(No Model.)

E. A. BLAKE.

MACHINE FOR TRIMMING STEREOTYPE PLATES.

No. 327,856. Patented Oct. 6, 1885.

FIG. 1.

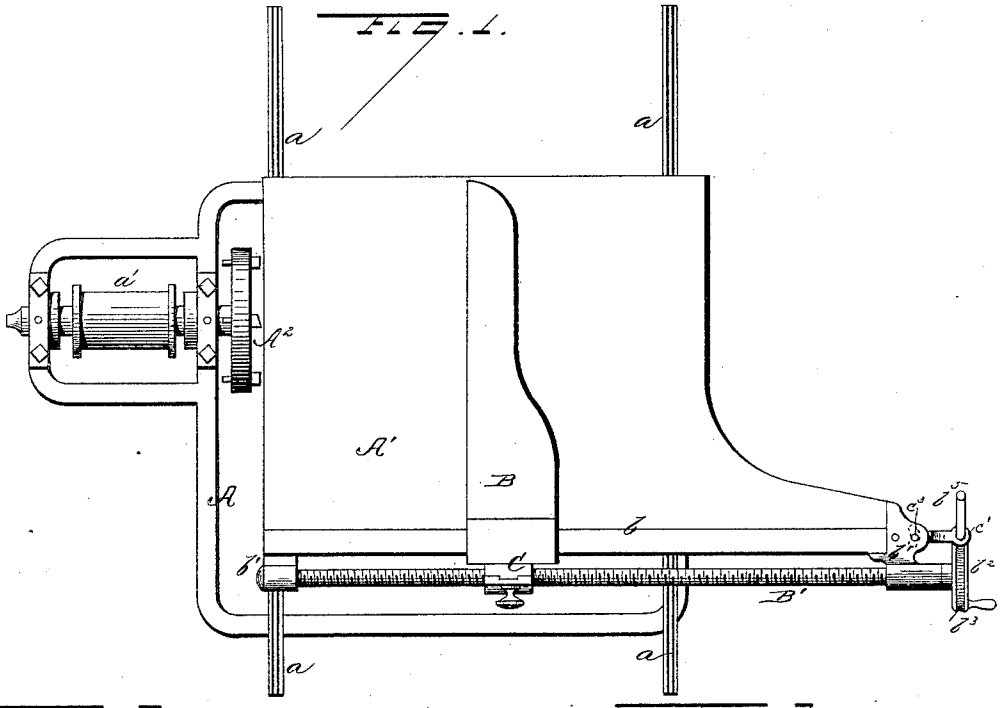


FIG. 2.

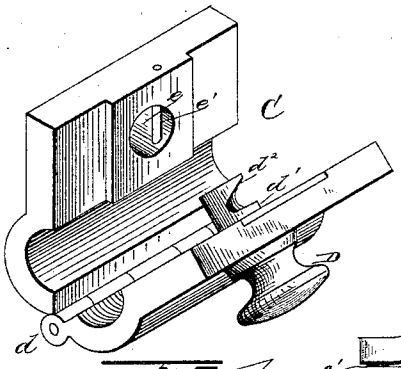


FIG. 3.

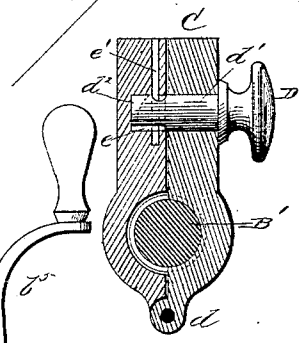
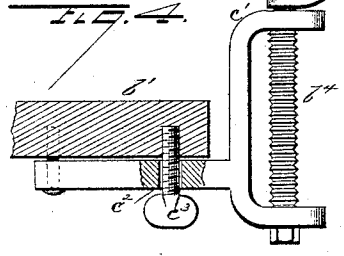


FIG. 4.



Witnesses:
H. C. McArthur
F. Stratton

Inventor.
Edward A. Blake
per
A. Harrison
Attorney.

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

EDWARD A. BLAKE, OF CHICAGO, ILLINOIS.

MACHINE FOR TRIMMING STEREOTYPE-PLATES.

SPECIFICATION forming part of Letters Patent No. 327,856, dated October 6, 1885.

Application filed March 30, 1885. Serial No. 160,658. (No model.)

To all whom it may concern:

Be it known that I, EDWARD A. BLAKE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Machines for Trimming Stereotype-Plates, of which the following is a specification.

This invention relates to machines for trimming stereotype-plates; and it consists in certain peculiarities of the construction and arrangement of the same, substantially as will be hereinafter more fully set forth and claimed.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the accompanying drawings, in which—

Figure 1 is a top plan view of a trimming-machine having my improvements in application. Fig. 2 is a perspective view of the screw-sleeve on the gage when open. Fig. 3 is a vertical transverse section of the same when closed, and Fig. 4 is a detail view of the worm-screw and the manner of adjusting it in and out of engagement with its worm-wheel on the main adjusting-screw.

A represents the main frame of my machine, provided with the ways *a*, on which slides the work-table A′, as usual. On an offset of the main frame, on one side, is journaled the cutter-head A^2, which revolves close beside the adjacent edge of the work-table, and is provided with a belt-pulley, *a′*, by which the head is driven.

These parts of my machine are old and well known, and do not require further description here, their operation being readily comprehended by any one skilled in the art.

Along its forward edge the sliding table is formed with a guide-flange, *b*, on which moves a gage, B, to and from the cutter-head, to feed the plate slowly and squarely to the cutters.

Journaled in suitable brackets, *b′ b′*, on the forward edge of the table is a screw-shaft, B′, and the gage is on its end provided with a sleeve or box, C, through which this rod passes, and by means of which the gage is adjusted and moved forward or backward at will during the operation of the machine. On one end the screw-shaft B′ is provided with a crank-wheel, b^2, the face of which is formed with a series of worm-teeth, b^3, with which engages a worm-screw, b^4, provided with a small crank, b^5, and journaled in a frame, *c′*, carried on the table, where it is pivoted and provided with a slot, c^2, through which passes a set-screw, c^3, to secure the frame, and by tightening or loosening which the worm may be readily secured or released from engagement with the worm-faced crank-wheel, as will be seen by reference to Figs. 1 and 4. It will thus be seen that by means of the crank-wheel the screw-rod can be turned more or less rapidly to adjust the gage and feed the work, while when the worm-screw is thrown into gear this movement is readily made exceedingly slow and the adjustment most minute.

In preparing work for cutting it is obvious that a much more rapid movement of the gage is preferable than can be had by means of the adjusting-rod when the gage is to be moved some distance, and I do this as follows: The box or sleeve C is made in two parts hinged together, as at *d*, and one part secured firmly to the gage. This part of the box is, as seen clearly in Fig. 3, made to fit the screw-rod loosely, so as to slip easily past its threads without engaging them, while the outer or movable portion is threaded to correspond with the rod, and engages with it when the parts are closed. A latch or bolt, D, is secured in the outer or movable part of the box, and its shank *d′* is partly cut away on one side to form a cam or inclined hook, d^2, which enters a recess, *e*, in the opposite part of the boxing, and when turned engages a projection, *e′*, therein to draw the parts together and firmly lock them. Thus by a partial turn of the latch the hinged part of the box is readily thrown down, as in Fig. 2, and the gage slid along to the desired point, the box-front thrown up and secured, and the screw-shaft used as before.

This arrangement adds greatly to the convenience of the operator, and saves a great deal of time in the use of the machine, while the box so made is sufficiently strong and accurate in operation for the purpose in view.

It is obvious that the form of the two-part box and its latch may be altered at will without departing from the spirit of my invention, and I do not desire to confine myself to the construction herein shown and described for this purpose, but shall use any other form that

appears most suitable for use and economical to manufacture.

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

1. In a stereotype-trimming machine, the combination, with the feeding-screw, of a sliding gage, a box or sleeve made in two parts hinged together, one of which is slightly larger than the rod, and the other threaded to correspond thereto, and a latch for securing the hinged box in a closed position, substantially as and for the purpose set forth.

2. In a stereotype-trimming machine, the combination, with the screw-feeding shaft B′, of the sliding gage B and the two-part box C, hinged together and provided with the latch D, formed with the inclined hook d^2 on its shank, and the recess e, and projection e', substantially as and for the purpose set forth.

3. In a stereotype-trimming machine, the combination, with the feeding-screw B′, provided with the hand-wheel b^2, formed with worm-teeth b^3, of the worm-screw b^4, the frame c', pivoted on the main frame and provided with the slot c^2, and the set-screw c^3, substantially as and for the purpose set forth.

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

EDWARD A. BLAKE.

Witnesses:
W. C. McARTHUR,
F. STRATTON.