2 Sheets Sheet 1

P Wells,

Pegging Machine.

No. 30,950. Patented Dec. 18, 1860.

Fig. 1

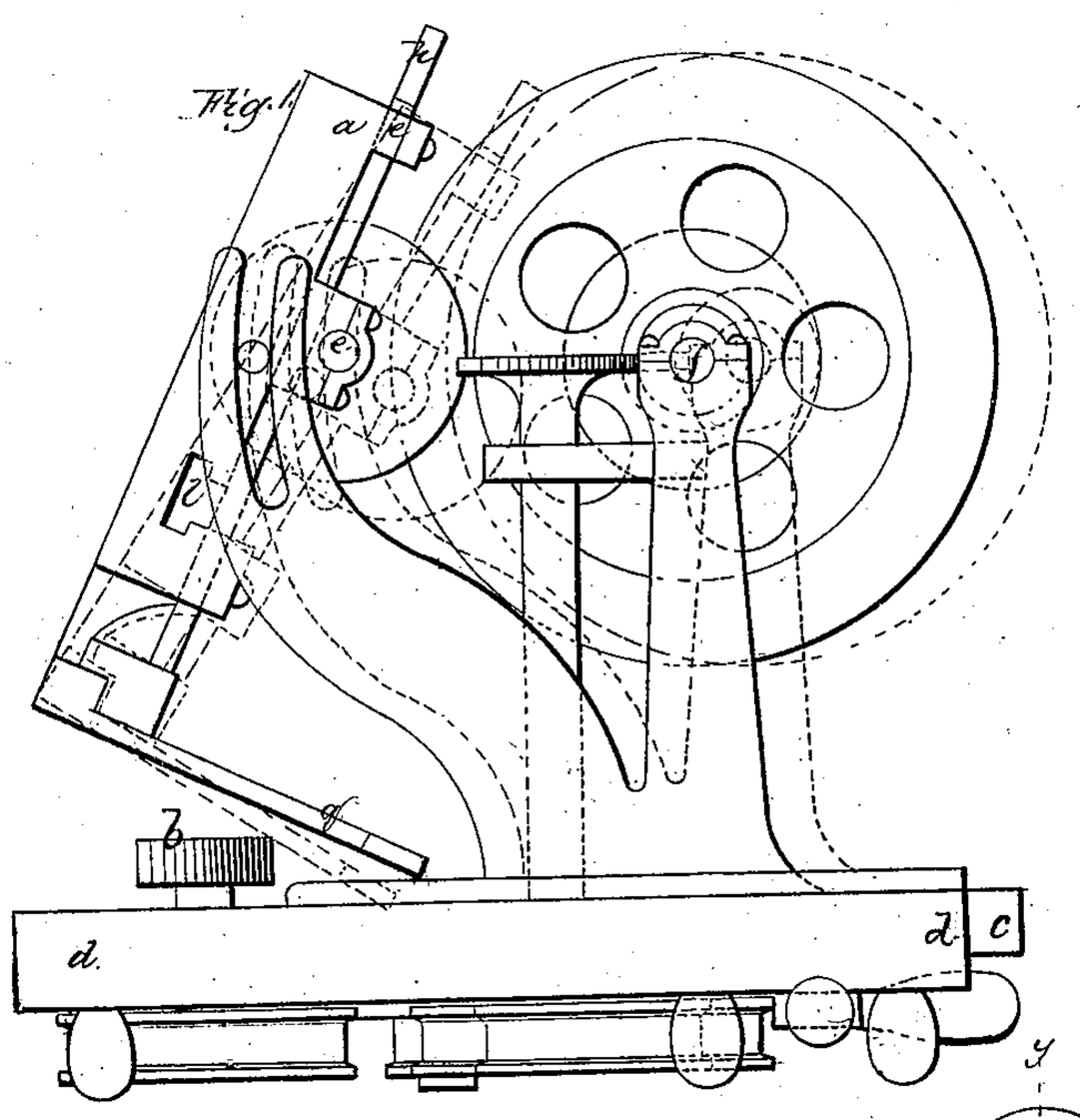


Fig. 5.

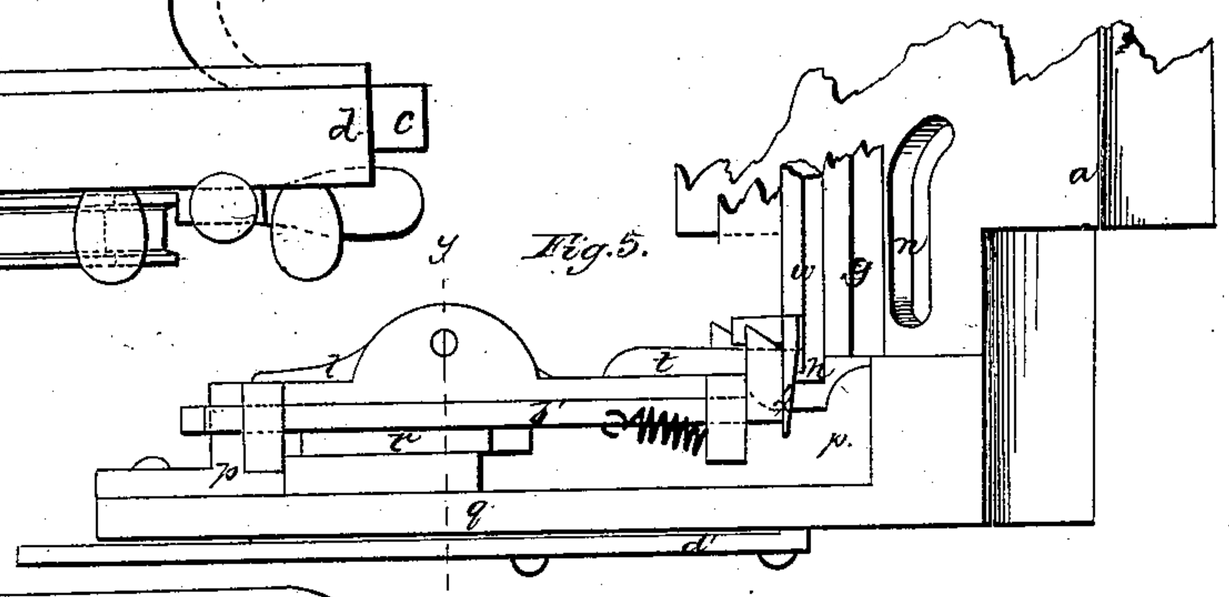
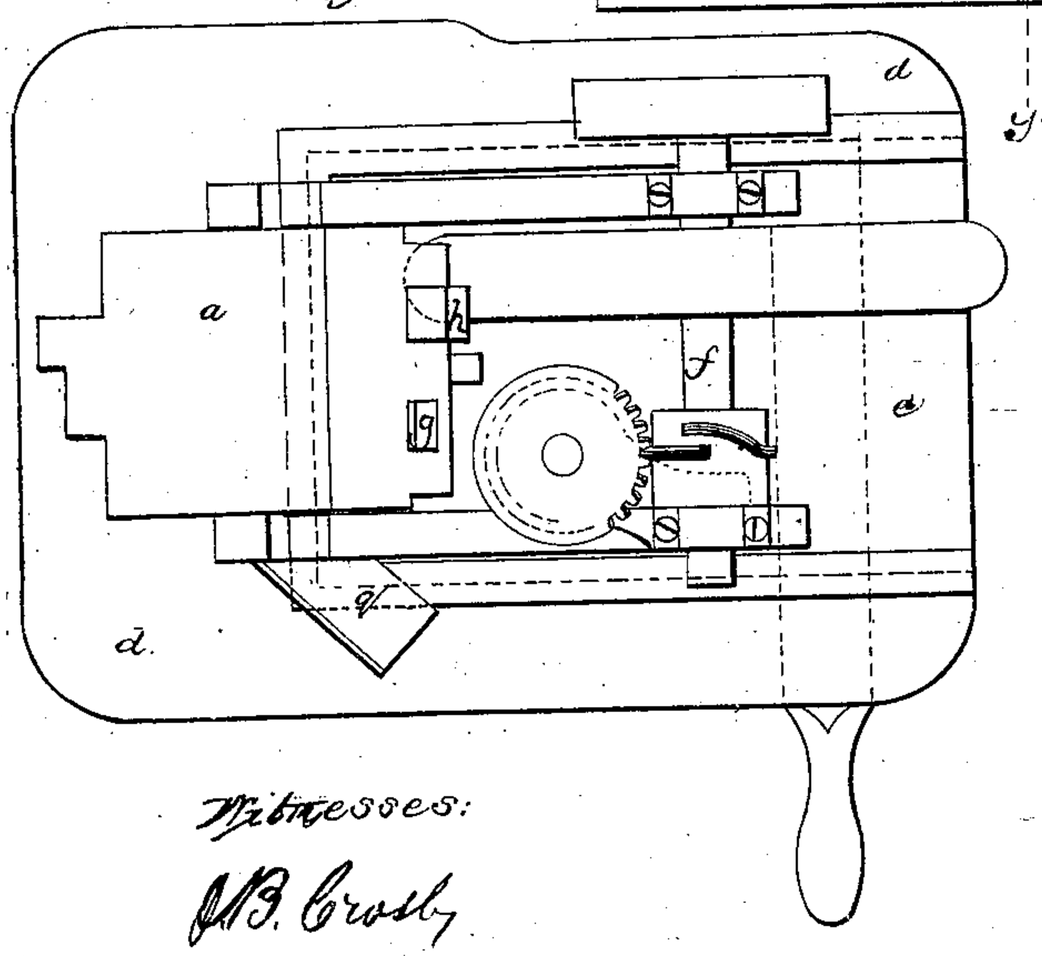


Fig. 2.



Witnesses:

W. B. Crosby

J. B. Collins

Inventor:

Parker Wells.

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2 Sheets - Sheet 2

Pegging Machine.

No. 30,950. Patented Dec. 18, 1860.

Fig. 3.

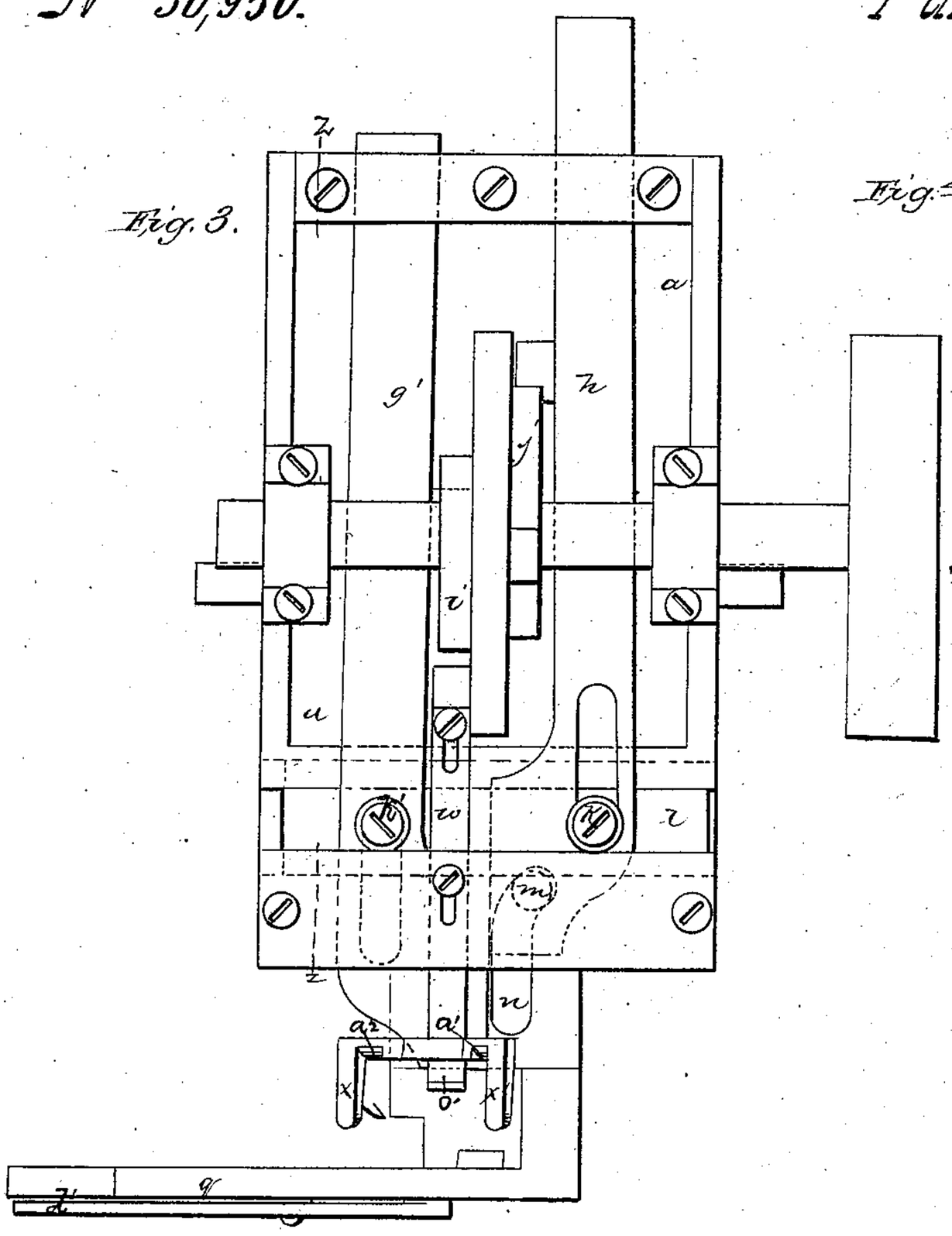


Fig. 4.

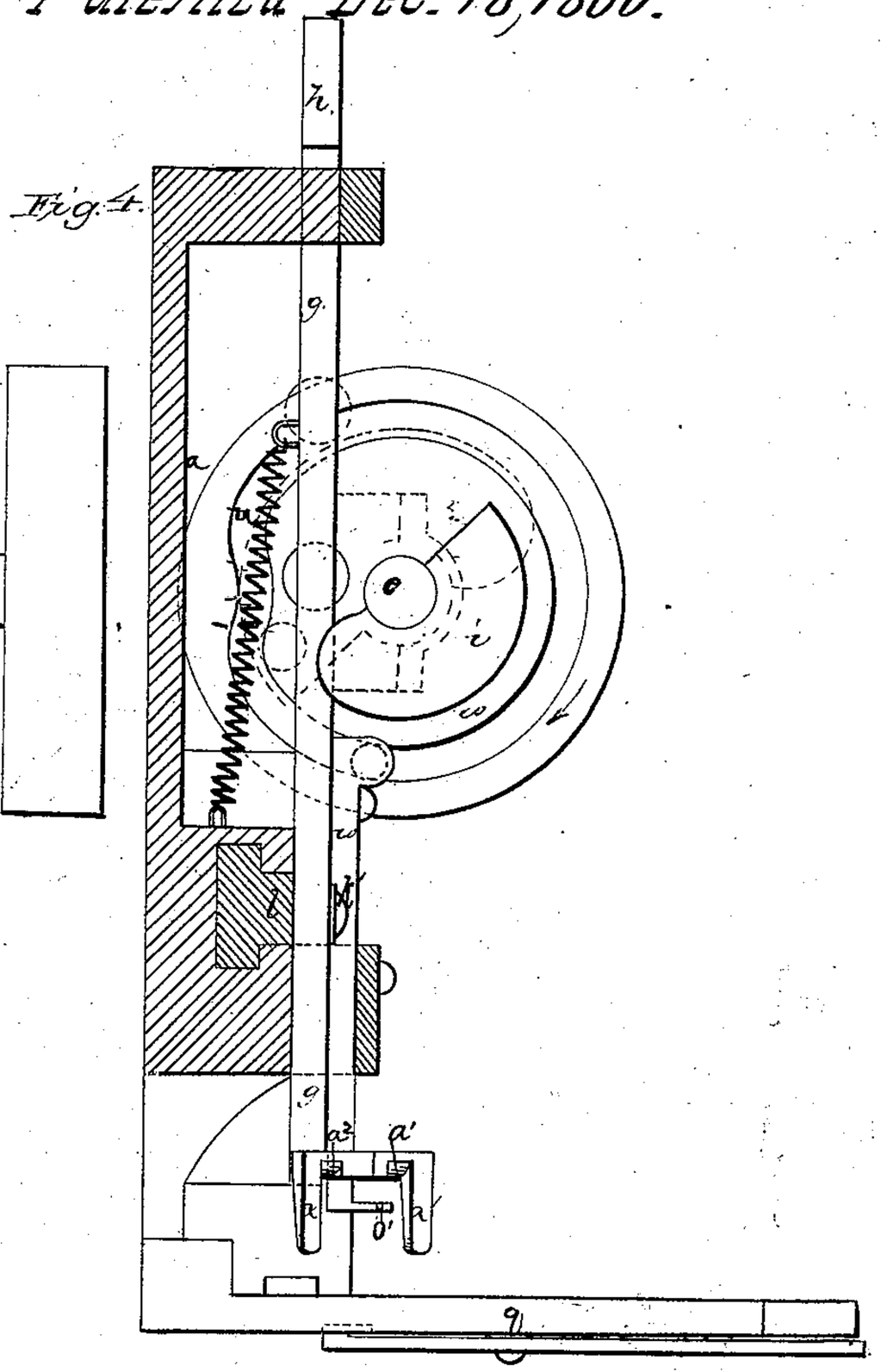


Fig. 7.

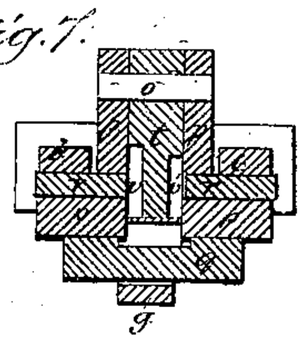
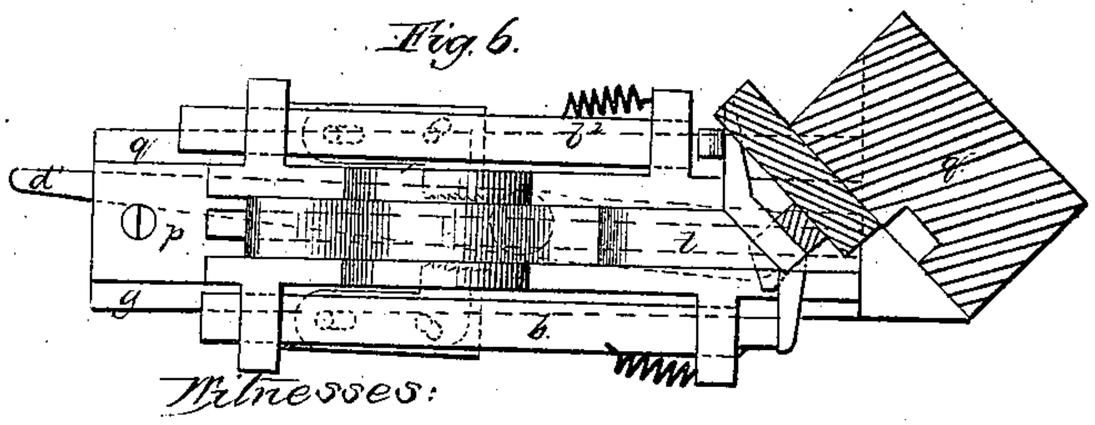


Fig. 6.



Witnesses:

J. B. Crosby

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Inventor:

Parker Wells.

UNITED STATES PATENT OFFICE.

PARKER WELLS, OF MIDDLETON, MASSACHUSETTS, ASSIGNOR TO E. TOWNSEND AND WM. WELLS, OF BOSTON, MASSACHUSETTS.

PEGGING-MACHINE.

Specification of Letters Patent No. 30,950, dated December 18, 1860.

To all whom it may concern:

Be it known that I, PARKER WELLS, of Middleton, in Essex county, in the 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 so full and exact as to enable those skilled in the art to practice it.

My invention relates to pegging machines of the following general description—viz., such as have a head capable of rising, falling, and oscillating or swinging, which head has fixed to it the awl and peg driver bars, and the mechanism which actuates them, and the peg wood box with the mechanism which feeds the pegs to the work, and also a mechanism for properly moving the "jack," to which the work is fixed, to and under the pegging mechanism at regular and proper intervals both of distance and time.

It consists in changing the supply, to the pegging mechanism, of pegs of one length for those of another length, without interrupting the pegging operation, by means operating substantially as described. Also in the details of mechanism by which the driver and awl bars are made to oscillate so as alternately to come over and operate within the peg tube—in the means employed for alternately operating one peg feed mechanism or the other, according as one or the other of the rows of peg wood is in position to supply pegs to the work. Also in the arrangement of the cam shaft *e* in such a manner that its direction of rotation, in the operation of the machine, shall operate to keep the edge gage of the pegging head closely in contact with the edge of the sole. And in the means employed operating substantially as described for changing at the will of the operative the angle at which the pegs are driven into the work.

In the drawings similar letters refer to similar parts in the different figures, of which—

Figures 1, and 2, show a general side elevation and plan of a pegging machine embodying my invention. Fig. 3 is an elevation, in detail, of the head *a* which carries the mechanism which operates upon the pegs. Fig. 4 is a vertical sectional elevation taken through the head *a* in the line *z z* seen in Fig. 3. Figs. 5 and 6 are respectively a side elevation and plan of the peg wood box and the mechanism connected therewith, and Fig. 7 is a cross section taken on line *y y* seen in Figs. 5 and 6.

The cogged and grooved guide pattern which carries the shoe and which is operated by the pinion *b* is not shown, as it is common and well known.

The mechanism by which the pinion *b* is operated is fixed, together with the slotted standards which guide and control the movements of *a*, to a slide *c* which is capable of being moved in or on the bed plate *d* toward or from the pinion *b*. The effect of such a movement is to change the angle at which the pegs are driven into the work by changing the angle of the head, as illustrated by the drawing in red lines in Fig. 1. The point at which the pegs enter the work from the peg tube in the head *a* being nearly a fixed point, upon and from which the head vibrates as the slide *c* is moved backward or forward.

The shaft *e* in the head which carries the cams which operate the pegging mechanism, is rotated in the direction indicated from the main shaft, *f* of the machine, sprocket wheels being fixed to each of these shafts with a chain passing around them. The direction of the rotation of shaft *e* has a tendency to keep the outlet of the peg tube at its proper place over the sole by pressing the gage which is usually fixed to the peg box against the edge of the sole, while the weight of the head keeps the outlet of the peg tube close in contact with the surface of the sole. The awl and driver bars, *h* and *g*, are alternately operated by cams *j* and *i* on shaft *e* and by the contraction of spiral springs. These bars are guided in slots made in the head *a* at its top, and also, near the bottom of the bars, by guide pins *k k′* which are fixed in the slide *l*. A pin *m* fixed in bar *h* fits within the cam or inclined slot *n* made in the head. It is obvious that reciprocation of bar *h* will move slide *l* by means of pins *k* and *m* and slot *n*, and as bar *g* is connected to *l* by *k′*, it, as well as *h*, will have a lateral movement to bring the peg driver and awl, over the peg tube. In certain parts of boots and shoes the distance in the direction in which the pegs are driven from the outer part of the outer sole to the inner part of the inner sole is greater than in others. This

renders it a desideratum to drive pegs of lengths varying with the requirements of the different parts of the work. I accomplish this object by providing my peg box with separate channels for the reception of slips of peg wood suited to form pegs of different lengths, each of which is acted upon, at the proper time, by an independent feed movement. This peg box is pivoted to the piece q at the end remote from the peg tube, and so that by shifting the peg box on its pivot one or the other of the peg wood channels can be brought into line with the peg tube so that pegs can be fed from the channel in line directly into the peg tube, which is the small passage through which the pegs are directly driven into the sole and into which the awl and driver play. This pivoted piece p has two ledges which extend upward from its base, and between and to which the piece t is hung at o.

By reference to Fig. 7 it will be seen that the sides of t are rabbeted out so as to form the peg wood channels v v'. The bottom of these channels is formed by a spring s which is fixed by its end farthest from the peg tube to the piece t. It will be seen that the channels v v' are of different lengths for different lengths of peg wood, and it is intended to provide the machine with numbers of the pieces t, easily interchangeable in it and having such different heights of channels as will meet the varying requirements of different cases. The feeding instruments r r are so connected to p that they move with it; they project through the vertical ledges of p and operate against the side of the peg wood with a movement to and from the peg tube and to and from the peg wood which is produced as follows—viz: The grooved cam u fixed on e raises and lowers the bar w which is provided at its lower end with planes x x and inclines a' a^2 as seen in Figs. 3 and 4. These are so arranged that the ends of the bars b', b^2 are alternately in contact with the inclines or planes according to the position of the piece p.

When the peg box is so placed that the incline operates upon one of the bars b' or b^2, to drive it back, extending its spring c' the end of the other bar is against one of the planes x, x' and is not operated by the vertical movement of the bar w. The bars b' b^2 reciprocate in guides fixed to p and operate the feeding instruments r r by pins working in inclined slots in r r. The ends of b' b^2 are inclined where they are operated upon by the inclines a' a^2. The change of the position of p so as to supply one or the other length of peg is effected by the operative through the lever d' which is pivoted to q and connected to p. A projection from w at o' extends into a groove made to receive it in the end of t by which the reciprocations of w are imparted to t to lift the points of the peg wood higher than the knife before or when the peg wood is fed, and when fed to press the peg wood upon the knife to split off a peg, and to keep the peg wood from working forward into the tube before the proper time.

Having described my invention, what I claim as new and desire to secure by Letters Patent of the United States is—

1. Changing the supply of pegs of one length for others of a different length, by substantially the means described for changing the position of the peg wood channels v, v'.

2. The described arrangement of the awl and driver bars h and g, which consists in permitting them to oscillate in the top of the head a when they are connected with a slide l, which is made to reciprocate substantially as, and by the means, described.

3. The arrangement shown and described of the shaft e, both with regard to its direction of rotation and position, by which the usual gage on the pegging head a is kept pressed against the edge of the sole.

4. The arrangement described by which the whole of the peg driving mechanism is changed in its position, relative to the pinion b which actuates the boot or shoe carrier, for the purpose of altering the angle at which the pegs are set in the work.

Executed by me this twenty-second day of September A. D. 1860.

PARKER WELLS.

In the presence of—

J. B. Crosby,

J. B. Collin.