I. G. North,

Making Shoe Pegs.

No. 21,104. Patented Aug. 3, 1858.

Fig. 1

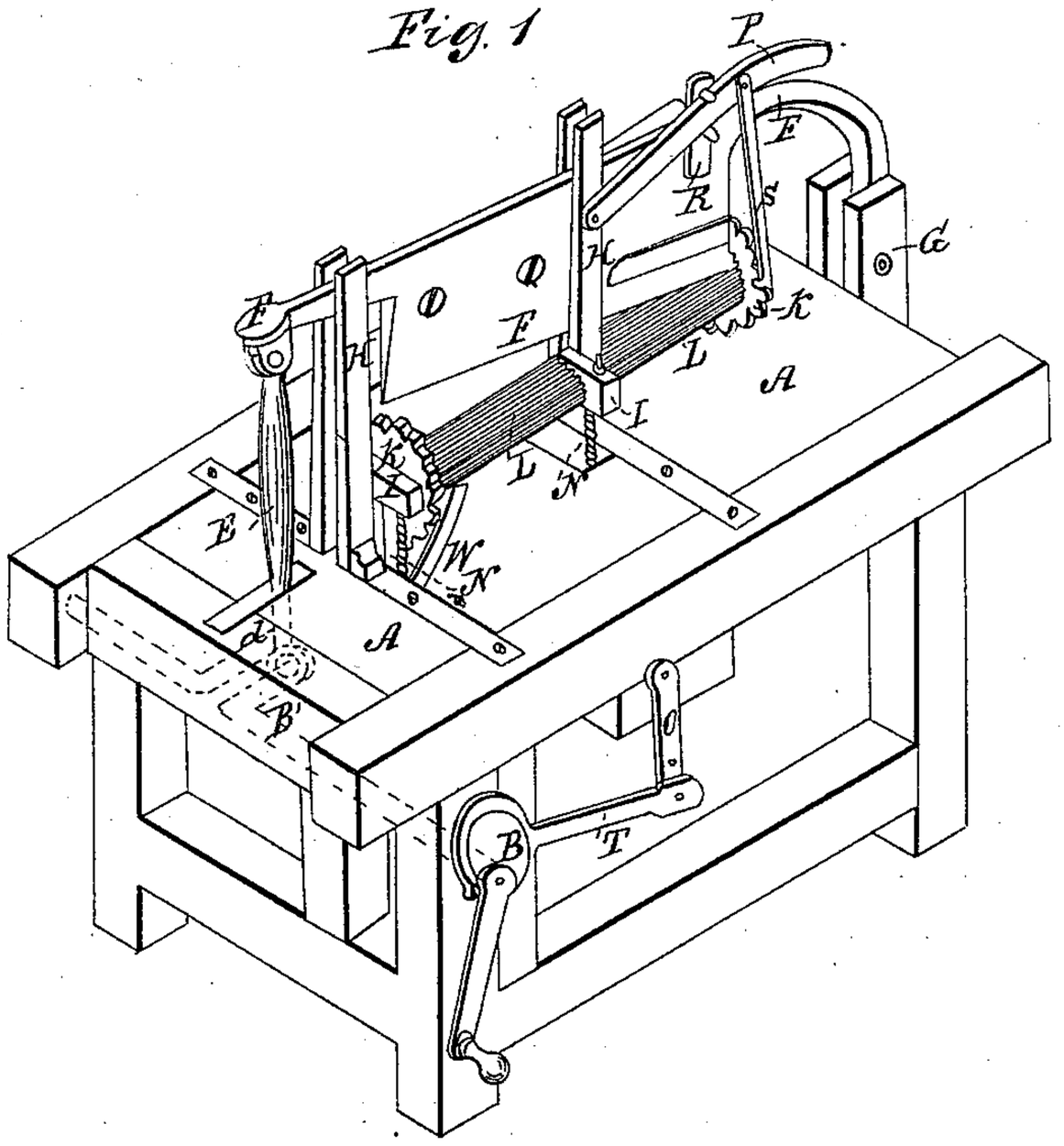
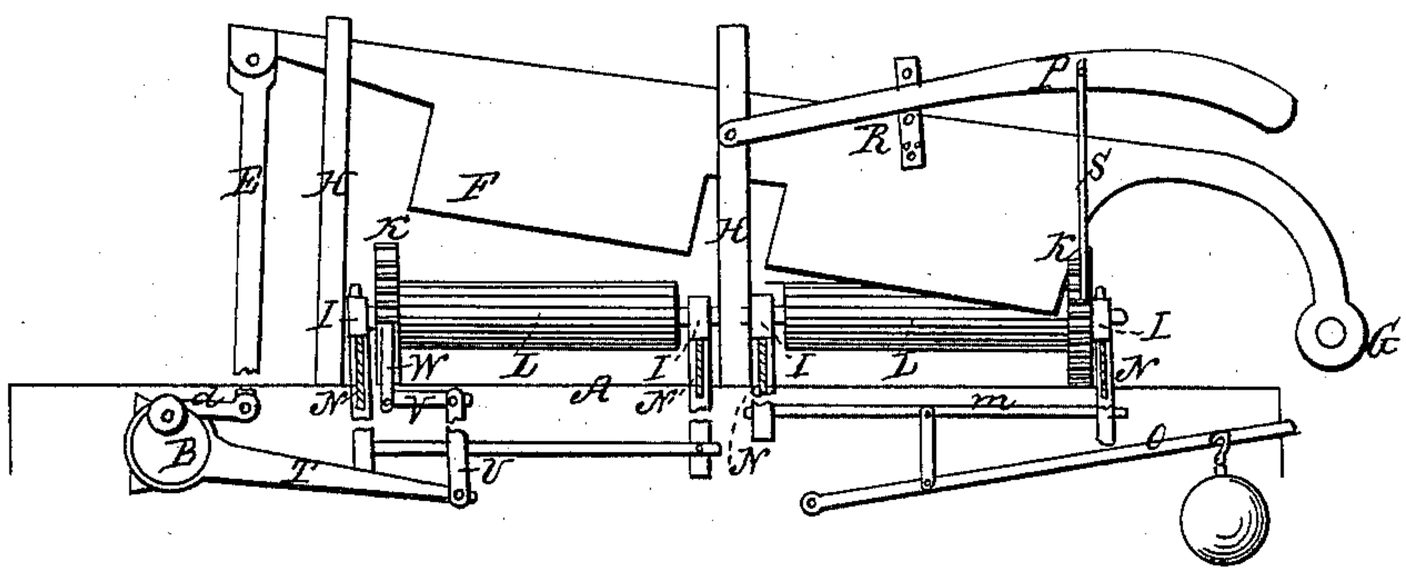


Fig. 2



UNITED STATES PATENT OFFICE.

I. G. WORTH, OF VASSALBORO, MAINE.

MACHINE FOR MANUFACTURING SHOE-PEGS.

Specification of Letters Patent No. 21,104, dated August 3, 1858.

To all whom it may concern:

Be it known that I, ISAIAH G. WORTH, of Vassalboro, in the county of Kennebec and State of Maine, have invented a new and useful or Improved Machine for Splitting Blocks of Wood into Shoe-Pegs; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, of which—

Figure 1 is an isometrical perspective view of it. Fig. 2 is a sketch or side elevation of some of the principal operative parts as will be hereinafter described.

The great advantage of my invention over the ordinary well known patented machine of Baldwin for manufacturing shoe-pegs is that it will perform about double the work in the same time and with much less expenditure of labor. I do not merely duplicate the Baldwin machine, but I so combine the operative parts with one table and so construct and operate them as to not only cause the two feed rollers to rotate in opposite directions simultaneously with an intermittent motion, but allow the block after it has been cut or sliced by one roller to be turned around ninety degrees or thereabout, on the table, and moved laterally thereon from one feed roller to the other so as to be again carried under the operation of the cutting knife and to split at right angles to the direction in which it was previously cut. Thus the table affords a means of supporting the strips of wood or the cut block, while being turned around on it, and it also presents a slideway on which the block may be moved toward the second fluted roller. Again, to one feed roller a mechanism is applied to turn it in one direction, while to the other roller a different operating mechanism or one to turn the said roller in the opposite direction to which the first is to be revolved becomes necessary to the correct operation of my improved machine.

In operating with but one feed roller and a reciprocating knife the peg block, after having been cut in one direction, has to be taken up or off the table and from its position in rear of the knife and carried around in front of such knife, all of which not only requires much time but considerable care and attention. It can readily be seen that with my improved machine two operations will cut more wood into pegs in any given time than they can in a like period by using two of the Baldwin machines. Practice clearly proves the advantage gained to be very considerable.

In the drawings, A, denotes a table or bench carrying two sets H, H, of standards elevated entirely above its top surface and serving to guide a cutting blade or knife, F, arranged on them as shown in the drawing. This knife turns on a journal at one end as shown at G, while at its other end it is jointed to a connecting rod, E, carried by a bell crank, *d*, of a horizontal shaft B′, which is situated at or near one end of the table and is supplied with an eccentric, B, which imparts motion to a pitman, T, jointed to a crank, U. Below and aside of the knife are two fluted feed rollers, L, L. They stand above the table and each has a ratchet, K, fixed to one end of it as shown in the drawings. The journals of these feed rollers may be supported in boxes, I, I, having means of adjusting them vertically, such being screws some of which are shown at N, N, in the drawings. One of the ratchets, K, is turned by a draw pawl, S, depending from a lever, P, embraced by a fork, R, extending from the side of the knife as shown in Figs. 1 and 2. The elevation of the knife causes the draw pawl to turn the ratchet, and of course revolve the feed roller thereof. The other ratchet, K, of the other feed roller is actuated by a draw pawl, W, which is jointed to an arm, V, projecting from a horizontal shaft in whose outer end the arm or crank, V, is situated. The pawl W, turns the feed roller with an intermittent motion in a direction the reverse of that in which the other feed roller is rotated. Each fluted roller should have a means or device for maintaining it in contact with the grooved peg block. This may be accomplished by the weight of the roller or by a weight or spring properly applied. One such application is shown in Fig. 2, where *o*, is a lever carrying a weight and so connected with the boxes of the feed roller by a rod, *m*, and a link as to effect the desired object.

By the rotary motion of the main shaft B′, produced by any proper motor, the machine will be set in operation.

After a block has been passed under one feed roller and been split in one direction it may be moved laterally on the table and turned around so as to properly present it

to the other roller, which will carry or feed it again under the knife and in a direction opposite to that in which it first passed under the knife. At each blow of the knife two blocks will be split when the machine is in operation instead of one as heretofore. Thus the machine not only performs double the amount of work in the same time as the single machine of Baldwin, but it will do much more.

I do not claim the combination of a reciprocating knife, a fluted feeding roller, and a mechanism for so operating both as to feed a peg block along with an intermittent motion and cut pegs from it, as I am aware that such is the principle of the well known Baldwin peg cutting machine, but

What I do claim is—

An improved machine, consisting of a combination and arrangement essentially as specified of a vibrating knife (or its equivalent), a bench or table, two fluted feed rollers, and mechanism for imparting to such rollers intermittent feeding motions, in opposite directions, the same being productive of advantage in cutting blocks into pegs.

In testimony whereof I have hereunto set my signature.

ISAIAH G. WORTH.

Witnesses:

E. HOLMES,

I. S. SAYWARD.