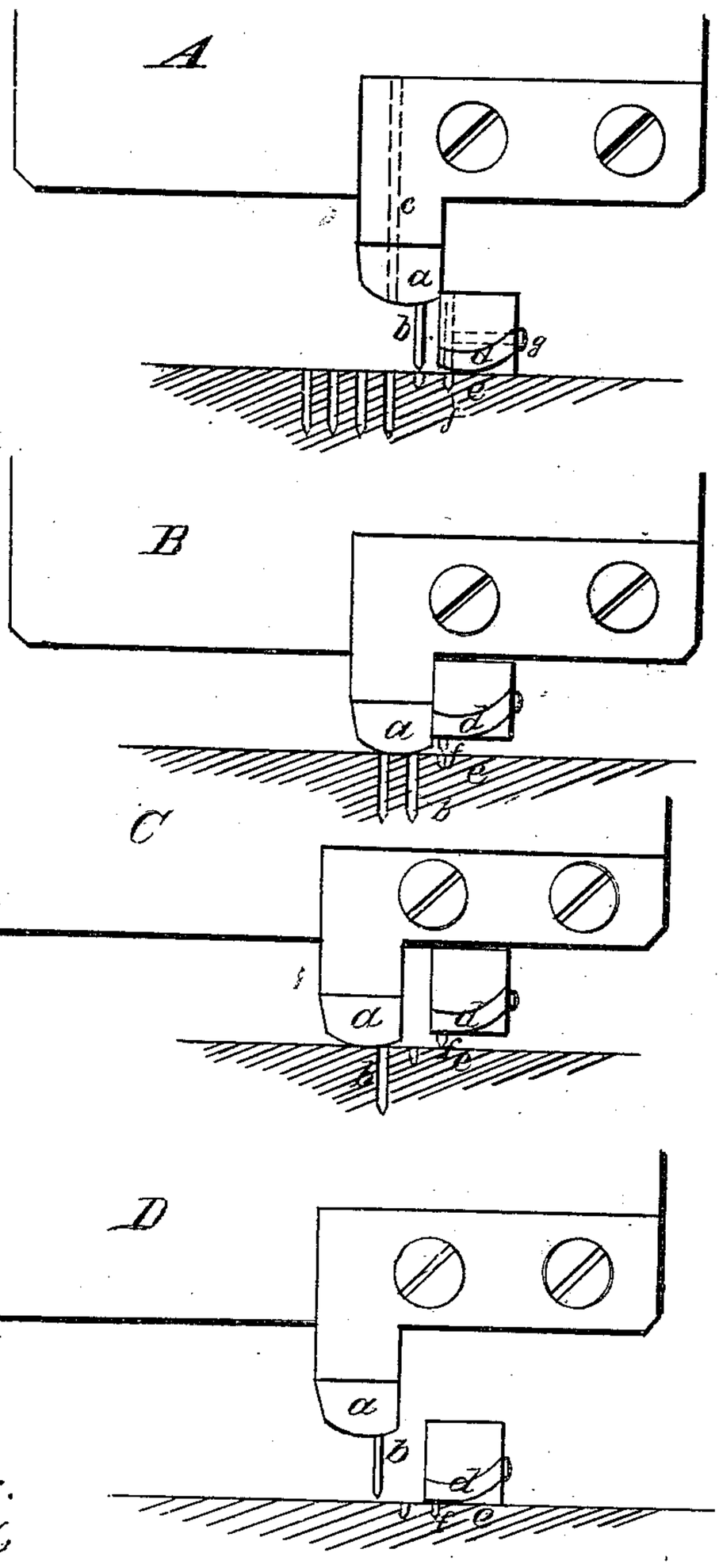
No. 64,481. PATENTED MAY 7, 1867.

B. Q. BUDDING.
PEGGING MACHINE.



Witnesses.
S. B. Kidder,
W. Frothingham

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B. Q. BUDDING, OF MILFORD, MASSACHUSETTS.

Letters Patent No. 64,481, *dated May* 7, 1867.

IMPROVEMENT IN PEGGING MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, B. Q. BUDDING, of Milford, in the county of Worcester, and State of Massachusetts, have invented an Improvement in Awl-Feed Pegging-Machine Mechanism; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practise it.

The invention has reference to the construction and arrangement of devices in machines for pegging boots and shoes, by which the shoe is alternately held in position for action of the peg-driver and the awl, and fed forward after each peg is driven for the next descent of the peg-driver and awl.

In machines in common use the arrangement or method of operation of these devices is somewhat as follows: The awl projects down from a foot which has an up-and-down and forward-and-back movement, and this foot has a tube or throat extending through it parallel to the awl, and at a distance therefrom equal to the space to be left between adjacent pegs. On one side of this foot is a retainer or hold-fast, having its bottom surface serrated to hold the shoe, and the bottom of the feed-foot is also serrated as an auxiliary to the awl in feeding the shoe. The parts being so arranged, the edge of the shoe, supported on a jack, is brought up against the awl with sufficient force to carry the surface of the sole up into contact with the surface of the foot, said surface projecting below the adjacent surface of the retainer. The pegging mechanism being then put into operation the awl moves forward in the direction in which the shoe is to be pegged, carrying the shoe with it the distance which is to be given between two pegs; then the foot and awl move up, letting the surface of the shoe come up against the serrations or teeth of the retainer and free the shoe from the feed-foot and awl; then the foot moves back and finally down upon the shoe, carrying the shoe away or freeing it from the retainer, the descent of the foot driving the awl into the shoe, and the peg-driver driving a peg (brought into the peg-tube and under the driver) down into the hole previously made by the awl. The foot then goes forward again, the awl and feed-teeth thereby again feeding the shoe, (the shoe being freed from the retainer,) the foot again rises and brings the shoe against the retainer, again moves forward, and again descends to drive a new peg and pierce a new peg hole, these operations being continued till the pegging is finished. This general arrangement is, so far as relates to driving the pegs, the only practical method of effecting their insertion in a proper manner. But in one of its details it is so far unsatisfactory or defective that shoes, in which the soles are made of light stock, are seldom pegged on a machine because of the indentations made by the serrations or teeth of the retainer. These indentations it is impossible to remove by buffing and finishing the sole, and they are so far objectionable as to render boots or shoes, in which they appear in the surface, unmerchantable.

The object of my invention is to remedy this difficulty, so as to adapt the machine to the pegging of light as well as heavy soles. As before observed, the peg is driven into the hole previously made by the awl. Now, I affix to the retainer a tooth or point in the same plane of the peg-driver tube and the awl, and at a distance from the awl (when the feed-foot is moved up to the retainer) equal to the distance between the awl and the peg-tube, and I leave the contact surface of the retainer otherwise entirely smooth or free from serrations and points. This being the case, it will readily be seen that the point or tooth on the retainer securely holds the shoe at the proper time, and that when the awl descends it will always enter the hole last made by the retainer point, (the descent of the awl and feed-foot carrying the shoe below the retainer tooth,) thereby leaving the surface of the sole entirely free from the punctures and indentations left in it by the mechanism as now used.

My invention consists in this construction and method of operation of the retainer by which the shoe is held during the upward and back movement of the awl and feed-foot by a tooth or point projecting from the retainer, which tooth or point pierces a hole into the sole, into which hole the awl next descends to complete the peg hole and feed the shoe, and into which same hole the peg is finally driven.

The drawings represent the feed-foot, awl, peg-tube, and retainer of a common pegging machine in their relative positions, my improvement being applied to the retainer. A shows the position of the parts when the foot is against the retainer and above the shoe; B their position when the foot has descended and freed the shoe from the retainer and its tooth; C their position when the feed-foot has moved forward from the retainer; D their position when the feed-foot and awl have risen and let the shoe up against the retainer. Only these parts are particularly shown, for their general operation is precisely that of other and well-known pegging

machines of the same class. *a* denotes the feed-foot; *b* the awl; *c* the peg and peg-driver tube, shown by dotted lines; *d* the retainer, their motions being communicated in the ordinary manner; *e* may represent the surface being pegged. Through the retainer *e* a wire is inserted, said wire having a point forming a tooth, *f*, which projects down from the surface of the retainer, as shown in the drawings, the distance apart of the tooth *f* and awl *c* being the same, just before the shoe is fed forwards, as the distance apart of the awl and peg-driver or peg-tube. The wire is held in position by a screw, *g*, and as the point wears the wire may be removed for re-pointing by loosening said screw, and its point may be projected more or less, as may be required. The lower surface of the retainer and the lower surface of the foot *a* are left smooth.

The operation, described by the drawings, is as follows: The shoe having been brought up against the retainer *e*, or being held in position against it, by the tooth *f*, as shown at A, the feed-foot is carried down, driving the awl into the shoe, and carrying the shoe below the tooth *f*, as seen at B. The foot next moves forward, as seen at C, the awl taking with it the shoe the length of space between the awl and peg-driver. The foot next ascends, as seen at D, thereby letting the shoe up against the retainer, the pressure upon the jack driving the tooth *f* into the sole and holding the shoe stationary, while the feed-foot next goes back towards the retainer, as seen at A, and until it is next driven down against the shoe. When thus driven down, it will be seen that the awl is driven into the hole last made by the tooth *f*, and that the peg is driven into the hole last made by the awl, as before described, leaving the surface of the shoe unmarred with any marks around the pegs.

I claim, in combination with the vibrating awl and the peg-tube, the retainer tooth *f*, so arranged with relation to the awl that the awl will be driven into the hole previously made by the tooth, substantially as and for the purpose set forth.

B. Q. BUDDING.

Witnesses:

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