

D. BARKER.
Glass Mold.

No. 216,134.

Patented June 3, 1879.

Fig. 1.

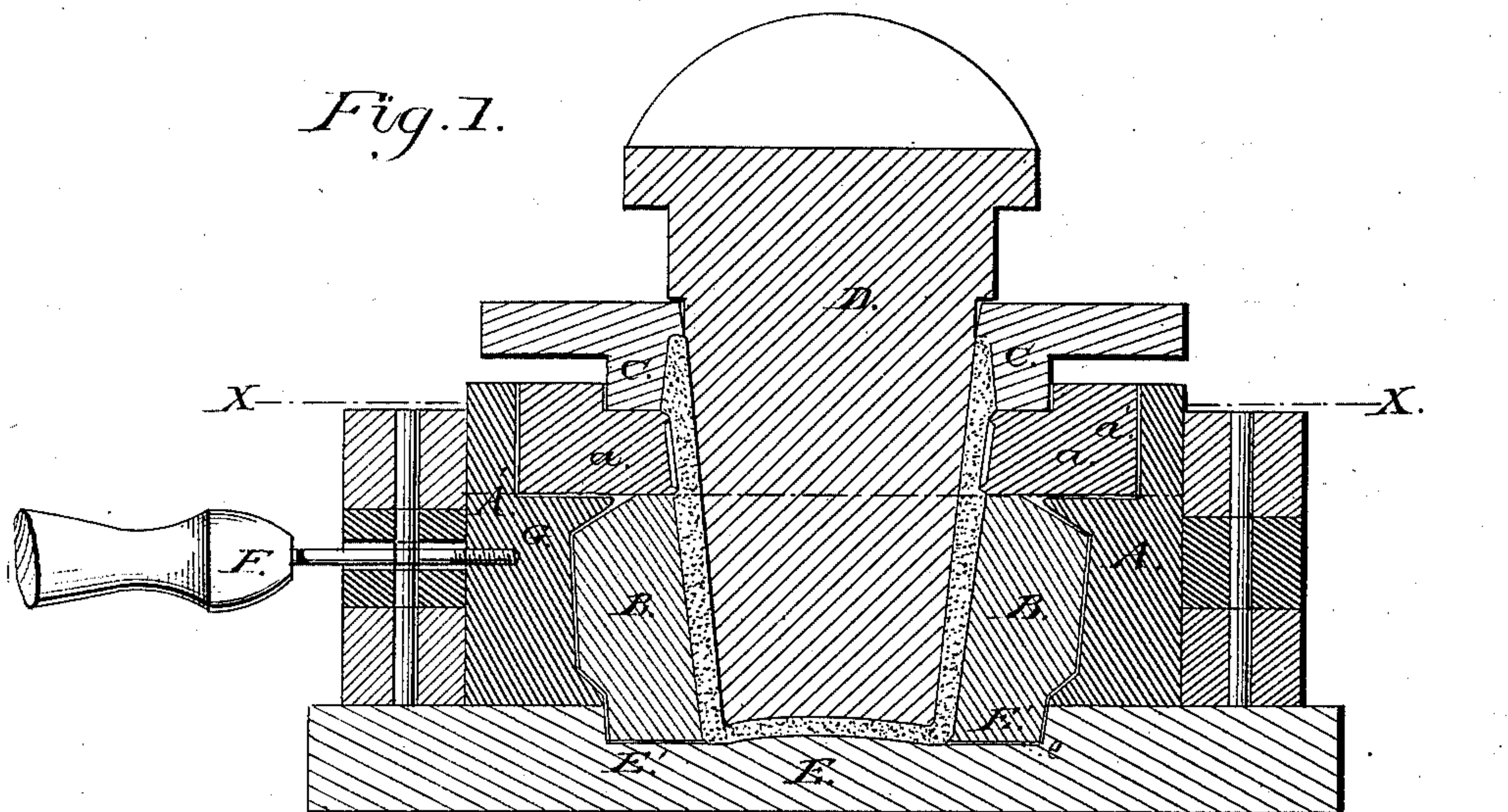


Fig. 2.

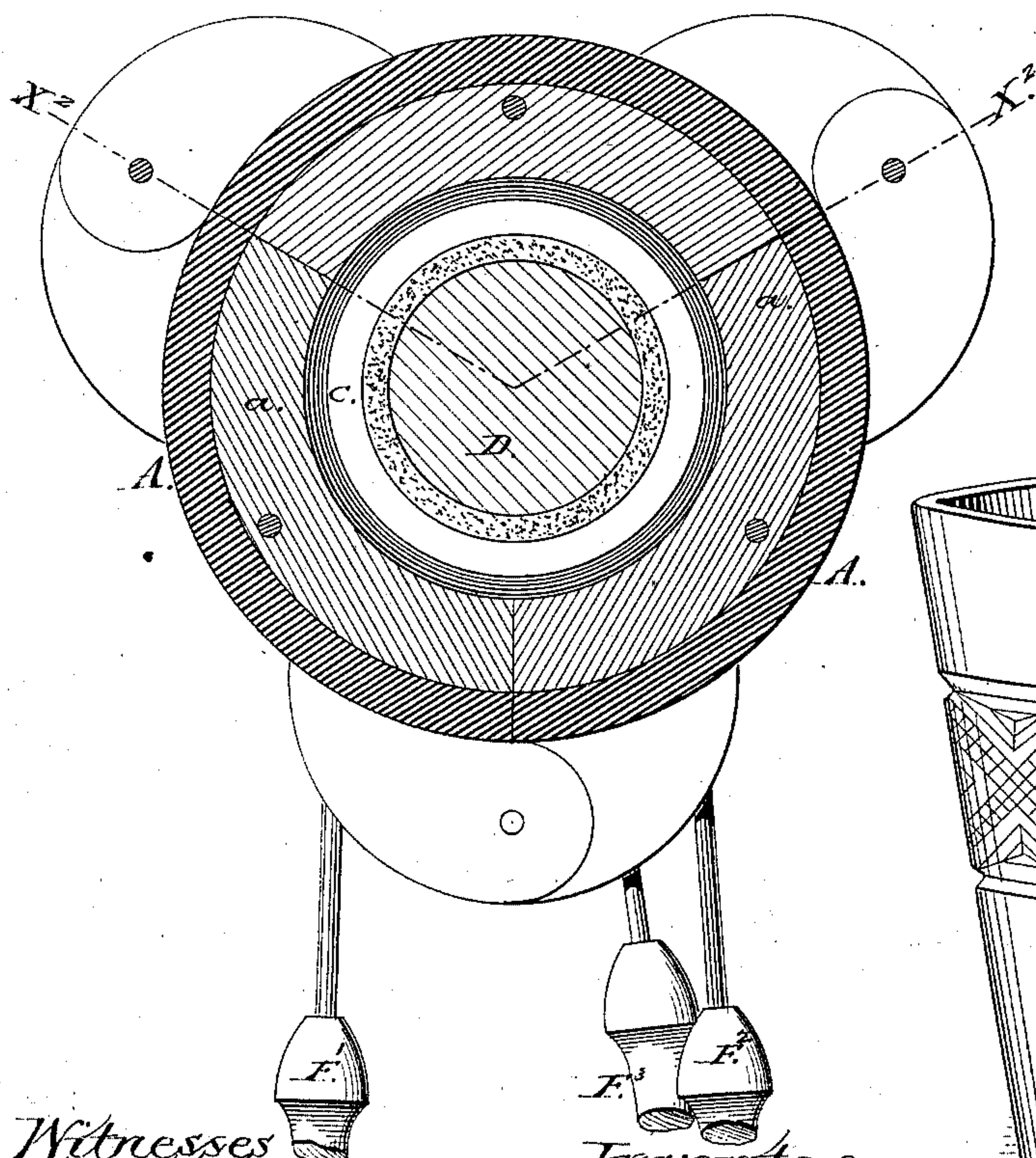
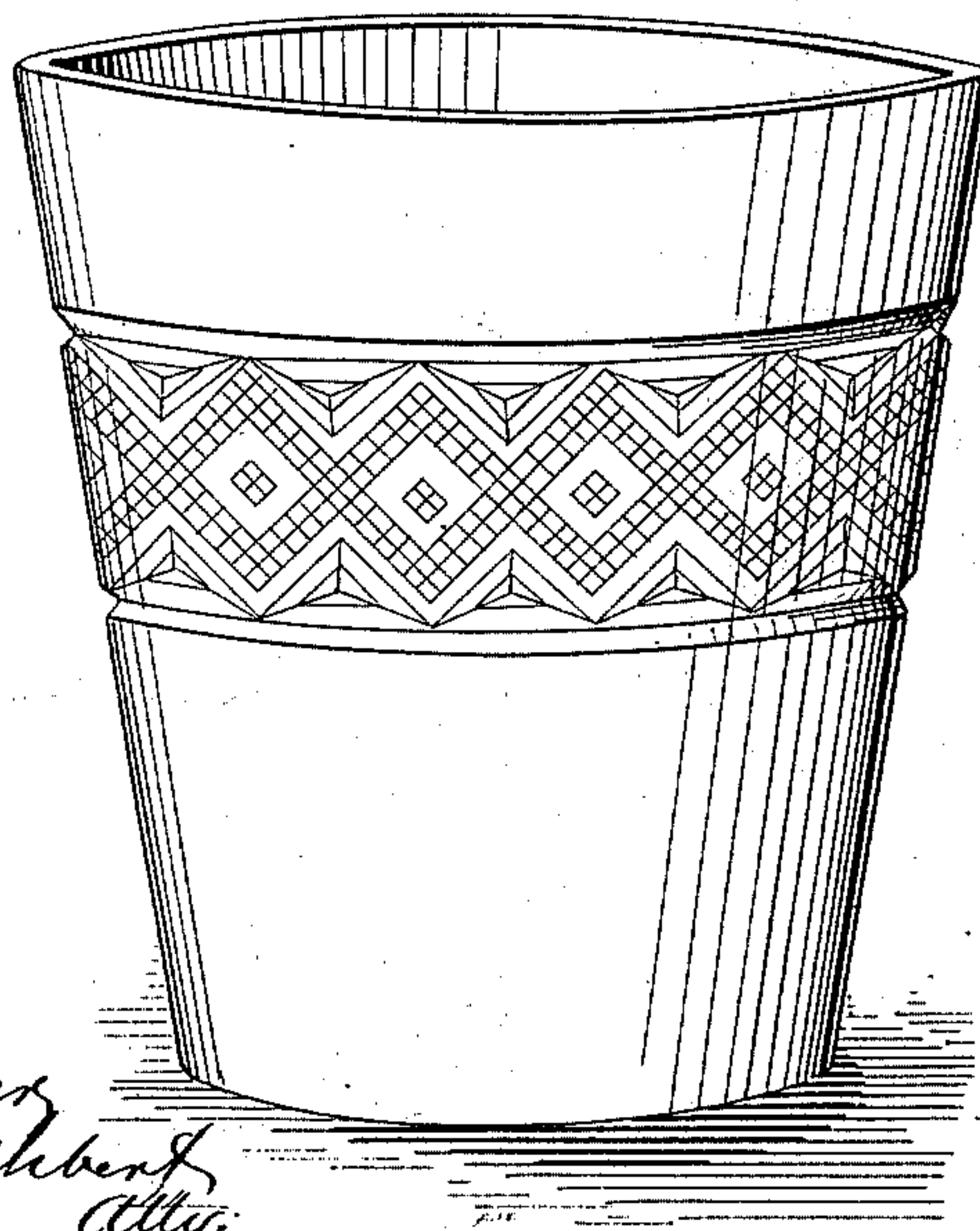


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

DAVID BARKER, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN GLASS-MOLDS.

Specification forming part of Letters Patent No. **216,134**, dated June 3, 1879; application filed November 17, 1877.

To all whom it may concern:

Be it known that I, DAVID BARKER, of the city of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Molds for Molding Glass and other Ware, which improvement is fully set forth and described in the following specification and accompanying drawings.

My invention relates to that class of molds which are constructed to form plain and ornamental or figure work on the exterior of the ware, and has for its object the forming of a continuous band of figure-work on the ware, the pattern of which may be changed at pleasure by removing the print-blocks and substituting others, and the forming the plain portion of the ware below the figure-work as well as above without vertical seams.

This I accomplish by a clamp hinged in the usual manner, the lower portion of the internal walls of which are recessed for the admission of a ring or cylinder of metal of such internal depth, diameter, and taper as is desired to form a plain surface on the lower portion of the ware. Just above this recess a seat is cut in said walls, in which are seated print-blocks, one for each section of the clamps. On the internal face of these blocks is cut whatever figure, words, or name it is desired to imprint on the ware. These blocks when the clamps are closed form a continuous ring, the internal diameter of which has relation to the internal diameter of the plain cylinder above mentioned.

A seat is formed in the upper surface of the said print-blocks, into which fits the usual cap-ring of metal, the internal diameter of which corresponds to that of the ring formed by the print-blocks. Said upper ring has a flange, (internal,) open center, and means of attachment to the plunger, as is usual in an upper removable ring of glass-molds.

In the drawings, Figure 1 is a vertical section of my improved mold, all the parts being in proper position for making pressed ware. Fig. 2 is a horizontal section taken at the line X X in Fig. 1. Fig. 3 is a perspective view of a glass tumbler as manufactured in my improved mold.

Similar letters of reference indicate like parts in all the figures.

A is the mold-clamp, hinged together and opening and closing in the usual way, its interior being recessed for the admission of the mold-cylinder B, which it closely embraces when closed.

A' is the seat, in which is seated the figure or print-blocks *a a a*. Said blocks are secured to the clamps by screws, as shown by *a'*. Said clamp is also provided with a horizontal slot, G, through which passes the shaft of the handle F.

B is a circular block of metal bored out vertically and tapering, the largest diameter being above, and of the dimensions desired for the lower plain portion of the ware. It is provided with the handle F, the shaft of which extends out through the slot or hole G in the clamp-opening, as shown in Fig. 1.

a a a are the segmental print-blocks, which correspond to the segments of the clamp. They fit into the seat A', to which they are secured. On their internal face they are cut into any design desired to be formed on the ware. They have the seat *c c c* turned in their upper surface, into which fits cap-ring C.

Said print-blocks form a close joint with cylinder B below and with the cap-ring C above, and open and close with the segments of the clamp A, from which they may be removed at pleasure, and others of a different pattern substituted.

C is an ordinary top ring, the internal face of which is plain, and corresponds in diameter with the internal diameter of the ring formed by the print-blocks it lifts off of the mold. D is a plunger, constructed in the usual manner, being of such size and taper as is required to shape the interior of the ware. E is a bottom plate, in which a seat, E', is turned to receive the lower part of the block or cylinder B, which projects below the clamp A. It has a rounded projection, E, for forming the bottom of the ware. The clamps A rest upon and are supported by said plate. F¹ and F² are the handles for opening the clamps. F³ is the handle of the pin for locking the clamps.

Operation: The figure-blocks are first attached in their seats, one to each segment of the clamps, the clamp being open on the bed-plate E. The block B is then inserted in the seat E'. The clamps are closed, clasp- ing the

cylinder, the print-blocks fitting closely on its upper surface. The glass material is then inserted, and the device is pushed under the ring C and plunger D, which are connected the one with the other and to a press in the ordinary way. The lever of the press being then brought down, the plunger D passes through ring C, and forces the glass out into the mold formed by *a, a, a, B, C, and E*. The plunger and top ring are then lifted by the springs of the press, clamp A is opened, leaving the ware standing in the cylinder B, which is then lifted out of its seat in the bed-plate E, and the ware turned out on a tray.

I do not wish to be understood as limiting myself to clamps of any certain number of segments, nor to an upper and lower band of plain seamless work with one continuous belt of figure-work, as both may vary as required by different ware, and two or more belts of figure-work may be used by seating additional circles of print-blocks in the clamps and additional removable cylinders for the plain work; also, the plunger may be left out and the glass be blown in the mold; and, further, I desire to say that the bed-plate E may be removed and an ordinary cup-footed-stem mold or a foot-mold of any description substituted therefor, and stem or footed ware may be made.

Having thus described my invention and its

operation, what I claim, and desire Letters Patent for, is—

1. A glass-mold having a continuous band of print-blocks seated in its segments, as and for the object specified.
2. Two or more print-blocks seated in glass-molds, and forming a ring continuous therewith, their internal face being cut to imprint ware, as described.
3. A mold-clamp having its walls recessed, so as to receive and clasp a cylindrical mold-block, as and for the object set forth.
4. In combination with a mold-clamp provided with two or more removable print-blocks, the upper ring, C, and plunger D, as and for the object specified.
5. The bottom or bed plate E, provided with the seat *e* for the purpose of seating block B when clasped by the mold-clamps A, as described.
6. The clamps A, cylinder-block B, print-blocks *a a*, ring C, plunger D, bed-plate E, and the handles *F F¹ F² F³*, all combined, constructed, and operating as and for the object set forth.

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Witnesses:

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