

C. POTTER.
Miter-Boxes.

No. 151,051.

Patented May 19, 1874.

Fig: 1.

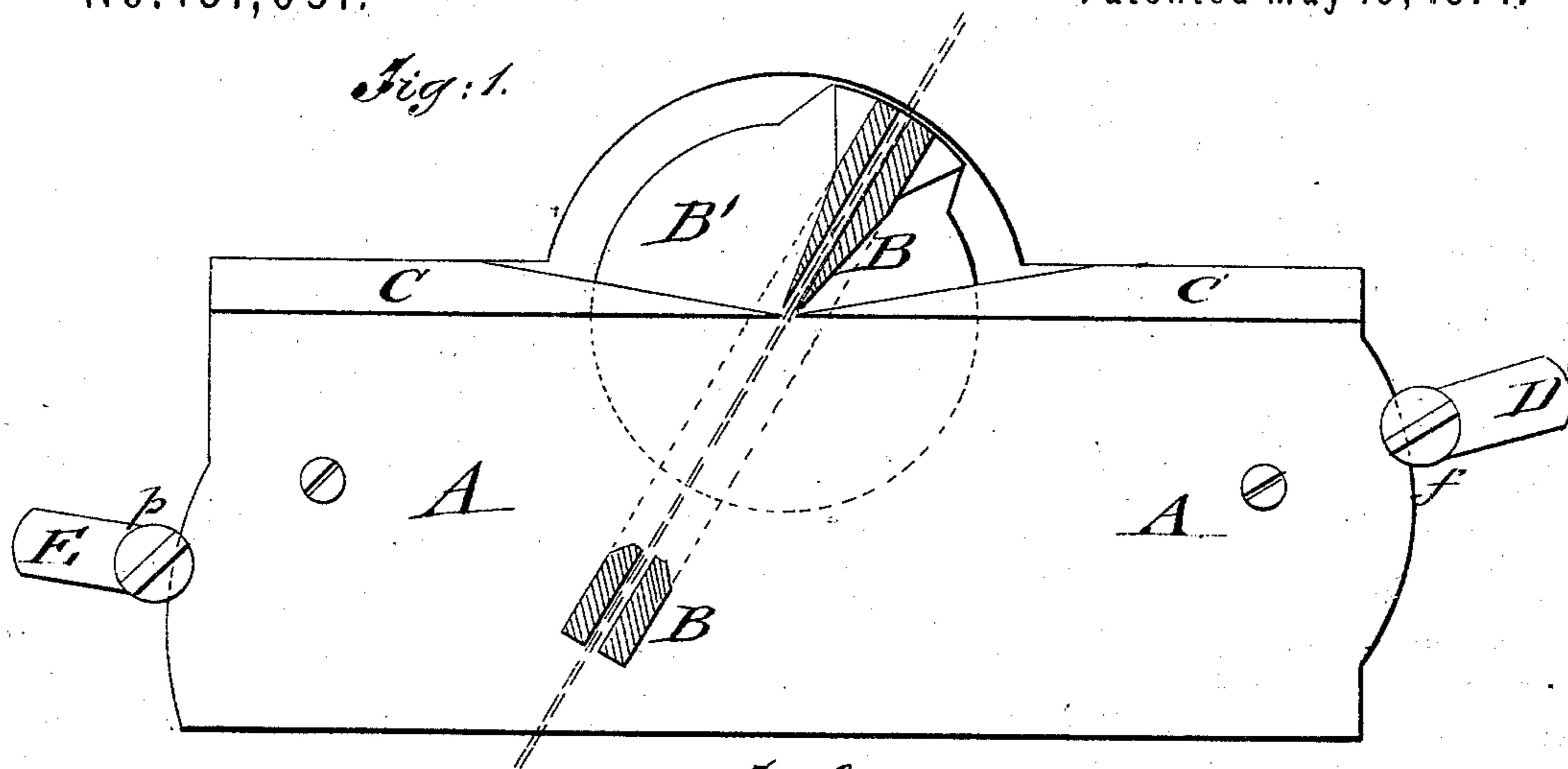


Fig: 2.

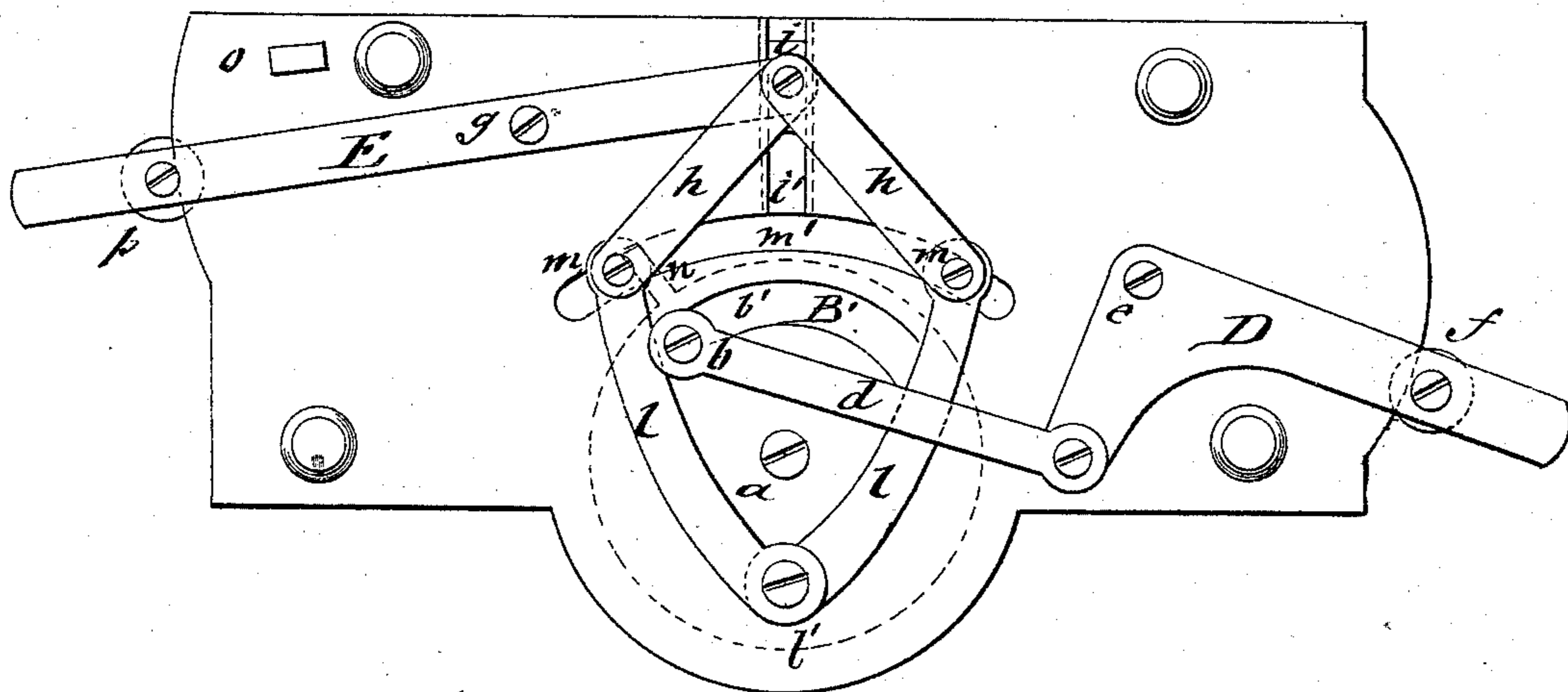
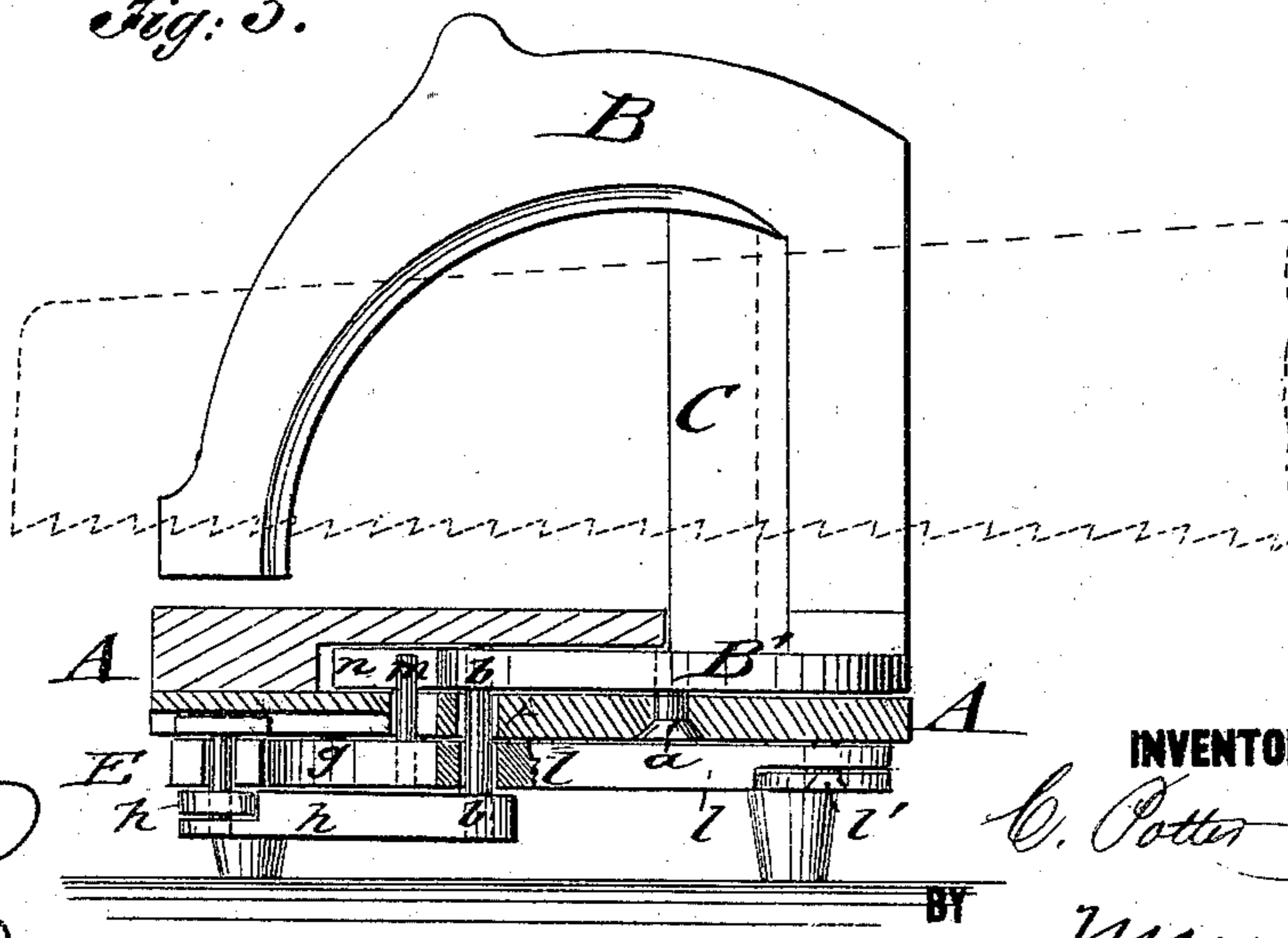


Fig: 3.



WITNESSES:

Chas. Nida.
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CALENDAR POTTER, OF BLOOMSBURG, PENNSYLVANIA.

IMPROVEMENT IN MITER-BOXES.

Specification forming part of Letters Patent No. **151,051**, dated May 19, 1874; application filed April 18, 1874.

To all whom it may concern:

Be it known that I, CALENDAR POTTER, of Bloomsburg, Columbia county, Pennsylvania, have invented a new and Improved Miter-Box, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a sectional top view of my improved miter-machine; Fig. 2, a bottom view; and Fig. 3, a vertical transverse section of the same.

Similar letters of reference indicate corresponding parts.

The object of my invention is to construct a miter-machine which may readily be set to any desired angle for cutting the molding accurately and quickly with a handsaw, and without the loss of time occasioned by the adjustment of the miter-machine hitherto in use. My invention consists of a pivoted saw-guide, which is made reversible by a lever arrangement on the bottom of the bed-plate, while a second lever-connection, operated from the opposite side, adjusts the stops which define the angle of the saw-guide with the central axis for cutting the miters.

In the drawing, A represents the bed-plate of my miter-machine, which is composed of two parts, the upper preferably of wood, and the lower of metal. The saw-guide B is pivoted, at *a*, to the lower bed-plate, its base-disk B' turning between the upper and lower plates, and securing thereby its true vertical position. It is lined with hard wood, and serves to guide the handsaw placed in the slot of the same in the usual manner. The back board *c* is firmly connected to the bottom plate, at right angles thereto, for guiding the strips to be cut, and made also, preferably, of wood, with a central slot and bevel for the saw. The base-plate B' of the saw-guide B is connected by a pivot-pin, *b*, moving in a segmental slot, *b'*, of the lower bed-plate A, with a lever-rod, *d*, which is again pivoted to an elbow-lever, D, fulcrumed at *e*, and adjusted along the curved side of the lower bed-plate by a clamping-screw, *f*.

By levers D and *d* the saw-guide B is carried from one side to the other, to be then clamped to the bed-plate in position for cutting the miters with the saw.

The angle to which the saw-guide may be set, at each side of the segmental axis of the machine, is determined by a second lever, E, which slides along the bottom of the bed-plate, at the side opposite to lever D, and is fulcrumed at *g*, being connected, at its innermost forked end, with pivoted lever-rods *h h*, and guided, by a dovetail slide-piece, *i*, in a similarly-shaped groove, *i'*, of the lower bed-plate, which groove is arranged in the direction of the symmetrical axis of the miter-machine. The lever-rods *h h* spread symmetrically to both sides, and are pivoted, with their ends, to a second set of lever-rods, *l l*, their pivots or stop-pins *m* being extended through a segmental guide-slot, *m'*, of the bed-plate, while the outer ends of rods *l l* are applied to a pivot-pin, *l'*, placed in line with the dovetail groove *i'*, so as to produce, by the motion of lever E, a change in the position of the stops *m m*, and determine thereby, in connection with a radial arm, *n*, of base-disk B', the extent of angular motion of the saw-guide B. The miter-machine may be set thereby to any angle up to forty-five degrees, from both sides of the central axis, the extent of motion being defined by the contact of the lever-rods *h h* and *l l* with pivot-pin *b* of base-disk B', and in the opposite direction by a stop, *o*, of the base plate.

A clamping-screw, *p*, retains lever E in fixed position after the angle for cutting the miters has been set, the saw-guide being then only reversed from one side to the other, and the miters cut with the saw, forming a very handy and practical instrument for the purpose for which it is designed.

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

1. The improved miter-machine, composed of a bed-plate, A, with pivoted saw-guide B, in connection with reversing-lever mechanism D *d* and angle-adjusting-lever mechanism E *h h l l*, all constructed and arranged substantially as specified.

2. The radial arm *n* of base-disk B of saw-guide B, in combination with symmetrical stop-pins *m m* of the adjusting mechanism, for defining the angle of cutting the miters, as described.

3. The combination of bed-plate A, having guide-groove *i*, with dovetailed slide-piece *i'*, pivoted to angle-adjusting-lever mechanism, for producing symmetrical position of stops *m*, as specified.

4. The angle-adjusting levers, in combination with the base-disk pin *b* and stop *o*, for

defining extreme extent of angular motion of saw-guide, as set forth.

CALENDAR POTTER.

Witnesses:

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S. H. MILLER.