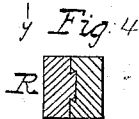
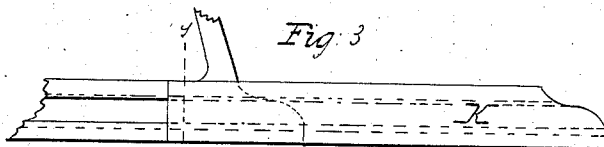
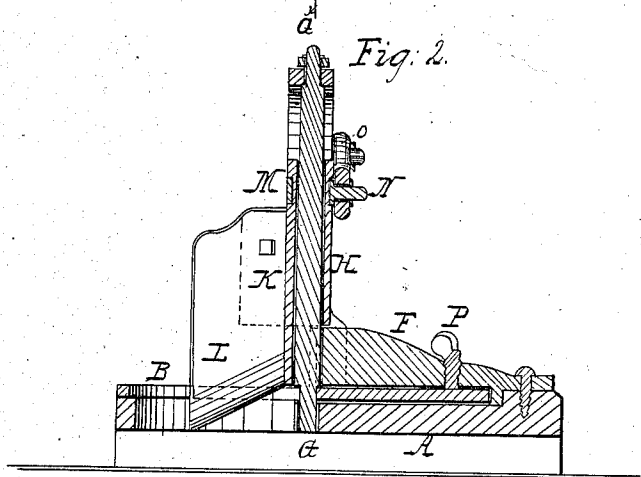
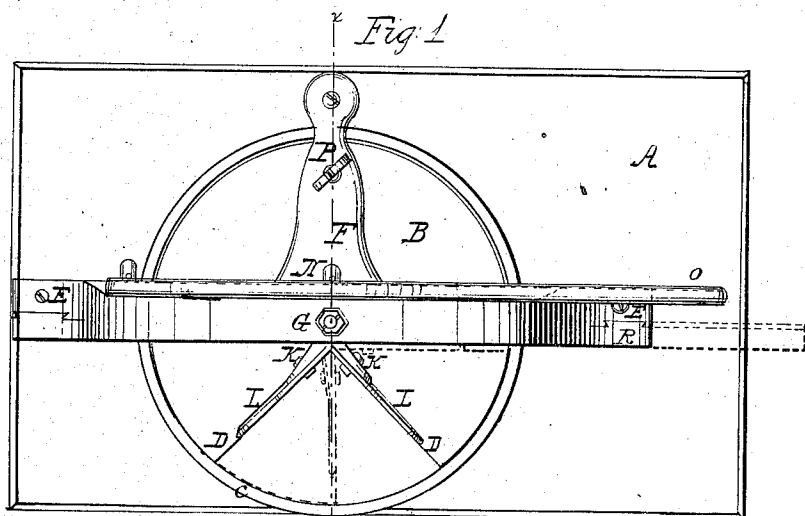


Cameron & Lettlauff

Mitering Printers Rules.

N^o 95,193.

Patented Sept. 28, 1869.



Witnesses:

J. B. Blake
Gen. H. B. Reid

Inventors:

W. C. Cameron
A. A. Lettlauff
by Orville W. Dyer Atty.

United States Patent Office.

W. E. CAMERON AND A. A. DETTLAFF, OF GREEN ISLAND, NEW YORK; SAID CAMERON ASSIGNOR TO SAID DETTLAFF.

Letters Patent No. 95,193, dated September 28, 1869.

IMPROVED MACHINE FOR MITRING PRINTERS RULES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, W. E. CAMERON and A. A. DETTLAFF, of Green Island, in the county of Albany, and in the State of New York, have invented certain new and useful Improvements in Mitring-Machines; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 is a plan view of the machine;

Figure 2 is a vertical cross-section of the same on the line *x x* of fig. 1;

Figure 3 is a broken front elevation, showing one of the adjustable rest-plates; and

Figure 4 is a cross-section of the same on the line *y y* of fig. 3.

Letters of like name and kind refer to like parts in each of the figures.

This invention relates to a class of devices known as mitring-machines; and

It consists of the means employed for suspending and operating the cutters, which in connection with a rotating disk, through which said cutters pass, allow them to be adjusted so as to cut any angle desired.

In the annexed drawing, A represents a bed-plate, secured to which is a frame, consisting of a cross-bar or sill, E, with a brace, in the form of a flat arch, springing from either end.

Secured to the centre of said sill, and extending backward at a right angle therewith, is a foot-brace, F, for the purpose of giving increased strength and firmness to the frame, which serves as a support for a cylindrical standard, G, passing vertically through the centre of said frame into the bed-plate beneath.

Fitting loosely upon the standard G is a sleeve, H, to which are attached two knives or cutters, L L, by means of suitable lugs, K K, so as to bring their faces at a right angle to each other.

Upon the lower ends of said cutters are cutting-edges, which slope inward and upward.

M represents a band or ferrule, fitting loosely into a corresponding groove near the upper end of the sleeve H, and provided with a pin, N, which passes through a slot in the lever O, having its front end pivoted to one side of the frame.

It will be readily seen, that if the outer end of the lever be now raised or depressed, a corresponding movement of the cutters will be produced, rendering it only necessary to provide suitable means for the adjustment of said cutters to the desired angle in relation to the material to be operated upon, and to furnish for said material a sufficient support beneath said cutters, to allow of the cutting of mitres of any angle or bevel.

To accomplish this result, a circular channel is cut

in the bed-plate A, in which is fitted a disk, B, corresponding in size and depth therewith. This disk is pivoted upon the lower end of the standard G, so as to revolve freely within and upon the bed-plate, and has a right-angled segment, corresponding to the outer faces of the cutters, taken from one of its sides, while a semicircular opening is made in the bed-plate beneath, a little less in circumference than the disk, and extending toward the centre as far as the face of the frame.

The cutters L L work freely through the opening in the disk, against the faces of which they are held by guides D D, which correspond to the V-shaped edges of said cutters.

As the cutters and sleeve are so fitted upon the standard as to permit them to revolve thereon, it will be evident that if the disk be now turned to the right or left, said cutters will change their position in a corresponding degree, so as to permit of their adjustment to the position required, when they are secured in place by means of a thumb-screw, P, passing through the foot-brace F, and impinging against said disk.

To permit of placing either cutter at a right angle to the line of the frame, it becomes necessary that the opposite cutter should be allowed to pass within the line of the face of said frame.

This result is accomplished by making the front part of the frame or rest-plate movable, it being constructed in two sections, meeting at the centre, which sections slide longitudinally within suitable grooves in the face of the sill, (as shown in fig. 3,) and may either be drawn out so that its inner end will just clear the front edge of the cutter, when the latter is placed parallel with the frame.

To enable the more ready adjustment of the cutters, the edge of the opening in the bed-plate may be marked with degrees, as shown in fig. 1.

The operation of this device will be readily understood.

The set-screw P being loosened, the disk B is turned so as to adjust one of the cutters to the desired angle, with the rest-plate and the disk secured.

The material to be operated upon is now placed against said rest-plate, with its end projecting over the edge of the disk as far as said end is to be removed, and the cutters caused to descend by means of the lever, producing a smoother face, and at a more accurate angle than can otherwise be secured.

Having thus fully set forth the merits of our invention,

What we claim as new, and desire to secure by Letters Patent, is—

The arrangement, in the machine herein described, of the guide G, rotating and reciprocating sleeve H,

and knives L L, substantially as and for the purpose herein shown and specified.

Also, the combination of the parts above specified, all constructed and operating substantially as set forth, with the rotating disk B and thumb-screw P, substantially as herein described and set forth.

Also, the arrangement of the reciprocating rest-plates R R in grooves in the face of the sill of the frame, substantially as and for the purpose described.

In testimony that we claim the foregoing, we have hereunto set our hands, this 22d day of February, 1869.

W. E. CAMERON.
A. A. DETTLAFF.

Witnesses:

JOHN TIGHE,
CHARLES KOLB