

P. BLANKINSOP.
GLASS-MOLD.

No. 177,457.

Patented May 16, 1876

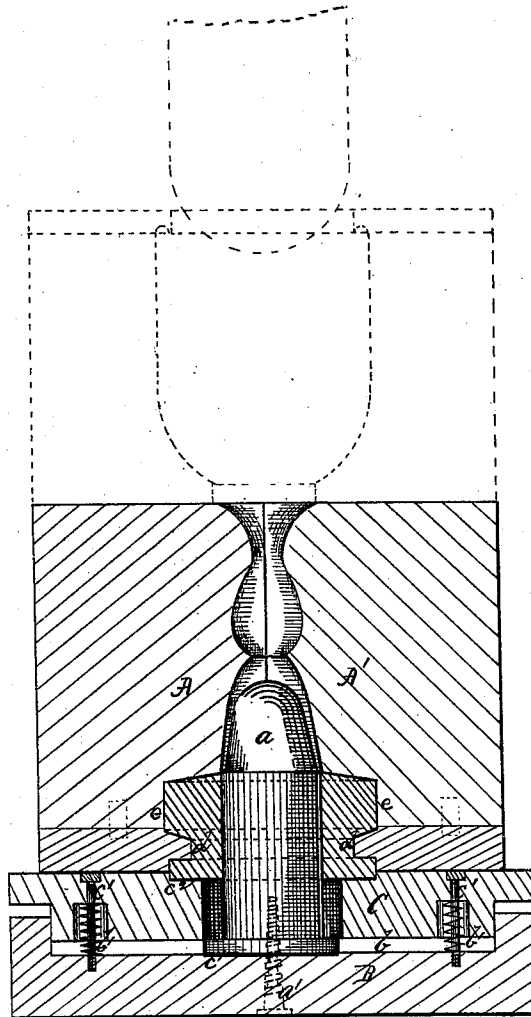


Fig. 1.

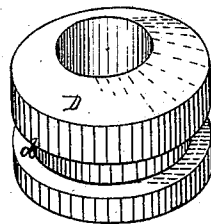


Fig. 2.

WITNESSES.
James L. Gray
Reverend

INVENTOR
Peter Blankinsop
By Bakerwell & Kerr
attys.

UNITED STATES PATENT OFFICE.

PETER BLANKINSOP, OF MARTIN'S FERRY, OHIO, ASSIGNOR TO HIMSELF
AND EXCELSIOR GLASS COMPANY.

IMPROVEMENT IN GLASS-MOLDS.

Specification forming part of Letters Patent No. **177,457**, dated May 16, 1876; application filed
March 23, 1876.

To all whom it may concern:

Be it known that I, PETER BLANKINSOP, of Martin's Ferry, in the county of Belmont and State of Ohio, have invented a new and useful Improvement in Glass-Molds; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is a vertical section of portions of a glass-mold embodying my invention; Fig. 2 is a detached view of the peg ring or collar.

Like letters refer to like parts wherever they occur.

My invention relates to the construction of molds more especially intended for pressed-glass articles; and consists, first, in combining with a glass-mold and its plate or peg carrier a spring or equivalent device, so arranged as to permit the mold to yield under the thrust of the plunger, whereby the peg is caused to rise in the mold during the pressing of the article, but is automatically withdrawn as soon as the pressure for forming the article is removed; second, in combining with the peg of a glass-mold a loose or detachable collar, which is capable of turning on the peg from time to time, so that the smooth face of the collar is preserved, and fins avoided; third, in combining with the bottom plate of a glass-mold interchangeable pegs, so that by changing the peg and collar the same bottom plate may be used with various molds.

Heretofore in the manufacture of pressed ware, to which this invention is more especially applicable, whenever a bottom peg or plunger has been used in connection with the mold, it has been operated either by an incline eccentric screw and spindle or some mechanism which required the attention of the operator to cause the withdrawal of said peg before the settling of the glass, thus doubling the work of the operator, who in such cases has to work two plungers instead of one.

The object of the first part of the present invention is to obviate the difficulty by rendering the movements of the peg or second plunger automatic.

In pressed-glass molds, as commonly constructed, where a goblet or like stemmed or

irregular article is to be formed, a sectional mold is used next to the peg or bottom plate. These sections wear at the line of junction in course of time, permitting the extrusion of glass, which cuts the face of the bottom plate, or the face the peg-collar, if the parts of the mold continue to occupy the same relative position during the formation of consecutive pressed articles.

The object of the second part of the invention is to obviate this difficulty by interposing the loose section, (peg-collar,) which permits the sectional mold and bottom plate to retain their relative and necessary position to be worked to advantage.

In both blown and pressed glass molds the arrangement and connection of the bottom plate and peg; and the method of operating a plunger-peg, have been such that each separate mold required its own distinct bottom plate or section, which increased the expense of molds to that extent, and is a great disadvantage in pressed-glass molds, wherein the bottom plate has to be secured in or attached to the press.

The object of the third part of this invention is to render peg or bottom plates interchangeable.

I will now proceed to describe my invention, so that others skilled in the art to which it appertains may apply the same.

In the drawing, a goblet-mold being chosen for illustration, the dotted lines indicate the usual or any approved form of plunger and mold for bowl of goblet, A A' the sectional portion of a mold for forming the stem, and a the peg or bottom plunger for forming the cup-foot. B indicates the bottom plate, recessed, as at b, to form a box or chamber for a set of springs, b' b', and countersunk, or otherwise formed, as at c, to receive the peg or bottom plunger d, which is secured by a set-screw, a'. C is an annular cap or cover, which rests upon the springs b' b', closing the box or recess of the bottom plate, the rise of the cover C being limited by the guides or set-screws c'. The top cover C, which may be regarded as part of, or one with, the bottom plate B, supports the superimposed portions A A', &c., of the mold, and the springs b' b' should, of

course, be sufficiently stiff to support a weight slightly more than the heaviest mold with which the bottom plate is to be used. This plate *O* is recessed, as at *c*², to receive the lower end of the peg ring or collar *D*, and prevent displacement of the sections during the pressing of an article. *D* is a peg-collar, grooved on its circumference, as at *d*, or, if preferred, beveled, so that the upper portion of the collar will fit within the recess *c* of the sectional mold *A A'*, and lock therewith when the mold is closed, but will be free to move independently of the sections *A A'* and of the bottom plate when the mold is open.

The operation of these devices is as follows: The glass being cut into the mold, and the plunger caused to descend in the usual way, the springs *b' b'* will yield, allowing the mold to recede until the peg *a* has risen in the mold to the required height, and the further descent is arrested by the fixed portion of the bottom plate. The instant the plunger rises and pressure is taken off the mold the springs *b'* lift the mold and contained article so as to free the peg *a*, after which the sections *A A'* are opened and the article removed in the usual manner. As the collar *D* is loose upon the bottom plate, it will be slightly turned each time the sections *A A'* are opened and closed, thus changing the face of the collar in relation to the joints of *A A'*, thus obviating any liability of cutting or channeling the face of the collar, which might interfere with the proper working of the mold-sections.

When it is desired to change the molds—as, for instance, to manufacture wine-glasses—the interchangeable pegs may take the place of the detachable peg *a*, and a corresponding col-

lar, *D*, be substituted, which can be readily and quickly done, thus employing the same bottom plate with various molds, and saving the expense and labor incident in changing bottom plates.

The advantages of my invention are, as before specified, saving of time and labor in pressing the article, saving of expense in the wear and in the number of bottom plates required, and the simplicity of the devices derived from the automatic withdrawal of the peg.

I am aware that a cup-section for forming a goblet-foot without mark has been used in connection with a bottom peg, and do not herein claim such subject-matter; but,

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

1. In a glass-mold, the combination of the mold with the yielding bottom plate, the rigid peg, and a spring or springs for lifting the bottom plate, substantially as and for the purpose specified.

2. In a glass-mold, the combination of the mold, the bottom plate and its peg, and a loose or detachable peg-collar, grooved to engage with the mold, substantially as and for the purpose specified.

3. In a glass-mold, the combination of the bottom plate and detachable peg and collar, substantially as and for the purpose specified.

In testimony whereof I, the said PETER BLANKINSOP, have hereunto set my hand.

PETER BLANKINSOP.

Witnesses:

F. W. RITTER, Jr.,
JAMES I. KAY.