

FREDERICK KLINCK, Assignor to JOHN WEIDIG & CHARLES YOEKEL.

Improvement in Glass-Molder's Press.

117,785.

Patented August 8, 1871.

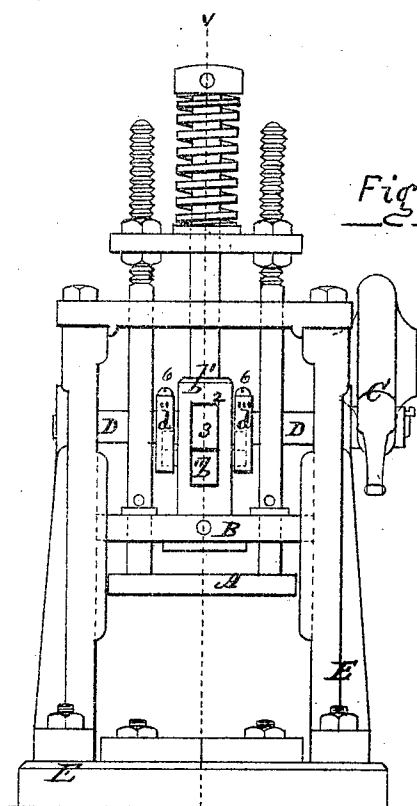


Fig. 1.

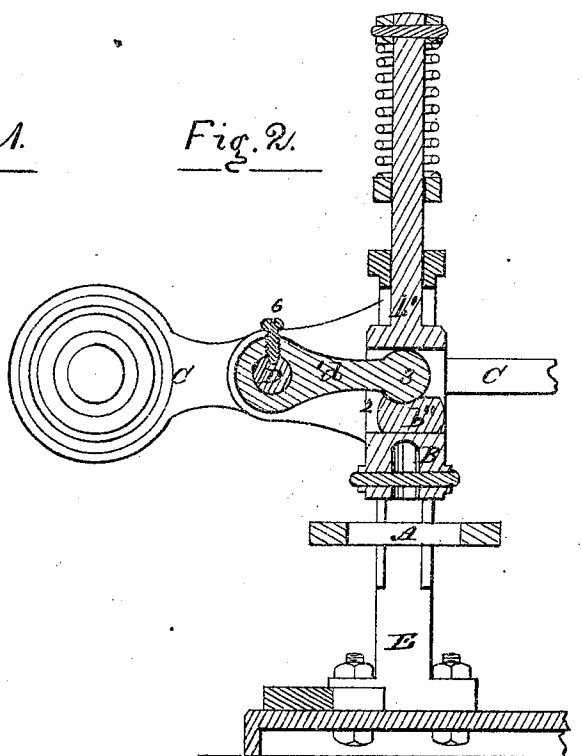


Fig. 2.

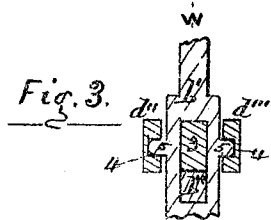


Fig. 3.



Fig. 4.

Witnesses:

Benjamin
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Inventor:

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UNITED STATES PATENT OFFICE.

FREDERICK KLINCK, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO JOHN WEIDIG AND CHARLES YOCKEL, OF SAME PLACE.

IMPROVEMENT IN GLASS-MOLDERS' PRESSES.

Specification forming part of Letters Patent No. 117,785, dated August 8, 1871.

To all whom it may concern:

Be it known that I, FREDERICK KLINCK, of the city of Philadelphia, in the State of Pennsylvania, have invented certain Improvements in Glass-Molders' Presses, of which the following is a specification:

My invention relates to the connection of the plunger cross-head to its operating-arm or arms and shaft by means of a sliding bearing or bearings, constructed and applied in the manner hereinafter set forth and specified; the object of my invention being to simplify the construction of the necessary parts of the connection, and also to afford increased facility for changing, adjusting, oiling, and keeping the same in proper order.

The drawing is made to a scale of three inches to the foot. Figure 1 is a front elevation of a glass-molder's press embodying my invention. Fig. 2 is a vertical transverse section of the same on the dotted line *v w* of Fig. 1. Fig. 3 is a detached section of the bearings, cut in a plane at right angles to the plane of Fig. 2. Fig. 4 is a view of the inner side of one of the two outside bearing-arms.

The follower A, cross-head B, hand-lever C, and shaft D are each constructed, arranged, and secured, in relation to each other and to the supporting-frame E, in the usual well-known manner; but the connections between the stem of the cross-head B and the shaft D are different and much more simple and effective, and will now be described with reference to the drawing. Through the middle of the stem *b'* of the cross-head B there is a vertical slot, 2, in which is inserted edgewise the solid disk-shaped or flat circular front end 3 of an arm, *d'*, which is adjustably secured on the shaft D; and beneath the said disk-shaped front end 3 there is also inserted in the said slot 2 a bearing-block, *b''*, which is made concave on its upper side to correspond with and fit up against the curve of the lower edge of the disk-like end 3 of the said arm *d'*, and straight on its other three sides, in order that it may be slid freely forward and backward in the slot as the said end 3 of the arm *d'* vibrates in a vertical curve, when the said arm is moved by the shaft D, operated by the attendant molder through the hand-lever C, and, con-

sequently, as the two parts 3 and *b''* together occupy the whole length of the slot 2, the cross-head B, which carries the proper plunger, (not shown,) will be moved up and down smoothly and accurately. Beside the arm *d'* there are adjustably secured two similar arms, *d'' d'''*, each having the disk-like front end. In the inner side of each of the said ends there is a straight longitudinal cavity or slot, 4, into which studs 5 5, projecting at the right and left sides of the stem *b'* of the cross-head B, respectively, enter and slide in the cavities or slots 4 4 as the said arms *d'' d'''* are vibrated in vertical planes, respectively, thereby to give the required alternating vertical movements of the cross-head. The arms *d' d'' d'''* are, respectively, secured to the shaft D by set-screws 6, so that either or all can be readily detached and reapplied, as occasion may require. It is intended to use either the central arm *d'* alone or the two outer ones *d'' d'''* without the central one *d'*, or all three of them together, as the pressure to be given the glass in the mold may require less or more force in molding.

The described devices for connecting the arms to the cross-head are more simple and less liable to get out of order, can be more easily and quickly attached and detached or adjusted when a change is desired, and can be more readily lubricated without detaching the parts than those of any other glass-press heretofore used.

I claim as my invention—

1. In a glass-molder's press, the combination consisting of the solid disk-shaped end 3 of the arm *d'*, the slot 2 in the stem of the cross-head, and the sliding bearing-block *b''* in the said slot, the said parts being arranged to operate together, substantially as and for the purpose hereinbefore set forth.

2. In a glass-molder's press, the combination of the two arms *d'' d'''*, having their respective disk-like ends made with the slots or grooves 4 4, as described, with the respective studs 5 5 on the outer sides of the slotted stem *b'* of the cross-head B, the said parts being arranged to operate together, substantially as and for the purpose hereinbefore set forth.

Witnesses: FREDERICK KLINCK.

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WM. H. MORISON.