

UNITED STATES PATENT OFFICE.

GEORGE TRIMBLE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN MITERING-MACHINES.

Specification forming part of Letters Patent No. 51,633, dated December 19, 1865; antedated December 5, 1865.

To all whom it may concern:

Be it known that I, GEORGE TRIMBLE, of Philadelphia, Pennsylvania, have invented an Improved Mitering-Instrument; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My improved mitering-instrument consists of a graduated base, with adjustable blocks, in combination with a vertically-adjustable frame for guiding the same, the whole being arranged substantially as described hereinafter, so as to afford facilities for sawing strips of wood to any desired angle.

In order to enable others to make and use my invention, I will now proceed to describe its construction and operation.

On reference to the accompanying drawings, which form part of this specification, Figure 1 is a front view, and Fig. 2 a plan view of my improved mitering-instrument.

A is the base of the instrument, and to this base are secured the two standards B and B', which are strengthened by the braces *m m*. An adjustable frame is adapted to these standards, the frame consisting of the two boards H and H', connected together by the end pieces, *n n*, and central piece, D, an angular projection, D', being secured to the under side of the frame, and a slot, *v*, just wide enough to admit an ordinary saw-blade being cut in this projection and into the frame, which is so fitted to the standards that it can be adjusted in a vertical direction only.

On the base of the machine are marked one or more semicircles from a central point, *x*, and from the latter to the circumference of the circle are drawn a series of radial lines, *y*.

F and F' are guide-pieces each having a perfectly straight and true face against which to rest the piece of wood to be sawed, these guide-pieces being secured to the base by set-screws *h*, which pass freely through semicircular openings *a'* in the said base, and screw into a plate beneath the same.

A line *y'*, Fig. 2, drawn through the center *x* on the base A, and coinciding with the line which represents the slot *v* in the adjustable frame, and in its projection D' is the initial

line from which all other graduating lines are measured and by which they are determined, and is the line on which the saw, guided by the slot *v*, must cut the wood held on the base.

Supposing it to be desirable to sever a number of pieces of wood, M—such, for instance, as the molding for a picture frame—at an angle of forty-five degrees. The screws *h h* are first loosened and the guide-pieces F and F' so adjusted that their true faces shall coincide, one with the line marked 45 on one side of the line *j*, and the other with the corresponding graduation on the opposite side of the said line. The guide-pieces are then secured by tightening the screws and the instrument is ready for use. The strip of wood is held against the true side of one of the guide-pieces, while it is severed by the saw, the latter being guided by the slot *v*, so that the severed end will be at an angle of forty-five degrees with the side of the strip held against the guide-piece.

Either of the guide-pieces may be used, as may suit the convenience of the operator.

The frame for guiding the saw can be readily adjusted vertically to suit the thickness of wood to be severed by the saw. The radial graduations on the base may be distinguished with whatever figures or letters may be deemed appropriate.

The projection D' may be made of any hard wood or metal, so that the slot *v* cannot be readily made larger by the friction of the saw-blade.

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

The graduated base A and its adjustable guide-pieces F and F', in combination with the vertically-adjustable frame and its slot for guiding the saw, the whole being constructed, arranged, and operating substantially as and for the purpose herein set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEO. TRIMBLE.

Witnesses:

CHARLES E. FOSTER,
JOHN WHITE.

Warren & Baldwin,

Wash-Board,

N^o 51,634.

Patented Dec. 19, 1865.

Fig. 3.

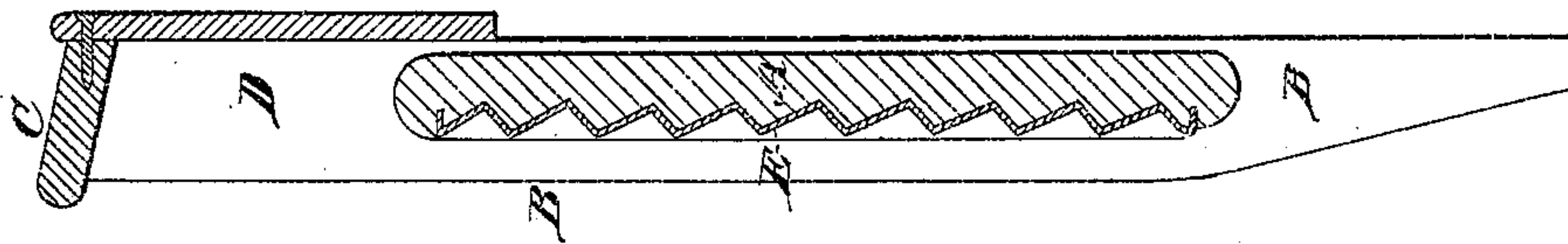


Fig. 2.

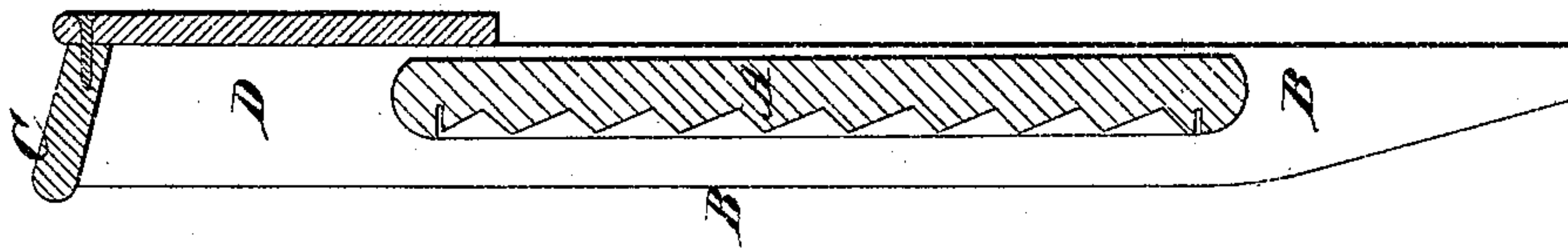
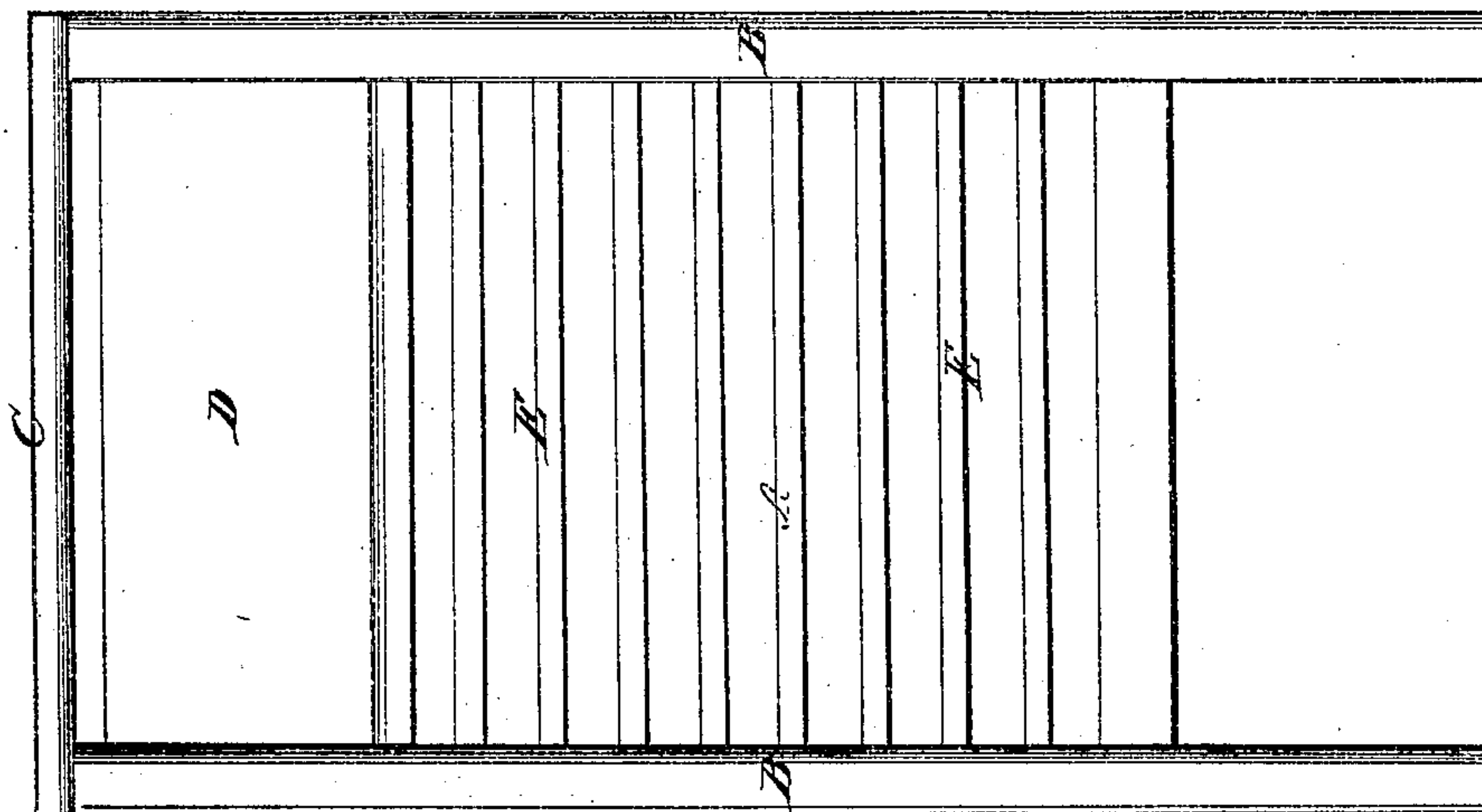


Fig. 1.



Witnesses

R. Campbell,
& Schaefer

Inventor.

C. H. Marion & C. Baldwin
by their Attys.

Marion & Baldwin

