E. H. Smith.

Copying Press.

No. 9786. Patented Jun. 14. 1853.

Fig: 1.

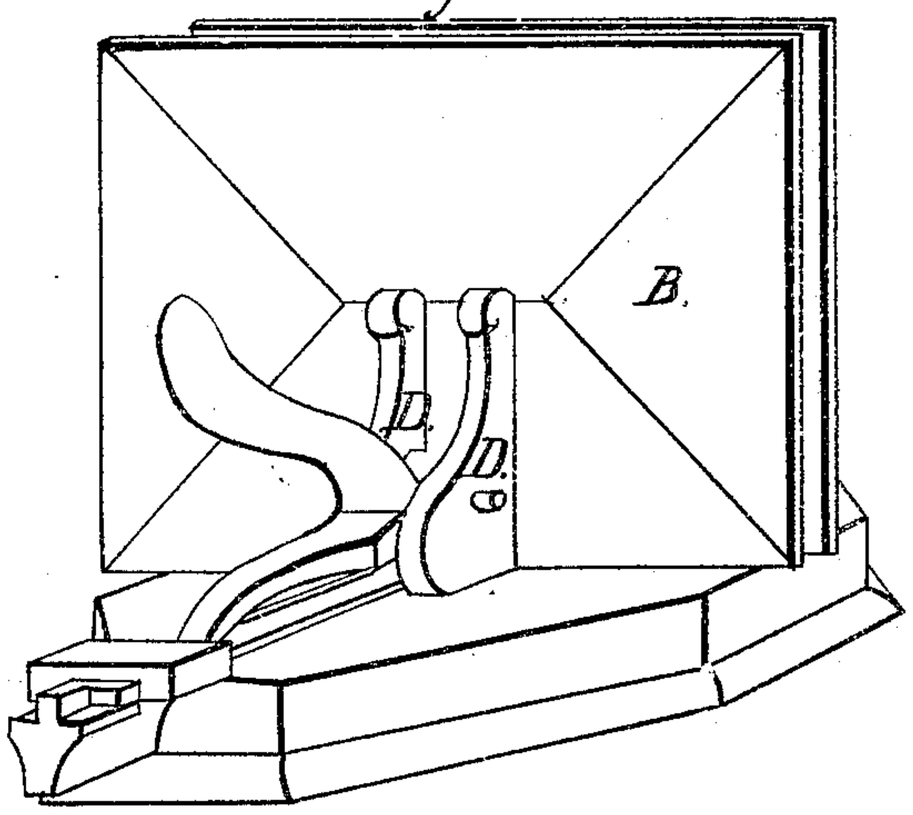


Fig: 2.

Fig: 3.

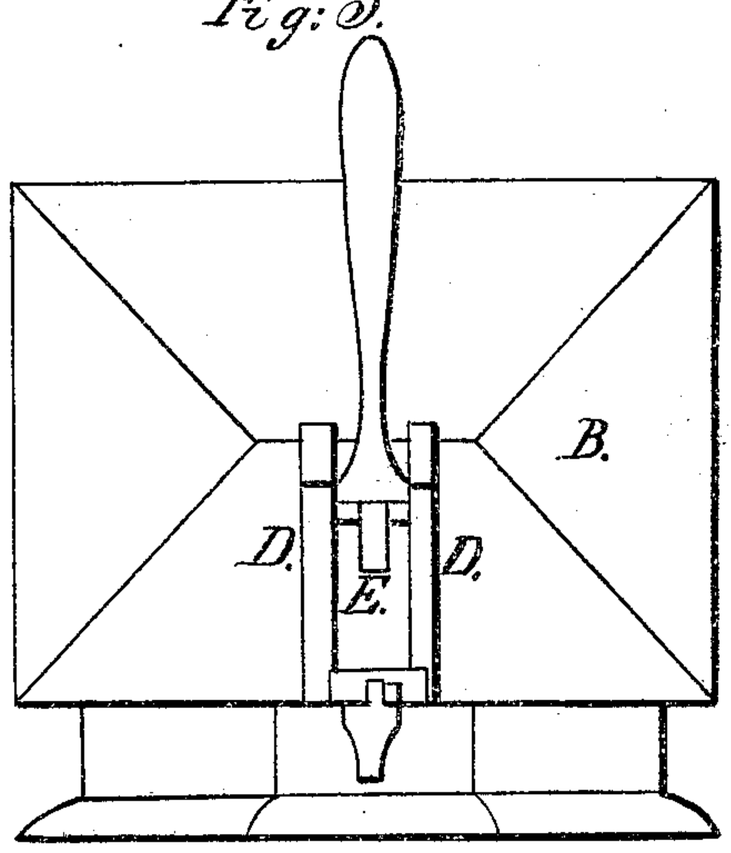


Fig: 4.

Fig: 5.

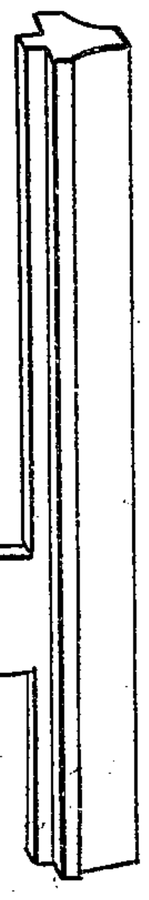


Fig: 6.

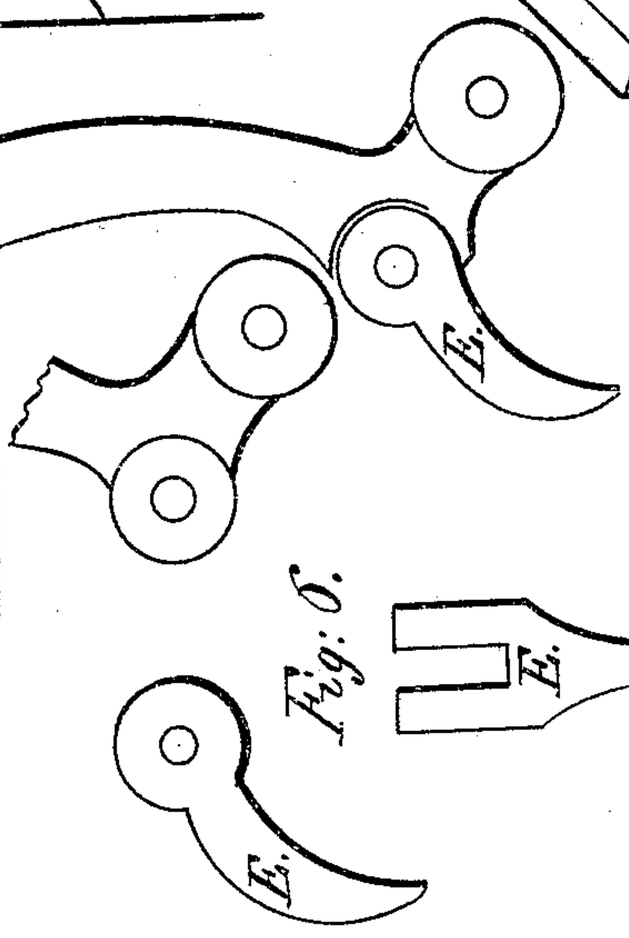
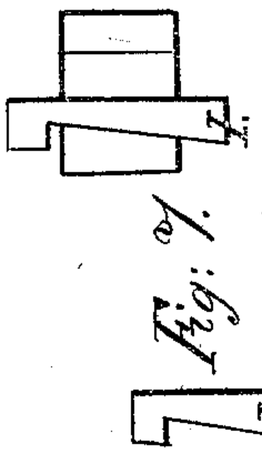


Fig: 7.



UNITED STATES PATENT OFFICE.

E. H. SMITH, OF NEW YORK, N. Y.

COPYING-PRESS.

Specification of Letters Patent No. 9,786, dated June 14, 1853.

To all whom it may concern:

Be it known that I, E. H. SMITH, of the city, county, and State of New York, have invented a new and useful Improvement in Copying-Presses; and I hereby declare that the following is a full and exact description thereof.

To enable others to make and use my invention, I proceed to describe its construction and operation; reference being had to the annexed drawings which make part of this specification.

Figure 1, perspective view; Fig. 2, side elevation; Fig. 3, front elevation; Fig. 4, plan and top view; Fig. 5, the sliding transverse bar; Fig. 6, the hand lever, with the parts drawn separate, enlarged; Fig. 7, the adjustable stop.

Upon a base, C, Figs. 2 and 4, of suitable size and shape I erect two supports, D, and between them, across the upper surface of the base cut a channel for the the transverse sliding bar, Fig. 5. Between the two supports, D, I hang the lever, Fig. 6, which is to work the press, the hand or pawl, E, being combined with it, so that in its operation it will work with a toggle joint.

The transverse bar, Fig. 5, is made to fit into the base and to slide back and forth. Attached to it, and cast with it, is an upright support, G. To this support is attached the movable platen, A. To the two permanent supports, D, is attached the stationary platen, B. The adjustable stop, Fig. 7, is adopted to be set upon one end of the transverse bar and to be secured in any position by a wedge, I.

To operate the machine I place between the two platens the writing to be copied. I move the platen, A, close upon it, and set the adjustable stop at the proper point, and then bring down the hand lever, Fig. 6, till the toggle is fully extended. The press may be operated without an adjustable stop, by cutting notches or teeth upon the tongue of the transverse bar, but it would not be so exact. By the wedge, I, of the adjustable stop, Fig. 7, it can be placed at the exact distance required and is therefore preferable. The wedge is placed against the side of the tongue and is easily adjusted. The platens, (A and B,) or pressing plates, are set vertically and across the transverse bar, and therefore work in a horizontal direction.

The hand lever may be of any convenient shape, combining the progressive principle. The fulcrum is a pin which holds the lever between the upright supports or braces, D. To the lower part of the lever (see Fig. 6,) a hand or pawl is attached, to give the progressive motion required.

By the arrangement of the platens, three sides of each of them is free, and unincumbered. The same would be the case if the apparatus were set permanently against the wall, and made to work in a vertical direction.

I do not confine myself to the hand lever above described. An eccentric upon the foot of the lever, acting against an adjustable stop would accomplish the same thing. The stop might be held by a ratchet or a screw, or notches with a tooth to fit into them, or any of the ordinary modes, and it may be attached to the pawl so as to throw the platens apart with one motion of the lever and effect the pressure by the contrary motion.

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

1. The employment of the hand lever, Fig. 6, to operate the pressing platen, through the agency, or by means, of the sliding transverse bar, Fig. 5, or its equivalent, in combination with the adjustable stop, Fig. 7, or any other mechanical device substantially the same.

2. The arrangement of the plates or platens, A and B, in such relation to their support and operating medium, as to render three of the four edges of each platen unobstructed perfectly available and easy of access.

E. H. SMITH.

Witnesses:

OWEN G. WARREN,

F. SMITH.