E. L. GILMAN.
Printing-Press.

No. 203,335. Patented May 7, 1878.

Fig: 1.

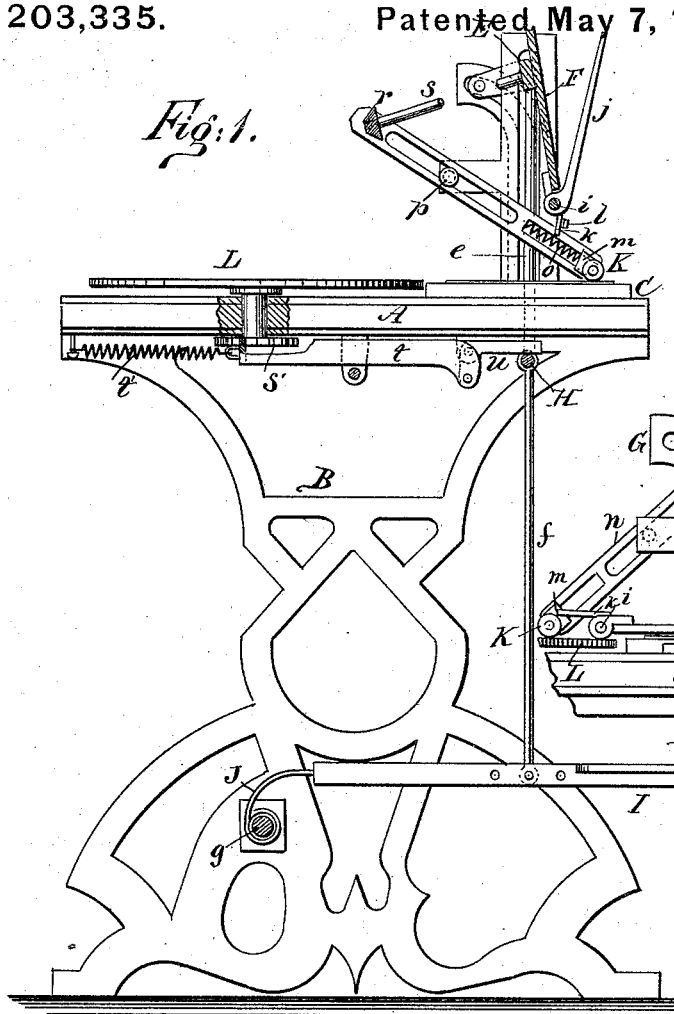


Fig: 3.

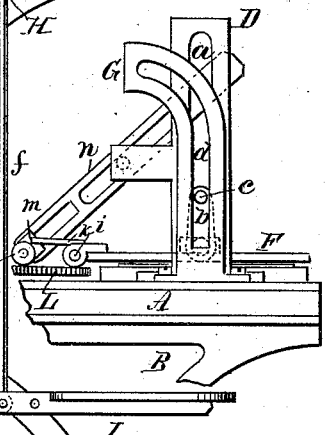


Fig: 2.

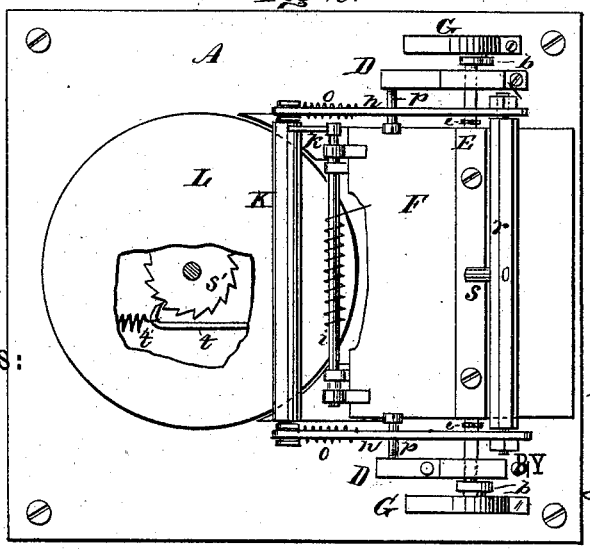


Fig: 4.

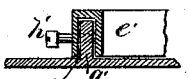
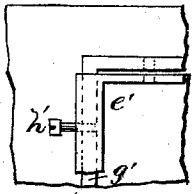


Fig: 5.



WITNESSES:
Edgar Tate
Alby F. Roberts

INVENTOR:
E. L. Gilman.
Munn & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

EDWARD L. GILMAN, OF SOMERVILLE, MASSACHUSETTS.

IMPROVEMENT IN PRINTING-PRESSES.

Specification forming part of Letters Patent No. **203,335**, dated May 7, 1878; application filed November 6, 1877.

To all whom it may concern:

Be it known that I, EDWARD L. GILMAN, of Somerville, in the county of Middlesex and State of Massachusetts, have invented a new and Improved Printing-Press, of which the following is a specification:

Figure 1 is a side elevation, partly in section, of my improved printing-press. Fig. 2 is a plan view. Fig. 3 is a detail view, showing the arrangement of the platen and inking apparatus and standards for supporting and guiding the same. Fig. 4 is a transverse section, and Fig. 5 a plan view, showing a modified form of chase and bed.

Similar letters of reference indicate corresponding parts.

The object of my invention is to provide a simple and inexpensive self-inking printing-press for the use of job-printers and amateurs.

The invention will first be described in connection with the drawing, and then pointed out in the claims.

In the drawings, A is the bed of the press, supported by standards B, and having upon its upper surface the frame or stationary chase C. At the ends of this frame posts D, having vertical slots *a*, are secured to the bed. A shaft, E, secured to the back of the platen F, projects through the slots of these posts, and is provided at each end with an arm, *b*, arranged at right angles to the face of the platen. Studs *c* project from these arms into the curved slots *d* of the posts G, which are secured to the bed A. These studs follow the curved slots *d* as the platen is raised, turning the shaft E on its axis, so as to bring the platen from its horizontal position over the face of the form into a vertical plane.

Vertical rods *e* extend upward through the table between the ends of the frame C and the posts D, and are apertured to receive the shaft E, and are attached to a cross-bar, H, below the table, which is connected with the treadle I by means of the connecting-rod *f*.

The treadle I is connected with a cross-bar, *g*, that connects the standards B, by a spring, J, that is wound around the said bar and attached to the treadle. This spring serves to raise the treadle and the parts connected with it when the pressure of the foot is removed.

A shaft, *i*, carrying the tympan-fingers *j*, is journaled at the lower or rear edge of the platen, and has attached to it a spring for throwing the fingers against the platen, and at one of its ends an arm, *k*, that strikes a pin, *l*, projecting from one of the posts as the platen comes beyond a vertical position, and throws the fingers from the face of the platen.

The ink-roller K is journaled in movable boxes *m* in the lower ends of the slotted arms *n*, and the boxes are held to the lower end of the slot by springs *o*. These slotted arms are guided by studs *p*, that project from arms formed on the posts D, and are pivoted at their upper ends to a cross-bar, *r*, which is rigidly connected to the back of the platen by a post, *s*.

A revolving ink-table, L, is journaled in the press-bed, with its face in the same plane as the face of the type.

A ratchet, *s'*, is attached to the lower end of the shaft of the ink-table, and is engaged by a hook-pawl, *t*, that is drawn forward by the coil-spring *t'*, and is drawn back so as to turn the table by a right-angled lever, *u*, which is connected with it and pivoted to the under surface of the bed A. The longer arm of this lever is engaged by the cross-bar H as it is thrown upward by the spring-treadle I.

The type to be printed from is placed on the press-bed in the frame and locked and planed. The ink-table L is charged with ink, and the paper to be printed is placed under the tympan-fingers *j*. The treadle is now carried downward by the foot, turning the platen F into a horizontal position. As it begins to move the tympan-fingers are released, and go to the platen, clamping the paper. The ink-roller is also carried back to the ink-table, and the platen, with its paper, is brought down upon the type. On relieving the treadle from pressure, the spring returns the parts to the position whence they started, and, as the cross-bar H rises, it strikes the lever *u* and rotates the ink-table L.

The chase shown in Figs. 4 and 5 consists of a rectangular frame, *e'*, having grooves *f'* in its ends, which fit over ribs *g'* formed on the bed of the press. The chase is held in place by screws *h'*, which pass through the ends of the chase and through the ribs.

By using a hand-roller, the automatic inking device may be dispensed with.

I am aware that it is not new to employ in

a printing-press a spring-treadle in connection with the platen, spring tympan-fingers, or a rotating ink-table; but my platen is first in a horizontal position, and, just before the close of its rise, in a perpendicular position, causes the post, (in center of platen,) whose cross-bar carries the inking-roll in slotted arms, to make a curved sweep sufficient to carry ink-roller forward over the ink-table and type, while the same motion throws forward the arm on the shaft of the spring-fingers, which causes it to strike a stud and release the paper.

What I claim is—

1. The combination, with the platen and guide-studs *p*, of the ink-roller K, journaled in movable spring-held boxes *m* at the lower ends of slotted arms *n*, said arms being pivoted at their upper ends to a cross-bar, *r*, rigidly connected by a post, *s*, to the back of platen, as shown and described.

2. The platen having slide trunnions and arms, the latter provided with pins, in combination with two sets of posts, one having perpendicular and the other curved slots, as and for the purpose set forth.

EDWARD L. GILMAN.

Witnesses:
W. T. GARDNER,
CHARLES W. SAWYER.