

M. VAN Z. WOODHULL.
COPYING-PRESSES.

No. 195,429.

Patented Sept. 18, 1877.

Fig. 1.

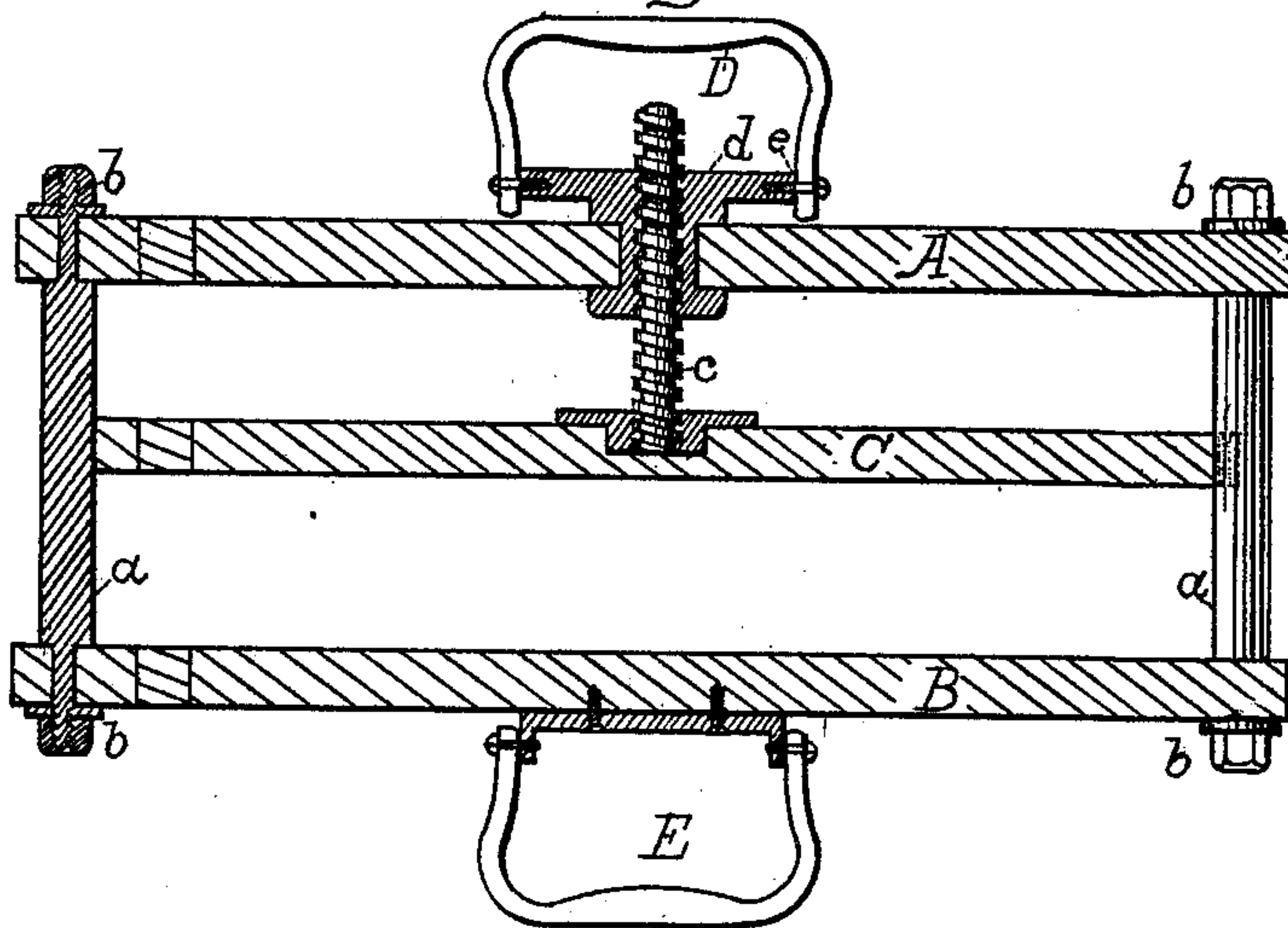
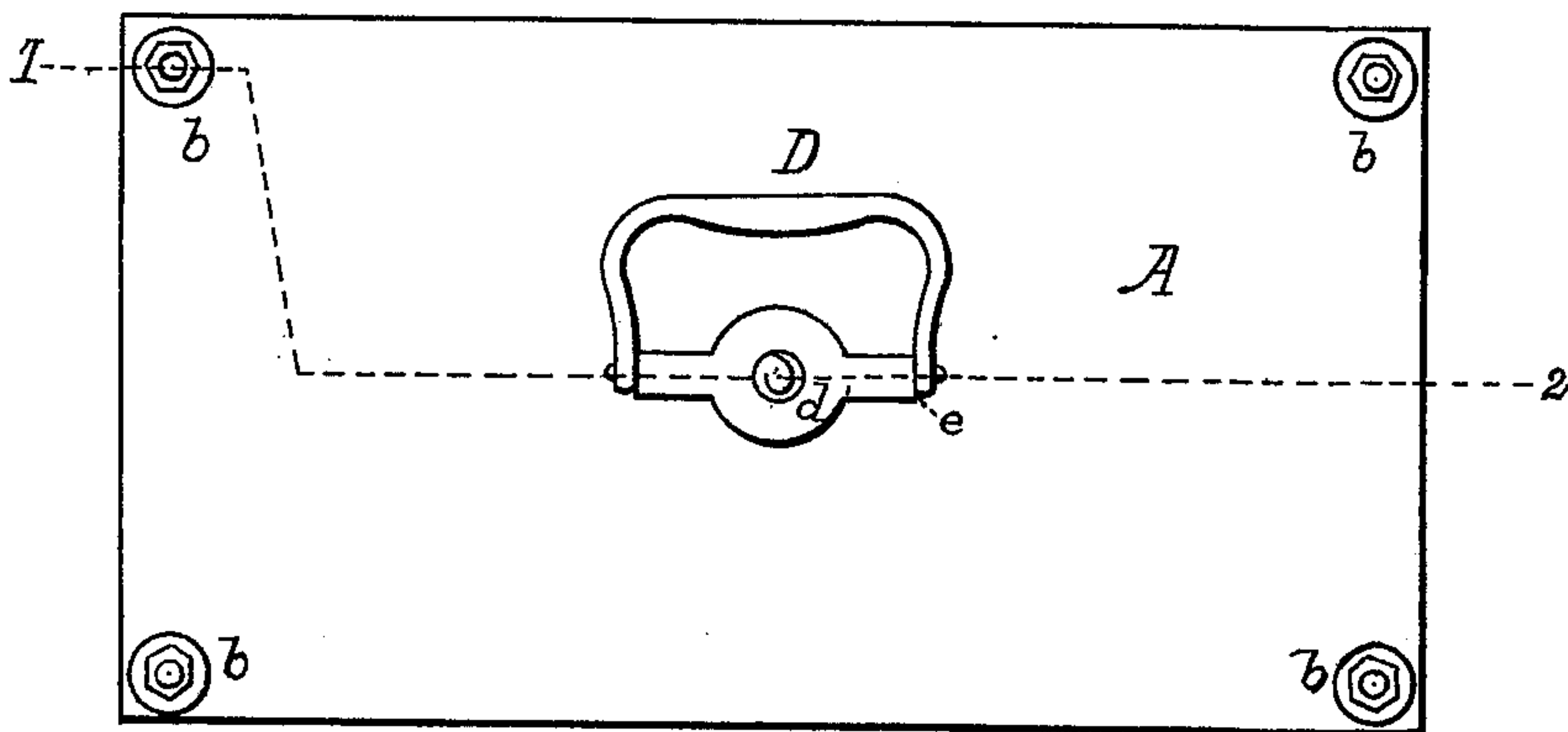


Fig. 2.



Witnesses:
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by attorney M. Bailey.

UNITED STATES PATENT OFFICE.

MAXWELL VAN ZANDT WOODHULL, OF WASHINGTON, D. C.

IMPROVEMENT IN COPYING-PRESSES.

Specification forming part of Letters Patent No. **195,429**, dated September 18, 1877 ; application filed August 11, 1877.

To all whom it may concern:

Be it known that I, MAXWELL VAN ZANDT WOODHULL, of Washington city, in the District of Columbia, have invented certain new and useful Improvements in Copying-Presses, of which the following is a specification :

My invention is directed to the production of a cheap, portable, and light copying-press, one readily carried by the traveler, and available under circumstances where the heavier and more cumbersome press of ordinary use could not be employed, and indeed would not be found.

To insure lightness and portability, and at the same time strength, I combine in the press a bed-plate, an upper stationary bearing-plate, and an intermediate movable platen—all three of wood—with connecting-rods which join and bind together the upper plate and bed, and constitute guides for the platen—one rod at each corner of the two plates to be connected—thus bracing and stiffening these parts of the press.

With the elements above-named I combine a revolving central screw-nut, supported in a bearing in the upper plate, and a screw-spindle fixed to the platen and engaging the nut, the rotation of the nut causing the rise or descent, as the case may be, of the platen.

With the revolving screw-nut I combine a hinged handle, which, when not in use, can be folded down upon the upper plate of the press to insure compactness, and for convenience in using the press I combine with the revolving pressure-nut and its handle a second handle, which is attached to the bottom of the bed-plate, and is hinged, like the upper handle, for the sake of compactness. In the use of the press for taking a copy the one handle can be taken in one hand and the other in the other hand, thus enabling the user to handle the press with facility for copying purposes, and to obtain all necessary pressure without resting the press upon a table, or indeed upon any object.

The nature of my invention, and the manner in which the same is or may be carried into effect, will be understood by reference to the accompanying drawing, in which—

Figure 1 is a vertical central section on the line 1 2, Fig. 2, of a copying-press embodying

my improvements. Fig. 2 is a plan of the same.

The upper plate of the press is shown at A, and the bed at B. These parts are made of wood, and are united together by connecting rods or bolts *a*, one at each corner of the press. Each bolt is shouldered and screw-threaded at each end. The screw-threaded ends pass through the parts A and B, and the latter are pressed against the shoulders on the rods by nuts *b*, which engage the screw-threaded ends. The plates are thus bound together at their four corners, and by this means are braced and strengthened to resist the pressure they are called upon to withstand. It is in this way that I am enabled to make these parts of the press of wood, and of comparatively little thickness.

If desired, additional connecting rods or bolts may be provided at the ends of the press, in line with the central pressure-nut hereinafter referred to; but this, in practice, will not be found necessary.

Washers of metal, leather, or other material, can be interposed between the plates and the nuts and shoulders on the rods.

Between the upper plate and the bed is placed the platen or follower-plate C, which at its corners is formed to fit against the rods *a*, the latter thus serving to guide the platen during its movement.

The platen derives its up-and-down movement from an upright screw-spindle, *c*, fixed to the platen, and passing through and engaging a nut, *d*, which takes a central bearing in the upper plate A, in which plate said nut is held and revolves. It has capacity for rotary movement only, and is prevented from longitudinal or end play by collars on it, which overlap the top and bottom of the upper plate around the hole in which the nut works. The nut is provided with a handle, D, by which it may be revolved, and this handle, in order to obtain greater compactness, is hinged at *e* to the nut, so that, when not in use, it may be folded down upon the upper plate, as shown in Fig. 2.

For convenience' sake, whenever it is desired or becomes necessary to use the press while holding it in the hands, a second or auxiliary handle, E, is provided, which is attached

to the bottom of the bed-plate, and is hinged like the handle D, and for the same reason.

The lower handle can be used to steady and hold the press while turning the nut with the other hand; or, with one handle in each hand, pressure can be applied to the book by twisting the hands in opposite directions, thus obtaining very great power.

The lower handle may be dispensed with. I, however, much prefer to employ it, finding it both convenient and useful in practice.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a portable copying-press, an upper wooden bearing-plate, a wooden bed-plate, and an intermediate wooden platen, in combination with connecting-rods, one at each corner of the press, which bind together and brace the bed and upper plate, and guide the movements of the platen, as set forth.

2. The upper wooden plate, the wooden bed-plate, the connecting-rods, one at each corner of the press, and the intermediate movable follower or platen, in combination with the

screw fast to the platen, and the revolving screw-nut taking a central bearing in the upper plate.

3. In a letter-copying press, the combination of the upper plate, the revolving screw-nut, and a hinged lever-handle fast to the nut, substantially as and for the purposes shown and set forth.

4. In combination with the revolving screw-nut and its handle, supported by the upper plate, the auxiliary handle attached to the bed-plate, substantially as set forth.

5. The portable copying-press, consisting of the upper bearing-plate, the bed-plate, the intermediate platen and connecting-rods, the screw-spindle, the revolving nuts, and the two hinged handles, these parts being combined and arranged for joint operation, as set forth.

In testimony that I claim the foregoing as my own I hereto affix my signature in presence of two witnesses.

MAXWELL VAN ZANDT WOODHULL.

Witnesses:

M. BAILEY,
M. GEORGIE.