

(No Model.)

J. BOWMAN.

MACHINE FOR MAKING KINDLING.

No. 305,733.

Patented Sept. 30, 1884.

Fig. 1

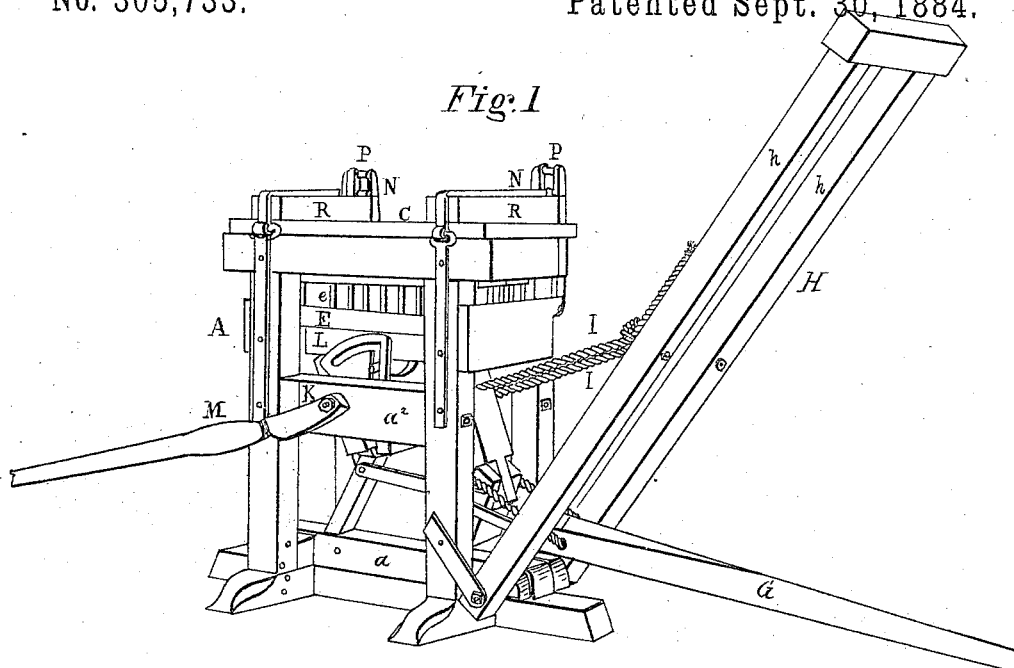
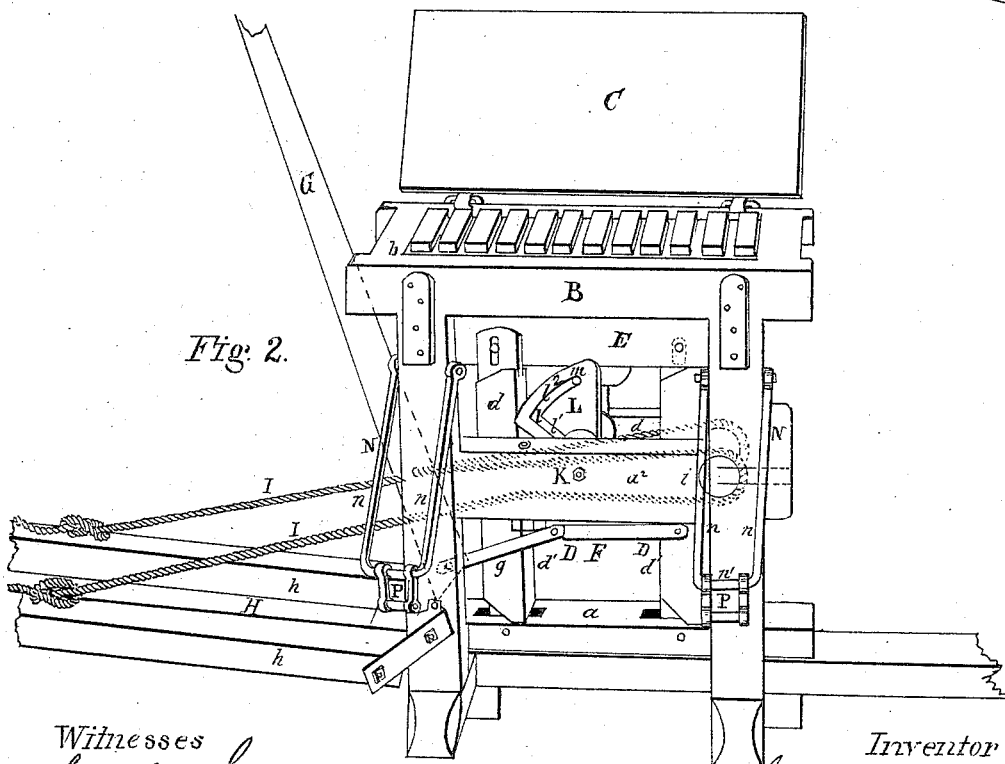


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN BOWMAN, OF PRINCEVILLE, ILLINOIS.

MACHINE FOR MAKING KINDLING.

SPECIFICATION forming part of Letters Patent No. 305,733, dated September 30, 1884.

Application filed January 29, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN BOWMAN, of Princeville, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in a Machine for Making Kindling; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 is a perspective view of the machine closed; Fig. 2, a side view showing the machine opened.

This invention relates to improvements in machines for making kindlings; and the invention consists in the construction hereinafter set forth.

In the annexed drawings, the letter A indicates a press formed of a suitable frame, to the top of which is secured the mold-board B, provided with the molds *b* and cover C, the molds being open at top and bottom.

Hinged within the bottom *a* of the frame are the lower legs, *d' d'*, of two toggles, D D, the upper legs, *d d*, of which carry beneath the molds a follower, E, furnished with as many pressers *e* as there are molds. These pressers correspond in shape and size with the molds and are aligned therewith. The lower legs, *d' d'*, of the two toggles are connected by a horizontal bar, F. Hinged to one end of the press is a lever, G, which is connected by a pivotal bar, *g*, with the bar F. Hinged to the same end of the press and straddling the lever G is another lever, H, consisting of the parallel arms *h h*, one on each side of lever G. At the opposite end of the frame is secured a pulley or double sheave, *i*, over which passes two ropes, I I, having their ends secured to the levers G and H, the lengths of the ropes being such that as one lever is up the other is down, as shown in the drawings.

Journaled in the sides *a' a'* of the press is a shaft, K, which carries at its ends within the sides of the press the sector-plates L L. These plates are provided with the slots *l l*, of the shape shown, such slots having a radial portion, *l' l'*, and a circular or peripheral portion, *l'' l''*. Within the slots rest pins *m m*,

which are secured to the sides of the follower E.

To one of the projecting ends of the shaft K is keyed a lever, M.

To the side of the press away from that to which the cover is hinged are pivoted the two cover-fastenings N N. These are long metallic loops consisting of the sides *n n* and ends *n' n'*. On these latter are hung the swinging catches P P, which are adapted to align with the loops when the latter are vertical.

Secured transverse the cover are two bars or battens, R R, which strengthen the top, and to which the hinge-straps are secured. These bars project slightly beyond the edges of the cover in line with the fasteners N N.

In use the press is arranged as shown in Fig. 1, and the hot soft mixture for the kindling is poured into the molds and the cover closed. The cover is held fast by swinging the fasteners N N up and letting the catch P drop down and over the ends of the bars R R. The lever G is then pulled up, which tends to straighten the toggles. At the same time the lever H is pulled down, which, through the ropes I I, assists the lever S. As this is done the follower E is moved upward, the pressers *e* entering the molds and pressing the material up against the cover. This upward movement of the follower brings the pins *m m* to the top of the radial portions *l' l'* of the slots *l l*. The operator then stands upon the lever H, thereby exerting his whole weight to straighten the toggles and fully compress the material in the molds. After waiting a short time to allow the matter to cool and set, the cover is unfastened and turned back. The lever M is moved so as to turn the shaft K and its sector-plates L L, and to cause the circular portion *l'' l''* of slots *l l* to travel past the pins *m m*. This causes the follower E to rise, the pressers *e* entering into the molds and forcing the completed kindlers out at the top, whence they can be removed and carried off.

Having thus described my invention, what I claim is—

1. In a machine for the manufacture of kindling, the combination of the toggles D D, levers G H, pulley *i*, ropes I I, and follower E, as set forth.

2. In a machine for the manufacture of kindling, the combination of the lever M,

shaft K, plates L, having the slots l, consisting of the radial portion l' and the circular portions l'', and the follower E, having the pins m, said pins bearing in the said slots, as set forth.

3. In a machine for the manufacture of kindling, the fasteners N, consisting of the loops provided with the swinging catches P P, in combination with the cover having the projecting bars R R, as set forth.

4. In a machine for the manufacture of kindling, the combination of the levers G H,

the follower E, and means, substantially as described, for connecting the levers with the follower, whereby both the levers can be used for operating the latter, as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOHN BOWMAN.

Witnesses:

H. E. BURGESS,
ISAAC TAYLOR.