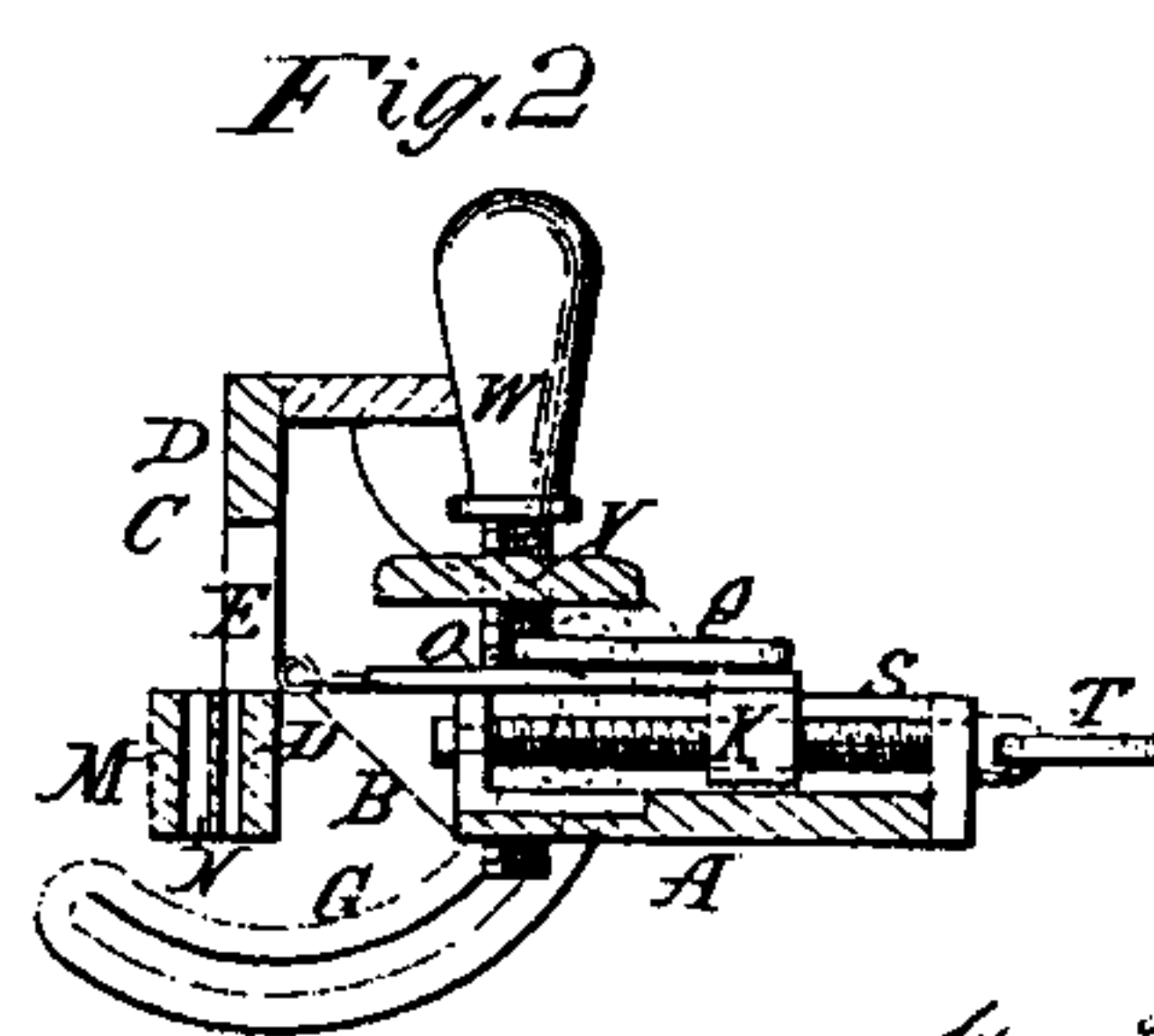
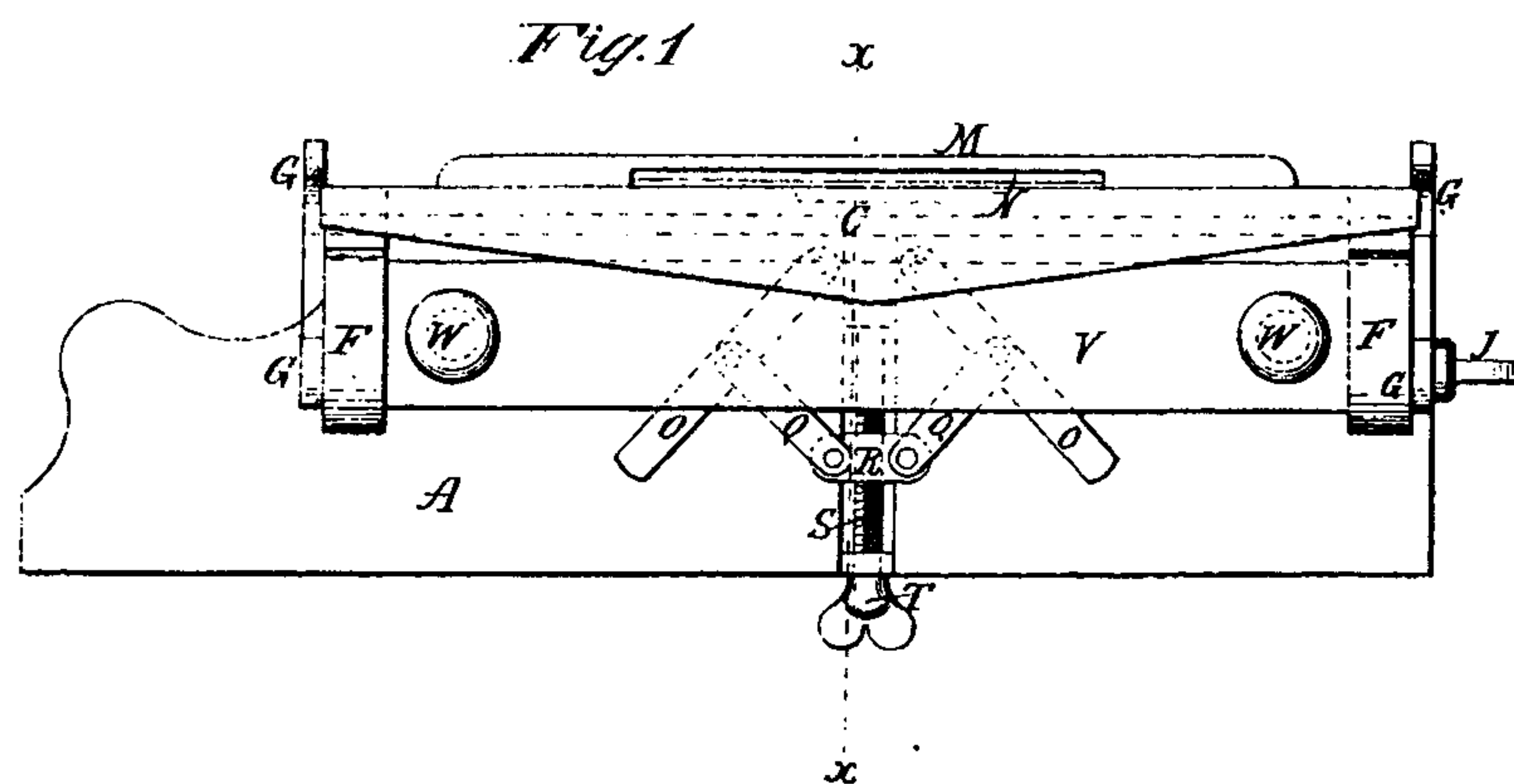


J.H. Estes.
Mitering Machine,
No 82,504, Patented Sep. 29. 1868.



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United States Patent Office.

JAMES H. ESTES, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 82,504, dated September 29, 1868; antedated September 16, 1868.

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, JAMES H. ESTES, of Boston, in the county of Suffolk, and State of Massachusetts, have invented a new and improved Mitre-Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to an improvement in mitre-machines, and consists in providing the hinged frame with slots for the passage of the saw, and with a plane-rest, by which the bevel is not only sawed with a saw, but afterwards dressed with a plane, as will be hereinafter more fully described.

Figure 1 is a plan or top view of the mitre-box or tool, and

Figure 2 a transverse vertical section, taken in the plane of the line xz , fig. 1.

Similar letters of reference indicate corresponding parts.

A, in the drawings, represents a frame or board, for the reception of the wood or stock to be cut, and on which it is placed or laid.

One edge, B, of this frame A is bevelled off, and to such edge is hinged a rectangular-shaped frame or box, C, formed of parallel side-pieces, D, and end-pieces, E, with arms, F, at each end, projecting over the surface of the frame or rest-board A.

To each arm F, at its outer end, one end of curvilinear-slotted arms G is fixed.

These arms G project through holes or slots, H, in the frame A, with one arranged to play or move upon the screw-shaft I to a thumb-screw, J, screwing into one end of the frame A.

By means of this thumb-screw, the frame or box C can be set at any angle of inclination to the frame A, within the length of the slots.

The box C, on its face L, is provided with a rest, M, for a plane, and through such rest is a slot or slit, N, for a saw-blade to be passed, for the sawing off of the stock projecting over such rest beyond the said face to the box.

On the surface of the frame or table A, are guide-bars, O, for the stock or wood to rest against, which guide-bars are pivoted at one end to the table A, and by link-pieces, Q, are connected with a screw or nut, R, arranged to travel in the groove S of table A, by the action of the thumb-screw T in being turned.

By the above means, the guide-bars are given different angles with reference to the length of the frame A, so as to bring the stock to be mitred, when laid against such bar, at the proper position for producing the angle or mitre thereon desired. So far as regards the length of the stock, when to give a bevel or inclination in the direction of its thickness, the vertical frame or box C is brought to the proper vertical inclination therefor.

For holding the stock down upon the bench or table A, the bar V is provided, which, by the two thumb-screws W, is arranged to bear against and to bind the stock to the table A.

Having thus, in detail, described the construction and arrangement of the several parts of my improved tool or machine, I will now proceed to explain its use.

To cut an angle, set the guides as required, and put the stock under the bar V, bringing it into position for the saw running through the slot N to cut it, when, by then applying a plane, the mitre can be planed smooth, if so desired.

If, then, a bevel or inclination is required on the mitre just cut, the box or frame C is adjusted to the proper position therefor.

By the form of the frame C, a rest is provided for the plane along both of the edges of its stock, at each end of the cutter-blade thereto—an advantage of much importance.

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

The hinged frame C, provided with slots N for the passage of the saw, and with a plane-rest, M, by which the bevel is not only sawed with a saw, but afterwards dressed with a plane, all constructed to operate substantially as described.

JAS. H. ESTES.

Witnesses:

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