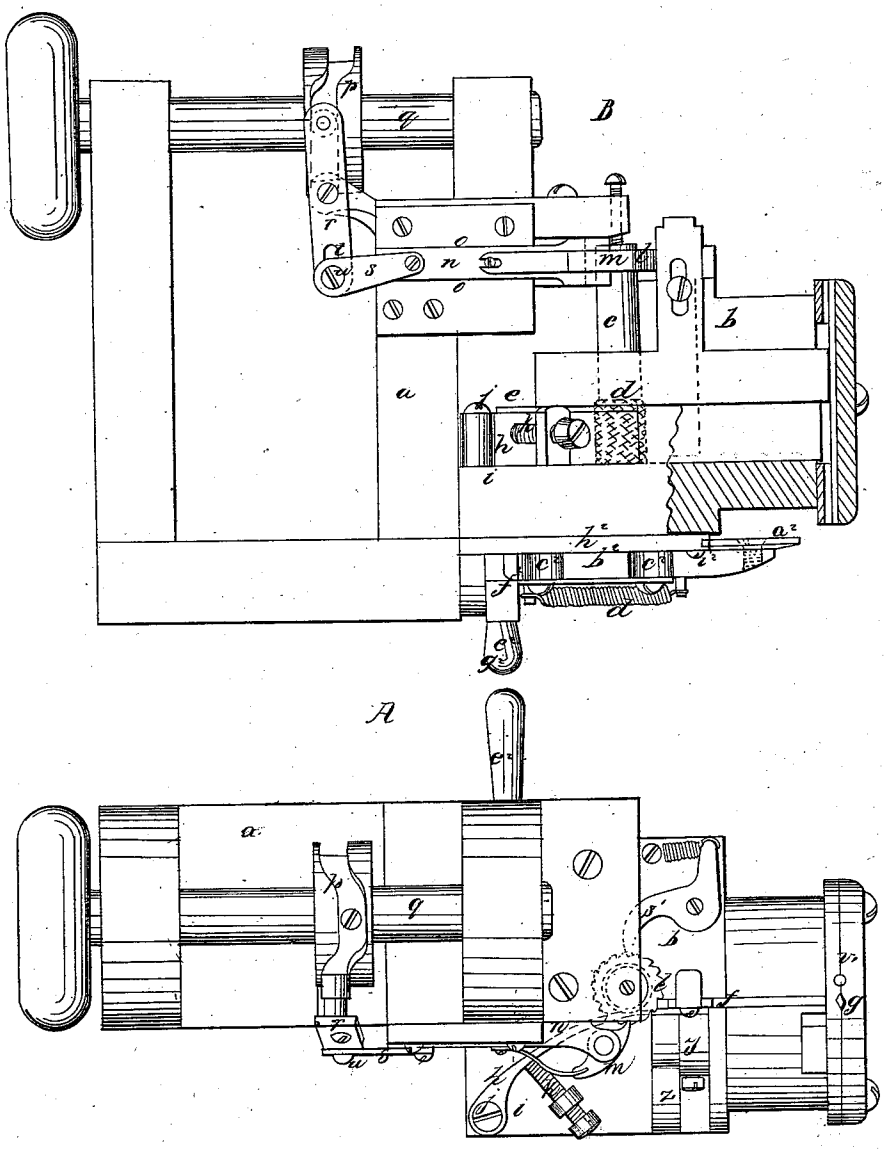
Sheet 1 - 2 Sheets.

J. W. Soule,

Pegging Machine,

No. 82,448. Patented Sep. 22 1868.



Witnesses:
J. B. Kidder
M. W. Bothingham

Inventor:
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Sheet 2 - 2 Sheets.

J. W. Soule,

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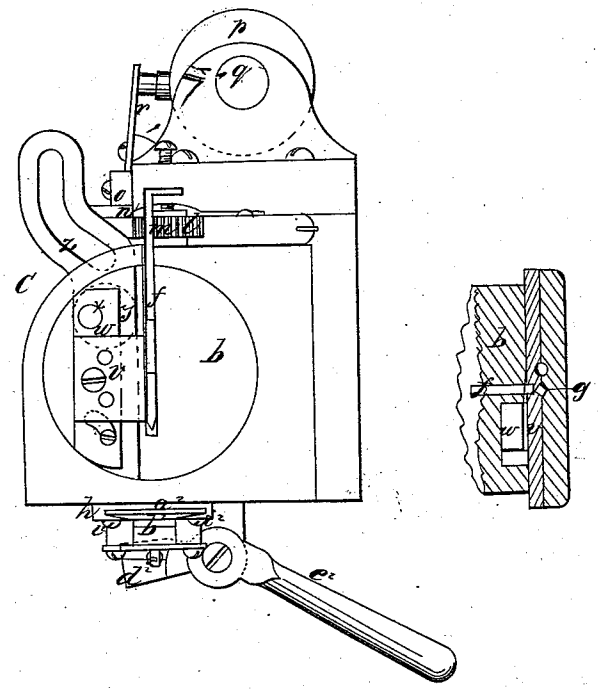

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United States Patent Office.

J. W. SOULE, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 82,448, *dated September* 22, 1868.

IMPROVED 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, J. W. SOULE, of Boston, in the county of Suffolk, and State of Massachusetts, have invented certain new and useful Improvements in Pegging-Machines; 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.

My invention relates particularly to that class of boot and shoe-pegging machinery in which the work is intermittently fed by a wheel (and not by the awl) to the action of the awl and peg-driving mechanism, and my improvements have direct reference to the manner of cutting the peg from the strip of peg-wood, to the arrangement of mechanism for feeding the peg-wood, to the manner of pressing the peg-wood up against the feed-wheel, and to the arrangement of the gauge-mechanism for determining the distance from the edge of the sole at which each line of the pegs shall be inserted.

The drawings represent the main parts of a pegging-machine, of that class above referred to, embodying my improvements. The jack or boot-sustaining mechanism is not shown, and the shoe-feeding wheel is not shown, as their construction and arrangement are well known.

A shows a plan of the machine.

B is a side elevation.

C is a front end view, the front cap-plate being removed.

D is a reversed plan of the head of the machine.

a denotes the frame of the machine, at the front end of which is the head *b*, upon and in which are arranged the peg-cutting and feeding mechanism, and the awl and peg-driving mechanism.

c denotes a vertical shaft, having at or near its lower end a serrated or toothed surface, *d*, projecting slightly in front of a wall, *e*, which, with an opposite surface, forms a peg-groove, *f*, through which the peg-wood is fed to the action of the peg-cutter and peg-driver, the peg-driver *g* working vertically in front of and in direct line with this slot.

The peg-wood is held up to the surface of the feed-wheel *d* by a leaf-spring, *h*, which is secured at one end to a shoulder, *i*, by a screw, *j*, as seen at B.

By means of an adjusting-screw, *k*, the stress of the spring upon the peg-wood to press it against the feed-wheel may be adjusted, as may be desirable, to suit the conditions of the various qualities of peg-wood which may be used, such as thick or thin, wet or dry, soft or hard peg-wood, either kind being fed perfectly by the feed-wheel, by simply adjusting the pressure of the wood against the feed-teeth by means of the spring and its adjusting-screw.

The feed-shaft has at its top a ratchet-wheel, *l*, which has an intermittent rotative movement imparted to it by means of a spring-pawl, *m*, and to give this pawl a direct forward-and-backward movement, I joint it to the end of a horizontally-reciprocating slide-bar, *n*, which works between ways or guides *o*, and receives motion from a cam, *p*, on the driving-shaft *q*, through a lever, *r*, and connecting-rod, *s*.

The lever *r* has a slot, *t*, through which the screw-pin *u* of the connecting-rod *s* passes, and by moving the pin up or down in the slot, the amount of throw of the slide may be regulated, as will be readily understood, so that the feed of the peg-wood may be adjusted, as circumstances may require, a detaining-pawl, *s'*, preventing back movement of the ratchet, when the slide-bar *o* and its pawl *m* move back.

Heretofore, in this class of machines, the practice has been to place the peg-cutting knife at some distance back of the peg-driver, or at such distance as to have a number of cut pegs between the driver and the cutter at all times. This is objectionable, because, if the peg-wood does not happen to exactly fit the throat or channel through which the wood passes, the pegs are liable to slip from position and to clog in the channel, thereby causing bad pegging, and often obstructing the machine, so as to render it necessary to remove the cap to clear away the broken or jammed-up pegs.

To obviate this, I place the cutter *v* in a plane, one peg behind the rear side of the peg-driver, so that only one severed peg shall be in the machine at once, and this one in position to be fed beneath the driver, or into the vertical peg-groove of the cap *v'*, at the next forward feed-movement of the peg-wood.

The cutter is shown as fixed to a cutter-plate or stock, *w*, which is hung upon a crank-pin, *x*, of a shaft, *y*, downward movement of an arm, *z*, carrying the cutter down and forward against and through the peg-wood, and upward movement of the arm carrying the knife up and back out of the path of the peg-wood.

After the peg has been driven, and the peg-driver has risen, the peg-wood is fed forward, bringing the peg, cut off of its front end, into the vertical peg-hole in the cap *v'* directly beneath the peg-driver. The arm, *z*, being then thrown down, and the peg-driver descending at the same time, the peg will be driven, and the cutter will move forward and cut off the front end of the peg-wood, thus forming the next peg, the position of the relative parts being as shown in horizontal section at E.

Thus it will be seen that the wood, being left uncut until by its next forward movement the peg is to be fed beneath the driver, cannot, of course, clog, as when several cut pegs lie together in line.

a^2 denotes the gauge-wheel, the edge of the sole being presented against the front edge of this wheel as the shoe is fed along.

The wheel turns on a pin projecting from a slide, b^2, which plays between guides c^2.

The wheel is held normally in position by a spring, d^2, and to press the boot out to peg nearer to the edge, as the boot is fed forward, lever e^2 is used, this lever having an incline, f^2, which, being pressed up by depressing the handle g^2, throws out the wheel, and thus brings the edge of the sole nearer to the path of the peg-driver.

To permanently adjust the normal position of the gauge-wheel, relatively to the path of the peg-driver, I mount the slide b^2 upon a plate, h^2, which is provided with slots i^2, through which the fastening-screws k^2 extend. By loosening these screws, the plate h^2 may be slid forward or back, and then fastened by tightening the screws, so as to fix the distance of the normal peg-driving line from the edge of the shoe-sole, from which line the necessary or desirable variation is made while pegging, by moving the wheel forward by the lever e^2.

All these details of improvements tend to make these machines more efficient in their operation, and enable the work to be performed with more ease to the operator, and with greater expedition.

I claim the arrangement of the peg-cutting mechanism, so that but one peg is cut at the end of the peg-wood, which peg, after being cut, is fed forward under the driver, substantially as described.

I also claim the combination of the ratchet-driving pawl *m* with a reciprocating slide, *n*, to which the pawl is jointed, and by means of which it is actuated, substantially as described.

I also claim, in combination with the peg-feed wheel *d*, feed-ratchet *l* and ratchet-driving pawl *m*, the ratchet-detaining pawl *s'*, substantially as shown and described.

I also claim, in combination with the peg-wood-feed wheel *d*, the spring *h*, pressure of which is adjusted by the screw *k*, substantially as set forth.

I also claim, in combination with the slide b^2, spring d^2, and lever e^2, the adjusting-plate h^2, substantially as and for the purpose set forth.

I also claim, in combination with the ratchet-driving pawl *m* and the reciprocating slide *n*, to which the pawl is jointed, the cam *p*, for driving the slide *n*, through the lever *r* and connecting-rod *s*, substantially as shown and described.

J. W. SOULE.

Witnesses:
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S. B. KIDDER.