A. Bigony,

Sash Machine.

No. 98,143. Patented Dec. 21. 1869.

Fig. 2.

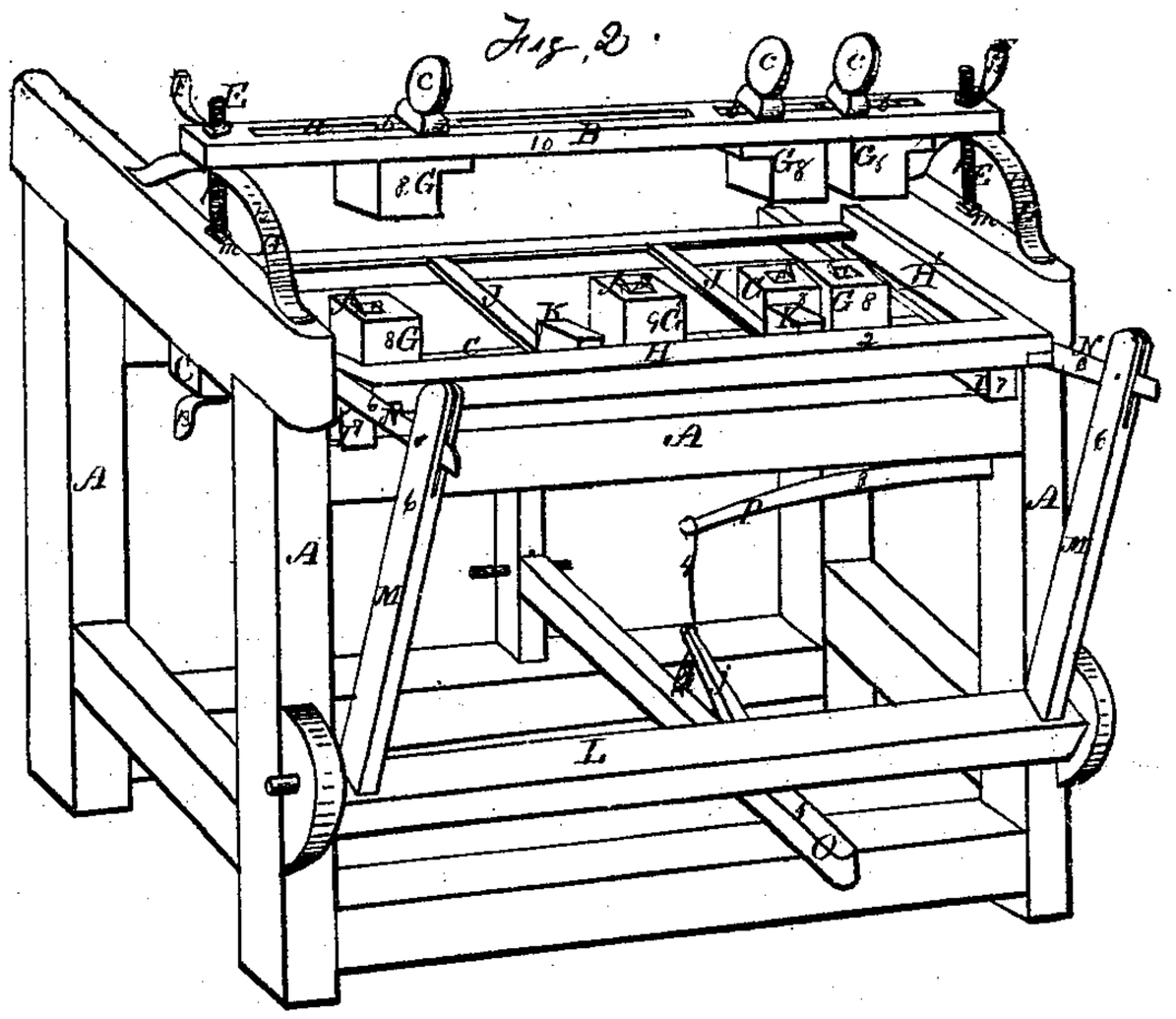
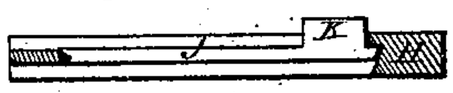


Fig. 4.

Fig. 3.



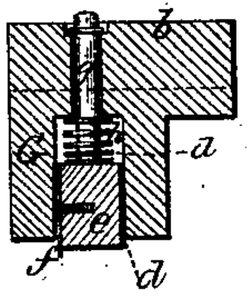
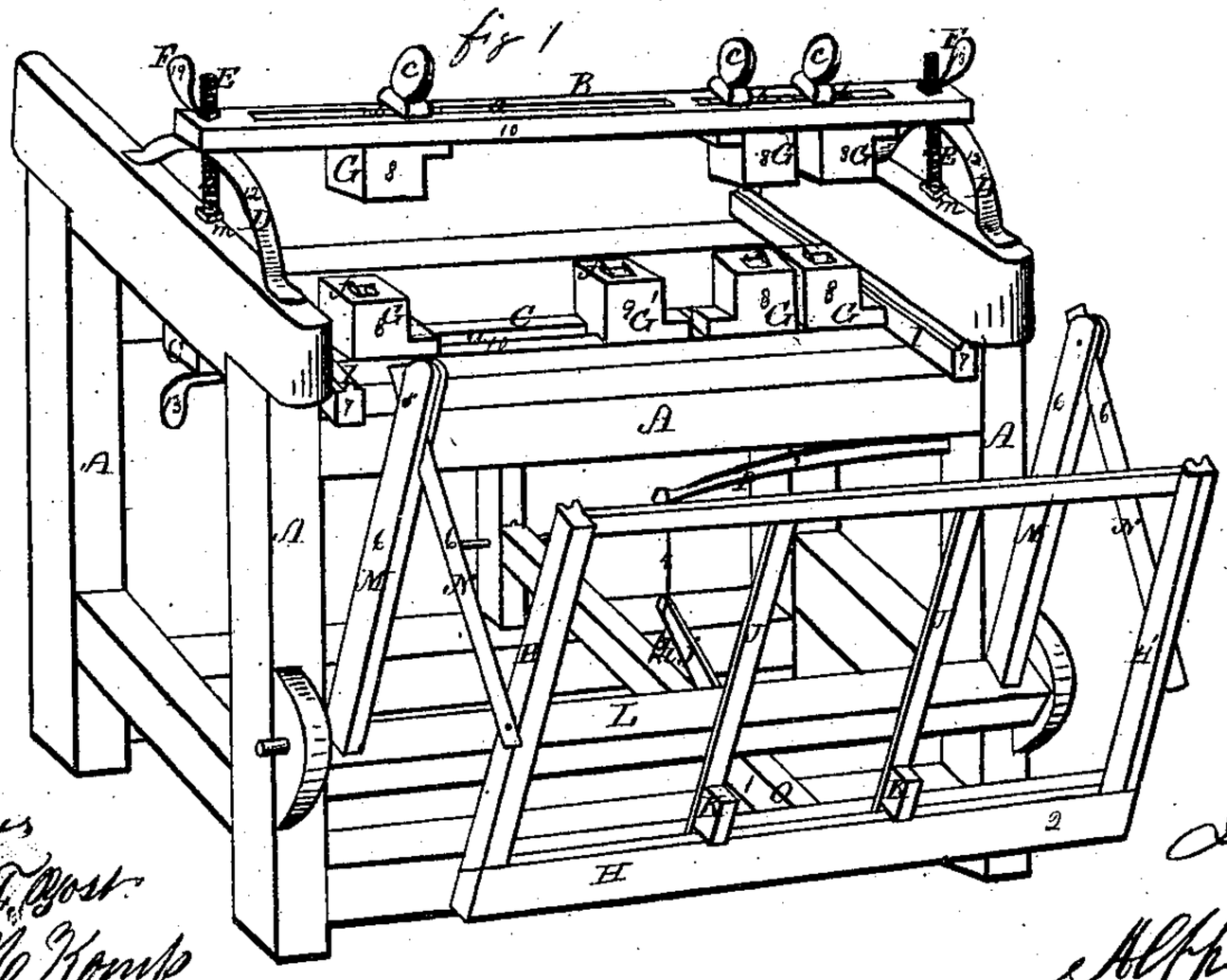


fig 1



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Letters Patent No. 98,143, *dated December* 21, 1869.

IMPROVEMENT IN MACHINE FOR LAYING OUT SASH.

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, ALPHEUS BIGONY, of Canal Winchester, in the county of Franklin, and State of Ohio, have invented a new and useful Improvement in Machines for Scribing Mortises and Tenons for Sash, and other timber; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings of the same, which make part of this specification, and in which—

Figure 1 represents a view, in perspective, of a machine embracing my improvements, the carriage being removed from its ways, and turned down at the side of the machine to show the several parts more clearly.

Figure 2 represents a similar view, the carriage being in its proper place.

Figure 3 represents a transverse section of the carriage, showing the adjustable transverse supporting-bars.

Figure 4 represents a section through one of the scribing-tools, and its adjustable carrying-block, showing the spring scribing-tool.

My invention relates to a machine for scribing and laying out check-rails and stiles for sash and other work, and consists in the arrangement of a horizontal carriage, provided with transverse adjustable supporting-bars, and made to slide between an upper and a lower series of scribing-tools, one of said supporting-bars being fixed, and the other adjustable, for the purpose of scribing both sides of the rails and stiles or other timber, at one and the same movement of carriage.

In the accompanying drawings—

A represents the frame, upon which the several parts of the machine are supported and arranged.

The scribing-tools are arranged upon two horizontal bars, B and C, placed parallel to each other, one (B) above the frame, and the other (C) in the same vertical line, below the top thereof.

The former is mounted upon semi-elliptical springs D, one at each end, and is made adjustable to elevate or depress the scribing-tools which it carries, by means of two vertical screw-bolts, E, passing through the springs D and each end of the bar B, and secured in each end of the top timbers of the frame by nuts *m*, and regulated by adjusting-nuts F, which clamp said bar, and the latter is fixed beneath the end-timbers of the frame by the same screw-bolts E, by which the upper bar is secured.

These bars are provided with longitudinal slots *a*, within which the cutter-blocks G are secured.

These blocks are of cast-iron, provided with tongues *b*, so as to fit within the slots *a*, and are clamped by thumb-screws *c*, by which they may be adjusted in pairs, or otherwise, to scribe both sides of the material at once.

They are provided with a square opening, *d*, to receive the stock *e* of the scribing-tool *f*, said stock being held therein by means of a stem, *g*, secured in said block G.

This stem is provided with a spiral spring, *h*, which constantly presses the scriber-stock a proper distance beyond the face of its holding-block G, so as to give the scribing-tools *f* the capacity to yield in passing over the material, and thus render them self-adjusting to accommodate themselves to any slight variations in the thickness of the material, and thereby avoid such adjustment by screws as heretofore. These scribing-tools may be arranged in pairs in the same blocks, as well as single, as may be desired.

Between the upper and lower series of scribing-tools, the horizontal carriage H is arranged, so as to slide back and forth upon ways I at each end thereof, which are of such height as to bring the upper sides of the bars J, upon which the material is supported, on a level, or thereabouts, with the upper faces of the lower scribing-tool blocks G, so as to present the lower side of the material to the lower tools, while the upper scribers are adjusted to mark the upper face of the material.

These supporting-bars J are placed transversely within the frame of the carriage H, and secured to the side-rails thereof, so as to admit of their adjustment nearer to or further from each other, according to the length of the material being laid out, and are provided with shoulders K, against which the material is supported, while the end-bar, H′, of the frame of the carriage, being elevated above the supporting-bars, serve as gauges for the material from which the scribing-tools are adjusted.

The movement of the carriage H upon its ways I is effected by means of its connection with a rock-shaft, L, secured to the front side of the frame through arms M, projecting therefrom, and connected to horizontal arms N, pivoted to the end-bars H of the carriage.

The rock-shaft L is connected to a treadle, O, by a link, *i*, and arm *j*, said arm being also connected to a spring, P, secured beneath the frame, so that the action of the foot of the operator upon the treadle will force the carriage inward, so as to carry the material between the upper and lower scribers, and upon releasing the pressure upon the treadle, the spring brings the carriage back, which motion is limited by the treadle O coming in contact with the under side of the rock-shaft L, as shown in fig. 2.

The operation of scribing the stiles and rails of sash consists simply in placing and holding them against the shoulders K of the transverse bars J, their ends

resting against the right-hand gauging-bar H′ of the frame, and adjusting the sliding-blocks G, with their tools, to lay off the proper marks.

The markers may be arranged to scribe the check-rails, by having two double cutters in the lower bar C and two in the upper, and a double cutter, G′, is arranged in the lower bar to scribe the muntin. The single cutters at the ends of the bars are to lay off the mortises.

Having thus described my invention,

I claim—

1. The upper and lower sets of scribing-tools *f*, in combination with a horizontal carriage, H, located and made to slide between said marking-tools, in the manner and for the purpose described.

2. The combination of the fixed and adjustable horizontal supporting-bars B C, the adjustable blocks G, the adjusting-screws E, and supporting-springs D, with a horizontal sliding carriage, H, having adjustable transverse bars J, the whole constructed and arranged to operate as described.

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Witnesses:

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