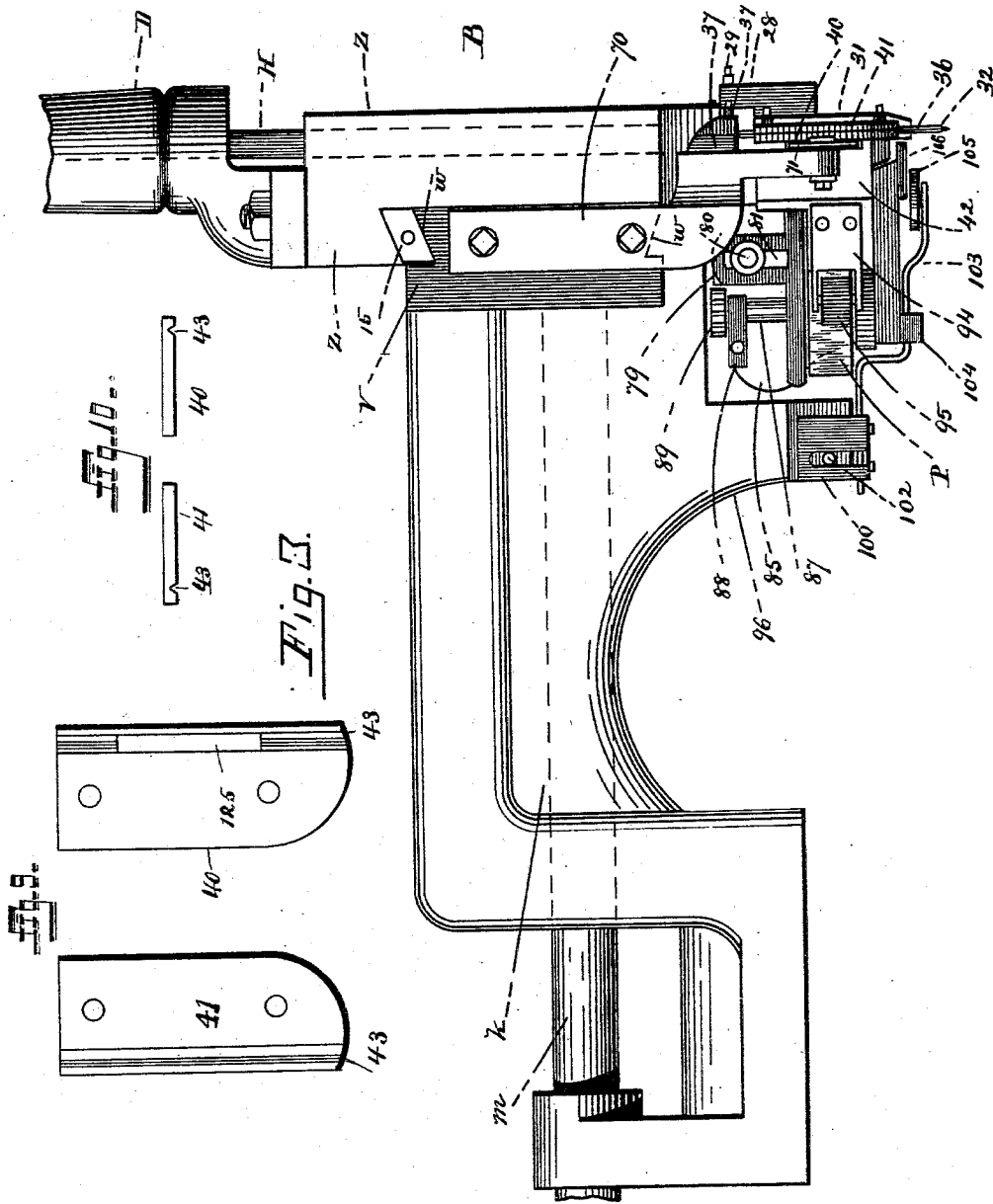


J. F. DAVEY.
PEGGING MACHINE.

No. 414,501.

Patented Nov. 5, 1889.



WITNESSES:
J. D. Matthews.
Henry S. Fayson.

INVENTOR
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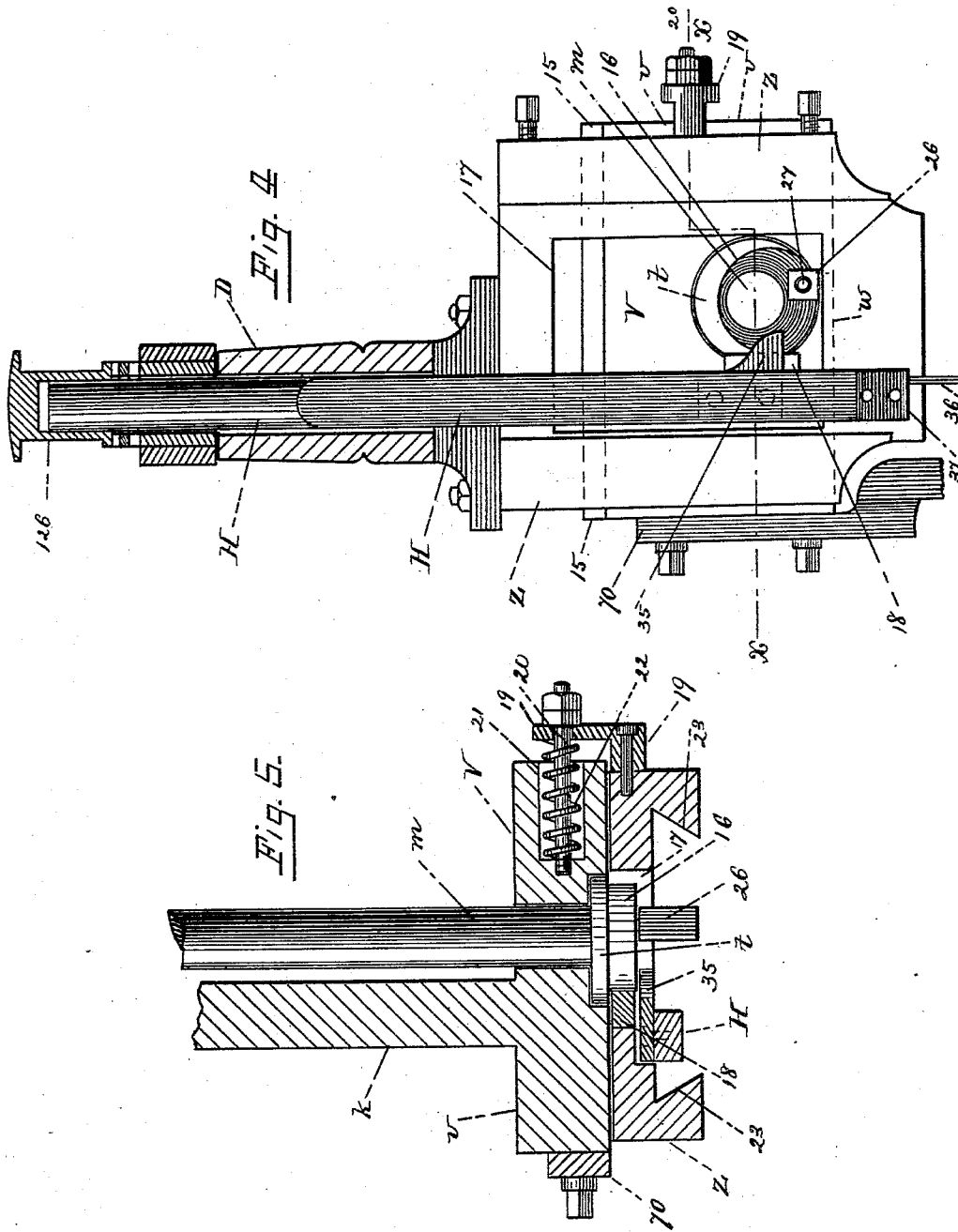
(No Model.)

4 Sheets—Sheet 3.

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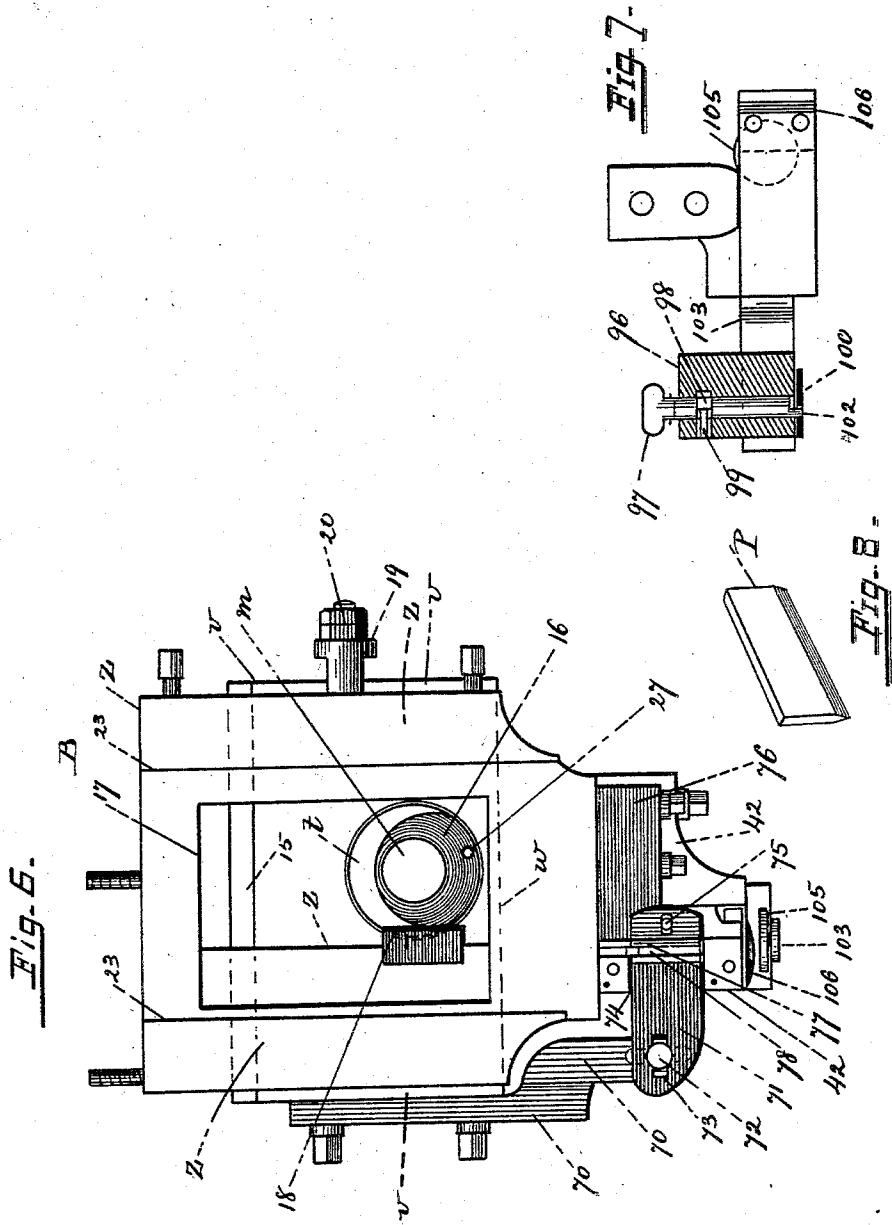
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UNITED STATES PATENT OFFICE.

JOHN F. DAVEY, OF MARLBOROUGH, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND MICHAEL BURK, OF SAME PLACE.

PEGGING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 414,501, dated November 5, 1889.

Application filed February 18, 1889. Serial No. 300,330. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. DAVEY, of Marlborough, in the county of Middlesex, State of Massachusetts, have invented a certain new and useful Improvement in Pegging-Machines, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of my improved pegging-machine; Fig. 2, an enlarged front elevation of the body proper; Fig. 3, a side elevation of the same; Fig. 4, a front elevation of the awl-bar, the actuating-plate being removed; Fig. 5, a horizontal section taken on line *x x*; Fig. 6, a front elevation showing the cam, the awl-plate and hammer being removed; Fig. 7, an enlarged view illustrating certain details of construction; Fig. 8, a perspective view of a portion of the peg-strip; Fig. 9, an enlarged elevation of the guide-plates removed, and Fig. 10 a top plan view of the same.

Like letters and figures of reference indicate corresponding parts in the different figures of the drawings.

My invention relates especially to that class of pegging-machines in which wooden pegs are employed; and it consists in certain novel features, as hereinafter fully set forth and claimed, the object being to produce a simpler, cheaper, and more effective device of this character than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation.

In the drawings, A represents the body or standard of the machine, and B the body proper. The body A consists of a standard supported on legs *b*, (see Fig. 1,) and between said legs is pivoted a treadle *d*, having a foot-piece *e* and counterbalance-weight *f*. A vertical rod *g* is pivoted by its lower end to the treadle *d*, said rod having upon its upper end a pegging-jack C, provided with spindle *h* and toe-piece *i*. The pegging-jack may be of

the ordinary form and construction common to machines of this class.

To the top of the body A is secured a forwardly-projecting arm *k*, at the outer end of which the body B, hereinafter described, is secured. A horizontally-arranged shaft *m* is journaled in said arm, and bears a clutch mechanism of any suitable construction connected with a treadle mechanism.

Upon the forward end of the shaft *m* is secured a disk *t*, (see Figs. 4 and 5,) which rotates in a corresponding opening in the head *v* of the arm *k*. The head *v* is dovetailed horizontally at *w*, (see Fig. 3,) and fitted to slide laterally on said head is a block *z*, provided on its rear side with a dovetailed groove adapted to receive said dovetailed head. A horizontally-arranged gib *l* is disposed in the upper dovetail *w* between said head and block.

On the face of the disk *t* is secured a cam *16*, which projects into a rectangular opening *17* in the block *z*, (see Figs. 5 and 6,) and engages a stud *18* on an edge of said opening when the shaft revolves, thereby moving said block from right to left on said head when the shaft is in motion. An arm *19* projects laterally and rearwardly from one side of the block *z*, and a bolt *20* (see Fig. 5) passes through the end of said arm, and is secured in the inner end of a chamber *21* in the head *v*. A coiled spring *22*, disposed around the bolt *20*, acts expansively against the arm *19* to return the block *z* after it has been moved by the cam *16*, as described. The forward face of the block *z* is provided with a vertical dovetail groove *23*, (see Fig. 5,) a plate *24* being fitted to slide vertically in said groove. (See Fig. 2.) A gib *135* is inserted in the groove *23* at one edge of said plate. A horizontally-arranged rectangular slot *25* (see Fig. 2) is formed in the plate *24*, and fitted to slide in said slot there is a rectangular block *26*, in which a stud *27*, projecting from the face of the cam *16*, revolves, the purpose of said block being to move the plate *24* vertically as the cam-disk is rotated. A plate *28* (see Figs. 2 and 3) is secured by bolts *29* to the lower end of the plate *24*, said bolts passing through horizontal slots *30*, whereby said

plate 28 may be laterally adjusted. Downwardly-projecting clamping-plates 31 are secured to the lower end of the plate 28, the awl 32 being held in said clamp.

5 Secured to the top of the sliding block *z* there is an upwardly-projecting hollow standard D, and fitted to slide vertically in said standard there is a plunger-bar H, (see Figs. 2 and 4,) the lower portion of said bar being
10 preferably rectangular in cross-section and moving in a vertical guide-slot in rear face of the vertical sliding plate 24. A stud 35 projects laterally from the plunger-bar H into the path of the block 26, which engages
15 said stud from below at each revolution of the cam and elevates the plunger. A vertically-arranged rod or hammer-bar 36 is secured by its upper end in clamping-plates 37 on the lower end of the plunger H. Two
20 vertically-arranged guide-plates 40 and 41, Figs. 9 and 10, are bolted to a downwardly-projecting arm 42, Fig. 6, on the block *z*, said plates being provided with a vertical groove 43, in which the hammer-bar 36 works. An arm 44 projects vertically from the top of the
25 standard D, Fig. 1, and is provided with a laterally-arranged head 45. A V-shaped spring 46, preferably constructed of two wooden bars 47 and 48, Fig. 1, has its free
30 ends disposed between the head 45 and top of the plunger H, the purpose of said spring being to force the plunger downward after having been elevated by the block 26 engaging the stud 35, as described. A downwardly-
35 projecting arm 70, Figs. 2 and 6, is bolted to one edge of the head *v*, and a vertically-arranged cutting-blade 71 is secured to the lower end of said arm, said blade being adjustable longitudinally by means of a set-
40 screw 72 and slot 73. The inner end of the blade works in a groove 74, Fig. 6, in the arm 42 of the sliding block *z*. A cutting-block 75, Fig. 6, is adjustably secured to a block 76 on the lower end of the sliding block *z*, said
45 cutter-block being provided with a vertical groove 77, which receives the edge of the blade 71 when the block *z* is moved by the cam 16.

A longitudinally-opening or peg box 78, Fig. 6, is formed in the arm 42, and is adapted
50 to receive the wooden peg-strip P, Fig. 8, which is of the ordinary form employed in machines of this class. A guide-bar 79, Fig. 3, is disposed longitudinally above the peg-slot 78, and is adjustable vertically on the
55 arm 42 by means of a set-screw 80 and slot 81.

The hub 87 of the roll 83, Fig. 3, is extended vertically, and is journaled in a plate 88. On the upper end of said hub is secured a ratchet-wheel 89.

60 A gage to regulate the distance of the peg-line from the edge of the shoe-sole is shown in detail in Fig. 7.

An arm 96, Fig. 3, projects downward from the body of the machine-arm *k* at the rear of the feed mechanism. A key 97 is fitted to rotate in the arm 96, said key having a squared
65 portion 98, Fig. 7, against which a spring 99

in the arm 96 bears to prevent said key from being accidentally moved. A plate 100, Fig. 3, is fitted to slide on the lower end of the
70 arm 96, said plate being provided with a vertical slot 101, through which the bit 102 of the key passes. A bar 103 is secured by its rear end to the plate 100, and projects under the arm 42, said bar sliding in a guide-loop 104
75 on the under side of said arm, and provided on its forward end with a guide-roll 105, disposed adjacent to the awl 32. The roll 105 is designed to engage the edge of the shoe-sole, and above said roll on the arm 42 there is secured
80 a circular corrugated guide-plate 106, Figs. 3 and 6, which engages the bottom of the shoe-sole.

In the use of my improvement the shoe is adjusted on the jack C in the usual manner,
85 the bottom of the sole being held against the guide-plate 106 and its edge against the roll 105, which has been suitably adjusted by means of the key 97. Motion being imparted to the shaft *m*, the disk *t*, as viewed in Fig. 4,
90 is rotated from left to right, forcing the cam 16 into engagement with the block 18 and driving the sliding block *z* in the same direction. The peg-strip P, having been disposed in the opening 78 of the peg-box so that its
95 outer end rests against the cutting-block 75, Fig. 6, is driven against the edge of the knife 71 by the movement of the block *z*, and a peg is thereby cut from said strip. As the cam 16 leaves the block 18 the spring 22 in the
100 chamber 21, Fig. 5, of the head *v* acts expansively and returns the sliding block *z* to its original position. On the return motion of the block *z* the feed mechanism is actuated and the peg-strip moved forward a corre-
105 sponding distance or in position to have another peg cut therefrom. This forces the peg which has previously been formed from the strip into a slot 125 (see Fig. 9) in the guide-plate 40, thus disposing it in the hammer-
110 groove 43 in position to be driven by said hammer. As the cam 16 continues to revolve in moving the block *z* laterally its pivoted block 26 engages the upper end of the awl-plate 24 and begins to elevate said plate, and nearly
115 simultaneously therewith said block engages the stud 35 on the plunger H, elevating said plunger with the awl-plate. When the block 26 leaves the stud 35, the spring 46, which has been compressed by the upward movement of
120 the plunger, at once forces said plunger downward and causes the hammer-bar 36 to drive the peg in the groove 43 of the guide-plates 40 and 41 into the peg-hole previously made by the awl 32 in the shoe-sole. The continued
125 rotation of the cam-disk now causes the block 26 to force the awl-plate 24 downward, following directly after the fall of the plunger and perforating the shoe-sole to receive another peg. The cam 16 again engages the block 18
130 and moves the sliding block *z* to the left, as before. It will be seen that this movement feeds the shoe in the same direction, it occurring while the awl is embedded therein. The

shape of the cam 16 is so regulated that it releases or leaves the block 18 immediately the cam-block 26 has raised the awl-plate sufficiently to withdraw the awl from the shoe, thereby permitting the spring 22 to return the sliding block *z*, and thus dispose the plunger directly over the peg-hole in position to drive the peg which has been forced into the plate-groove 43 by the feed mechanism at a prior movement of the sliding block *z*, as described.

Instead of having the spring 46 act directly on the plunger, I provide said plunger with a percussion-sleeve 126 on its top, as shown in Fig. 4; but it may be omitted, if desired.

Having thus explained my invention, what I claim is—

1. In a pegging-machine, the gage-bar 103, provided with the horizontal roll 105, in combination with the slotted plate 100 and key 97, fitted to rotate in the machine-body and having the bit 102 working in the slot of said plate, substantially as described.

2. In a pegging-machine of the character described, the guide-plates 40 and 41, secured to the cutter-block and provided with the hammer-bar groove 43 and peg-slot 125, substantially as described.

3. In a pegging-machine, the plunger H,

adapted to be elevated by a crank on the driving-shaft and provided with the hammer-bar 36, in combination with the guide-plates 40 and 41, provided with the groove 43 and peg-slot 125, and the spring 46, for depressing said plunger when released from said crank, substantially as described.

4. In a pegging-machine, the head *v*, provided with a peg-box, in combination with the block *z*, fitted to slide on said head and provided with the cutter-block 77, the adjustable knife 71, secured to said head, a cam on the driving-shaft for actuating said block, and a spring for returning the same, all being arranged to operate substantially as described.

5. In a pegging-machine, a head provided with a peg-box, a cam-actuated block sliding laterally on said head and provided with a vertical cutter-block, a longitudinally-adjustable knife on said head adapted to be engaged by said cutter-block, and a spring for returning the cam-block, substantially as described.

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Witnesses:

PETER ROGERS,
JOSEPH C. ALLEN.