

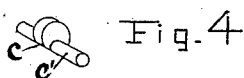
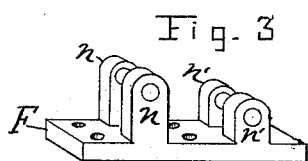
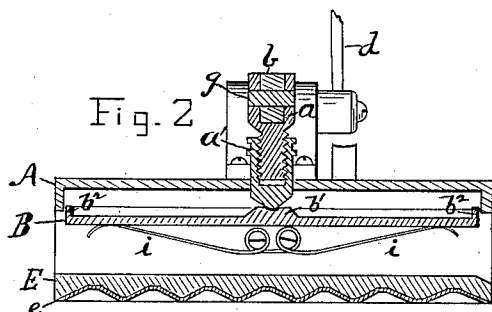
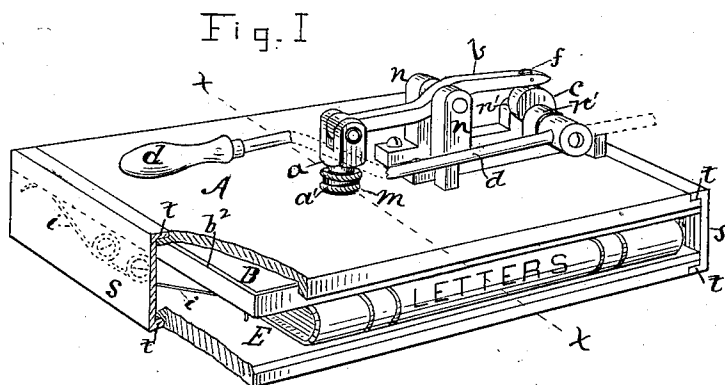
(No Model.)

H. GRIFFIN.

COPYING PRESS.

No. 336,564.

Patented Feb. 23, 1886.



WITNESSES:

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HORACE GRIFFIN, OF NEW HAVEN, CONNECTICUT.

COPYING-PRESS.

SPECIFICATION forming part of Letters Patent No. 336,564, dated February 23, 1886.

Application filed April 29, 1884. Serial No. 129,706. (No model.)

To all whom it may concern:

Be it known that I, HORACE GRIFFIN, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Copying-Presses, of which the following is a specification, reference being had therein to the accompanying drawings.

The object of my invention is to provide a convenient portable copying-press which may be quickly and easily adjusted for books of different thickness.

In the drawings, Figure 1 is a perspective view, partly broken away, of a copying-press embodying my invention. Fig. 2 is a cross-section thereof on line *xx*, Fig. 1. Figs. 3 and 4 are detail perspective views.

A denotes the top plate of my press, and E the base-plate thereof, said top and base plates being secured to flanges *t* of end plates, *s*, the latter, with the top and base plates, constituting the rigid frame-work of the press.

B is the platen, which is supported by springs *i*, attached to the end plates, *s*, said platen, to have sufficient strength consistent with proper lightness, being preferably provided on its upper side with a central projection or boss, *b'*, and a rib, *b²*, extending around its edge.

Attached to one end of the top plate, A, is a plate or block, F, having two sets of standards, *n* and *n'*. A lever, *b*, is pivoted near its center to the standards *n*, the rear end of said lever impinging against a cam or eccentric, *c*, carried by a small shaft, *c'*, having its bearings in the standards *n'*, and to said shaft is attached a hand-lever, *d*, by which it may be operated to oscillate the cam or eccentric *c*, and thus rock or tilt the lever *b*.

To the forward end of the lever *b* is attached by a pin, *g*, an extensible pillar or plunger, *a a'*, working through a central opening in the top plate, A, and impinging against the boss *b'* of the platen B. The part *a* of the said plunger consists of a threaded bolt, and the part *a'* is a threaded nut adapted to be turned by the thumb and finger of the operator, and thus by screwing the said nut up or down on said bolt the plunger may be lengthened or shortened. This lengthening or shortening of the plunger will cause it to project more or less beneath the top plate, and thus depress the platen more or less, as may be required, according to the thickness of the

copying-book in use, thereby adapting my press, in which the distance between the top and base plates is non-adjustable and the throw of the lever *b* is uniform, for use with books of varying thickness.

To secure strength and lightness, I prefer to corrugate the base-plate E, and said corrugated base-plate may be re-enforced by a thin metal plate, *e*, as shown in Fig. 2.

The operation of my invention is as follows: The copying-book being placed in the press, the lever *d* is turned to the position shown in Fig. 1, thus bringing the full portion of the cam or eccentric *c* upward against the rear end of the lever *b*, and forcing the forward end of said lever and the plunger carried thereby downward, and thereby depressing the platen B to press the book and effect the copying. When the hand-lever is released, the platen is lifted by the springs *i*, and the said springs, acting through the platen, plunger, and lever *b*, serve to keep the rear end of said lever in contact with the cam or eccentric *c* at all times.

To adjust the press for a thicker or thinner book, it is obvious that the plunger-nut *a'* may be readily turned by the operator to lengthen or shorten the plunger, as above described.

I do not wish to be understood as claiming, broadly, in this application the platen-operating mechanism herein shown, as this feature of my invention is embraced by my application No. 117,958, filed January 18, 1884; but What I do claim, and desire to secure by Letters Patent, is—

1. In a copying-press, the combination, with the rigid frame-work thereof, comprising a top plate having a central opening, of an adjustable or extensible plunger working through said opening, a platen against which said plunger impinges, and mechanism, substantially as described, for operating said plunger, as set forth.

2. In a copying-press, the combination, with the frame-work thereof and the platen, of an adjustable or extensible plunger consisting of a threaded nut and bolt, a tilting lever to which said plunger is attached, and a cam or eccentric and hand-lever for operating said lever, substantially as set forth.

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

Witnesses: HORACE GRIFFIN.
M. MOULTHROP,
GEO. S. BOLTON.