S. J. SMITH.

Hand Lever Printing Press.

No. 18,557. Patented Nov. 3, 1857.

Fig. 2.

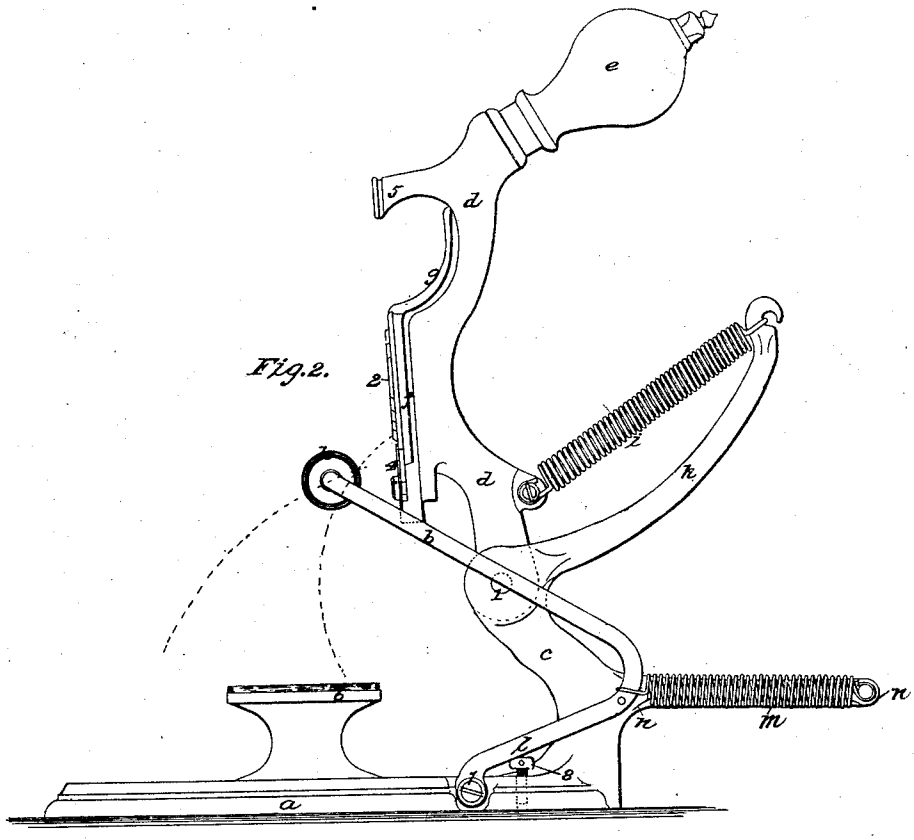
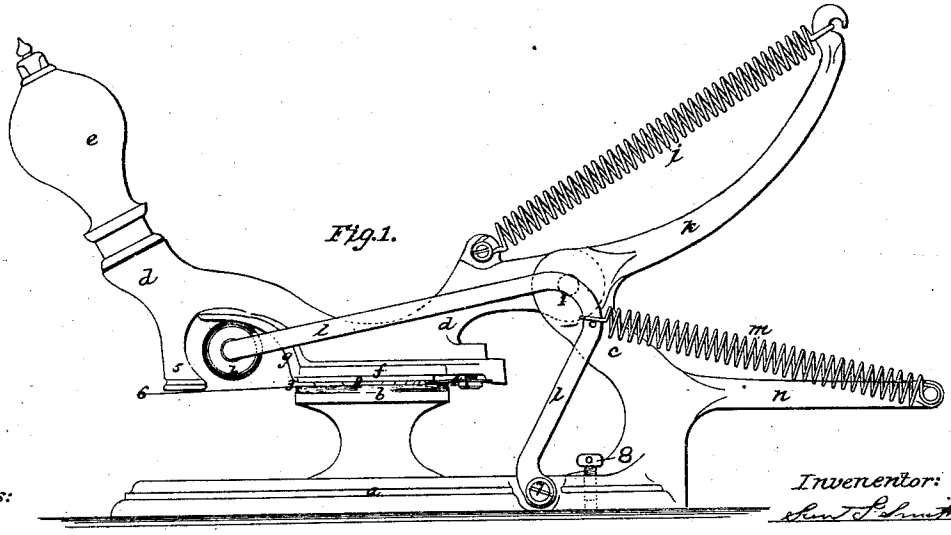


Fig. 1.



Witnesses:

W. S. Lincoln

Ernest W. Shull

Invenentor:

Saml. J. Smith

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

SAMUEL J. SMITH, OF NEW YORK, N. Y.

HAND PRINTING-PRESS.

Specification of Letters Patent No. 18,557, dated November 3, 1857.

To all whom it may concern:

Be it known that I, SAMUEL J. SMITH, of the city, county, and State of New York, have invented, made, and applied to use certain new and useful Improvements in Hand-Lever 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 drawing, making part of this specification, wherein—

Figure 1, is a side elevation of my improved press, in the position which the parts assume when giving the impression on the paper, and Fig. 2, is a side elevation of the position of the parts when the press is open, ready for the type to be inked and the impression afterward to be given.

Similar marks of reference indicate the same parts.

For printing envelops, note paper, cards and similar small articles, several different hand stamps and presses have heretofore been devised; in some the inking is effected by passing the type, or other printing surface over an inking roller; in others the inking roller is rubbed on the printing surface, either by a separate attachment, and a roller moved by hand, or by a roller given a motion by the descent of the type itself. In all these cases, (and most if not all other cases) a great difficulty exists in inking the type or printing surface with uniformity because said surface cannot be seen, and until the impression is taken the operator does not know whether the ink has been properly spread; another source of difficulty arises from the inking roller not striking exactly at the edge of the printing surface as it rolls over it, and too much or too little ink will be given at that point; and lastly difficulty arises in obtaining sufficient power from the hand to give a full impression.

To obviate the foregiong inconveniences I attach my type or printing surface on a lever, fitted in such a manner that the face of the type comes up (before inking) into a vertical or nearly vertical position, so as to be readily cleaned when necessary, and so that the operator can see after inking the same that all parts have been uniformly inked; the impression itself being given by turning the lever nearly to a right angle from the before mentioned position. The inking roller is kept to the type by a spring, and the lever arm on which it moves is so adjusted by a set screw that the type or printing surface strikes the roller exactly in the proper position to ink the edge, roll over the type and then pass onto an ink table where the ink is distributed on the roller.

In the drawing *a*, is the bed of the press which may be attached by screws to any convenient place.

b, is the press block covered with cloth or similar yielding material.

c, is a standard with a joint 1, at which the lever *d* is attached.

e, is the handle of said lever.

f is the platen carrying the type, electrotype, stereotype, engraving or other surface 2, from which the impression is to be given. This is secured to the platen by a beveled edge at 3, and a clamping plate and screw at 4, or by any other convenient device.

g is the ink distributing table, wide enough to thoroughly work the ink on the roller *h*, and cause a uniform inking of the surface 2.

5, is a foot to keep the paper (6) from coming in contact with the inking roller when giving the impression as in Fig. 1.

i, is a spring from an arm *k*, to the lever *d*, tending to keep said lever in the position shown in Fig. 2, unless otherwise acted on.

The roller *h*, is set on a lever arm *l*, attached by the screw 7, to the bed *a*, and said arm and roller is drawn back by the spring *m*, from the projecting end of an arm *n*.

8, is a screw in the bed *a*, onto which the lever arm *l*, is drawn by the spring *m*, when the parts assume the position shown in Fig. 2, and by means of this screw the position of the roller *h*, is so adjusted that the printing surface as it is moved with the lever takes at its edge onto said roller so as to properly ink said surface and not supply too much or too little ink to the edge.

By means of this press the operator is enabled to watch his type, see that the surface is in good order; move the lever up and down a few times to ink the type, see that the surface is properly inked, and then give the impression on any material (6) that may be laid on the bed or press block *b*.

In giving the impression the roller *h* passes onto the ink table *g*, receiving fresh ink and having that on its surface worked and distributed; and when necessary a small quantity of fresh ink is to be supplied to

the table *g*. By this means I am enabled to keep my printing surface in perfect order, get full and correct impressions and that very rapidly, almost noiselessly, and with but little manual labor—rendering my apparatus especially available for printing envelops, note paper, cards and similar small articles.

I do not claim any one of the parts separately but

What I claim as my invention and desire to secure by Letters Patent is—

1. The manner herein described of adjusting the lever *l*, and its inking roller *h*, by the screw 8, so that the inking takes correctly onto the edge of the printing surface 2 as said surface moves in a curved line with and on the lever *d*, substantially as and for the purposes specified.

2. I also claim arranging the printing surface 2, and inking table *g*, on the lever *d*, in such a manner relatively with the inking roller *h*, and its lever *l*, that said roller shall travel over the printing surface as the lever descends, and then pass up onto the inking table *g*, for distributing the ink while the impression is being given, at the same time that the paper or other material being printed is kept from contact with the roller by the foot 5, substantially as and for the purposes specified.

In witness whereof I have hereunto set my signature this twenty third day of September, 1857.

SAMUEL J. SMITH.

Witnesses:

H. S. LINCOLN,

LEMUEL W. SERRELL.