C. Y. Heckler.

Copying Press.

No. 1359. Patented May 21. 1861.

32363.

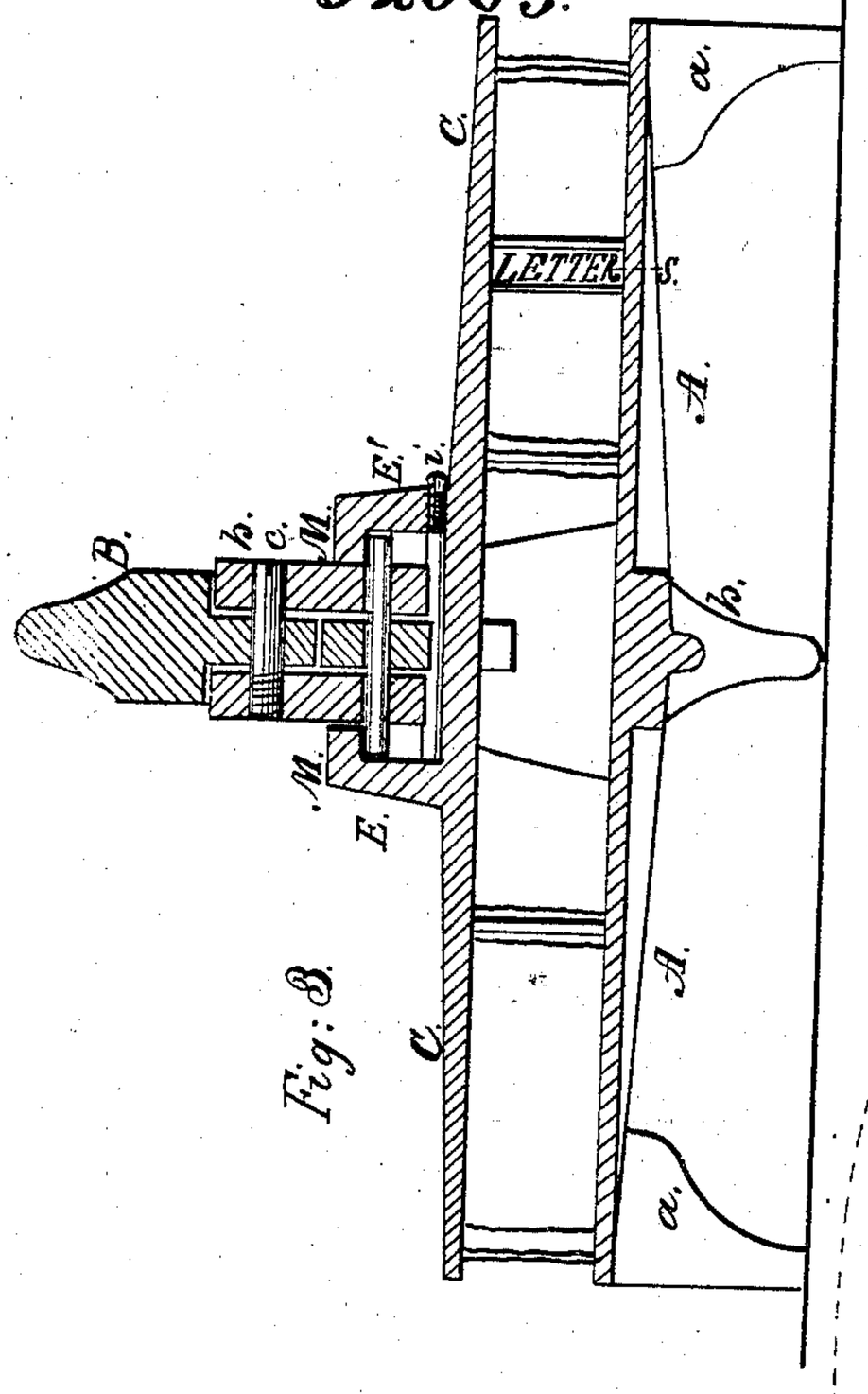


Fig: 3.

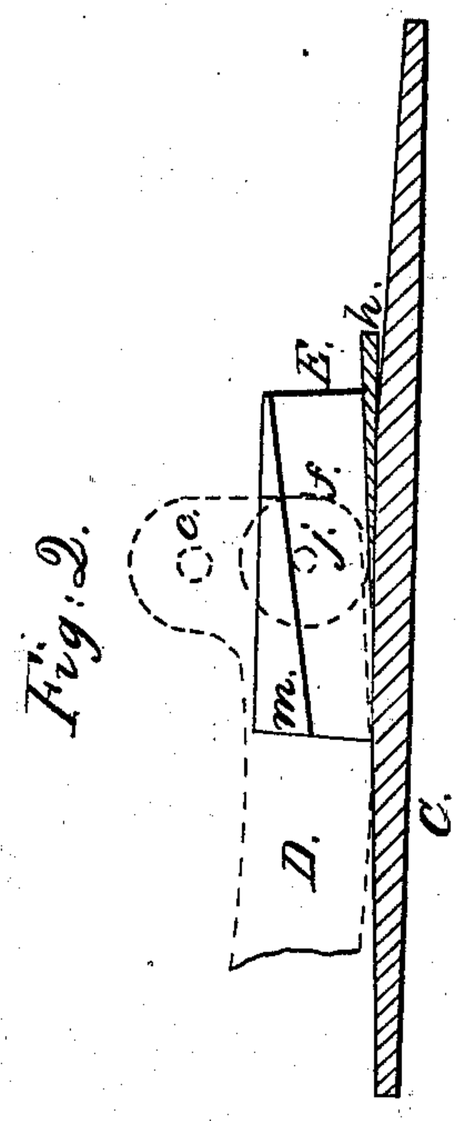
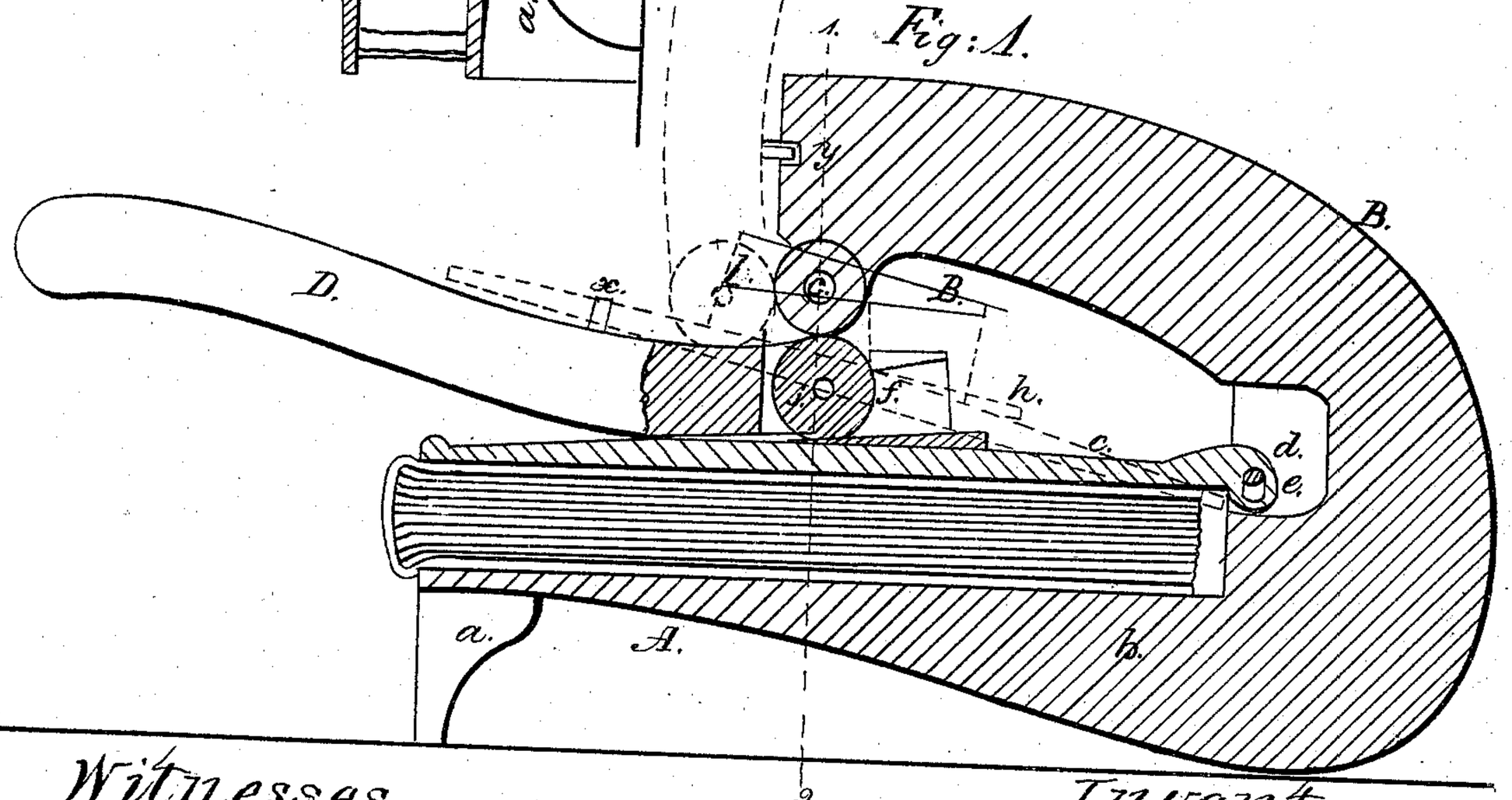


Fig: 2.

Fig: 1.



Witnesses,
Chas Howson.
Charles E Foster.

Inventor:
Henry Howson
Atty for C. Y. Heckler

UNITED STATES PATENT OFFICE.

CHARLES Y. HECKLER, OF PHILADELPHIA, PENNSYLVANIA.

COPYING-PRESS.

Specification of Letters Patent No. 32,363, dated May 21, 1861.

To all whom it may concern:

Be it known that I, CHARLES Y. HECKLER, of Philadelphia, Pennsylvania, have invented certain Improvements in Letter-Copying Presses; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

My invention consists of a letter copying press, composed of parts constructed and arranged in the peculiar manner described hereafter, with the view of affording ready access to the space between the platen and base of the press, of applying pressure to the platen, without the necessity of securing the base of the press to a table or desk, of rendering the platen self-accommodating to the copying book, of adjusting the platen and lever for operating the same, to books which differ slightly in thickness, of retaining the operating lever and platen in an elevated position, while the book is being adjusted to the base, and finally of producing a cheap substantial and readily operated copying press.

In order to enable others, skilled in the art, to make and use my invention, I will now proceed to describe its construction and operation.

On reference to the accompanying drawing which forms a part of this specification, Figure 1 is a vertical section of my improved letter copying press. Fig. 2 a detached sectional view of part of the press. Fig. 3 a transverse vertical section on the line 1, 2 Fig. 1.

Similar letters refer to similar parts throughout the several views.

A is the base of the press, furnished at each corner with a suitable leg *a*, and having on the underside, and midway between its opposite ends, a strengthening rib *b*, which increases in depth as it approaches the rear of the press where it merges, with a curve, into the overhanging arm B, the latter being situated at a suitable distance above the base, with the center of which the end of the arm coincides or nearly coincides.

C the platen of the press, has the same area or thereabout as the base, and is furnished at the rear with a projection *d*, which fits snugly but freely into a recess *e* formed in the curved portion of the overhanging arm B, a pin passing through the latter and through the projection *d*, the hole in which, for the reception of the pin, is elongated vertically for a purpose which will be rendered apparent hereafter.

Near the end of the overhanging arm B, and on the underside of the same is a lug *l*, to which is hung the end of the short arm of the bell crank lever D by means of the pin *c*, which forms the fulcrum of the said lever, the long arm of the latter serving to operate the platen of the press in the manner described hereafter. To this lever D at a point where the long and short arm of the same meet each other, is hung a roller *f* the periphery of which, when the lever is depressed, bears upon a wedge shaped plate *h*, which fits snugly but so as to be slid freely between the projections E and E′, of the platen, a set screw *i* passing through one of these projections, and serving to secure the said plate after it has been adjusted to a proper position. (See Fig. 3.)

The pin *j* which serves to hang the roller *f* to the lever, projects on each side of the latter, one projecting end of the pin bearing against the inclined under side of the lip *m* of the projection E of the platen, and the opposite projecting end of the pin bearing against the underside of the lip of the opposite projection E′.

It should be understood that my improved copying press is designed to be used for pressing copying books of a given thickness, although, as shown hereafter, provision has been made for accommodating the press to books varying slightly from that given thickness.

On raising the long arm of the lever D from the position shown in black lines to that shown in red lines Fig. 1, the projecting ends of the pin *j* bearing against the inclined undersides of the lips *m m*, will raise the platen C to the inclined position shown by red lines, at the same time a pin *x* on the lever, will have entered an orifice *y* in the end of the overhanging arm B, the pin fitting into the said orifice just tightly enough to retain the lever and platen in their elevated positions, without presenting any impediment to the ready depression of the lever. The press is now in a condition to receive the copying book, which is placed on the base in the position shown in the drawing, after which the operator pulls down the long arm of the lever, caus-

ing the roller *f* to bear upon the plate *h*, and to depress the platen, so that when the lever has reached the position shown in black lines Fig. 1 (the center of the fulcrum pin *c* and that of the pin *j* being in or nearly in the same vertical line) the full power of the press has been imparted to the book.

In ordinary copying presses, whether levers or screws are used for applying the required pressure a cross bar reaching from one side of the base to the other is generally adopted, and this bar interferes more or less with the free access to the space between the platen and the base, the opposite ends or opposite sides only, according to the position of the cross bar, being unexposed. The overhanging arm B is sufficiently strong and rigid to resist the power applied to depress the platen, and at the same time leaves the space between the platen and the base exposed on three sides, thereby allowing the operator greater facilities for readily adjusting the book, than are presented in the ordinary presses.

Should it be necessary to use a book somewhat thinner than that for which the press was originally required the set screw *i* is loosened and the wedge shaped plate *h* pushed forward so that a greater thickness of metal may intervene between the roller *f* and the platen, the plate being secured by the set screws *i* after adjustment. Should it be necessary to use a somewhat thicker book, the plate *h* is adjusted to such a position as to present less thickness of metal between the roller and the platen.

As the elongated opening in the projection *d* allows the latter a limited vertical play it is evident that the platen will accommodate itself to any books submitted to the press, providing they do not vary in thickness to a greater extent than the vertical play allowed to the fulcrum pin of the platen in the said elongated opening.

It will be seen without further description, that there is no necessity of securing the above described press to a table or desk, and that the press is most simple and inexpensive as regards construction.

I claim as my invention and desire to secure by Letters Patent.

1. The base A, the overhanging arm B, platen C, and the lever D or other equivalent device for applying pressure to the platen, the whole being arranged substantially as set forth for the purpose specified.

2. The bell crank lever D hung to the overhanging arm B, and provided with a roller *f* in combination with the platen C, its projection *d*, and elongated opening for the reception of the pin which hinges the platen to the arm B, the whole being arranged substantially as and for the purpose herein set forth.

3. The lever D with its projecting pins *j* in combination with the platen, its projections E and E′ and the lips *m m* of the latter, the whole being arranged substantially as and for the purpose herein specified.

4. The adjustable wedge formed plate *h*, applied to the platen, and arranged in respect to the roller *f* of the lever D, as described for the purpose herein set forth.

5. The pin *x* on the lever D, when arranged in respect to the orifice *y*, in the end of the overhanging arm B as described.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

C. Y. HECKLER.

Witnesses:
HENRY HOWSON,
JOHN WHITE.