G. M. Nickason,

Sash & Blind Mach.

No. 107,091. Patented Sept. 6. 1870.

Fig. 1.

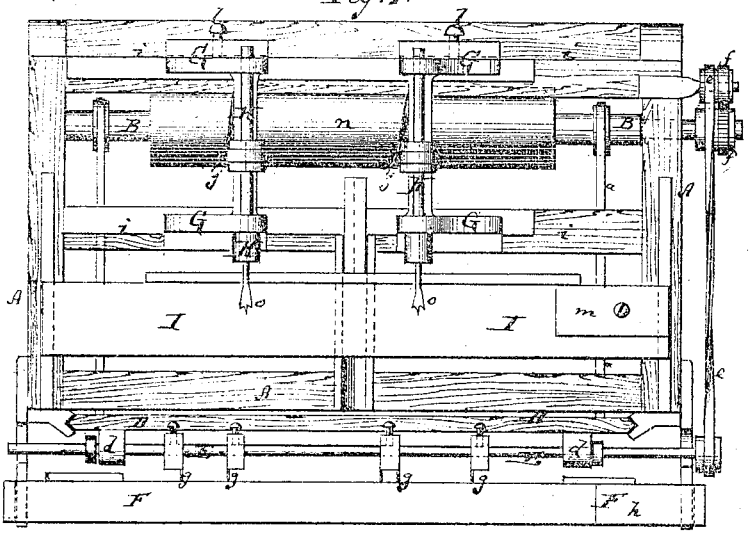
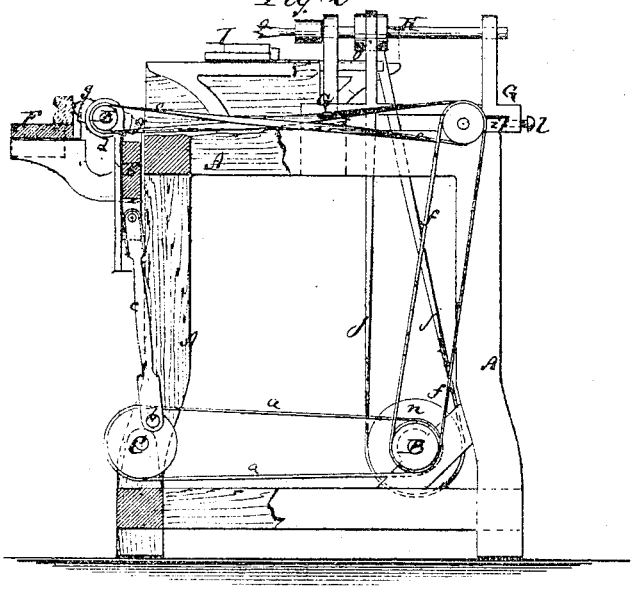


Fig. 2



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GOVERNEUR M. NICKASON, OF ELLENVILLE, NEW YORK.

Letters Patent No. 107,091, *dated September* 6, 1870.

IMPROVEMENT IN MACHINE FOR BORING AND MARKING.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, GOVERNEUR M. NICKASON, of Ellenville, in the county of Ulster and State of New York, have invented a new and improved Combined Marking and Boring-Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

Figure 1 represents a plan or top view of my improved machine for marking and boring.

Figure 2 is an end elevation, partly in section, of the same.

Similar letters of reference indicate corresponding parts.

My invention relates to marking and boring-machines, and consists in certain improvements, which will be first described in connection with other parts necessary to make them clearly understood, and then specified in the claim.

A in the drawing represents the frame of my improved machine. It contains the bearings of two horizontal shafts, B C, which are hung in its lower part.

The shaft *b* receives rotary motion from suitable machinery, and imparts it, by means of a belt, *a*, to the shaft C.

To the shaft C are secured crank-pins, *b b*, which are, by means of rods *c c*, connected with a sliding frame, D.

As the shaft C is revolved, the slide D will be moved up and down, according to the stroke of the pins *b*.

In ears *d*, that project from the slide D, is hung a shaft, E, which is, by belts *e f*, connected with the driving-shaft B, to be revolved thereby.

Upon the shaft E are mounted the marking-points *g g*, which, by being revolved, mark the article that may be placed against them. The markers receive thus combined rotary and reciprocating motion, and are thereby enabled to make long marks.

The articles to be marked are placed upon a transversely-sliding carriage, F, on which a gauge, *h*, may be secured. They are then, with said carriage, moved toward the marker, and are marked.

If the markers would only revolve, they would not make but short unreliable lines. By having the up-and-down motion, they produce lines of suitable length.

By attaching the belt *a*, the rotary motion alone can be obtained for the marker.

Upon the frame A are also set a pair or more of carriages, G G, which can be adjusted on and are supported by longitudinal rails, *i i*, of the frame.

Each carriage G supports a transverse shaft, H, that receives rotary motion by a belt, *j*, from the shaft B.

In each shaft H is secured a boring-bit, *o*.

The bits can, with their carriages, be set any suitable distance apart, and held secured in the same by set-screws, *l*.

The articles which have been marked are placed upon a transverse slide, I, which may also have a gauge, *m*, and are, on the same, carried toward the bits, to be perforated by the same at the exact desired places.

The slide I may, if desired, be made vertically adjustable.

The belts *j* pass over a long drum or pulley, *n*, to allow for their adjustment at their upper ends.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

1. The marker E, hung on a slide, D, to receive both rotary and reciprocating motion, as set forth.

2. The arrangement, upon the frame A, of the slide I between two or more boring-tools and a series of marking-tools, as and for the purpose specified.

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Witnesses:

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