J. H. Brown.

Mitering Machine.

No. 89,627. Patented May 4, 1869.

Fig. 1

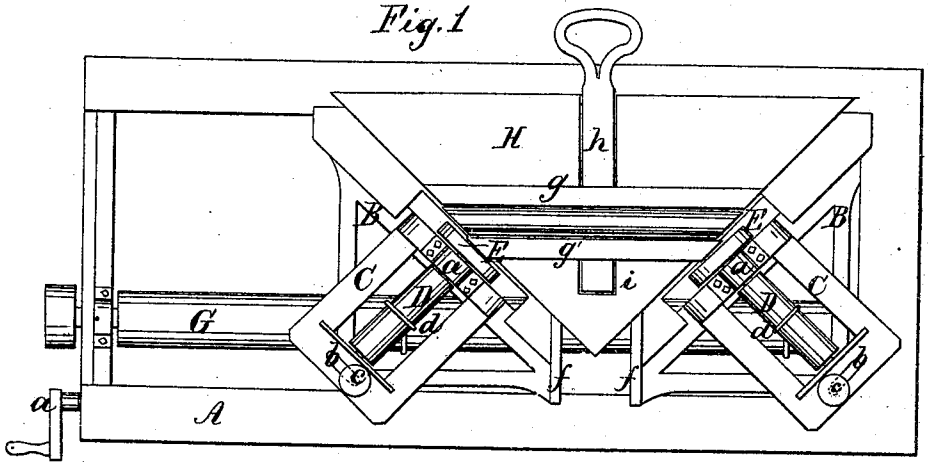


Fig. 2

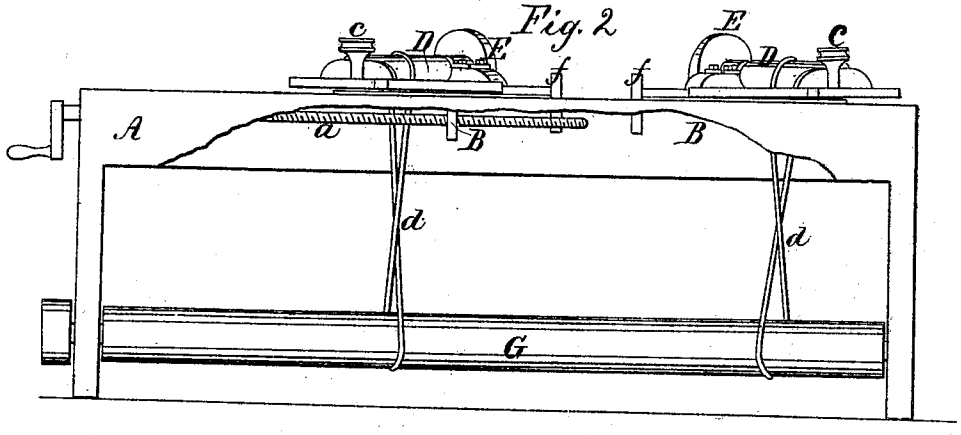
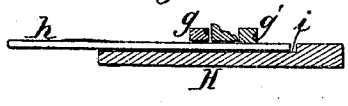


Fig. 3



Witnesses
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JOHN H. BROWN, OF BROCKPORT, NEW YORK.

Letters Patent No. 89,627, *dated May* 4, 1869.

IMPROVEMENT IN MITRE-MACHINES.

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, JOHN H. BROWN, of Brockport, in the county of Monroe, and State of New York, have invented a certain new and useful Improvement in Mitring-Machines; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a plan of my improved machine.

Figure 2, an elevation, with a portion of the frame-work broken away.

Figure 3, a section of the clamp-table.

Like letters of reference indicate corresponding parts in all the figures.

My improved machine is intended more especially for cutting the mitres of picture and glass-frames, though it is also adapted to other work.

The invention consists, essentially, in the combination of two cutter-frames, adjustable to different distances apart, and having the cutters capable of being set at different angles; also, in the employment of a long pulley-shaft, for transmitting the motion in all positions; and, furthermore, in the employment of a clamp-table, of mitring form, to hold the pieces to be cut.

In the drawings—

A indicates the main frame, which may be of any desirable form.

On this are mounted two cutter-tables, B B, which are adjustable nearer together or further apart, by any desired means, that represented in the drawings being a crank-screw, *a*, which acts upon one table while the other is stationary.

On these tables are mounted supplementary frames, C C, pivoted at *a*, at the inner ends, while the outer ends are adjustable to any angle, by means of slots, *b*, and set-screws, *c*.

In these supplementary frames are mounted pulley-shafts, D D, carrying cutter-heads, E E.

Around the shafts pass bands, *d d*, connecting with a long pulley-shaft, G, below, running the length of the machine.

A triangular, or mitre-table, H, rests over the inner ends of the cutter-tables, running, preferably, upon ways, *f f*, of the latter, and centring between the cutter-heads E E.

This table has, in the proper place, a fixed clamp, *g*, and a sliding one, *g'*, the latter being attached to a slide, *h*, which rests in a suitable groove, or way, *i*, of the table, to move out and in.

The operation is as follows:

The cutter-tables B B are first adjusted to the proper distance apart, to correspond with the length of the stuff to be dressed. The supplementary cutter-frames C C are then turned on pivots *a*, to set the cutter-heads to the proper angle, to correspond with the mitre to be cut. The stuff is then placed between clamps *g g'*, and clamped firmly in place, and the mitre-table is moved up on the ways *f f*, so as to bring the ends of the stuff in contact with the two cutters, when the mitre of both ends will be cut at once.

The special advantage of this machine consists in the adjustability of the tables toward and from each other, whereby the length of the stick is gauged; the angular turning of the cutters, whereby the mitre is determined, and the employment of the long pulley-shafts G D D, whereby, in whatever position the tables and cutters may be, the motion is readily transferred automatically.

This latter arrangement is essential to allow the ready adjustment of the parts.

In this connection, the construction and arrangement of the mitre-table are of much importance in holding the stuff which is being cut at both ends.

The clamps *g g* readily fit the narrow stuff of which picture-frames are made, and clamp it in place as it is pressed to the cutters.

What I claim as my invention, and desire to secure by Letters Patent, is—

1 The arrangement of two cutters, E, and their adjustable frames C, at angles to each other, and relatively to the V-shaped table H, as shown, and for the purpose described.

2. The arrangement, upon the mitre-table H, of the fixed clamp *g*, and the movable clamp *g'*, with its sliding handle, when the parts are adapted to operate as herein described.

In witness whereof, I have hereunto signed my name, in the presence of two subscribing witnesses.

JOHN H. BROWN.

Witnesses:

N. P. B. WELLS,

M. O. RUNDALL.