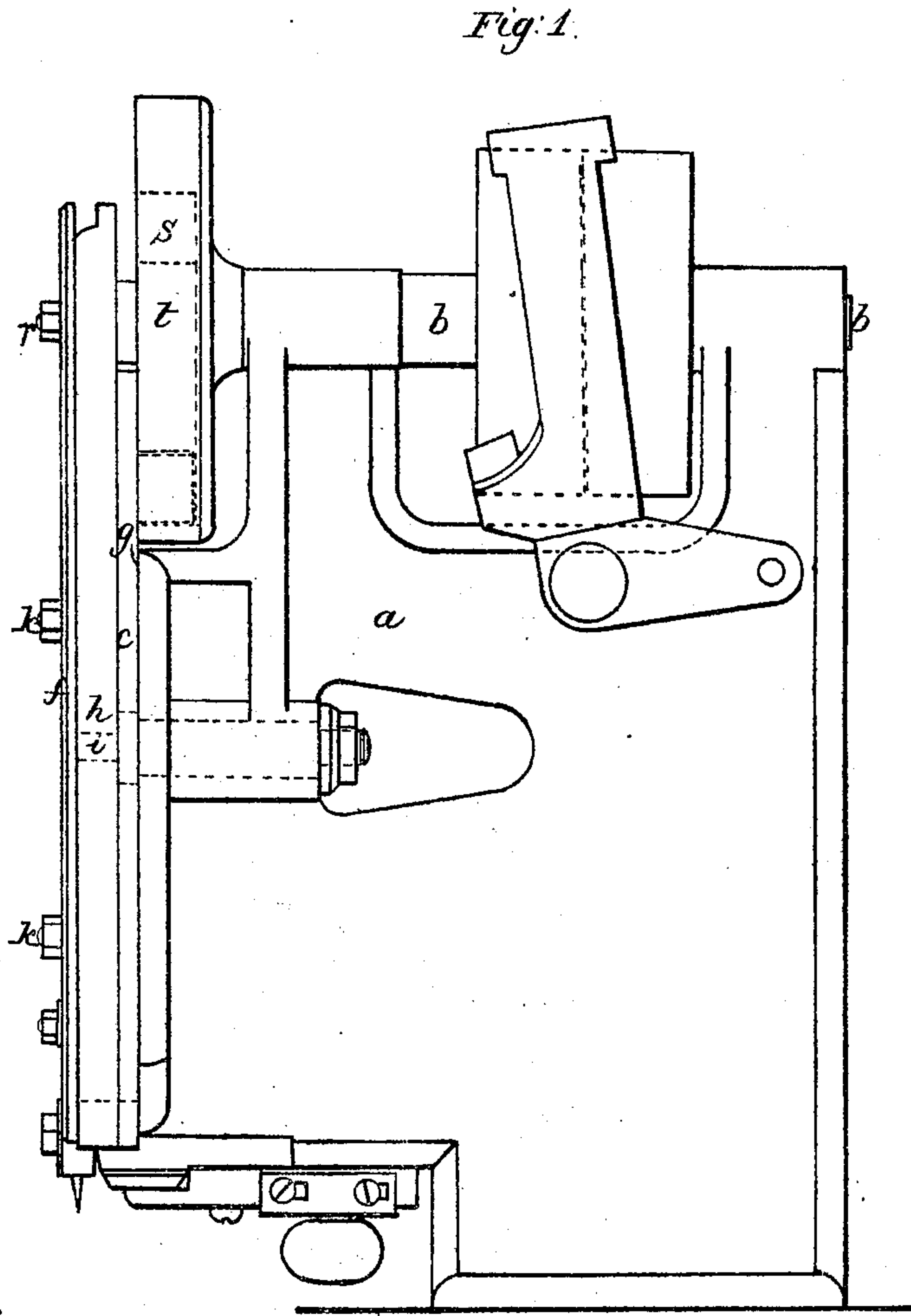
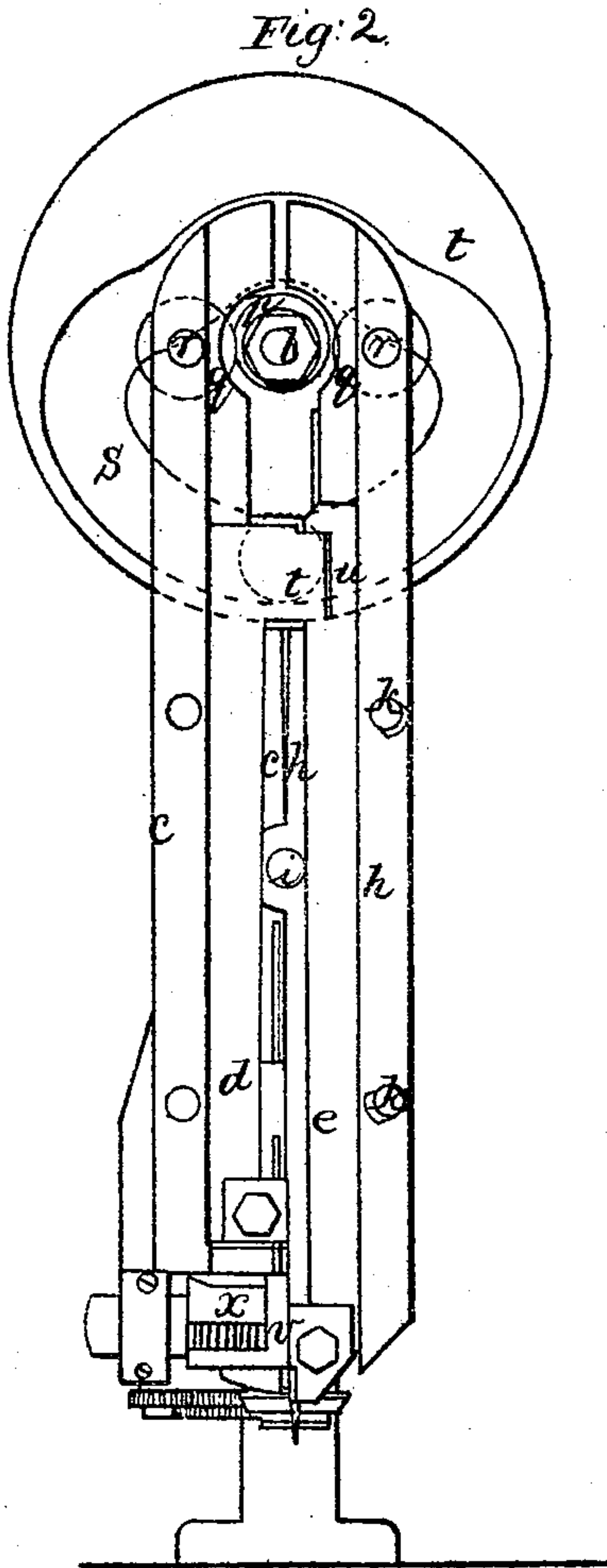
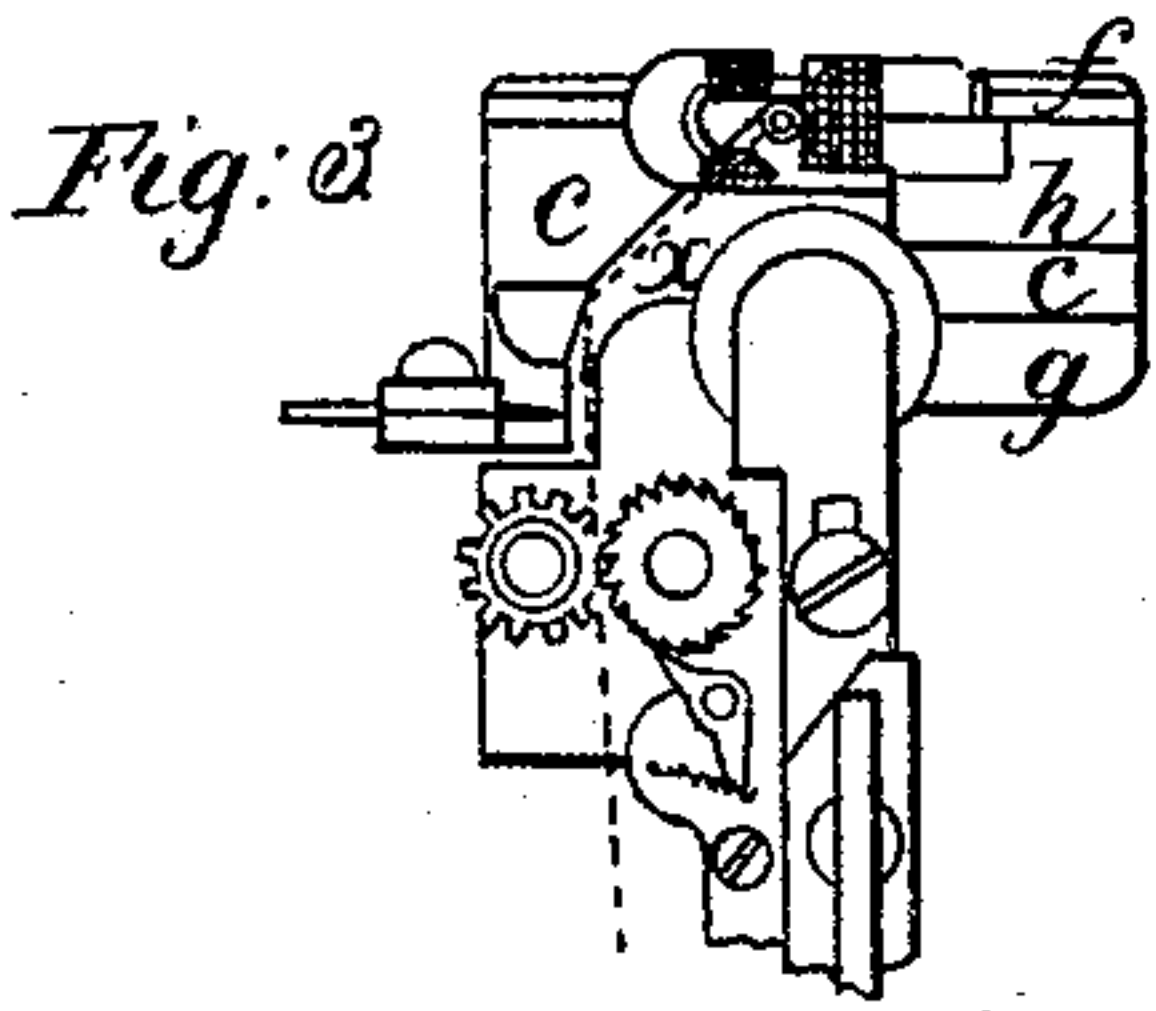


J.F. Sargent,
Pegging Machine,
No. 44,048, Patented Aug. 30, 1864.



Witnesses

T. Gould
J. M. McIntire

Inventor;
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UNITED STATES PATENT OFFICE.

JOSEPH F. SARGENT, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO ELMER TOWNSEND, OF SAME PLACE.

IMPROVEMENT IN PEGGING-MACHINES.

Specification forming part of Letters Patent No. 44,048, dated August 30, 1864.

To all whom it may concern:

Be it known that I, JOSEPH F. SARGENT, of Boston, in the county of Suffolk and State of Massachusetts, have invented 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 practice it.

This invention relates to certain improvements in the details of mechanism pertaining to awl-feed pegging-machines, said improvements consisting in the arrangement of the mechanism for actuating the awl and peg-driver vertically and laterally; also, in the relative position and co operation of the awl and the lower end of the bar or carrier from which it extends, in connection with the construction of the peg-tube; also, in the manner of locking or uniting the awl bar or slide and the bar or slide of the peg-driver, so that they shall work vertically as one bar and be also capable of lateral separation to variably space the pegs; also, in the manner of varying the throw of the awl and peg-driver; also, in the manner of hanging the swing-plate.

Letters Patent of the United States No. 34,335 were granted to Elmer Townsend, as assignee of my invention, February 4, 1862, for improvements in pegging-machines, and my present invention relates to machines operating substantially like those, the changes made and which constitute this invention, simplifying, concentrating, and reducing in number the operative parts of the mechanism, and adapting it to a change of space between the pegs.

Figure 1 of the drawings represents a front elevation, (the face-plate being removed,) and Fig. 2 a side elevation of a pegging-machine constructed with my improvements. Fig. 3 is a reversed plan of the peg-feed box and pegging mechanism.

a denotes the frame; *b*, the driving-shaft; *c*, the vertical plate, in which the peg-driver and awl-bars slide. This plate is made in two parts, in one of which the peg-driver bar *d* slides, while in the other the awl-bar *e* slides, each bar being fitted into its plate, so as to slide freely in a vertical direction, while in-

capable of lateral motion with respect to its plate. A face-plate, *f*, (see Figs. 2 and 3,) covers these plates and keeps the bars in place. The main plate *c* extends across the whole width of the head or standard plate *g*, while the auxiliary plate *h* is hung upon a center pin, *i*, the screw-pins *k*, by which the face-plate *f* is fastened, passing through slots in the plate *h* in such manner that it may swing upon the pin *k* relatively to the plate *g*. The awl *l* extends from an awl-carrier, *m*, on the bottom of the bar *c*, while the peg-driver *n* is fixed in a carrier, *o*, as will be readily understood from Fig. 1. The plate *c* is hung upon the center pin, *i*, said pin extending through from the standard-plate *g* and frame *a*, as seen by dotted lines in Fig. 1, the plate *c*, with its auxiliary plate *h*, swinging upon said pin to produce the lateral movement of the awl and consequent feed of the shoe. This swinging movement is effected as follows: The front end of the shaft *b* extends through the plate *c*, or through an open space in the plate, or between it and the plate *h*. On this front end of the shaft I place a cam, *p*. This cam impinges or rolls against two rolls, *q*, one on each side of it, each roll turning on one of the upper screw-pins, *r*, by which the face-plate *f* is fastened in place, the throw of the cam being so made as to swing the plate *c* (with its plate *h*) on the center pin, *i*, when the awl is in the shoe, to feed the same, and again when the awl is above the work or at or near its highest position, to carry the awl and peg-driver back, so that the peg-driver in its next descent shall drive the peg in the hole just made by the awl, while the awl punctures the new peg-hole. The vertical movements of the peg-driver and awl-bars *d e* are produced by a cam-groove, *s*, in a cam, *t*, in the same or substantially the same manner as in the machine described in my patent above referred to. In such machine, however, these two bars were formed in one piece, the machine having no capability of adjustment with respect to the spacing of the pegs, such space between the peg-driver and awl being fixed and unchangeable, while in this machine the bars *d e* are made in distinct pieces, capable of lateral separation to such extent as may be necessary to produce any desirable change of space between the pegs; but they are also so locked

or connected together as to have simultaneous vertical movements precisely the same as if they were one bar. This connection is made by an extension, *t*, at the top of the bar *d*, which extends across and fits into a slot, *u*, in the bar *e*, the piece *t* and slot *u* allowing movement of the bar *e* with respect to bar *d*, as will be readily understood from Fig. 2. In order to vary the spacing, the cam *p* is removed and the plate *h* is swung on the pin *i* with relation to the plate *c* until the distance between the peg-driver is determined, when a cam is placed on the shaft fitting between the rolls and having the proper amount of throw to correspond with the distance between awl and peg-driver.

In my previous machine, above referred to, the swinging plate, which received the peg-driver and awl bar, was so arranged to vibrate from its top, which was hung upon the main shaft, and its lateral motion was imparted through a face-cam, rocker-lever, pitman, slide-block, &c., but in my present invention the plate is hung midway of its length on the pin *i*, by which arrangement I am enabled to communicate the lateral or feed motion to the plate directly from the cam, arranged in the same vertical plane and in juxtaposition with the face-cam, which imparts the vertical movement to the bars *d* and *e*, such arrangement dispensing with most of the mechanism referred to, rendering the machine more compact and simplifying its operation.

In my other machine the feed of the shoe was produced by the awl, in conjunction with the serrated bottom of a throat-piece, through which the awl and peg-driver moved, said throat-piece forming the lower end of the swing-plate, and a supplemental retainer being employed to transfer the contact from the throat-piece, so as to allow the awl, peg-tube, and plate to swing back. I now dispense with this throat-piece on the swing-plate and the supplemental retainer by a construction as follows: The bottom of the peg-tube *v* (which was before serrated and formed part of the feed) is cut away, (or the peg-tube made shorter,) so that it does not come into contact with the surface of the shoe at any time, and the awl is inserted directly in the bottom of the carrier, while a stationary rest or foot-piece, *w*, extends out from the frame *a*, it being slotted to allow the peg-tube to extend into and vibrate within it, and also extending below the bottom of the tube, as seen in Fig. 1. As the peg-tube has no vertical movement, it is necessary that it shall not come into contact with the shoe, as if it did the transfer of contact could not take place and the shoe would not be fed.

In the former machine the peg-tube and awl-tube were made in one piece, neither having any vertical movement, whereas in this machine there is no awl-tube, the foot of the awl-bar coming directly against the shoe. The peg-feed box enters or opens into the peg-tube, its construction, arrangement, and operation

being the same or substantially the same as in my other patent, the whole peg-box and peg-feed apparatus being attached to and vibrating or swinging with the plate, (excepting the knife, which is stationary,) and the feed of the pegs being effected by the vibration of the plate.

It may be remarked that in some pegging-machines the awl has been attached directly to the end of the awl-bar, the end of which bar assisted in the feed and transferred the contact; but in such machines the main peg-tube was made stationary, and the peg-driver bar and awl-bar were operated by independent movements, and the awl only had a lateral or vibrating movement, whereas in my machine the peg-tube swings with the feed-bar and with the awl, but does not come into contact with the surface of the shoe.

In some other machines the peg-driver bar and awl-bar were made integral, with no capability of separation or adjustment of the awl and peg-driver with respect to each other, but the awl-bar did not come into contact with the shoe, but worked through a throat-piece, said throat-piece and a rest effecting the transfer of contact in connection with the lateral movement of the awl.

I claim—

1. The arrangement, in a pegging-machine, of an awl-bar and a peg-driver bar so connected that they operate in vertical directions as one bar, while capable of lateral adjustment with respect to each other to vary the spacing of the pegs.

2. The arrangement or combination of the cam for producing the lateral movement of the awl (or awl and peg-driver) in juxtaposition with the cam which produces the vertical movements of the awl and peg-driver, one cam being placed on or confined to the cam-wheel and the other cut therein, and both working in or nearly in the same vertical plane.

3. The manner of varying the throw of the spring-plate by the use of cams of different sizes to operate on the friction-wheels, substantially as set forth.

4. Hanging or suspending the swing-plate on the center pin, *i*, midway between the top and bottom of the plate, so that lateral movement of the top of the plate in one direction produces corresponding movement of the awl and peg-driver in the opposite direction.

5. The arrangement to operate together of an awl and awl-bar foot for feeding the work, a peg-tube which vibrates laterally above the plane or surface of the shoe, and a rest or foot-piece which holds the shoe in place, substantially as described.

Executed by me June 30, 1864.

JOS. F. SARGENT.

Witnesses:

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FRANCIS GOULD.