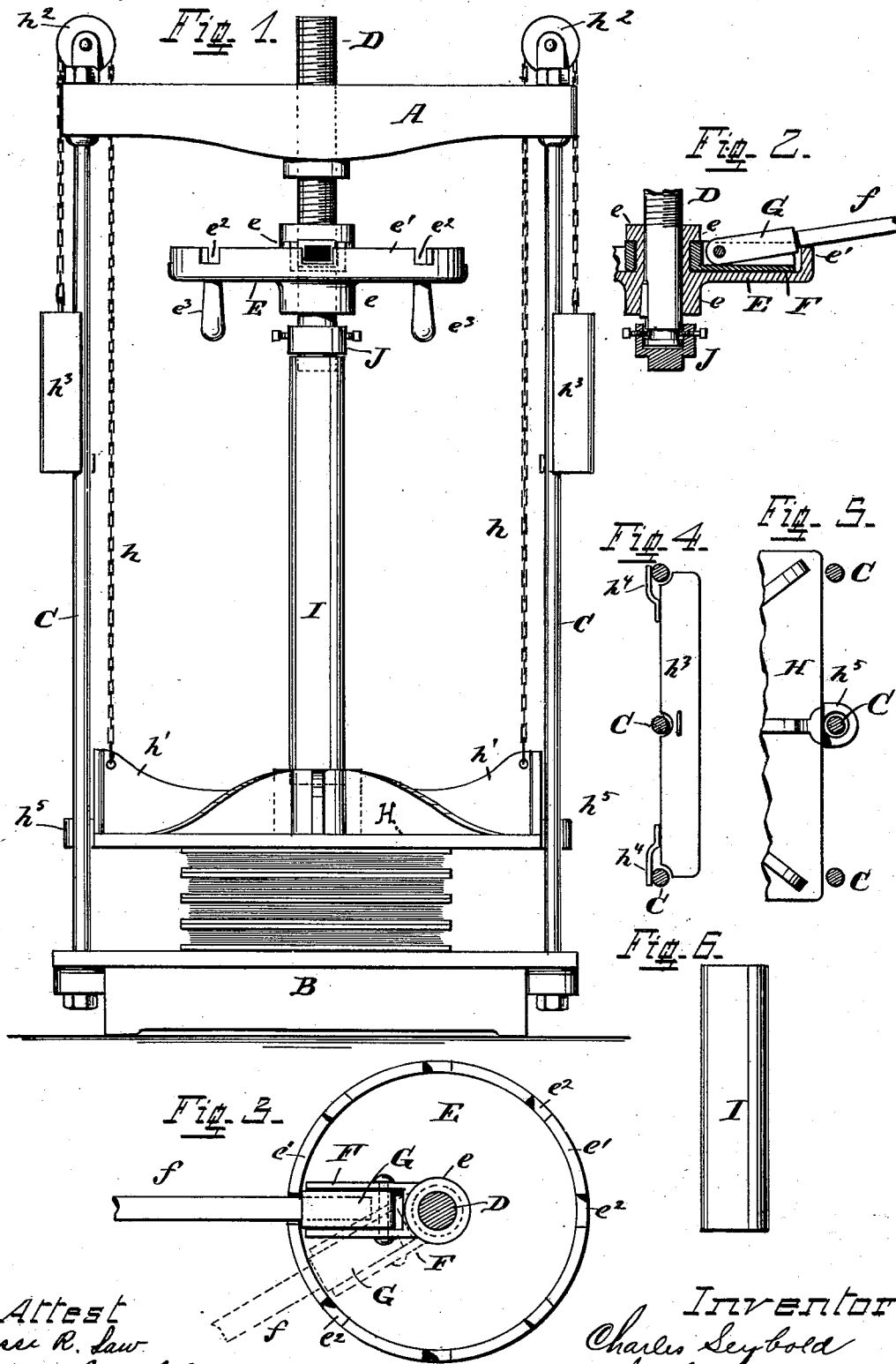


(No Model.)

C. SEYBOLD.
BOOKBINDING PRESS.

No. 508,847.

Patented Nov. 14, 1893.



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UNITED STATES PATENT OFFICE.

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BOOKBINDING-PRESS.

SPECIFICATION forming part of Letters Patent No. 508,847, dated November 14, 1893.

Application filed June 6, 1889. Serial No. 313,343. (No model.)

To all whom it may concern:

Be it known that I, CHARLES SEYBOLD, a citizen of the United States, residing at Cincinnati, in the county of Hamilton, State of Ohio, have invented certain Improvements in Presses, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

My improved press is more especially designed for use in bookbinding establishments for pressing books to shape before finishing, but may be advantageously used in any other connection where it is desired to press paper or other articles to proper shape.

The object and nature of my invention will be apparent from the detailed description and claims hereinafter set forth.

In the accompanying drawings:—Figure 1, is a view in elevation of my improved press, with one section of connecting pipe in use. Fig. 2, is a vertical section through the hub of the hand-wheel and one side of said wheel, also the cap attached to lower end of screw-rod, showing the preferred mode of pivoting the lever-bar socket in the rotatable box attached to the hub of said wheel. Fig. 3, is a top view of the hand-wheel, rotatable box and lever-bar socket. Fig. 4, is a top view of one of the weights for balancing the platen. Fig. 5, is a top view of a portion of one end of the platen, showing the position of the eye thereon for guiding the platen. Fig. 6, is a view in elevation of one pipe connection to be used between the screw-rod and platen.

My improved press is preferably constructed as shown, and consists of a top cast portion A, and a base or bottom portion B, said top and bottom portions being connected by suitable stay-rods C, as shown. The stay-rods C, (preferably three on each side) form a framework for the support of the top plate, and screw-rod. The top plate A, is provided with a central screw-threaded opening in which the screw-rod D, operates. Near the lower end portion of the screw-rod is keyed the hand-wheel E, (see Figs. 1 and 2) the latter consisting of a cast solid body having a central hub *e*, and an outer peripheral upturned flange *e'*, as shown. In the top portion of this hand-wheel E, is the box receptacle F, which has a collar encircling the hub *e*, in such a manner as to permit said box to be

rotated around said hub, in either direction, without rotating the wheel. In this rotatable box F, is pivoted the socket G, into which the lever-bar *f*, is placed, when desired to increase the pressure on the platen. The outer flange *e'* of the hand-wheel E, is provided with the notches *e''*, for engaging the lever-bar. To the bottom portion of this hand-wheel is cast or otherwise suitably secured the pins *e'''*, to afford a hand-hold when desired to rotate the wheel by hand.

The platen H, is suspended between the stay-rods C, by means of suitable chains or ropes *h*, secured at one end to one of the ribs *h'*, of the platen, and is then passed over suitable pulleys *h''*, secured in brackets attached to the top plate,—the other end of said chains or ropes being attached to the balancing weights *h'''*. The weights *h'''*, are adapted to slide up and down the outer stay-rods, and are retained in position thereto by means of the brackets *h''*, or equivalent device, secured to said weights. The platen is provided at each side with a central eye *h''''*, which encircles the central stay-rods, as shown, to properly guide the platen. The central top portion of the platen is preferably countersunk to permit the end of the connecting pipe or piece I, to rest therein.

To the bottom end portion of the screw-rod D, is secured the cap J, which is held in place by screw-bolts passed through the shell of said cap, and engaging a circular groove in said screw-rod, as shown in Figs. 1 and 2, thus permitting said rod to rotate in said cap. The lower extension of this cap fits in the top of the connecting-pipe I,—the outer flange of said cap bearing on the top of the pipe.

Having described the general construction of my improved press, I will now describe its operation. When not in use, the connecting pipe I, is removed, and the platen is left to swing at any desired height. Having placed the desired number of books, or other articles beneath the platen, the platen is pulled down onto said articles; and, if the height of the articles be sufficient, no connecting pipe or piece need be used, as the cap J, of the screw-rod will rest in the countersunk portion of the platen, when pressure may be applied. When the height of books or other articles is not sufficient to bring the screw-rod and platen

into contact, a pipe of the desired length is placed in the top countersunk portion of the platen, as shown,—the cap J, of the screw-rod resting on the top of said pipe, after which the pressure is applied. The screw-rod may be lowered by hand so long as desired, by means of the pins e^3 . When desired to have additional pressure, the lever-bar f , is placed in the socket G, and also in one of the notches e^2 in the flange of the wheel. When the wheel has been rotated by means of the lever-bar as far as is practicable, said bar is elevated out of the notch (see Fig. 2) and with it the outer end of the socket G is elevated, the latter being pivoted in the rotatable box F. This box being free to rotate around the hub of the wheel, the said lever-bar, after having been raised out of the notch, is free to be swung back to engage another notch in the flange of the wheel, without having to remove the bar from its socket. This latter feature of my invention may be advantageously applied to the ordinary forms of screw-presses in which the platen is connected direct to the screw-rod.

While it is preferred to use the pipe for making the detachable connection between the screw and platen, a solid piece of wood or other material may be used if desired. Two or more of these pipes or pieces accompany each press to accommodate varying heights of articles to be pressed.

It is preferred to use the aforescribed mechanism for applying additional pressure in connection with the swinging platen; but, if desired, either feature may be used independent of the other.

The advantages of my improved press are apparent. By reason of the swinging platen and connecting pipes of varying lengths, any desired height of books or other articles may be readily and quickly put to place, without the use of cumbersome blocks or other articles which are inconvenient. Another advantage arises from the use of the rotatable socket in the pressure wheel, by means of which the

lever-bar may be raised and turned back to engage in another notch in the flange of the pressure wheel, without removing said bar from the socket, thus saving much valuable time over the old method, in which the bar has to be removed from the socket every time the pressure wheel is partially rotated.

What I claim as new, and desire to secure by Letters Patent, is—

1. A press consisting of top plate A, bottom plate, B, stay-rods C connecting said plates, pressure-screw D, operating within said top plate, platen H, counterbalanced by weights h^3 , and pipe I, the latter being adapted to connect said platen and screw, and suitable means for rotating said screw.

2. In a power press having a counterbalanced platen, the pressure-screw D having a hand-wheel E keyed thereto, and a detachable connecting pipe, I, substantially as set forth.

3. In a press having a pressure screw, the wheel E connected to said screw, said wheel having a peripheral upturned notched flange, e' , and a socket, G, rotatably and pivotally connected to the hub of said wheel, and lever f , substantially as set forth.

4. A press consisting of a pressure screw mounted upon a top plate, A, the latter being supported by stay-rods, C, wheel E connected to said screw, the latter at its lower end having a detachable cap, J, and platen H, counterbalanced by weights h^3 , substantially as set forth.

5. In a press having a pressure-screw, the wheel E connected to said screw, said wheel having an upturned flange e' with notches e^2 therein, box F rotatably connected to the hub of said wheel, socket G pivotally connected within said box, and lever f , substantially as set forth.

CHARLES SEYBOLD.

Witnesses:

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