J. HALEY.
Glass-Press.

No. 227,103. Patented May 4, 1880.

Fig: 1.

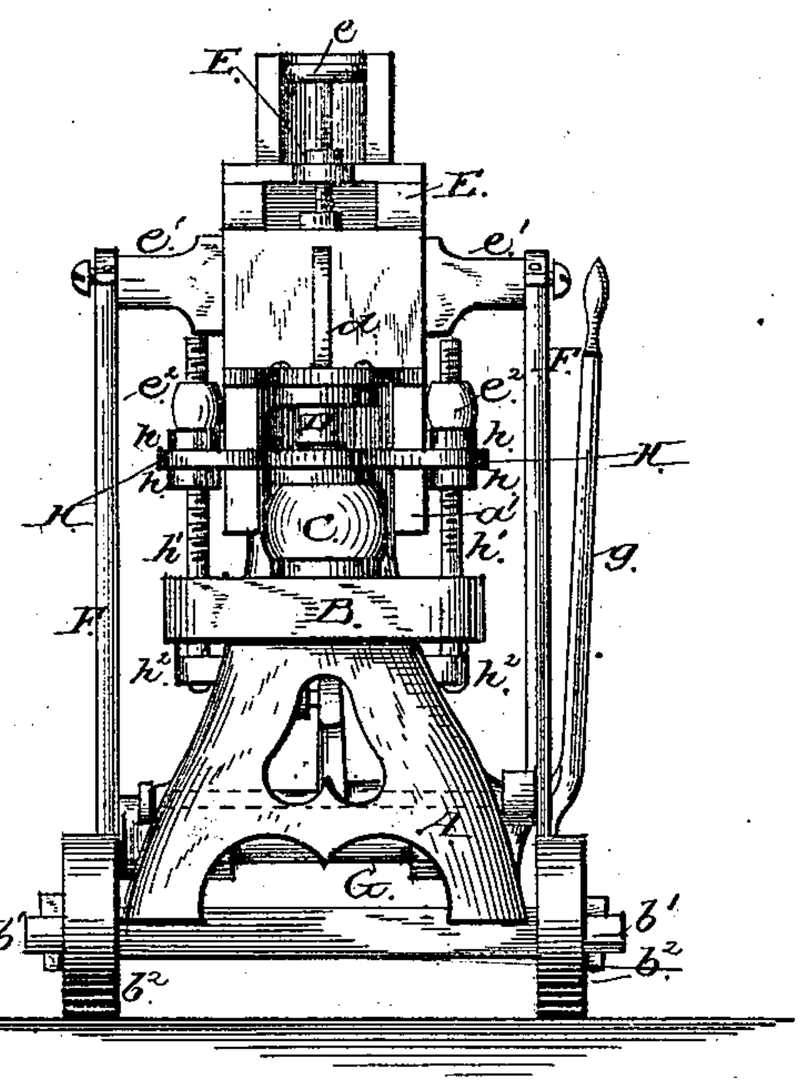
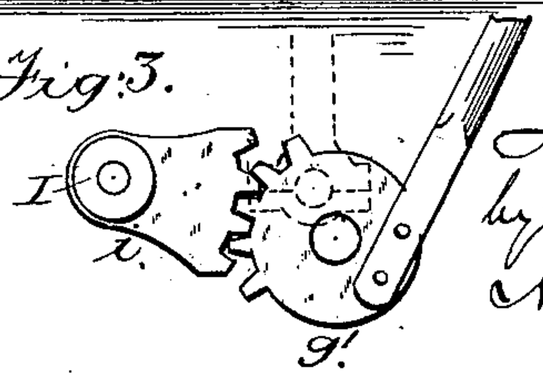


Fig: 2.

Fig: 3.



Witnesses;
J. Walter Fowler.
Wm H. Thorsell.

Inventor;
Jonathan Haley
by his Attys
A. H. Evans & Co

UNITED STATES PATENT OFFICE.

JONATHAN HALEY, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO WILLIAM HALEY, OF SAME PLACE.

GLASS-PRESS.

SPECIFICATION forming part of Letters Patent No. 227,103, dated May 4, 1880.

Application filed July 30, 1879.

To all whom it may concern:

Be it known that I, JONATHAN HALEY, of Pittsburg, county of Allegheny, State of Pennsylvania, have invented certain new and useful Improvements in Glass-Presses; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and in which—

Figure 1 is a front view of my improved press. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a detail view of the mechanism for rocking the crank-shaft.

This invention relates to certain new and useful improvements in glass-presses, in which the mold can be secured in the press through the medium of the pressing mechanism and without the aid of springs; and to this end the invention consists in a novel arrangement of mechanism for accomplishing the above result, and also in a novel construction of frame-work, all as will be hereinafter fully described.

To enable others skilled in the art to make and use my invention, I will proceed to describe the exact manner in which I have carried it out.

In the drawings, A represents the metallic supporting-frame, upon which the pressing mechanism is mounted, it being composed of or cast in one piece, which is very essential in this class of presses, which are being constantly moved about in the factories, and when the frame-work is composed of different parts connected together they are invariably getting loose, and thus requiring considerable time and expense in repairing them, all of which is entirely obviated by making the frame-work in one piece. The frame A has slotted projecting arms or hubs *b* cast therewith, for the reception of the axle *b'*, upon which the front supporting-wheels, b^2 b^2, are mounted, and also the rear swiveled or pivoted wheel, b^3.

B represents a table, upon which the mold C rests. D represents the plunger, secured to the lower end of the vertical bar *d*, said bar being dovetailed into the vertical sliding cross-head E, and vertically adjustable in said cross-head for raising and lowering the plunger through the medium of the hand-screw *e*. The vertical cross-head is dovetailed to the outside of the upper vertical portion, *a'*, of the frame-work, and it is operated through the medium of the rods F F, connected at their upper ends to projecting lugs *e' e'*, on the sides of the cross-head, and at their lower ends to the crank-shaft G, operated through the medium of the hand-lever *g*.

H represents a spring-plate, mounted and adjustably secured by nuts *h* on the vertical screw-rods *h' h'*, the lower ends of said screw-rods being connected together by a cross-bar, h^2, while their upper ends pass through the slotted projecting lugs or guides e^2 e^2, secured to the cross-head E.

The crank-shaft G is provided at one end with a segmental gear, *g'*, which meshes with a segmental gear, *i*, mounted on one end of the shaft I. Adjustably mounted on said shaft is a slotted segment or cam, J, in which works a stud, *j*, secured to the under side of the cross-bar h^2.

The object of the plate H is to hold the ring on the top of the mold and secure the mold in position while the glass is being pressed in the mold, and also while the plunger is being moved upward out of the mold, said plate being adjustable for adapting it to different-sized molds.

The operation of my improved press is as follows: The mold C being placed in proper position on the table B, by pulling on the lever *g* the cross-head carrying the plunger will be forced downward, so that the plunger will enter the mold, and at the same time the segmental gearing *g' i* will turn shaft I, so that the slotted segment or cam will draw the plate H down against the ring on top of mold, thus securing it in position before the glass is pressed in the mold, and also, as the plunger is moved upward out of the mold, by pushing the lever backward, the plate H being raised as soon as the plunger is out of the mold, thus permitting the removal of the mold.

It will be observed that the arrangement for locking the ring on the mold is disconnected from the press while the pressing is done, thus relieving the plunger from any friction which would be objectionable.

By having the portion *d* carrying the plunger dovetailed in the cross-head E, and said

cross-head dovetailed onto the frame-work, the press works more solid or rigid, which is very essential in this class of presses.

I am aware that the follower of a glass-press, used in connection with mechanism which not only effects its descent but holds it stationary upon the mold during the continued descent of the plunger is old, and such I do not desire to be understood as claiming broadly as my invention; but,

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

In a glass-press, the combination of the frame-work A, vertically-moving cross-head E, dovetailed thereon and provided with the lugs *e e*, and carrying the bar and plunger *d* D, the adjustable spring-plate H, and the operating mechanism consisting of the connecting-rods F F, crank-shaft G, lever, *g*, segmental gears *g' i*, shaft I, slotted segment or cam J, and cross-bar h^2, provided with stud *j* and screw-rods *h' h'*, the several parts constructed and relatively arranged to operate substantially in the manner herein shown and described.

JONATHAN HALEY.

Attest:

WILLIAM HALEY,

JOSEPH BLACKSHAM.