in operation from the horn ordinarily used in that I provide mechanism for imparting a lateral rocking motion to the same, so that as the head 27 rocks from right to left, and vice versa, the horn 41 will rock with it. To accomplish this result, I provide a rocking frame 42, having bearings 43 43 thereon. The horn 41 is free to turn or to swivel and to be moved up or down in said bearings, the vertical motion being imparted thereto by a treadle 44, pivoted at 45 to the column 21 and having an adjustable counterweight 46 fast thereto. The treadle 44 is connected to the lower end of the horn 41 by a link 47, said link being pivotally connected to the treadle at 48 and connected to the lower end of the horn by a ball-joint 49. The rocking frame 42 is pinned to a rock-shaft 50, having bearings 51 51 in the column 21 and having an arm 52 clamped thereto by clampscrews 53 53. Said arm is fast to a cam-lever 54 (which rocks freely upon the shaft 50) by a screw 55, so that in operation the arm 52

and cam-lever 54 form one cam-lever fast to the shaft 50 and through said shaft to the horn 41. The arm 52 is slotted at 56 to allow the relative angle of the arm 52 and horn 41 to be changed. The cam-lever 54 has a cam-roll 57 attached thereto by a cam-stud 58, said arm being rocked by a cam 59, fast to the shaft 23. It will thus be seen that a rocking motion will be imparted to the horn 41 by the cam 59 through the hereinbefore-described connections and also that the top or anvil of the horn may be adjusted laterally to a nicety with relation to the awl and driver by means of the slotted arm 52 and screw 55.

In the upper end of the horn 41 I provide an anvil 60, Figs. 4 to 9. Said anvil has a stem 61, fitted in a hole 62 in the upper end of the horn. The anvil 60 has a chamber 63 therein, leaving a rim 64 and central stem 65 to support the shoe-sole when the awl is punching the hole therein and the driver is driving the peg 66 in the hole previously punched by the awl.

In the upper horizontal face of the rim 64 is formed a slight groove 67 for riveting the ends of the pegs 66 after they have passed through the outer and inner soles 68 and 69, respectively, and the upper 70 of the shoe and penetrated to the inside of the shoe 71 upon the horn 41.

The operation of the parts, as illustrated by Figs. 4 to 9, inclusive, is as follows: The parts being in the relative positions shown in Fig. 6, the awl 39 and driver 40 descend to the positions shown in Fig. 7, the awl penetrating the shoe sole and upper and entering the chamber 63 and the peg 66 being driven into the shoe and riveted in the groove 67. The awl 39 and driver 40, slide 32, and anvil 60 next move to the left to the position shown in Fig. 8, feeding the shoe. The awl and driver next move up to the position shown in Fig. 9 and then move back with the anvil and horn to the position shown in Fig. 6. The shoe is prevented from moving to the right during the movement of the awl, driver, and anvil in that direction by means hereinafter described.

The center of the portion of the horn 41, which turns in the bearings 43 43, is coincident with the center of the stem 65, Fig. 4, and in the operation hereinbefore described the awl penetrates the sole at a point relatively to the anvil 60 directly back of the center of said anvil, as shown in said Fig. 4.

It is evident that as the chamber 63 is described about the center of the stem 65 and as the center of said stem is coincident with the center about which the horn turns the horn may be turned bodily or the anvil may be turned on the horn-tip without interfering with the awl when said awl has penetrated the shoe-sole and is projecting into the chamber 63.

In Figs. 10 and 11 I have illustrated in enlarged detail a trimming mechanism for cut-

ting off the ends of pegs which project beyond the outer surface of the outer sole 68, in which 76 is a knife adjustably attached by a screw 77 to a knife-holder 78. Said knife-holder has guard-points 79 79, which rest upon the outer sole at each side of the knife 76 and prevent said knife from digging into the outer sole. The knife-holder 78 is fastened by a stud 80 to the lever 82. Said knife-holder 78 is allowed to yield in a vertical plane by a spiral spring 75, which is forced down by the thumb-screw 92 against the upper surface of the holder 78. The holder 78 is prevented from moving laterally on the lever 82 by the ears 96, 97, and 98 on said lever and from moving longitudinally on said lever by the ear 98, which fits in a notch 93 in the holder 78. The lever 82 is pivoted at 83 to a boss 84 upon the frame 20, the end 85 of said lever being rounded off and projecting through a hole 86 in the cam-lever 54, so that as the cam-lever 54 is rocked by the cam 59, as hereinbefore described, it will impart a rocking movement to the lever 82, and through said lever the knife 76 will be given a reciprocating movement from left to right, Fig. 10, and cut off the projecting ends of the pegs which come in contact therewith as the shoe is fed.

In Fig. 12 I have illustrated a side elevation, as viewed from the left of Fig. 2, of a presser-foot 87 for holding the shoe stationary while the anvil, driver, and awl are moving backward or to the right, Fig. 2. Said presser-foot 87 is fastened to the under side of the frame 20 and has a U-shaped end 88, having a slot 89 therein, and being corrugated at 90 90. The slide 32 is also corrugated on its lower end, and thus assists the awl 39 to feed the shoe. When the awl has descended to its lowermost point, the slide 32, passing through the slot 89 in the U-shaped end 88 of the presser-foot 87, presses down upon the outer sole 68 of the shoe and forces the horn 41 down, said horn sliding in the bearings 43 43 and depressing the right-hand end of the treadle 44 through the connecting-link 47, thus carrying the outer sole 68 away from the presser-foot 87. The shoe is then fed, as described, by the awl 39, aided by the corrugated surface 94 on the slide 32. When the awl 39 and slide 32 rise, the horn and anvil are forced up by the counterweight 46, treadle 44, and link 47 until the sole of the shoe comes in contact with the corrugated surfaces 90 90 on the presser-foot 87, so that when the awl has withdrawn from the stock and moves back with the anvil the shoe will be held stationary.

The mechanism for feeding the pegs into the machine I have not illustrated, as it forms no part of my invention. Any of the various forms used for the purpose and well known to those skilled in the art may be utilized.

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

1. In a pegging-machine, a horn, a rocking frame, in which said horn is arranged to slide

longitudinally, a rock-shaft fast to said rocking frame, and mechanism for rocking said shaft.

2. In a pegging-machine, a horn, a rocking frame in which said horn is arranged to swivel, a rock-shaft fast to said rocking frame, and mechanism for rocking said shaft.

3. In a pegging-machine, a horn, a rocking frame in which said horn is arranged to slide longitudinally and to swivel thereon, a rock-shaft fast to said rocking frame, and mechanism for rocking said shaft.

4. In a pegging-machine, a horn, a rocking frame, in which said horn is arranged to slide longitudinally, a rock-shaft fast to said rocking frame, mechanism for rocking said shaft, and means for adjusting said horn laterally.

5. In a pegging-machine, a horn, a rocking frame in which said horn is arranged to slide longitudinally, a rock-shaft fast to said rocking frame, mechanism for rocking said shaft, consisting of a cam-lever fast to said rock-

shaft, and a cam fast to the driving-shaft of said pegging-machine.

6. In a pegging-machine, a horn, a rocking frame, in which said horn is arranged to slide longitudinally, a rock-shaft fast to said rocking frame, mechanism for rocking said shaft consisting of a cam-lever 54, and cam 59, said cam-lever being adjustably secured to said rock-shaft by a slotted arm 52 fast to said rock-shaft.

7. An anvil adapted to be attached to the shoe-support of a pegging-machine, said anvil having an annular chamber 63 therein, encircled by a rim 64, having an annular groove 67 in the upper face thereof.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ISAÏE FRÉCHETTE.

Witnesses:

CHARLES S. GOODING,  
WM. H. VARNUM.