(No Model.)

C. L. HART.

DIE PRESS.

No. 372,262. Patented Oct. 25, 1887.

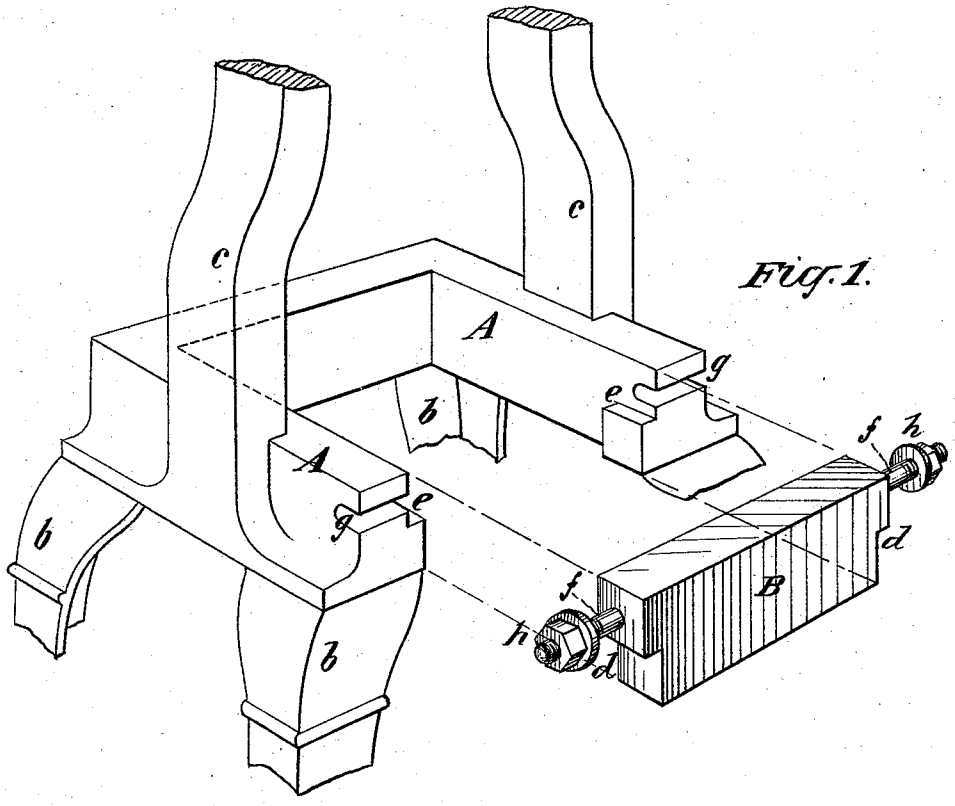

Fig. 1.

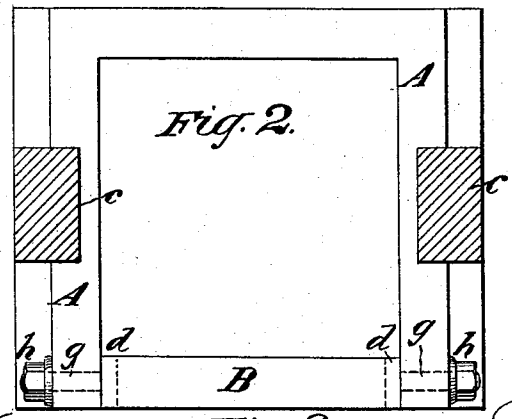

Fig. 2.

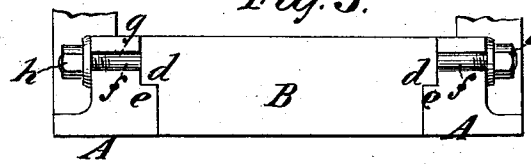

Fig. 3.

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UNITED STATES PATENT OFFICE.

CHARLES L. HART, OF BROOKLYN, NEW YORK, ASSIGNOR TO THE E. W. BLISS COMPANY, OF SAME PLACE.

DIE-PRESS.

SPECIFICATION forming part of Letters Patent No. 372,262, dated October 25, 1887.

Application filed March 16, 1886. Serial No. 195,424. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. HART, a citizen of the United States, residing at Brooklyn, Kings county, New York, assignor to the E. W. BLISS COMPANY, of the same place, have invented certain new and useful Improvements in Stamping or Die Presses, of which the following is a specification.

My invention relates to the frame or bed of heavy die or stamping presses, and its object is to enable the press to be changed from a continuous or closed frame-press adapted to receive large round or broad dies, in which the work is removed vertically to an open-front press adapted to receive "horn" or similar dies for hollow or other work, which is removed laterally.

To this end my invention may be stated to consist in making the bed or table frame of the press in the form of a three-sided—preferably rectangular—frame, open at the front or one side, with a removable front or side bar having rabbeted ends which unite with coinciding rabbeted ends on the three-sided frame, whereby said removable front or side bar is adapted to bridge and fill said open side and unite firmly with the three-sided frame, and thus form a closed frame-press when desired, or vice versa. In this way by removing or replacing the removable front bar of the frame the press may be adapted for distinct classes of work without necessitating the use of two distinct styles of presses, as heretofore, which is of great advantage for many purposes.

My invention also lies in the special details of construction, as hereinafter fully set forth.

In the drawings annexed, Figure 1 is a perspective view of the bed or frame of a press constructed according to my invention. Fig. 2 is a plan thereof, and Fig. 3 is a front elevation of the same.

In Figs. 1 and 2, A indicates the frame, bed, or table of the die-press, which is usually of rectangular form, as shown; but this shape may be varied. *b b* are the legs supporting the bed, and *c c* are standards rising from the bed to support the upper die or plunger or other working parts of the press, as usual.

It may now be seen, by referring to Fig. 1, that instead of making the bed in the form of a continuous four-sided frame, as usual, I make it in the form of a three-sided frame open on one side—that is, the front side, as illustrated; and in order to fill and close this front side when desired, I provide a strong front bar, B, adapted to span the open front and be clamped firmly to the three-sided frame. The movable front bar, B, is made with strongly shouldered or rabbeted ends *d d*, adapted to match closely with and seat upon reverse rabbets or seats *e e* on the ends of the open frame, and the bar is also provided with strong bolts *f f*, projecting from each end thereof and adapted to fit in slots or notches *g g* in the front ends of the three-sided frame A when the bar is socketed in place, as seen in Figs. 2 and 3, after which the large nuts *h h* on the ends of said bolts may be screwed up tightly, so as to embrace the outside of the frame A, and thus secure the front bar, B, in position and bind the frame to the bar so securely as to form a continuous or closed frame-press, as seen in Fig. 2, which will be equal if not superior in strength to a closed frame cast solid. When the front bar is thus inserted and clamped in place, as in Figs. 2 and 3, the press will thus be adapted to receive the class of dies and perform the kind of work performed by all closed front presses. When, however, it is desired to do what is known as "horn" work—such as riveting stove-pipes, &c., in which a horn-die projects forward from the frame requiring an open front to allow the projection of the horn and the insertion and removal of the work from the front—then it is only necessary to unscrew the nuts *h h* and remove the bar B, as seen in Fig. 1, thus producing an open-front press which will admit of the attachment of horn or equivalent dies, and be as convenient and strong as presses specially made for that class of work, as will be readily appreciated. Hence, by the simple means described, I am enabled to furnish a press which is equally well adapted for two different classes of work, and may be changed from one to the other, as occasion requires. This will be of great advantage in many shops having a contracted space where the use of a separate press for each kind of work would be inconvenient, or in shops where the amount of both kinds of work is not extensive, and

which would not justify the expense of two distinct presses. So, by adapting one press for both kinds of work, a great advantage is thus presented for many general purposes.

What I claim is—

1. In a stamp or die press, the bed-frame A, open on one side and having the seats or rabbets *e e*, in combination with the removable front or side B, having reverse rabbets *d d*, and clamping devices to clamp the rabbeted ends to the ends of the frame, substantially as set forth.

2. In a stamping or die press, the combination, with the bed-frame A, open on one side and formed with the slots or notches *g g*, of the removable bar B, adapted to bridge and close said open side, and provided with the bolts *f f* and nuts *h h*, substantially as and for the purpose set forth.

3. In a press, the combination, with the bed-frame A, open on one side and formed with the seats or rabbets *e e* and notches *g g*, of the movable bar B, formed with the reverse rabbets *d d*, and provided with the bolts *f f* and nuts *h h*, substantially as and for the purpose set forth.

CHAS. L. HART.

Witnesses:
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