G. W. WEYMAN.
Glass-Press.

No. 207,327. Patented Aug. 20, 1878.

Fig. 1.

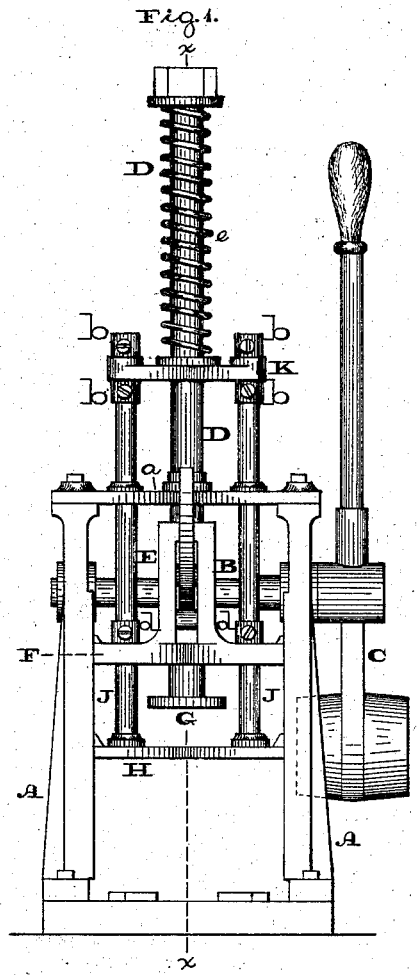


Fig. 2.

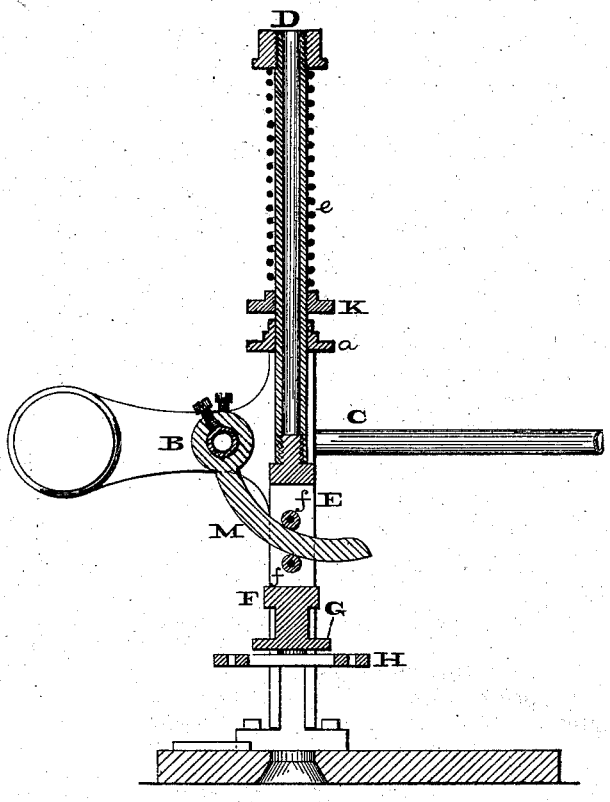
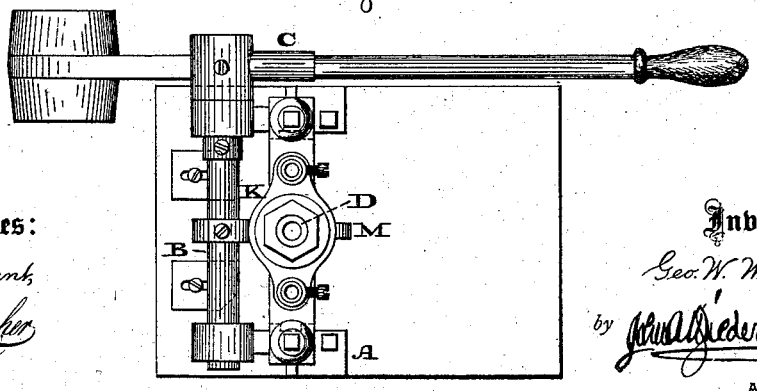


Fig. 3.



Witnesses:
A. P. Grant,
W. A. Fischer

Inventor:
Geo. W. Weyman,
by John A. Wiedersheim,
ATTORNEY.

UNITED STATES PATENT OFFICE.

GEORGE W. WEYMAN, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN GLASS-PRESSES.

Specification forming part of Letters Patent No. **207,327**, dated August 20, 1878; application filed July 12, 1878.

To all whom it may concern:

Be it known that I, GEORGE W. WEYMAN, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Glass and other Presses, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side elevation of the press embodying my invention. Fig. 2 is a transverse vertical section thereof in line *x x*, Fig. 1. Fig. 3 is a top or plan view thereof.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a yoke having a two-faced curved arm which plays between rollers connected to the yoke, whereby positive, quick, and powerful motions may be imparted to the plunger or presser with great ease the whole length of the arm and without sticking.

Referring to the drawings, A represents a frame or uprights, mounted on a suitable base and supporting a rocking shaft, B, to one end of which is connected an operating-lever, C, suitably weighted.

D represents a vertically-sliding rod, which is passed through the top cross-bar *a* of the frame A, and carries at its lower end a yoke, E, to which is connected a cross-head, F, whose sides are tongued and enter grooves on the inner faces of the uprights A. From the cross-head F there is suspended the presser or plunger-head G, which may be of any desired contour or configuration.

H represents a follower or horizontal plate, whose sides are tongued and enter grooves on the inner faces of the uprights A, said plate being located below the head G. To the follower there are connected vertical rods J, which pass freely through the cross-head F and top cross-bar *a*, and have their upper ends connected to a cross-head, K.

The rods J are provided with stop-collar and set-screws, or set-screws alone, as *b* on opposite sides of the upper cross-head K, and as *d* between the cross-bar *a* and cross-head F, the collar or screw *d* coming in contact with said cross-head F.

Interposed between a nut or stop at the top of the rod D and the upper cross-head K is a spring, *e*, for restoring the parts to their normal positions.

M represents a curved arm, which plays in the yoke E, and has two faces, which bear against rollers *f* mounted within the yoke, said cam being secured to and receiving its advancing and returning motions from the rocking shaft B.

The operation is as follows: When the parts are elevated as in Fig. 1, the mold may be applied in position beneath the plunger or presser. Now depress the lever or handle C, and the lower face of the arm M, working against the bottom roller *f* of the yoke E, causes the descent of the plunger-head or presser G. As the cross-head F moves from the collars or screws *d*, the follower H is no longer controlled, and it descends until it reaches the top of the mold, where it rests, and against which it is pressed by the action of the spring *e*. The arm M continues its motion and the plunger or presser-head is advanced into the mold, the action whereof on the molten glass or other material is evident. The lever C is now "let go" or elevated, whereby the yoke E, with attached plunger or head G, rises, the upper face of the arm M bearing on the top roller *f*, and as the cross-head F comes in contact with the collars or screws *d* the rods J are lifted, thus elevating the follower H clear of the mold, which latter may then be removed, opened, or otherwise manipulated.

It will be noticed that the throw or descent of the plunger or head G is controlled by the position of the follower H, which I make adjustable. This is accomplished by means of the collars or screws *b b*, which are shifted to increase or decrease the extent of play of the rods J, and consequently of the follower H, thus controlling the extent of descent of the plunger or head G. The collars or screws *d* are also adjusted so as to be properly engaged by the cross-head F, and cause the elevation of the follower H at the proper moment.

The yoke provides simple and efficient means for the operation of the presser or head by the arm M, and prevents irregular or lateral play of the cam in the yoke.

I am aware that a glass-press has been provided with a disk-shaped head, which is fitted between a shifting bearing and the top wall

of the yoke, whereby there is but a limited motion of the head and presser, and the bearing is forcibly pressed against the lower wall of the yoke, the action of which and the heat cause the sticking of said bearing and stoppage of the head, which defects are remedied by my construction.

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

1. The yoke E, in combination with the two-faced curved arm M and rollers *f* on opposite faces of said arm, substantially as and for the purpose set forth.

2. The yoke E, with rollers *f* and the two-faced curved arm M, in combination with presser or head G, spring *e*, follower H, and rods J, substantially as and for the purpose set forth.

GEORGE W. WEYMAN.

Witnesses:
JOHN A. WIEDERSHEIM,
H. E. GARSED.