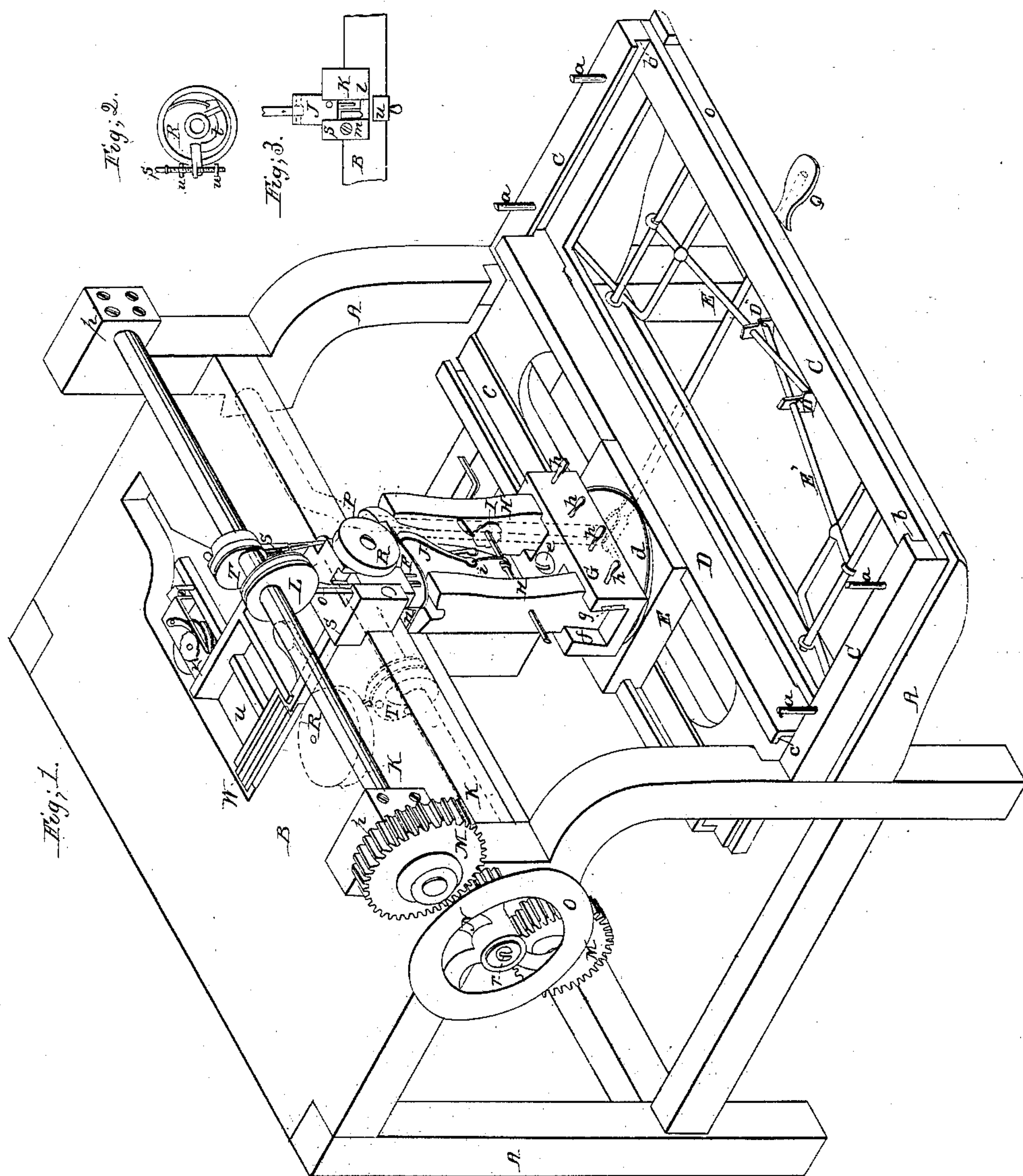


W. N. Hawley,

Pegging Machine,

N<sup>o</sup> 26,987.

Patented Jan. 3, 1860.



Witnesses;  
Edward Bell,  
J. W. Bly's.

Inventor;  
W. N. Hawley



# UNITED STATES PATENT OFFICE.

WAIT N. HAWLEY, OF HARTFORD, CONNECTICUT.

## MACHINE FOR PEGGING BOOTS AND SHOES.

Specification of Letters Patent No. 26,987, dated January 31, 1860.

*To all whom it may concern:*

Be it known that I, WAIT N. HAWLEY, of Hartford, county of Hartford, and State of Connecticut, have invented certain new and useful Combination and Arrangements of Mechanism for Pegging Boots and Shoes; and I do hereby declare that the same is described and represented in the following specification and drawings with such precision as to enable others skilled in the mechanical art to make and use my improvement.

I will therefore proceed to describe its construction and operation, having reference to the drawings in which the same letters indicate like parts in each of the figures.

This improvement relates to that class of machines for pegging boot and shoes in which, by a proper organization of mechanism, with manual aid, the pegging of a boot or shoe is performed without the use of a pattern. The boot or shoe is secured in or upon a rotating stock, it (the stock) also being secured upon a three way carriage (in its movements) one movement being in and out of the machine. A second movement is made in a right line with the machine and at right angle with the first, and a third movement by the lifting of the whole, by means of weighted levers, so that the sole of the boot or shoe (secured in the rotating stock) shall be firmly pressed upward against the edge of a rough-surface feed wheel and by which the sole is fed along to the action of the awl, and the insertion of the peg, while its edge (the sole) is held against a gage (which governs the distance of the row of pegs from the edge of the sole) and its course or movement being guided by the hand of the operator.

The peg wood is held in place by an adjustable yielding pressure, and is moved forward by a rough surface or friction wheel, to a point, directly over the hole for the insertion of the peg, which is then cut and forced into the sole, said awl and force being actuated by a cam or its equivalent. A more distinct understanding of its nature, construction, and operation, will be had from the accompanying drawings, in which—

Figure 1, is an isometrical view, showing nearly all of the operating parts in detail. Fig. 2, shows a rough surface friction wheel designed to move or feed the sole along, to the action of the awl, and to the reception of the peg. Fig. 3, shows the force *j* by

which the peg is driven into the sole of the boot or shoe, the awl *k*, by which the hole is made for the peg, the knife *l*, by which the peg is cut from the peg wood, the end of the peg wood *m*, just entering over the edge of the knife and the adjustable gage *n*, against which the sole of the boot or shoe is held.

A, is the frame work of the machine.

B, is the bed or table of the machine to and upon which (the frame A and bed B) all of the operating parts are arranged in their respective order.

C, is a horizontal frame of a suitable construction, fitted, so as to move freely in a perpendicular direction, upon the pins *a*, and is caused to move, and is held in its proper position by suitably adjusted weights *D'*, and levers *E'*, or their substantial equivalents.

D, is a frame or carriage fitted and working "in and out of the machine" in grooves or ways *b*. It is also provided with grooves, or ways *c*, upon its upper side, in which the bed E, is fitted to work back and forth freely "in a right line with the machine," upon the upper surface of which, is formed a circular groove, or rail *d*, upon which I secure an adjustable stock for holding the boot or shoe F, of which G is the base, the underside having grooves or ways corresponding to the grooves or rail *d*, on the bed E, and secured by a fulcrum screw or bolt *e* and by which it is allowed to turn freely and easily upon the bed E.

H, are upright posts the lower end of which, are fitted into dovetail grooves *f*, having gib *g*, and screws *h*, so as to adjust the posts H, to any required distance to or from the center of the fulcrum *e*. The upper end of the said posts H, are prepared in the proper manner to receive and hold a boot or shoe. In the posts H, is a crank, shaft, and ratchet, I.

J, are grapple tongs, or clamps, which may be constructed after any of the well known ways of making grapple-clamps for holding articles, by the draft of the connecting cord, or strap. The cord or strap *i*, connects the tongs with the shaft I, so that when the boot or shoe is placed in the stocks, in a proper manner for the pegging operation, and the tongs, or clamps J, or their equivalents, are placed over the boot or shoe, in the proper or desired manner, and the cord *i*, wound up closely on the shaft I, by means of its crank, it is held



firmly by the pawl and ratchet connected thereto, thus securing the boot or shoe F, firmly upon the stock H, in readiness for the pegging operation.

5 K, K', are two horizontal shafts, one of which is secured in boxes *p*, a short distance above and nearly over the edge of the bed B, or over the center of the force *j*, so as to allow a free and easy action of the cam L upon the force *j*, by means of its connection 10 *o*. The other shaft K', (shown by dotted lines) is placed, and secured in bearings nearly under the front edge of the bed or table B. Upon the outer end of the two 5 shafts K, K', are secured gears M, or pulleys, of a corresponding diameter, or number of teeth, so as to produce the same uniform motion to each shaft. The two said gears, or shafts, are connected and caused 10 to operate together by means of an intermediate gear N, secured upon a shaft or stud *v*.

O, is a balance wheel secured to the gear N, and revolving on the stud, or secured to 5 the shaft *v*, so as to revolve with the gear N, to overcome the resistance of the awl *k*, or the force *j*, in making the hole for the peg, and driving it into the sole, and also to keep up a uniform motion. The shaft 10 K', is provided with a crank P, (or pulley) to which, by means of a foot treadle Q (or a belt) power or motion is applied to the machine.

R, is a rough-surface feed wheel, between 5 the rim and hub of which is arranged a crooked spring friction, or cramp lever *t*, as shown in Fig. 2. Two of such wheels are used in this machine (other forms of friction wheels however may be used for 10 this purpose, without changing the principle of its operation, one of which wheels are secured on the holding block S, (which is also secured to the bed or table B) very closely to the force *j*, and awl *k*, and upon 5 the sole of the boot, or shoe F, and is operated upon, and caused to move forward by means of the cam T, and its connections, or its substantial equivalent, each revolution of the shaft and therewith, moving the 10 boot or shoe the required distance for a second peg. The connection rod *s*, passes through the end of the cramp lever *t* and its distance of motion regulated by the nuts *u*, which will be more, or less, each revolution of the shafts, K, as regulated by the 5 nuts *u*,—a second rough surface feed wheel R, is placed in or upon the bed, or table B, and its cam T, secured on the shaft K', its movement and its regulation of feed being the same as the first. The object of 10 this (second rough surface feed) wheel is

to feed the peg wood regularly forward to the desired point for use. The peg wood W, is arranged in a chamber *v*, prepared therefor and is held up against one side 65 thereof by any suitable device, whereby a greater or less pressure may be given substantially such as shown at X, and so that one end of the peg wood will rest against the rough-surface feed wheel R', and be 70 regularly fed thereby into the machine. Now the boot or shoe having been properly secured in the stocks H and the edge of the sole held firmly and steadily against the adjustable gage *n*, the awl *k*, descends, 75 piercing the first hole for the peg, and as it rises the boot or shoe is moved forward the desired distance fixed and regulated by the nuts *u*, on the connecting rod *s*. A strip of peg wood previously having been 80 placed in readiness so that a peg may be cut therefrom by the descent of the force *j*,—and driven into the hole just pierced by the awl, thus piercing the hole and forcing the peg into the sole successively 85 until the work is finished. The boot or shoe secured upon the stock H, being held up to the gage, and its course, or direction of movement governed by the operator, or in other words, by hand. 90

I believe I have thus shown the nature, construction, and operation of my improvement in mechanism for pegging boots and shoes, so as to enable a person skilled to 95 make and use the same and that its advantage over others now in use, will be fully understood from the above, without further remark.

Having described my invention or improvement in machines for pegging boots 100 or shoes, what I claim and desire to secure by Letters Patent is—

1. An adjustable stock H, secured and operating upon a two way carriage D, E, and the frame C having a perpendicular 105 movement arranged and operating as and for the purpose described.

2. I claim the arrangement of the roughened surface feed wheel R, in combination with the adjustable stock H, carriage D, E 110 and frame C, operating as and for the purpose described.

3. I claim the arrangement of the roughened surface feed wheels R, R operating together as and for the purpose described. 115

In testimony whereof I have hereunto set my hand and affixed my seal this 7th day of January, 1860.

WAIT N. HAWLEY. [L. S.]

Witnesses:

EDWARD BEKL,  
JERMY W. BLISS.