H. W. BROWNE.

PLATE-PRINTING PRESS.

No. 190,188. Patented May 1, 1877.

fig. 1.

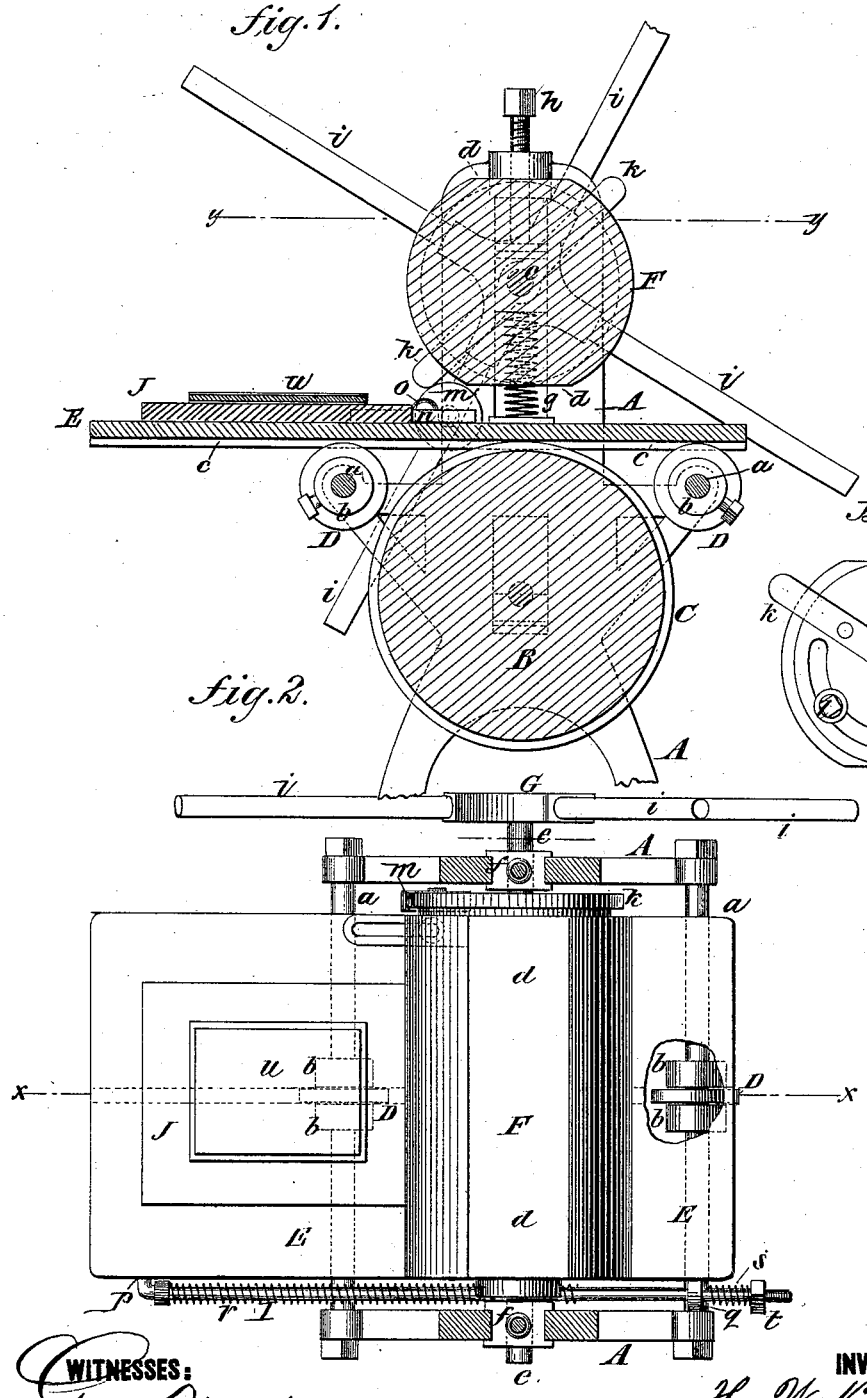
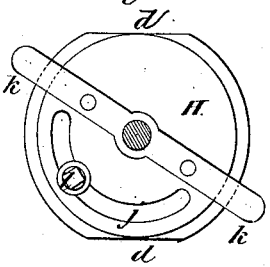


fig. 2.

fig. 3.



WITNESSES:

Gustave Pietzsch

J. R. Scarborough.

INVENTOR:

H. W. Browne.

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

HORATIO W. BROWNE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN PLATE-PRINTING PRESSES.

Specification forming part of Letters Patent No. **190,188**, dated May 1, 1877; application filed March 3, 1877.

To all whom it may concern:

Be it known that I, HORATIO W. BROWNE, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and Improved Plate-Printing Press, of which the following is a specification:

Figure 1 is a transverse section on line *x x* in Fig. 2. Fig. 2 is a plan view. Fig. 3 is a detail view of the arms for moving the bed.

Similar letters of reference indicate corresponding parts.

My invention consists in a novel device for moving the bed under the impression-roll.

The object of my invention is to increase the rapidity with which the impressions may be taken from the plates.

In the drawing, A is the frame of the press, in which the shaft of the roll B is journaled. This roll is provided with a central flange or collar, C. D D are wheels placed upon the rods *a* of the frame A, and retained in place by collars *b*. The face of the wheels D is of the same width as the collar C, and the upper surfaces of the wheels D and collar C are in the same horizontal line. E is the movable table, which rests upon the roll B, and is provided with a groove, *c*, which receives the collar C and the wheels D. F is a roll cut away or flattened at the two opposite sides *d*, whose shaft *e* is journaled in adjustable boxes *f*, placed in slots in the side pieces of the frame A. The boxes *f* and roll F are supported by springs *g*, and are adjusted by screws *h*, that pass through the top of the side pieces of the frame. A hub, G, is secured to one end of the shaft *e*, from which arms or levers *i* extend radially for moving the roll F. Upon the end of the roll F a disk, H, is placed, which is provided with an arc-shaped slot, *j*, and to which the arms *k k* are attached. A set-screw, *l*, binds the disk H against the end of the roll. The arms *k k* extend beyond the periphery of the roll F sufficiently to engage a wheel, *m*, that turns on a stud projecting from a slotted bar, *n*, that is secured to the table E by the screw O. I is a rod attached to the table E at *p*, and running through a guide, *q*, attached to the frame A. A spring, *r*, is placed on the said rod, between *p* and the guide *q*, and a spring, *s*, is placed between the guide *q* and a nut, *t*, on the end of the rod. A bed, J, is placed on the table E, to receive the engraved plate *u*.

The operation of my improved press is as follows: The plate *u* being inked in the usual way, and placed on the bed J, the paper or card is placed thereon, and the roll F is turned by means of the arms *i*. As the roll revolves one of the arms *k* engages the wheel *m*, and carries the table forward until the roll presses the paper and the impression is made. When the flattened part *d* of the roll is parallel with the bed the arm *k* is disengaged from the wheel *m*, and the spring *r*, which is compressed by the forward motion of the bed, returns the bed to its normal position. The momentum of the bed is taken up by the spring *s*.

It will be seen that only a half-revolution of the roll F is required to produce an impression, and that the arms *k* act alternately in throwing the table forward. When the pressure is removed from the bed the table is prevented from tipping by the wheels D.

The advantages claimed for my invention are, that impressions can be made with greater rapidity than with presses of ordinary construction, and that less labor is required to work the press.

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

1. In a plate-printing press, the roll F, cut away or flattened at two opposite sides, to permit of making two impressions by one revolution of the roll, in combination with the disk H, having arc-slot *j* and arms *k k*, substantially as herein shown and described.

2. The combination of the disk H, having the slot *j*, the arms *k*, screw *l*, roll F, wheel *m*, slotted plate *n*, and table E, substantially as herein shown and described.

3. The combination of the bed E, having the central groove *c*, the roll B, having the collar C, and the wheels D, substantially as herein shown and described.

HORATIO W. BROWNE.

Witnesses:
HARRY DAVIS,
G. F. STURGIS.