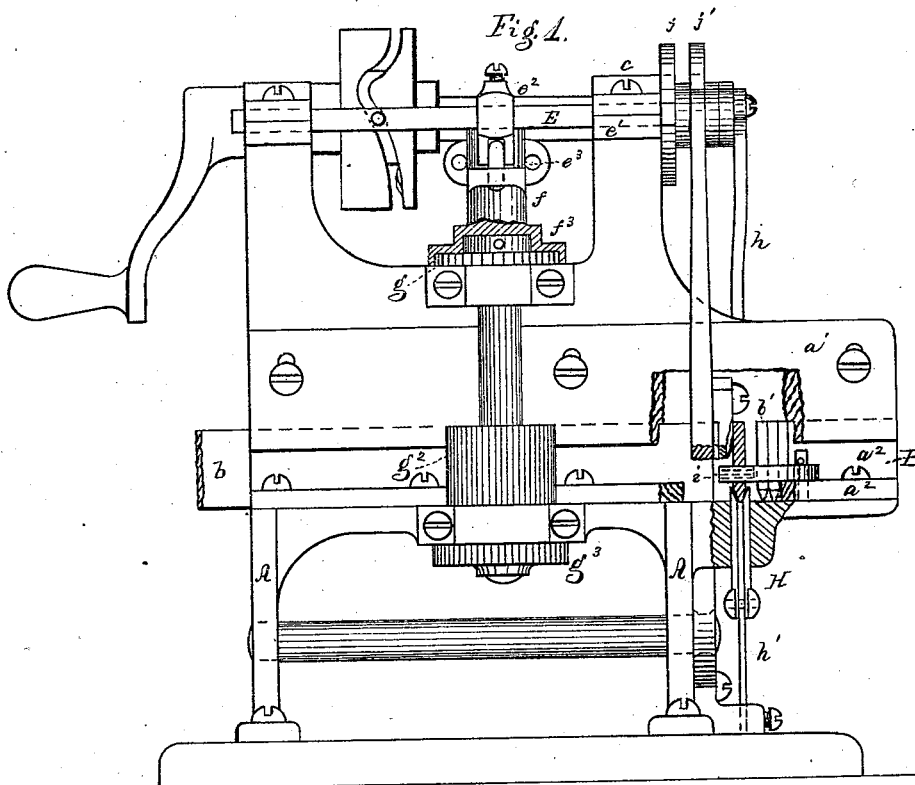
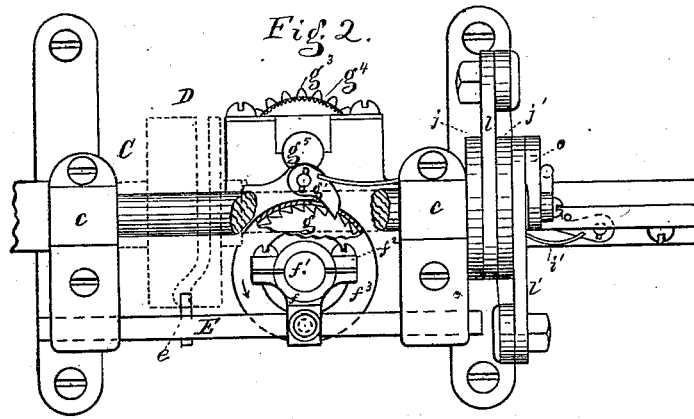


**B. F. STURTEVANT.**  
**Pegging-Machine.**

No. 159,857.

Patented Feb. 16, 1875.



WITNESSES:  
*L. H. S. L. L. L.*  
*W. H. Pratt.*

Inventor.  
*Benjamin F. Sturtevant*  
per *Lowry Gregory* Attys.

B. F. STURTEVANT.  
Pegging-Machine.

Patented Feb. 16, 1875.

No. 159,857.

Fig. 4.

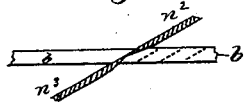
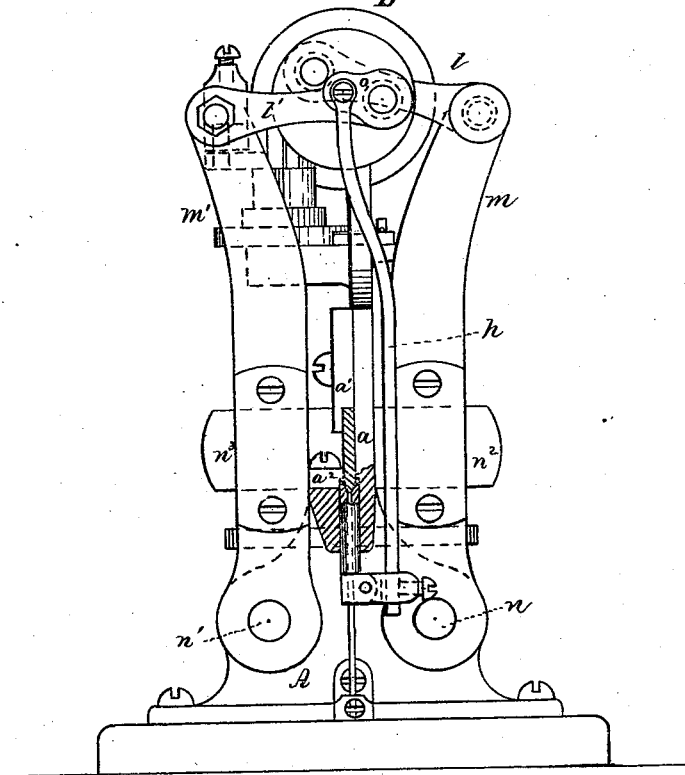


Fig. 3.  
D



Witnesses.  
*L. H. Latimer.*  
*W. Pratt.*

Inventor.  
*Benjamin F. Sturtevant.*  
PER *Henry Longory* ATTYS.

# UNITED STATES PATENT OFFICE.

BENJAMIN F. STURTEVANT, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN PEGGING-MACHINES.

Specification forming part of Letters Patent No. 159,857, dated February 16, 1875; application filed February 8, 1875.

### CASE C.

*To all whom it may concern:*

Be it known that I, BENJAMIN F. STURTEVANT, of Boston, county of Suffolk and State of Massachusetts, have invented Improvements in Pegging-Machines, of which the following is a specification:

My invention relates to improvements in pegging-machines; and consists in the combination, with a peg-guiding channel or way, of a double-acting feeding mechanism to move a peg ribbon or strip forward and backward at intervals, substantially as hereinafter described; also, in the combination, with a peg-strip guiding channel or way, of severing cutters working from both sides of the strip centrally, to insure that the pegs have proper edges corresponding with the cutters, and lessening the liability of the splitting of the strip before it is cut entirely through; also, in the combination, with a reciprocating plunger for pointing pegs, of a clearing-rod to prevent the peg remaining in the mouth of the plunger when the latter is retracted; also, in the combination, with a peg-guiding channel or way, of a stationary but yielding holder, to hold the peg being pointed, and, if preferred, to also bear on adjacent pegs already pointed, and on their way to the driver of the pegging-machine, placed with relation to the peg-guiding channel in the usual way.

Figure 1 is a side elevation of a part of a pegging-machine head of suitable or well-known construction and containing my improvements. Fig. 2 is a top view thereof; Fig. 3, an end view, and Fig. 4 a modified position, of the severing-cutters.

On the drawing, A represents the frame of the machine, of suitable or well-known construction, to support the working parts; and  $a^1$   $a^2$  are the plates, between which is the peg-guiding channel or way B, in which the peg-strip  $b$  and pegs  $b'$  are moved, the side plate  $a^1$  being adjustable to correspond with the size of the strip. At the top of the frame A, a rotating or driving-shaft, C, mounted in bearings  $c$ , carries a cam-hub, D, provided with a groove,  $d$ , of irregular shape, and adapted to move the peg-wood strip through the feeding mechanism, as hereinafter described. A pin,  $e$ , on a slide-bar, E, enters the groove of the

cam, reciprocates the slide-bar which rests in bearings  $e^1$ , and the slide-bar has a slotted collar,  $e^2$ , that receives a pin,  $e^3$ , projecting from and moves a friction-hub,  $f$ , connected to feed-operating shaft  $f^1$ . This hub  $f$  is confined to the shaft by means of a cap-plate,  $f^2$ , provided with lugs, and through which, and into corresponding lugs on the hub  $f$ , are passed screws, so as to control the friction of the part  $f^2$  against the shaft  $f^1$ , and the friction is regulated preferably by the interposition of a leather or other washer placed between the plate  $f^2$  and the shaft. The friction of this hub on the shaft is sufficient to move with it the shaft as the slide-bar reciprocates, and it will so move the shaft, unless the shaft meets with sufficient resistance to overcome the friction between the hub and shaft. This, in this present instance of my invention, is provided for in the following way: The friction-hub carries a pawl-raiser,  $f^3$ , in the form of a flanged wheel, open for a short distance about its rim. To the shaft  $f$  is secured or fixed a ratchet,  $g$ , and when the friction-hub is moving the shaft to reverse the feeding mechanism the stationary pawl  $g^1$  will engage the ratchet and hold the shaft so that it cannot move, and then the hub will move on the shaft. This pawl  $g^1$  does not at all times engage the ratchet, for the rim of the pawl-raiser  $f^3$  keeps the pawl from contact with the ratchet for a certain portion of the duration of back movement of the feeding mechanism. The shaft  $f^1$  carries a feed-wheel,  $g^2$ , and a shaft,  $g^3$ , at the opposite side of the frame, provided with a feed-wheel,  $g^4$ , is connected with shaft  $f$  by gearing  $g^3$ , as usual.

This feeding mechanism operates to move the peg-strip and pegs substantially as follows: Assuming that the end of the peg-strip  $b$  projects just far enough past the severing-cutters to correspond with the width or size of the peg to be cut; then the cutters sever the peg and retire; the feed device then moves the peg-strip forward, moving the severed peg to a position over the point-forming plunger H, working in suitable bearings, and connected with, and operated through, a reciprocating rod,  $h$ , the connection between the rod and plunger being adjustable.

Just before the plunger rises to form a point on the end of the peg, by compressing the substance of its end into the conical opening in the end of the plunger, the feed-strip is moved back so as to leave a space between the end of the strip and the peg being pointed equal to the size of the peg; then, when the peg is pointed, the strip has a long forward motion, sufficient to move the peg already pointed to a position beyond pointing position equal to twice the distance, or substantially so, of the thickness of the pegs; then the strip is moved backward until its end projects just far enough beyond the cutters to form a single peg; then the cutters sever another peg from the strip, and repeat the operation, as above stated. In this way there is always a free space between the peg being pointed and the end of the peg-strip, and between such peg and a previously-pointed peg, and this allows the plunger to act on a single peg, without disturbing any other peg on the peg-strip.

Within the plunger is placed a clearing-rod, *h'*, the top thereof being on line with the bottom of the channel or way B, over which the pegs move, and when the plunger H is retracted this clearing-rod prevents the descent of the peg just pointed. While being pointed the peg is held by a holder, *i*, pivoted to a stationary part of the frame, and held toward the pegs by the stress of a spring, *i'*. This holder bears against one or more pegs passing through the channel. At the end of shaft C are two cranks, *j j'*, one supporting the other, and connected by means of links *l l'*, with cutter-carrying arms *m m'* pivoted at *n n'*, and carrying severing-cutters *n<sup>2</sup> n<sup>3</sup>*. At the end of the driving-shaft there is a crank, *o*, that operates the link *h*, already described. The rotation of this shaft, owing to the position of the cranks, gives to the cutter-carrying arms a differential movement starting from their farthest outward position, the arm *m*, with its severing-cutter will be moved rapidly, and will reach, or nearly so, the center of the strip by the time the other severing-cutter is just cutting into the opposite side; then, as the severing-cutter *n<sup>3</sup>* is about to meet the severing-cutter *n<sup>2</sup>*, and with the parts as shown in Fig. 3, the arm *m*, with its severing-cutter

*n<sup>2</sup>* is retracted, while the severing-cutter *n<sup>3</sup>* moves farther into the strip, and in this way the cutters cut the entire side of the strip with a single knife. The peg being severed is liable to be broken or split off, leaving a ragged edge or corner, if the grain of the wood is at all irregular. Instead of moving the severing-cutters across the peg-guiding channel or way B at right angles, they may be moved at an inclination to such way, and form diamond-shaped pegs. In Fig. 4 I show such an arrangement. My device might be used independently of a pegging-machine.

I do not herein claim the plunger for pointing the pegs, or a holder, broadly, or the combination of a plunger and cutter, as such devices are claimed in other applications now pending in the Patent Office.

Having described my invention, I claim—

1. The combination, of a peg-guiding channel or way, with feeding mechanism constructed substantially as described, and adapted to move the strip in opposite directions, as and for the purpose set forth.

2. The combination, with a peg-guiding channel or way, of severing-cutters operating against the peg-strips from opposite sides, and arranged so that the path of each shall lap across that of the other, substantially as described.

3. The combination of the peg-guiding channel or way with the reciprocating plunger and the clearing-rod, substantially as set forth.

4. The combination of the peg-guiding channel or way with the pivoted holder connected with a stationary part of the frame, substantially as described.

5. In the art or process of compressing points on pegs, moving the strips and pegs, substantially as described, so as to leave a space each side of the peg being pointed when the point-forming device acts thereon, substantially as and for the purpose described.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

BENJ. F. STURTEVANT.

Witnesses:

G. W. GREGORY,  
S. B. KIDDER.