

(No Model.)

J. M. SCHOFIELD.
MITERING MACHINE.

No. 540,561.

Patented June 4, 1895.

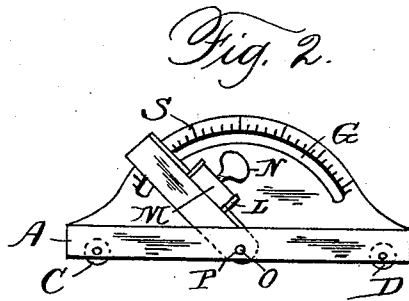
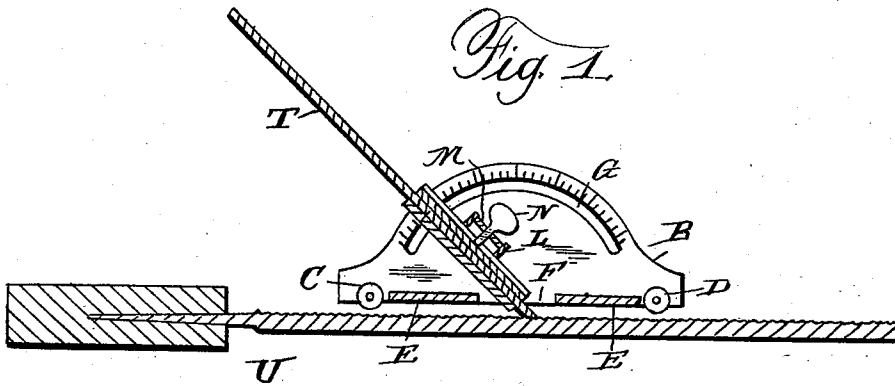
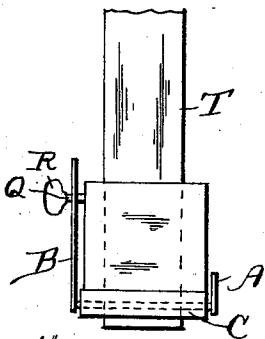


Fig. 4.



Witnesses:-
Wm. E. Boulter
M. A. Deau

Fig. 3.

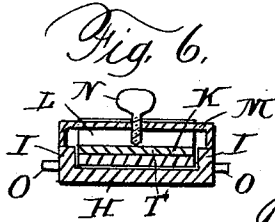
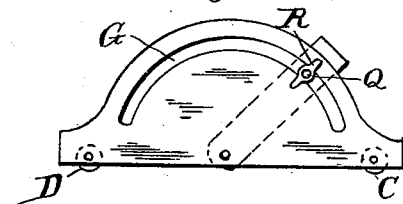
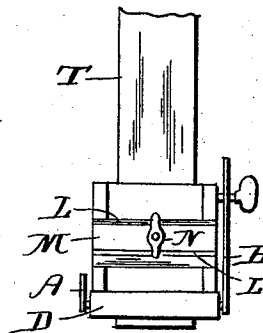


Fig. 5.



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UNITED STATES PATENT OFFICE.

JAMES M. SCHOFIELD, OF MADERA, CALIFORNIA.

MITERING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 540,561, dated June 4, 1895.

Application filed July 28, 1894. Serial No. 518,878. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. SCHOFIELD, a citizen of the United States, residing at Madera, in the county of Madera and State of California, have invented certain new and useful Improvements in Mitering-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to mitering machines or devices adapted for mitering various objects and more especially printers' rules, and among the objects in view is to provide an extremely simple, inexpensive and efficient machine or device whereby mitering of the rule may be readily, quickly and neatly accomplished, and wherein the angle of cut may be varied, and with the above and other objects in view, my invention consists in the novel construction, arrangement and combination of parts as hereinafter fully described, illustrated in the drawings, and pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a vertical sectional view showing my improved machine in position for operating upon a rule. Fig. 2 is a view from one side of the same; Fig. 3, a view from the opposite side thereof. Figs. 4 and 5 are opposite end views of the machine. Fig. 6 is a sectional view of the clamping device.

My improved mitering machine is adapted to be used in conjunction with any suitable cutting device, such as a file, as seen in the drawings, and therefore I do not wish to be restricted to the use of the particular file shown.

In carrying out my invention I provide a carriage comprising the longitudinally arranged side piece A, and the opposite side piece B, parallel with the piece A, and between which side pieces are the rotatably mounted rollers C, D, said rollers being arranged to have their lower edges in a horizontal plane slightly below the lower edges of the side pieces, and the bottom E, connecting said side pieces.

The bottom E of the device is provided with a transverse slot or opening F to permit the object to be mitered to project there-

through in position to be cut by the cutting device.

The side pieces should in practice be sufficiently far apart to permit the rule or other object to be placed in proper position between the sides.

The side piece B is extended upwardly into the shape shown, and is provided with a segmental slot G.

The device for clamping the rule or other object to be mitered in proper position comprises the supporting piece H having flanges or right-angled projections I, which confine a clamping piece K which is provided with upwardly-extending flanges or ribs L which embrace a bridge-piece M secured to the sides of the support H. By this construction the bridge serves to keep the clamp K in position, and said bridge is provided with a threaded perforation within which works a thumb-screw N which is adapted to impinge upon the clamp K and thus hold the rule tightly in position between the support H and the said clamp. The piece H is pivotally connected to the carriage by means of pivots O which engage within openings P in the sides of the carriage. The flange or side I of the supporting piece H adjacent to the side piece B of the carriage is provided with a laterally projecting lug or pin Q, which projects through the slot G and is threaded to receive a thumb-nut R. It will thus be seen that the clamping device of my machine may be readily rotated upon the pivots O to any desired angle, and then tightly secured in the adjusted position by means of the thumb-nut.

I preferably provide the inner face of the side B at the edge of the slot G with a suitable scale S, whereby the degree of the adjustment of the clamping devices and consequently the angle of cut may be readily seen, or determined.

T indicates the object to be mitered, in this instance, a printer's rule. To confine the same within the clamping device, the thumb screw N is loosened to permit the object to be inserted between the supporting piece H and the clamping piece K until the lower end of the object projects beyond the lower end of the clamping device the desired distance. The thumb screw N is then tightened which causes the piece K to firmly

clamp the object between it and the piece H. To adjust the object to cause its lower end to project more or less beyond the lower end of the clamping device, the thumb screw N is loosened as before explained, the object slid along between the pieces H, K the desired extent and the thumb screw N again tightened.

U indicates the cutting device, the same being in this instance an ordinary flat file, which is adapted to effect the cutting or mitering of the rule.

The manner of using my machine may be briefly described as follows: After the rule or other object has been marked it is placed within the clamping device and secured therein as before explained, and then the file being held in one hand the carriage is moved back and forth by the other hand until the rule has been cut to the required extent; or the same result may be obtained by holding the carriage immovable and reciprocating the file to effect the cutting.

It will be noted that when the rule has been cut down to a level with the lower edge of the rollers, the cutting will cease inasmuch as the said rollers will then bear upon the upper face of the file.

Many changes might be made in the construction and arrangement of the parts of my machine without departing from the principle or scope of the invention, and the advantages to be derived from the use of my machine will be clearly apparent and appreciated.

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

1. In a mitering machine of the character

described, the combination with a carriage comprising side pieces, and a bottom connecting the same, and provided with a transverse opening, one of the side pieces being provided with a segmental slot, and rollers rotatably mounted between the side pieces of a clamping device pivotally connected with the side pieces, a threaded lug or pin projecting through said segmental slot, and a thumb nut working on said lug, as and for the purpose specified.

2. In a mitering machine of the class described, the combination with a carriage comprising side pieces and a bottom connecting the same, and provided with a transverse opening, one of the side pieces being provided with a segmental slot, and rollers rotatably mounted between the side pieces, of a clamping device pivotally connected with the side pieces and comprising a supporting piece, a bridge piece carried thereby and a clamping piece arranged beneath the bridge piece and provided with upwardly projecting ribs or flanges embracing the bridge piece, and a thumb screw working through the bridge piece and adapted to impinge upon the clamping piece, a threaded lug or pin on the clamping device projecting through the segmental slot in the side piece, and a thumb nut working on said lug, as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES M. SCHOFIELD.

Witnesses:

J. E. CHAPIN,

C. SAYER.