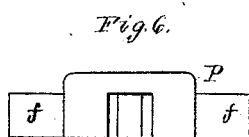
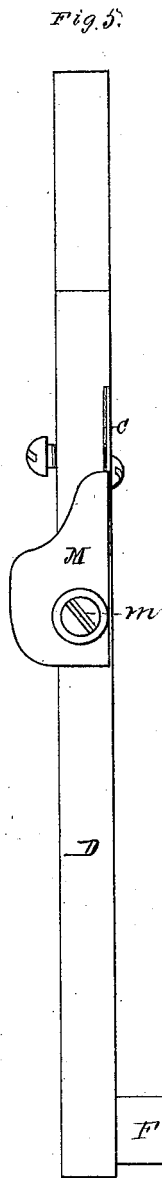
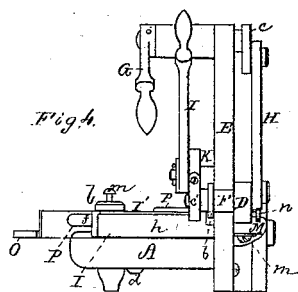
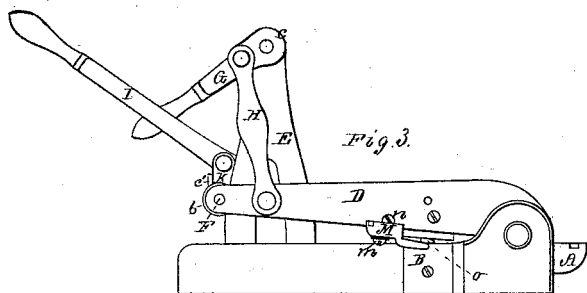
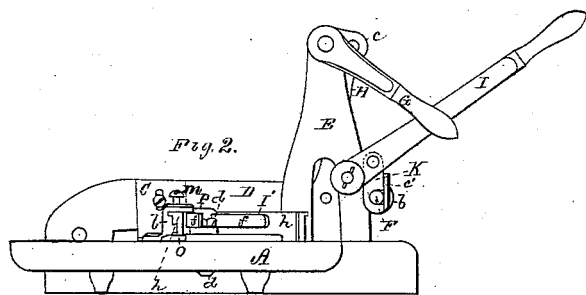
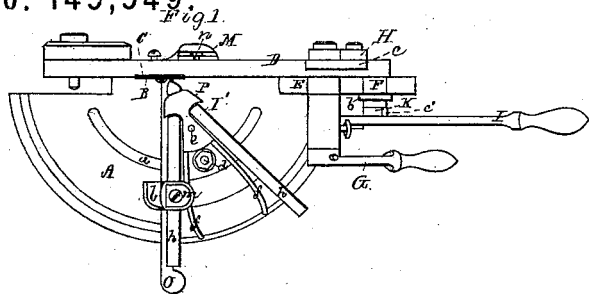


J. B. BANCROFT.

Machines for Preparing Printers' Rules.

No. 145,549.

Patented Dec. 16, 1873.



Witnesses.

S. V. Piper.

L. N. Moller.

Joseph B. Bancroft.

by his attorney.

R. Eddy

UNITED STATES PATENT OFFICE.

JOSEPH B. BANCROFT, OF HOPEDALE, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR PREPARING PRINTERS' RULES.

Specification forming part of Letters Patent No. **145,549**, dated December 16, 1873; application filed August 9, 1873.

To all whom it may concern:

Be it known that I, JOSEPH B. BANCROFT, of Hopedale, of the county of Worcester and State of Massachusetts, have invented a new and useful or Improved Machine for Preparing Printers' Rules; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a front elevation, Fig. 3 a rear elevation, and Fig. 4 a front end view, of the machine. Fig. 5 is an under-side view of the mouth-cutter lever with the adjustable chip-gage applied thereto.

By this machine printers' rules may not only be cut into equal lengths, but may also be either squared, or mitered, or cut obliquely at their ends, as occasion may require.

My invention has reference to mechanism for operating the movable cutter-lever, for clamping or holding a rule while being mitered, for gaging the thickness of the shaving or chip to be removed each time by the cutter, and also for preventing the chip-gage from injury or being in the way of a rule while being squared, all of which mechanism I have hereinafter explained.

The bed or table of the machine is represented at A as semicircular in form, and having a curved slot, *a*, made through it concentrically with the curved outer edge of the table. At the back of the table is a stationary shear-plate, B, to operate with a shear or cutter, C, fixed to a movable lever, D, arranged with and pivoted to the table, in manner as shown. A standard, E, erected on the table extends upward against the front side of the lever D, the lower part of the standard being curved on its outer edge, with a radius whose center is that of the pivot of the lever. From the lever a journal, F, projects, in manner as shown, and is provided with a flange, *b*, to extend over and close to the inner side of the standard, such flange being to prevent the movable cutter from moving laterally away from the stationary shear-plate during the process of cutting a rule. A cranked lever, G, pivoted to the standard E, is connected with the cutter-lever D by a rod, H, pivoted to the said lever, and to the crank *c* of the lever G. Under ordinary circumstances, the

cutter-lever D may be worked by manual power applied to the handle of the lever G, but when this cannot be effected to advantage the cutter-lever may be moved by manual power applied to an auxiliary lever, I, which, arranged and pivoted to the standard in manner as shown, carries a coupling, K, which is pivoted to the auxiliary lever I, and hooks upon the journal F, projecting from the cutter-lever. The said coupling has pivoted to it a spanner, *c'*, to extend across the opening of the hook and hold the coupling in connection with the journal. When not in use, the auxiliary lever may be uncoupled with the cutter-lever, to enable the latter to move or be moved independently of it. On the top of the table, and pivoted to it at the center of its peripheral curve, is what I term the miter-gage I', furnished with a clamp-nut and screw-bolt, as shown at *d e*. The bolt *d* extends up through the curved slot of the table, and, with the nut, serves to clamp the miter-gage I' in any of its positions upon the table. There is applied to the said miter-gage, and arranged therewith, in manner as shown, a duplex griper-lever, P, such lever being free to turn laterally on a pivot, *e*, extended upward from the miter-gage. The griper-lever has two jaws projecting down from its head and on opposite sides of the miter-gage, as shown at *f f* in the drawings, a front end view of the griper-lever being exhibited in Fig. 6.

When a rule is between either jaw and the next adjacent vertical face of the miter-gage, such rule may be clamped in position by means of the griper-lever, simply by moving such lever so that the jaw next to the rule may be forced against such rule, so as to hold it against the miter-gage.

Furthermore, there is to either or each of the legs *h h* of the miter-gage an adjustable abutment, *l*, it being arranged as shown, and provided with a clamp-screw, *m*, for holding it in position. While a rule is in the act of being severed or cut by the movable cutter, the inner end of the rule is to rest against the abutment *l*. With the duplex miter-gage, formed with the two legs *h h*, making an acute angle of forty-five degrees with each other, and connected together, printer's rules may be cut off square at their ends, or may be cut up into

shorter pieces of equal or unequal lengths, and they may afterward be mitered or formed with beveled ends, as may be desirable. Without moving the miter-gage, a rule may be cut off square at its ends, or may be cut up into shorter pieces of equal or unequal lengths, and they may afterward be mitered or formed with beveled ends, as may be desirable. Without moving the miter-gage, a rule may be squared at one end and next be mitered at such end. The adjustable chip-gage, (shown at M,) arranged with the cutter-lever and its cutter, and constructed as represented, has a clamp-screw, *m*, for confining it to the lever; and it also has an adjusting-screw, *n*, applied to it and the lever, for the purpose of adjusting it nearer to or farther from the cutter, such being for the purpose of determining the thickness of the chip to be removed from a rule by the cutter during the process of mitering or beveling the rule. A slide-rule or guard, O, arranged on the table and against the miter-gage, in manner and formed as shown, and to slide through the abutment, is used to support a printer's rule while in the act of being squared, or cut off square at one end, or reduced to pieces of shorter lengths, in which case the rule passed between the cutter and the shear-plate B and the cutter C, and butted endwise against the abutment, and resting flat-

wise on the table, bears at its edge against the edge of the guard, such guard serving to keep the rule out of contact with the chip-gage, or from being injured thereby. The said chip-gage is to be used only during the process of mitering or beveling the end of a rule.

I claim as my invention in the said described machine, as follows:

1. The auxiliary lever I and its coupling-hook K, spanner *c'*, and pin *b'*, in combination with the movable cutter-lever D, and the bed A supporting the adjustable miter-gage I', all being substantially as specified.

2. The duplex griper-lever P, provided with two jaws, *f f*, as set forth, in combination with the adjustable miter-gage I', as explained.

3. The adjustable chip-gage M, in combination with the movable cutter-lever D, and the miter-gage I' applied to the table A, as set forth.

4. The movable guard O, combined with the table A, the miter-gage I', and the movable cutter-lever D, all being essentially as specified.

JOSEPH B. BANCROFT.

Witnesses:

R. H. EDDY,
J. R. SNOW.