E. L. GILMAN.
Printing-Press.

No. 212,922 Patented Mar. 4, 1879.

Fig. 1.

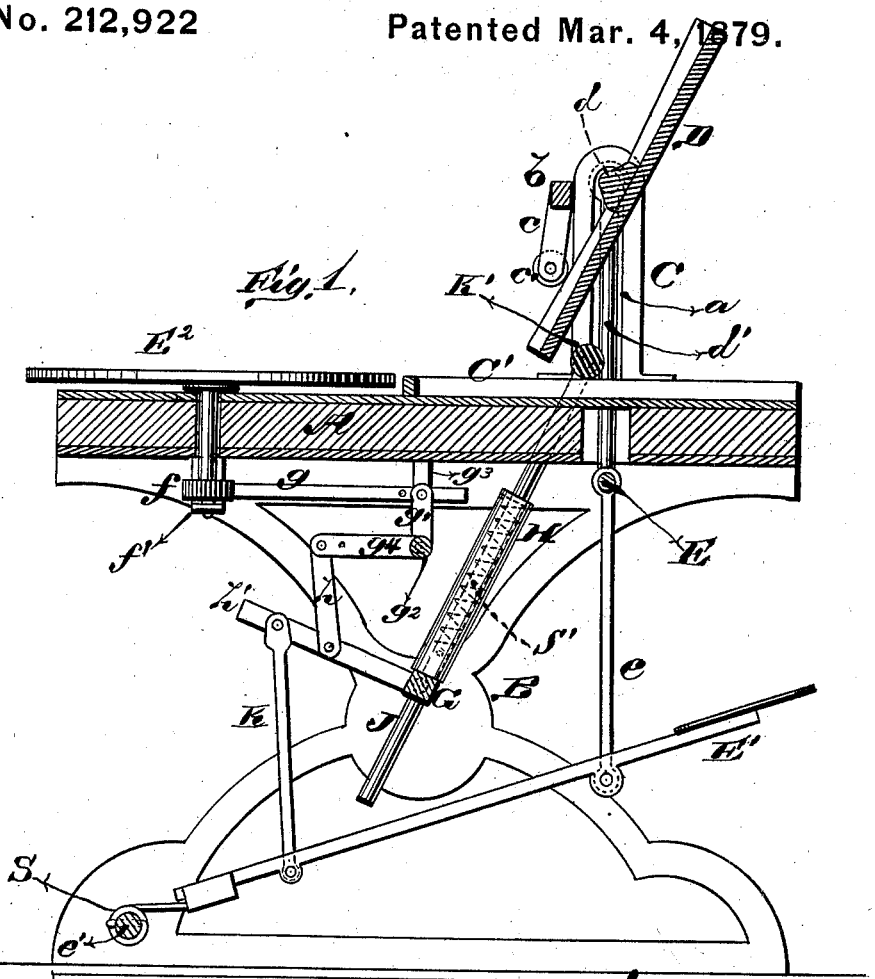
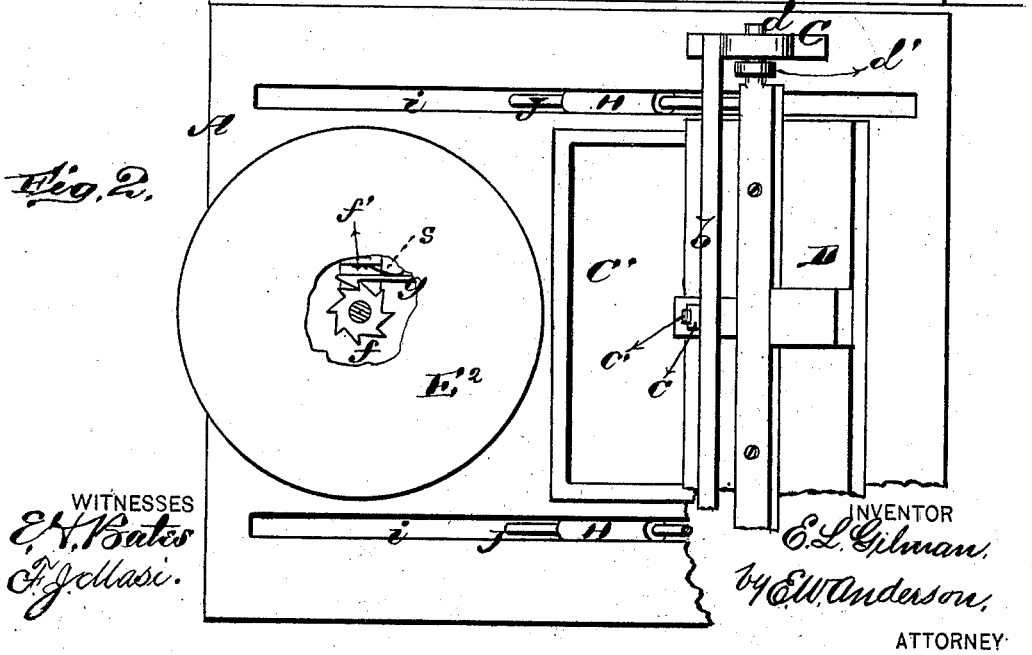


Fig. 2.



WITNESSES
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EDWARD L. GILMAN, OF SOMERVILLE, MASSACHUSETTS.

IMPROVEMENT IN PRINTING-PRESSES.

Specification forming part of Letters Patent No. **212,922**, dated March 4, 1879; application filed August 24, 1878.

To all whom it may concern:

Be it known that I, E. L. GILMAN, of Somerville, in the State of Massachusetts, have invented a new and valuable Improvement in Printing-Presses; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal central section of my improved press; and Fig. 2 is a top view thereof.

This invention has relation to improvements in printing-presses.

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 nature of the invention consists in combining, with a bed having a frame or stationary rim and vertically-slotted uprights, a bar connecting the said uprights, and provided with a stop-arm carrying in its end an anti-friction roller and projecting from said bar, and a platen having journals engaging said uprights, and raised or lowered by a treadle or other mechanism.

It also consists in the combination of parts, as more fully hereinafter shown and described.

In the annexed drawings, A is the bed of the press, supported by standards B of any suitable description. At each end of this bed are arranged, in line with each other, the uprights C, each of which is provided with a slot, *a*, the said uprights being connected by a cross-bar, *b*, from which projects an arm, *c*, carrying on its free end an anti-friction roller, *c'*. D indicates the platen, having at each end a journal, *d*, that projects through the slots *a* of the uprights C. The journals or spindles *d* of the platen are each engaged by a rod, *d'*, which extends through the bed, and is connected with its fellow by means of a rigid cross-bar, E. This bar is connected with a treadle, E^1, by means of a connecting-rod, *e*, connected at one end to the said bar and at the other end to the said treadle. The latter is raised automatically after being depressed by means of a spring, S, coiled around the brace-rod *e'*, to which the treadle is pivoted, and secured at one end to the shaft and at the other to the treadle aforesaid. When the treadle is raised by the reaction of the spring S the platen is also raised horizontally from the frame or stationary rim C' until its upper surface comes in contact with the anti-friction roller *c'* of the arm *c*, when it swings around into a nearly vertical position. That portion of the platen next to the feed side of the bed overbalances that farthest therefrom. When the treadle is depressed the said platen, bearing against the anti-friction roller *c'*, remains in contact therewith until it becomes horizontal, and descends upon the frame or chase in this position.

E^2 represents a circular ink-table, having a central spindle, that is journaled in the bed, and is provided on its extremity under the bed with a ratchet-wheel, *f*. This spindle has its lower bearing in a hanger, *f'*, depending from the under side of the bed. The ratchet *f* is engaged by a hook-pawl, *g*, supported by the hanger *f'*, and held to its engagement with said ratchet by means of a spring, *s*, secured to said hanger at one end, and bearing with the other against the said pawl. The plain end of this pawl is pivoted to an arm, g^1, projecting vertically from a rock-shaft, g^2, having its bearings in hangers g^3 on the bottom of the bed, and provided with a projecting horizontal arm, g^4. This arm g^4 is connected by means of a pitman, *h*, to an arm, *h'*, projecting horizontally from a rock-shaft, G, having its bearings in the standards below the bed. The arm *h'* is coupled to the treadle by means of a connecting-rod, K, and when the said treadle is actuated the shaft G is vibrated and endwise motion imparted to the pawl *g*, thereby causing its hooked end to engage the ratchet upon the spindle of the inking-table, and causing the said table to rotate intermittently.

H indicates tubular metallic guides, rigidly secured to shaft G near each end thereof. Inside of these guides are placed metallic journal-rods J, that extend through the said shaft and are endwise movable therein. These rods extend upward through slots *i* in the bed, and afford bearings in their upper ends to an inking-roller, K'. They are flexibly connected to the guide-tubes by means of springs S', ar-

ranged in said tubes, and secured at one end thereto, and at the other to the said rods.

When the treadle is depressed the platen is brought down upon the form in the rim or stationary frame in a horizontal position, and when it is raised by the reaction of spring S it comes in contact with the anti-friction roller in the end of arm *c*, and is swung into a nearly vertical position. When the platen descends the inking-roller is carried by the mechanism above described over the inking-table, where it is supplied, out of the way of the platen, and as the latter ascends is brought over the type in the rim, inking the same effectually. As the inking-roller passes alternately over the inking-table and rim or stationary frame springs S′, above mentioned, yield, and while holding the said roller down upon the face of the type allow the journal-rods to be extended, so that the roller may reach every part of the rim and inking-table.

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

1. In a printing-press, the combination, with a bed, A, having the frame or stationary rim C′ and the vertically-slotted uprights C, of a bar, *b*, connecting said uprights, an arm, *c*, carrying on its end an anti-friction roller, *c′*, and projecting from said bar, and a platen, D, having journals *d* engaging the said uprights, and raised or lowered by a treadle or other mechanism, substantially as specified.

2. In a printing-press, the combination, with the rock-shafts G, having the lever-arm *h′*, the rock-shaft g^2, having the arms g^1 g^4, the ink-roller rods J, the ink-table, ratchet and pawl, and the platen-rods *d′*, of the front and rear connecting-rods, *e* K, springs S′, and the pitman *h*, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

EDWARD LOWELL GILMAN.

Witnesses:

A. Q. CARPENTER,

E. L. RAMDELL.