

G. B. BOOMER.

PRESS.

No. 174,107.

Patented Feb. 29, 1876.

Fig. 1.

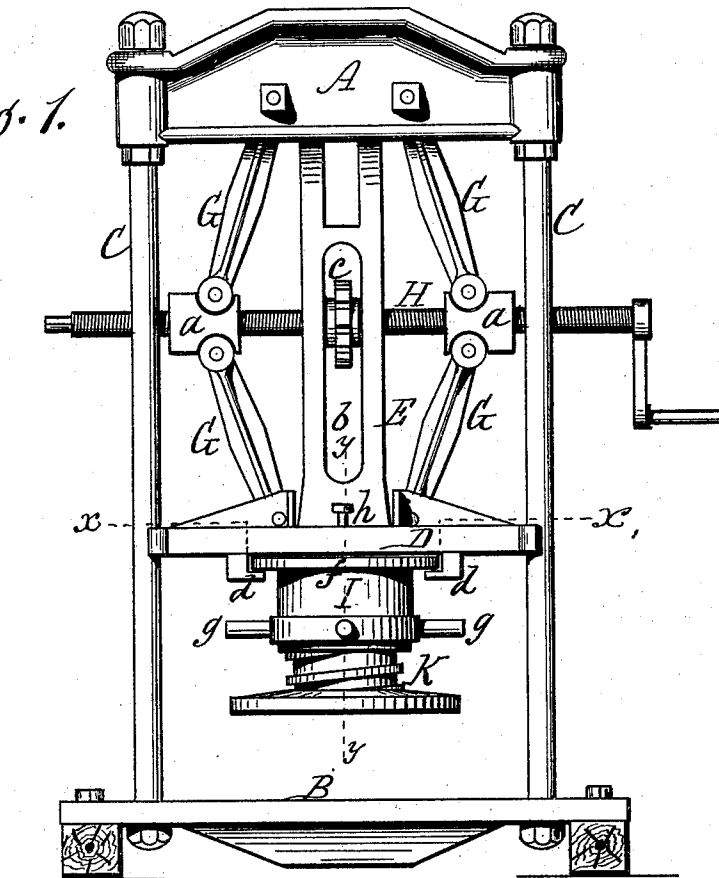


Fig. 2.

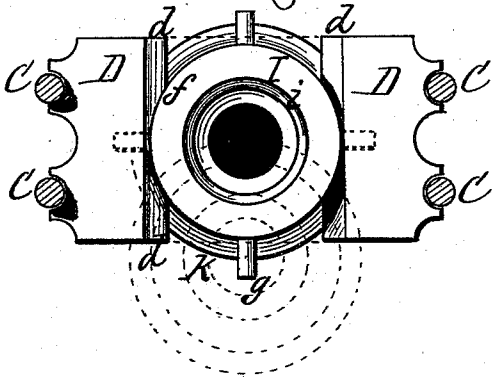
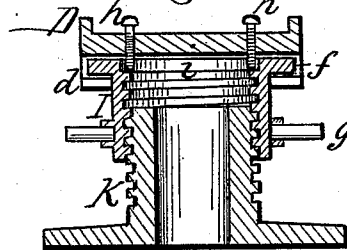


Fig. 3.



Witnesses.
E. B. Scott.
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UNITED STATES PATENT OFFICE.

GEORGE B. BOOMER, OF SYRACUSE, NEW YORK.

IMPROVEMENT IN PRESSES.

Specification forming part of Letters Patent No. **174,107**, dated February 29, 1876; application filed August 30, 1875.

To all whom it may concern:

Be it known that I, GEORGE B. BOOMER, of the city of Syracuse, in the county of Onondaga and State of New York, have invented a certain new and useful Improvement in Presses; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a front elevation. Fig. 2 is a horizontal section in line *xx* of Fig. 1. Fig. 3 is a vertical section in line *yy*.

My improvement relates to an adjustable blocking attached to and used beneath the main follower or head, to which the toggle-levers are attached, as hereinafter described.

The drawings show a toggle-lever press.

A B are the head and foot blocks. C C C are the rods, upon which run the follower D. E is a standard rising from the follower and passing through a socket in the head-block. G G G G are four toggle-levers, connecting the head-block and follower, and H is a right-and-left screw, running through nuts *a a*, by which the toggle-levers are operated. The standard E has a vertical slot, *b*, in which rests a hub or bearing, *c*, made fast to the screw, by which the screw is kept from end motion and the levers from consequent distortion under strain. Thus far the press is of ordinary construction.

In a press of this kind it requires considerable labor and time to run the follower up or down in position to meet articles of various sizes to be pressed, owing to the slow motion of the screw and toggle-levers. It is customary to use loose blockings for the purpose, but it is frequently troublesome to fit them properly and accurately in place, and in loose and detachable form they are inconvenient to handle.

It is the object of my invention to remedy this difficulty; and my invention consists, essentially, of an adjustable blocking, constructed as hereinafter described, and attached to the main follower or head, as follows:

The follower D has upon its under side two ledges or ways, *d d*, at suitable distance apart and extending crosswise of the same. On these ways rests the flange *f* of a screw-col-

lar, I, which slides bodily therein. This collar is cut with a female thread, into which screws the male screw of the block K, the latter having a broad flanged bottom, of round, square, or other form adapted to fit the articles to be pressed. The flange *f* of the screw-collar is adapted to rotate freely in the ways *d d*, and power may be applied to rotate the collar by means of pins or spokes *g g* on the body of the collar, to which a tubular lever is applied, or by any other suitable means. The block K may, therefore, be adjusted higher or lower either by turning the block itself in the screw-collar or by turning the collar around the threaded end of the block. The screw-collar is centered in the ways by means of two pins or screws, *h h*, which pass down through the main follower and rest in a circular depression, *i*, in the top of the screw-collar. These screws or pins hold the screw-collar in place centrally, but allow a free rotation. When one of the pins is turned up so as to be free of the collar, the latter can be slid endwise in the ways to one side of the center, as indicated by the dotted lines, Fig. 2, the object of which is to allow the article to which pressure is applied to be readily inserted in or removed from the press.

This device is particularly adapted to a toggle-press, in which the press has the greatest power when the arms are nearly perpendicular; but the material is not always in position to receive the pressure at that point. By the use of this device the blocking can be brought readily to position and turned down till part of the pressure is applied, and the heavy pressure of the toggle-levers can then be used.

By this means much time and labor are saved. If desired, the upper follower D can be dispensed with, and a head or bearing for the attachment of the toggle-levers used in its place, and the adjustable blocking may be connected therewith, as before described, and the part K may be extended and have bearing upon the rods C C in the same manner as an ordinary follower. The effect will be the same, as before stated.

I do not claim, broadly, a follower which is removable from over the press-box for filling the box; but

I claim—

1. In a toggle-lever press, the combination, with the primary follower D, of a secondary follower attachment, consisting of the screw-collar I, resting in the primary follower, and the block K, screwing up and down within said collar, the whole constructed and arranged to operate in the manner and for the purpose specified.

2. The combination, with the follower or head D and the screw-collar I, of the screws

or pins *h h*, resting in a depression of the collar, in the manner and for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

GEO. B. BOOMER.

Witnesses:

R. F. OSGOOD,
E. B. SCOTT.