(No Model.) 2 Sheets—Sheet 1.

D. WHITTEMORE & A. EPPLER, Jr.

PEGGING MACHINE.

No. 255,064. Patented Mar. 14, 1882.

Fig. 1.

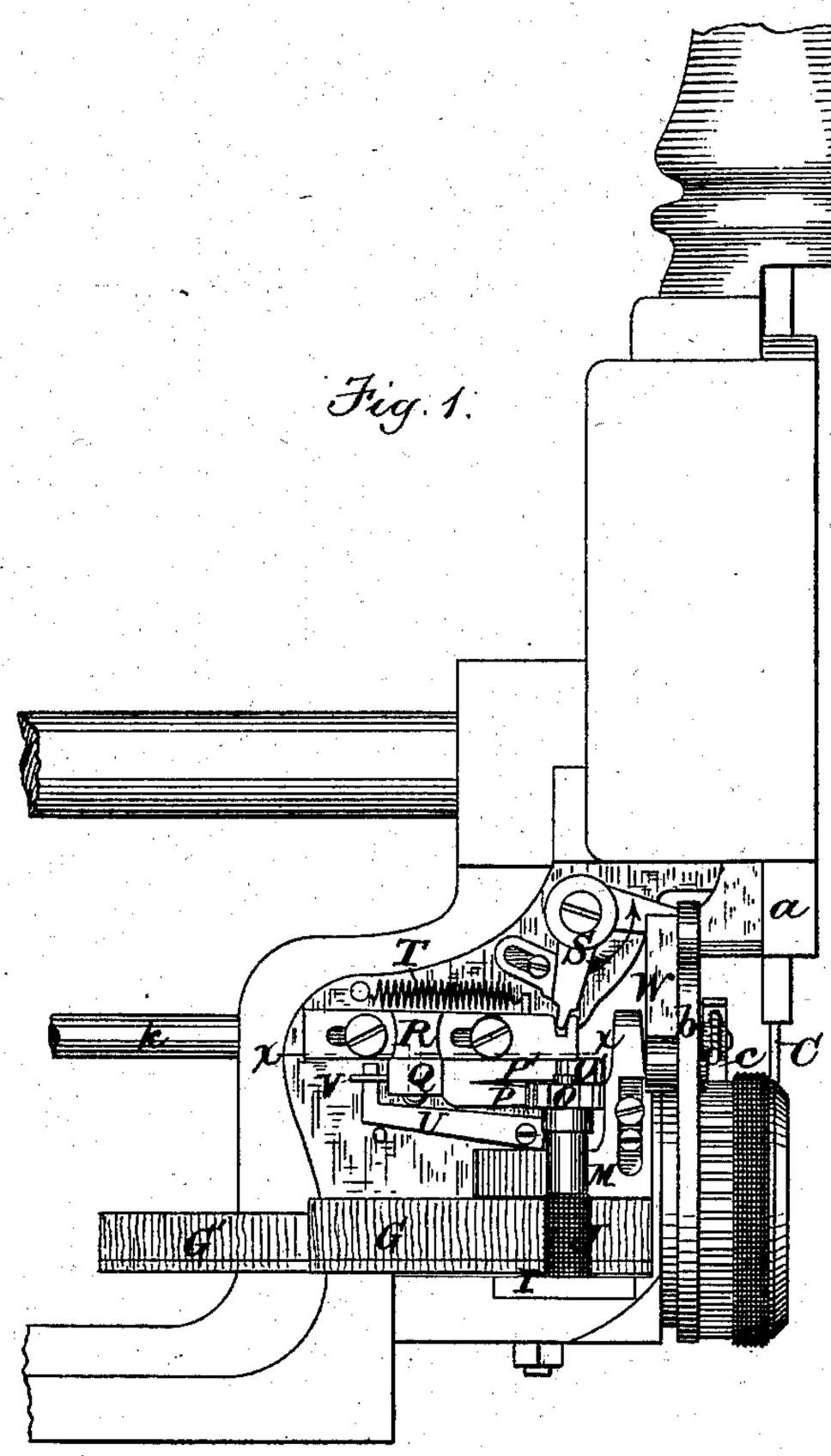


Fig. 2.

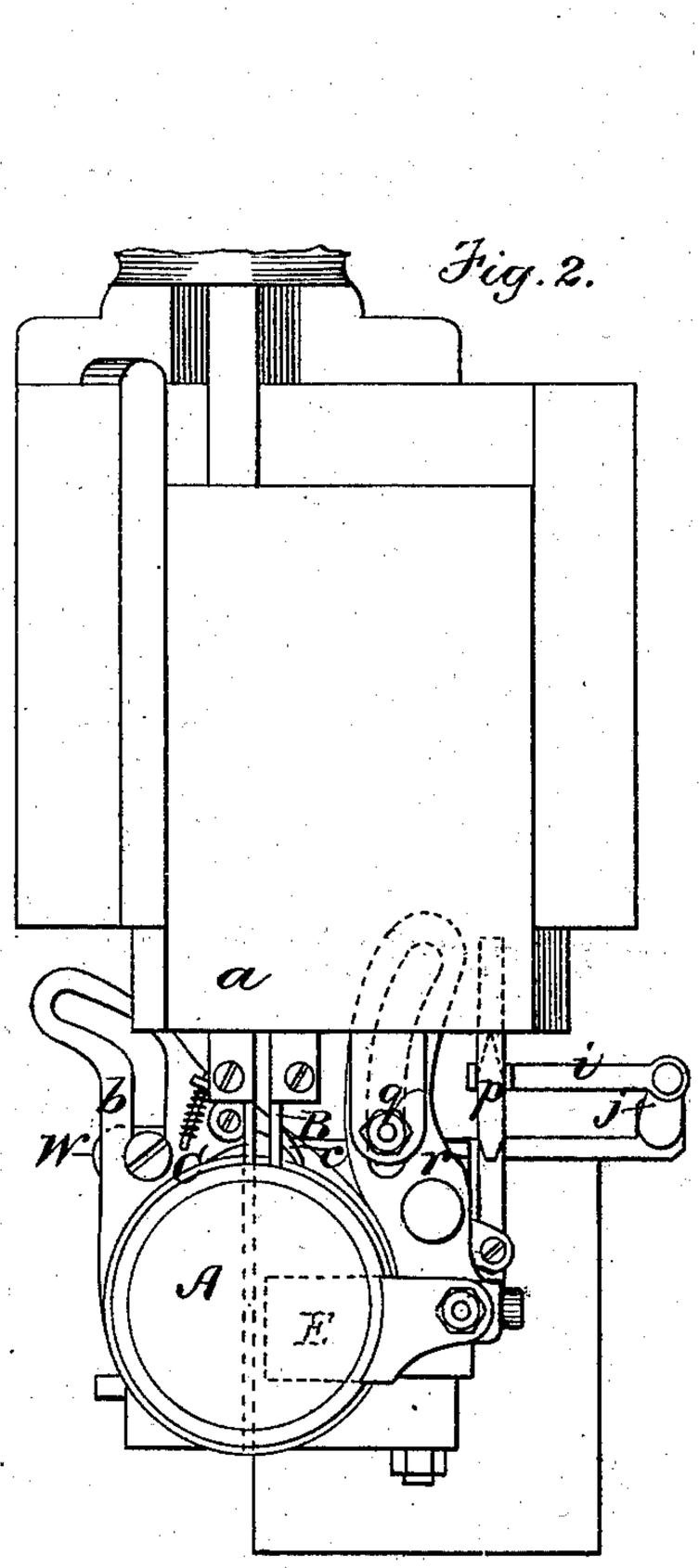


Fig. 4.

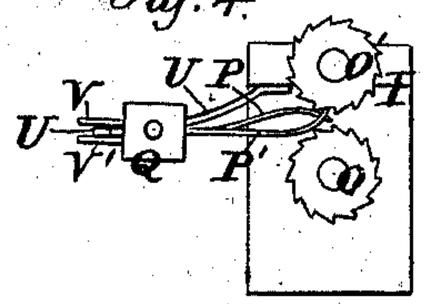


Fig. 6.

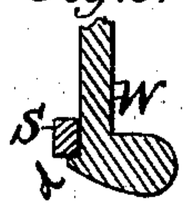


Fig. 3.

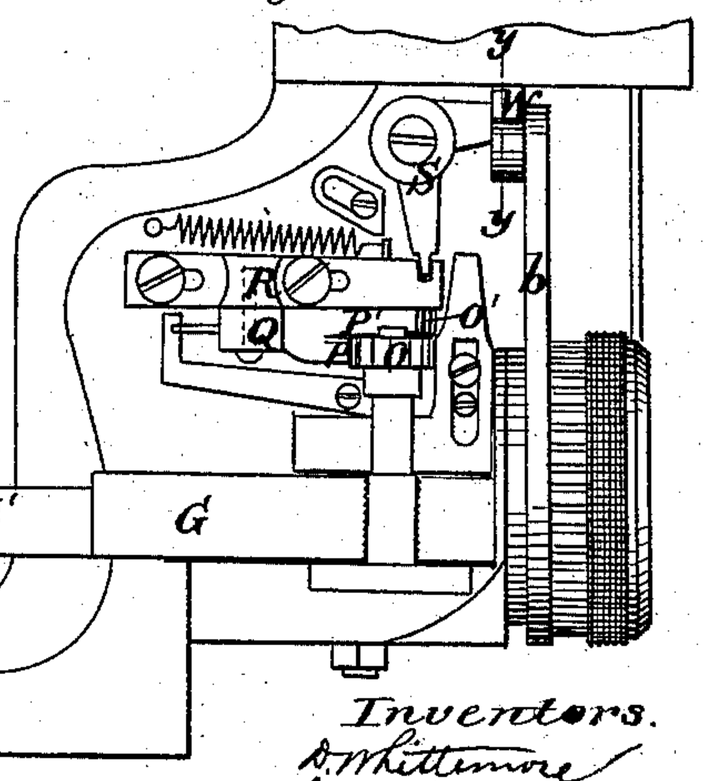
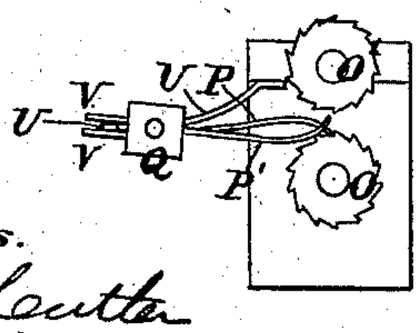


Fig. 5.



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Attys

(No Model.) 2 Sheets—Sheet 2.

D. WHITTEMORE & A. EPPLER, Jr

PEGGING MACHINE.

No. 255,064. Patented Mar. 14, 1882.

Fig. 7.

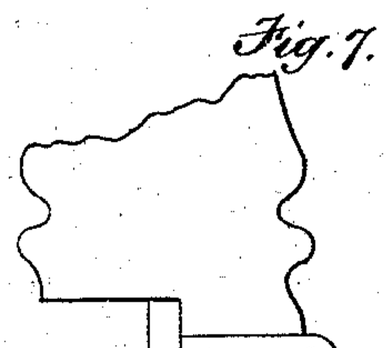


Fig. 13.

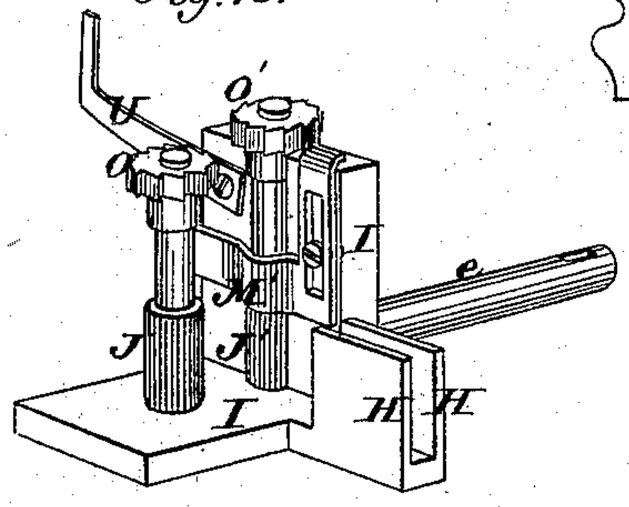


Fig. 14.

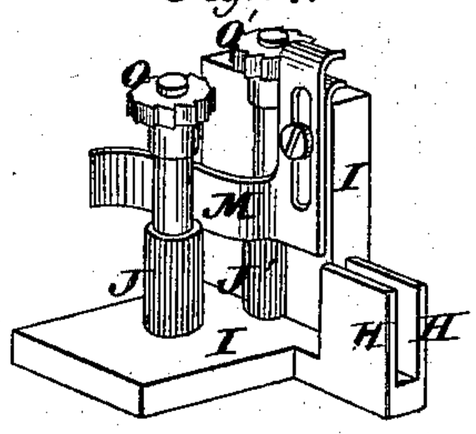


Fig. 9.

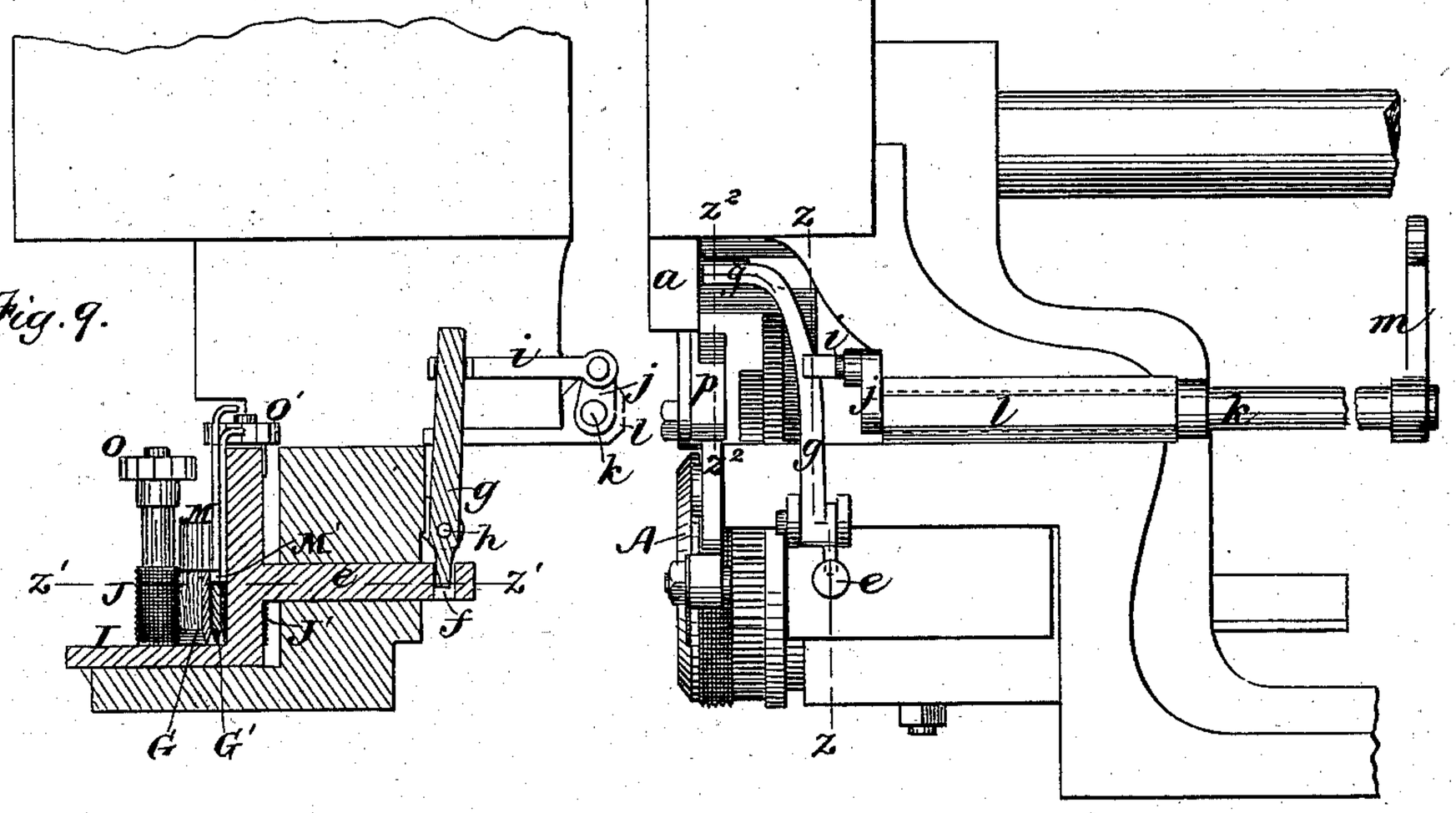


Fig. 10.

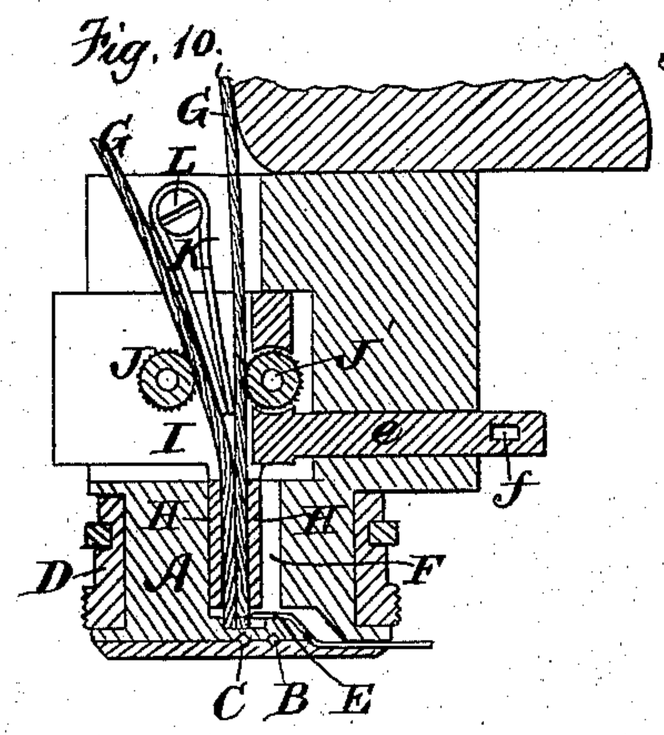


Fig. 11

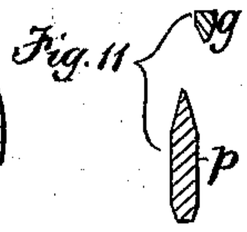


Fig. 12

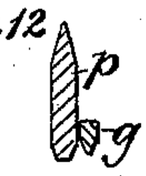
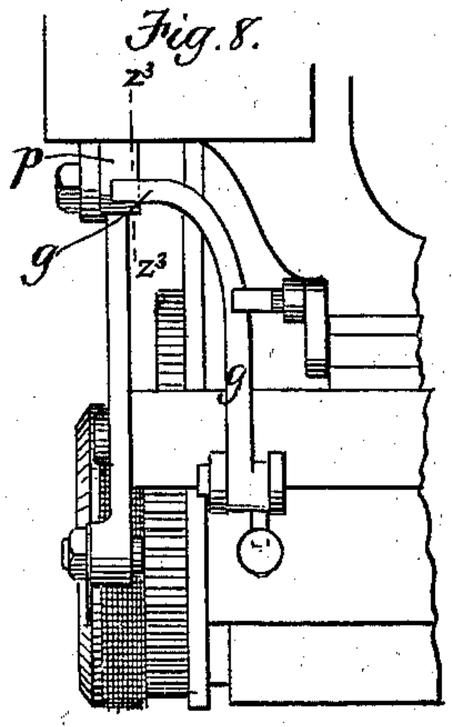


Fig. 8.



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UNITED STATES PATENT OFFICE.

DAVID WHITTEMORE AND ANDREW EPPLER, JR., OF QUINCY, MASSACHUSETTS; SAID EPPLER, JR., ASSIGNOR TO SAID WHITTEMORE.

PEGGING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 255,064, dated March 14, 1882.

Application filed January 9, 1882. (No model.)

To all whom it may concern:

Be it known that we, DAVID WHITTEMORE and ANDREW EPPLER, Jr., both of Quincy, in the county of Norfolk and State of Massachusetts, have invented certain Improvements in Pegging-Machines, of which the following is a specification.

This invention relates to that class of pegging-machines in which pegs are severed one by one from a continuous strip of peg-wood.

The object of the invention is to enable a machine of this class to employ two strips of peg-wood of different widths and drive pegs from either strip, as may be desired, so that longer and shorter pegs may be successively inserted, or longer pegs in portions of a sole and shorter pegs in other portions, the change from one length to the other being effected, if desired, without stopping the operation of the machine.

To this end our invention consists in the several improvements which we will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a side elevation of a portion of a pegging-machine embodying our invention. Fig. 2 represents a front elevation of the same. Fig. 3 represents the same elevation shown in Fig. 1, with some of the parts in different positions. Fig. 4 represents a plan view of feeding devices under the line *x x*, Fig. 1. Fig. 5 represents the same plan with the pawls in a different position. Fig. 6 represents a section on line *y y*, Fig. 3. Fig. 7 represents an elevation of the opposite side from that shown in Fig. 1. Fig. 8 represents the same elevation with certain parts in different positions. Fig. 9 represents a section on line *z z*, Fig. 7. Fig. 10 represents a section on line $z' z'$, Fig. 9. Fig. 11 represents a section on line $z^2 z^2$, Fig. 7. Fig. 12 represents a section on line $z^3 z^3$, Fig. 8. Figs. 13 and 14 represent perspective views of details.

The same letters of reference indicate the same parts in all the figures.

In the drawings, A represents the fixed head or portion of a pegging-machine in which the perforating-awl B and driver C reciprocate, and on which the rotary feed ring or wheel D is journaled, said head being constructed as usual to receive the awl and driver and the peg-severing cutter E.

F represents the opening or slot in the head through which the peg-strips G G′ pass to the driver. Said opening or slot, instead of being only of sufficient width to receive one peg-strip, is of sufficient width to receive the two strips and the guides or flanges H H, between which said strips pass, and also to permit the strips and guide-flanges to move laterally a distance equal to the thickness of one peg-strip, so that either strip may be brought into position to be presented to the severing-knife and driver. The guide-flanges H H are rigidly attached to a carrier, I, which is adapted to be moved by the operator or attendant in the direction required to give the above-described movements to the flanges H H and peg-strips G G′. The carrier I is provided with two vertical feed-rolls, J J′, between which the peg-strips G G′ pass. Said strips are pressed respectively against the rolls J J′ by the ends of a bent spring, K, which bestrides and is adapted to turn upon a pin, L, affixed to the frame of the machine, so that when the carrier I is moved in one direction or the other the spring K, turning on its pin, always maintains the same operative relation to the peg-strips. Said strips are held against vertical displacement by edge-guides M M′, which are attached to the carrier I by screws passing through vertical slots, as shown in Figs. 13 and 14. Said guides bear upon the upper edges of the peg-strips G G′, as shown in Fig. 9, and are vertically adjustable by means of said slots and screws. The feed-rolls J J′ are provided respectively with ratchets O O′, located at different heights.

P P′ represent two pawls secured to a block, Q, which is pivoted to a sliding bar, R, on the fixed frame of the machine. Said bar is engaged with a bell-crank lever, S, pivoted to the frame of the machine, and is moved forward by said lever, when the latter is turned in the direction indicated by the arrow in Fig.

1, by means hereinafter described, and backward by a spring, T, when said lever is released. The slide R is thus reciprocated, and the pawls P P′ are reciprocated with it, and caused to operate the feed-rolls J J′ by engaging the ratchets O O′. Said pawls are so arranged that only one of them can engage its ratchet at a time, one pawl being inoperative while the other is operating. The operating pawl is the one which rotates the feed-rolls of the peg-strip which is in line with the driver. Hence only that strip will be fed forward. The engagement of each pawl with its ratchet is effected by the movement of the carrier I through an arm, U, attached to said carrier, and projecting upwardly between pins V V′ on the pivoted block Q. When the carrier I is moved so as to present the strip G′ to the driver, the arm U of the carrier turns the block Q and pawls P P′ to the position shown in Fig. 4, thereby engaging the pawl P′ with the ratchet O′. When the holder is moved in the opposite direction, so as to present the strip G to the driver, the arm U turns the block Q and pawls P P′ to the position shown in Fig. 5, thereby engaging the pawl P with the ratchet O and disengaging the pawl P′ from the ratchet O′. It will be seen, therefore, that as each strip is brought into position to be presented to the driver the feeding mechanism of said strip is automatically brought into action, and at the same time the feeding mechanism of the other strip is made inoperative.

The bell-crank lever S is turned to move the slide R forward by the upward movement of the bar W on the sliding head *a*, said bar being the one usually employed to operate the rocking plate *b*, which carries the feed-wheel rotating pawl *c*. The bar W has a lug, *d*, which, as the bar rises, engages with the lever S, as shown in Fig. 6, and turns said lever upwardly.

The carrier I is provided with a rod, *e*, projecting through the fixed frame of the machine, as shown in Figs. 9 and 10, and having a slot, *f*, in its outer end, with which engages the short arm of a lever, *g*. Said lever is pivoted at *h* to the frame, and to its longer arm is connected a rod, *i*, pivoted to a crank, *j*, on a rock-shaft, *k*, which is journaled in a fixed bearing, *l*. The rock-shaft is provided with an arm, *m*, which may be connected to a treadle, or otherwise operated to turn the shaft. The shaft *k* being turned in one direction or in the other by the attendant, the carrier I is moved through the crank *j*, connecting-rod *i*, and intermediate lever, *g*, in a direction corresponding to the movement of the shaft *k*. The longer arm of the lever *g* is extended upwardly and is curved, as shown in Fig. 7 and 8.

p represents a bar attached to the slide *a*, and having a wedge-shaped upper end. The slide *a* is provided with a bar having a stud entering a curved slot in a pivoted lever, *r*, which is oscillated by the upward and downward movements of the slide and reciprocates the severing-knife E, the latter being moved as usual to sever a peg when the slide *a* is depressed. When the slide *a* is depressed the bar *b* is below the curved upper end of the lever *g*, as shown in Fig. 7, so that said lever is free to be oscillated and to move the carrier I, as above described. When the slide *a* is raised the bar *p* is beside the upper end of the lever *g*, as shown in Fig. 8, and prevents the lever *g* and carrier I from being moved. The attendant can move the carrier, therefore, when the slide *a* is depressed, and is prevented from moving it when the slide is elevated. The lever *g* is arranged so that when it is at the extreme of either of its movements its upper end will be in close proximity to one side or the other of the bar *p*. Hence if the operator should fail to move the lever *g* and carrier I far enough to properly present either peg-strip to the driver the wedge-shaped end of the bar *p* will strike the upper end of said lever and complete the intended movement of said lever, thus insuring the proper position of the carrier.

We claim—

1. In a pegging-machine, the combination, with the peg severing and driving mechanism, of the movable carrier adapted to hold two peg-strips, means for reciprocating said carrier, so as to cause it to present either strip to the severing and driving mechanism, two feed-rolls, one for each strip, feed-operating mechanism operated by the power of the machine, and automatic means whereby said operating mechanism is connected at each movement of the carrier with the feed-roll of the strip presented to the driver and disengaged from the other feed-roll, as set forth.

2. In a pegging-machine, the combination, with the peg severing and driving mechanism, of the movable carrier I, adapted to hold two strips of peg-wood, and provided with the guide-plates H H, projecting into a recess in the fixed head in which the driver reciprocates, as set forth.

3. In a pegging-machine, the combination, with the peg severing and driving mechanism, of the movable carrier adapted to hold two peg-strips, means for reciprocating said carrier, so as to cause it to present either strip to the severing and driving mechanism, two feed-rolls, J J, supported by and moving with the carrier, and the bent spring K, adapted to press each strip of peg-wood against its feed-roll, and pivoted to a fixed support, whereby the spring is enabled to swing back and forth and accommodate itself to the movements of the carrier, as set forth.

4. The combination of the peg severing and inserting mechanism, the movable carrier I, having the feed-rolls J J′, the block Q, pivoted to a sliding support, R, and provided with pawls P P′, adapted to engage respectively with the ratchets of the rolls J J′, the arm U, attached to the carrier I and engaged with the pivoted block Q, whereby when the carrier I is moved one or the other of said pawls is au-

tomatically engaged with its ratchet, according to the direction in which the carrier I is moved, and mechanism for reciprocating the sliding support R and the pawls P P′, as set forth.

5. The movable carrier I, having duplicate feed-rolls J J′ and pressure-spring K, and the duplicate adjustable edge guides M M′, as set forth.

6. The combination, with the movable carrier I, having the duplicate strip holding and feeding devices and the slotted arm *e*, of the means for moving or adjusting said carrier, said means consisting of the pivoted lever *g*, engaged with the slotted arm *e*, and the rock-shaft *k*, having the crank *j* and connecting-rod *i*, as set forth.

7. The combination of the movable carrier I, the pivoted lever *g*, adapted, when turned on its pivot, to move the carrier I, and the vertically-reciprocating bar *p*, adapted to insure the proper adjustment of the movable carrier in either direction.

In testimony whereof we have signed our names to this specification, in the presence of two subscribing witnesses, this 30th day of December, A. D. 1881.

DAVID WHITTEMORE.
ANDREW EPPLER, JR.

Witnesses:
C. F. BROWN,
A. L. WHITE.