

J. TRAVERS.

Machines for Making Window Sash.

No. 142,420.

Patented September 2, 1873.

Fig. 1.

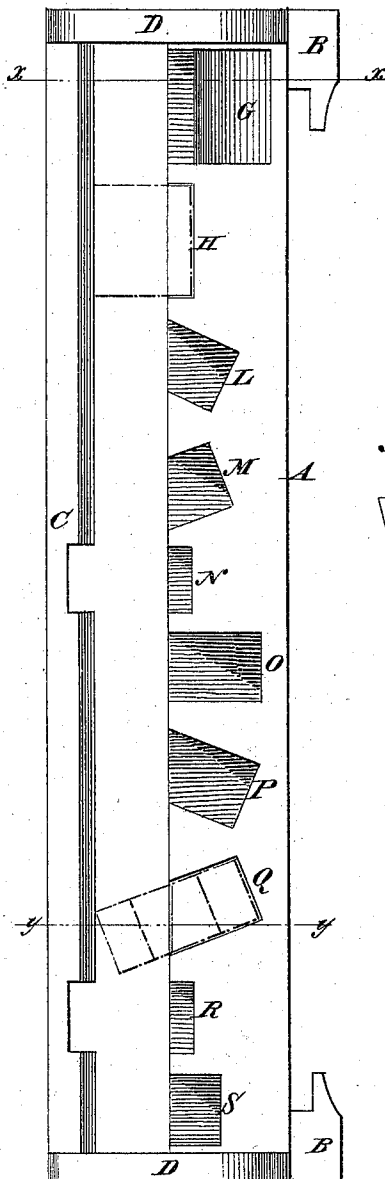


Fig. 2.

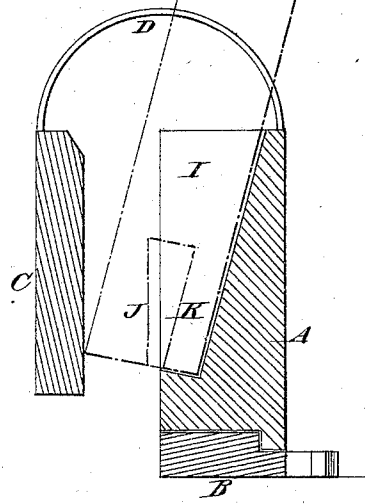


Fig. 4.

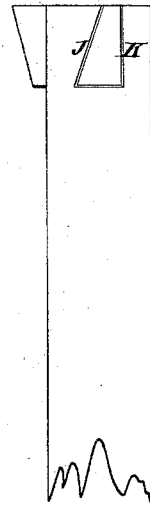
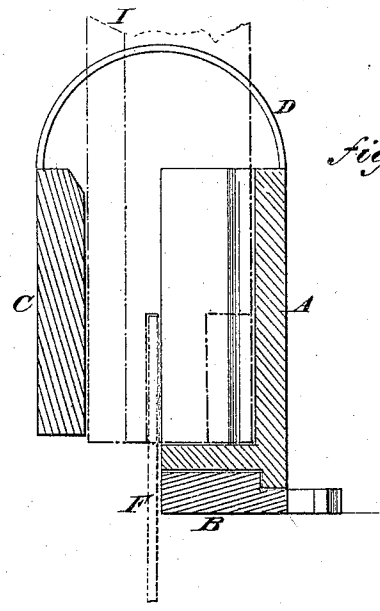


Fig. 3.



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JAMES TRAVERS, OF ROSLYN, NEW YORK.

IMPROVEMENT IN MACHINES FOR MAKING WINDOW-SASH.

Specification forming part of Letters Patent No. **142,420**, dated September 2, 1873; application filed August 16, 1873.

To all whom it may concern:

Be it known that I, JAMES TRAVERS, of Roslyn, in the county of Queens and State of New York, have invented a new and useful Improvement in Sash Machinery, of which the following is a specification:

This invention is a device for facilitating the manufacture of window-sashes; and consists in a guide for governing the position of the stiles and meeting rails of the sashes in sawing the dovetails and mortises for putting them together.

In the drawing, Figure 1 is a plan view of the guide. Fig. 2 is a cross-section of Fig. 1 taken on the line *xx*. Fig. 3 is a cross-section of Fig. 1 taken on the line *yy*. Fig. 4 is a view of the dovetail joint, showing an edge view of the stile and the end of the rail, as when they are put together.

Similar letters of reference indicate corresponding parts.

A is the guide. This is simply a piece of board or plank having gains or recesses on one side, in which is placed the stile or rail to be dovetailed. The guide stands on its edge, so that the gains are vertical. The stiles or rails are, therefore, held on their ends, sawed, and are carried past the saw, as the guide is made to slide back and forth. B is a piece of wood attached to the adjustable guide of the saw-table, upon which our improved guide A slides. C is a fender attached to the saw-guide by springs D D, so that the same may be flexible. This fender overhangs the saw and acts as a safeguard to the operator. There is a series of gains or recesses in the side of the guide for holding the stiles and rails when being sawed. F represents the saw. In this example of my invention I show the guide adapted to a circular saw; but I do not confine myself exclusively thereto, as, with some

slight modifications, the guide may be used with a jig or hand saw. The stile-dovetails are sawed in the two gains marked G and H, the form of which is beveled, as seen in Fig. 2, where I represents the stile. In this figure the stile is held so that the dovetail side of the mortise J is vertical and ready for the saw. In Fig. 3 the stile is held in the other gain H, and the straight side K of the mortise is being cut. The other gains L, M, N, O, P, Q, R, and S are for cutting the dovetails on the ends of the meeting rails, to fit the stile, as seen in Fig. 4. The oblique gains L M and P Q are for guiding the rails when the dovetail sides J are cut. One end of one of the rails is cut in L, and the other end in M, the ends of the rail being reversed. The parallel cuts K are cut when the rail is held in the gains N O. The cuts in the meeting rails for the upper and lower sashes vary somewhat in the distance from the work side of the rails; hence a set of gains is required for each rail, L M N O being for one rail, and P Q R S for the other rail. A thin chisel is used to cut out the dovetails after sawing them.

With this simple device the operation of dovetailing the stiles and meeting rails together is greatly facilitated.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The guide A, for sawing the dovetails of the stiles and rails of window-sashes, substantially as shown and described.
2. The strip B, in combination with the guide A, as and for the purposes described.

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Witnesses:

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