

N^o 82,983.

J. P. Pears,
Glass Moulds.

Patented Oct. 13, 1868

Fig. 1.

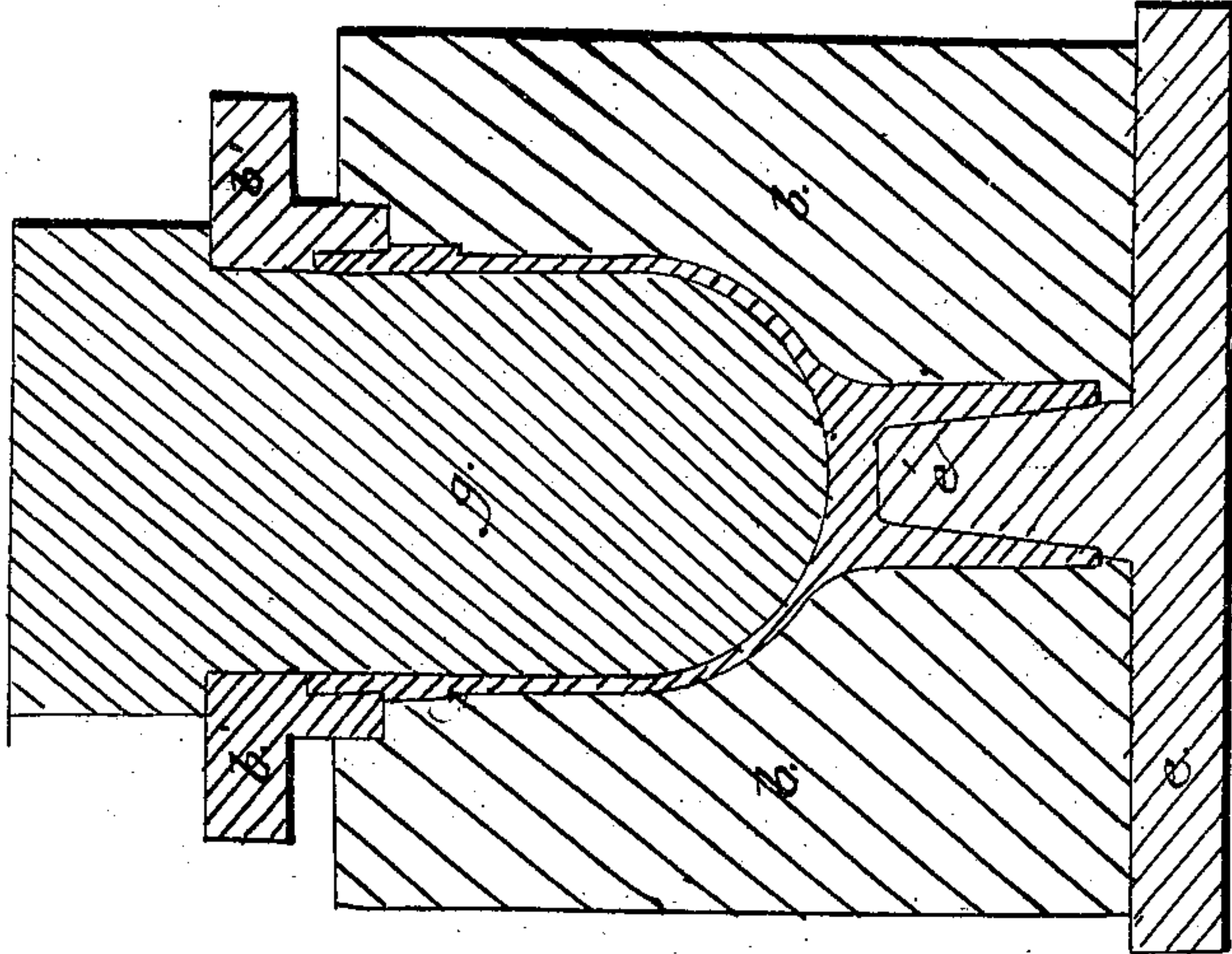


Fig. 2.

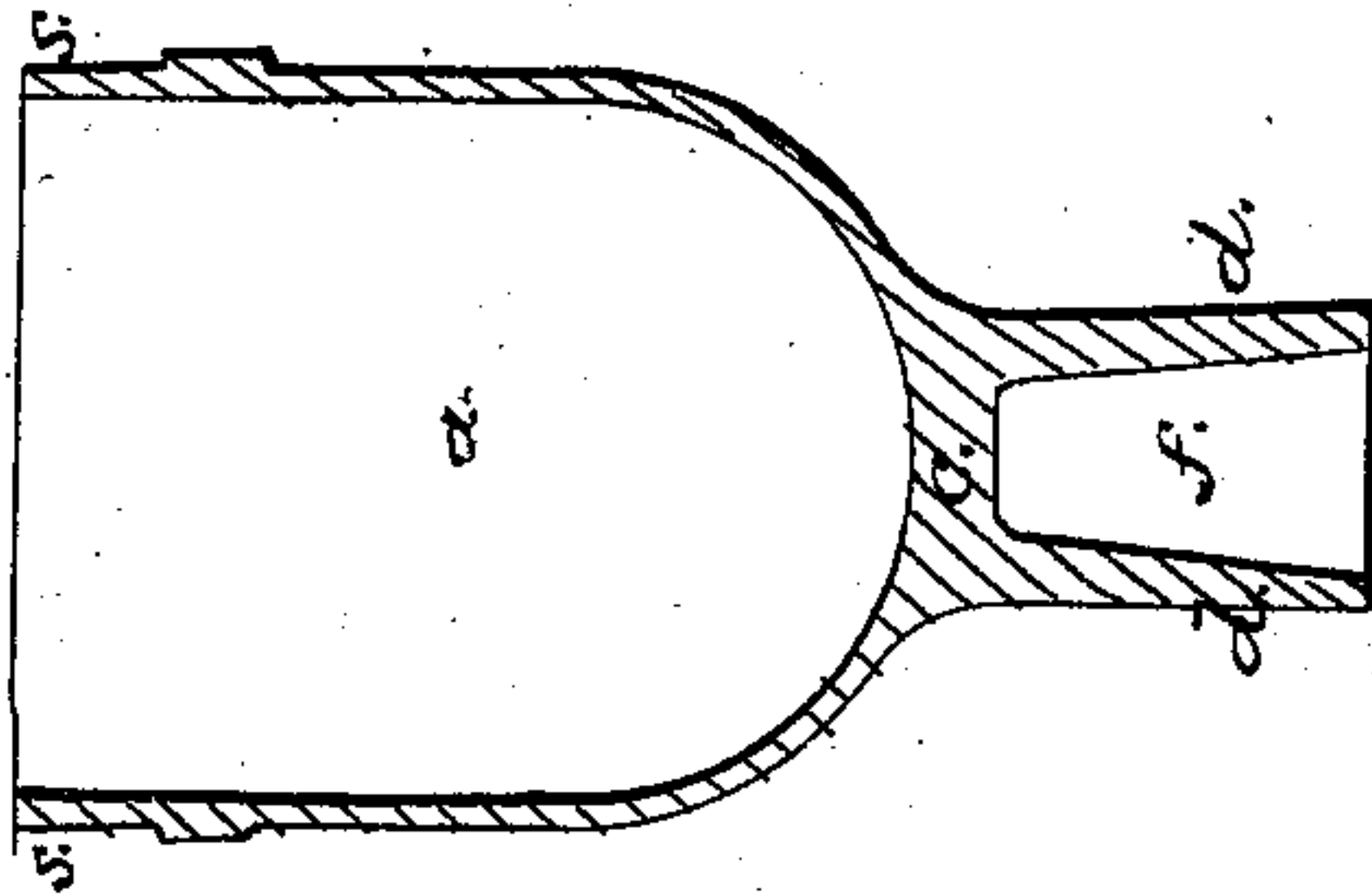
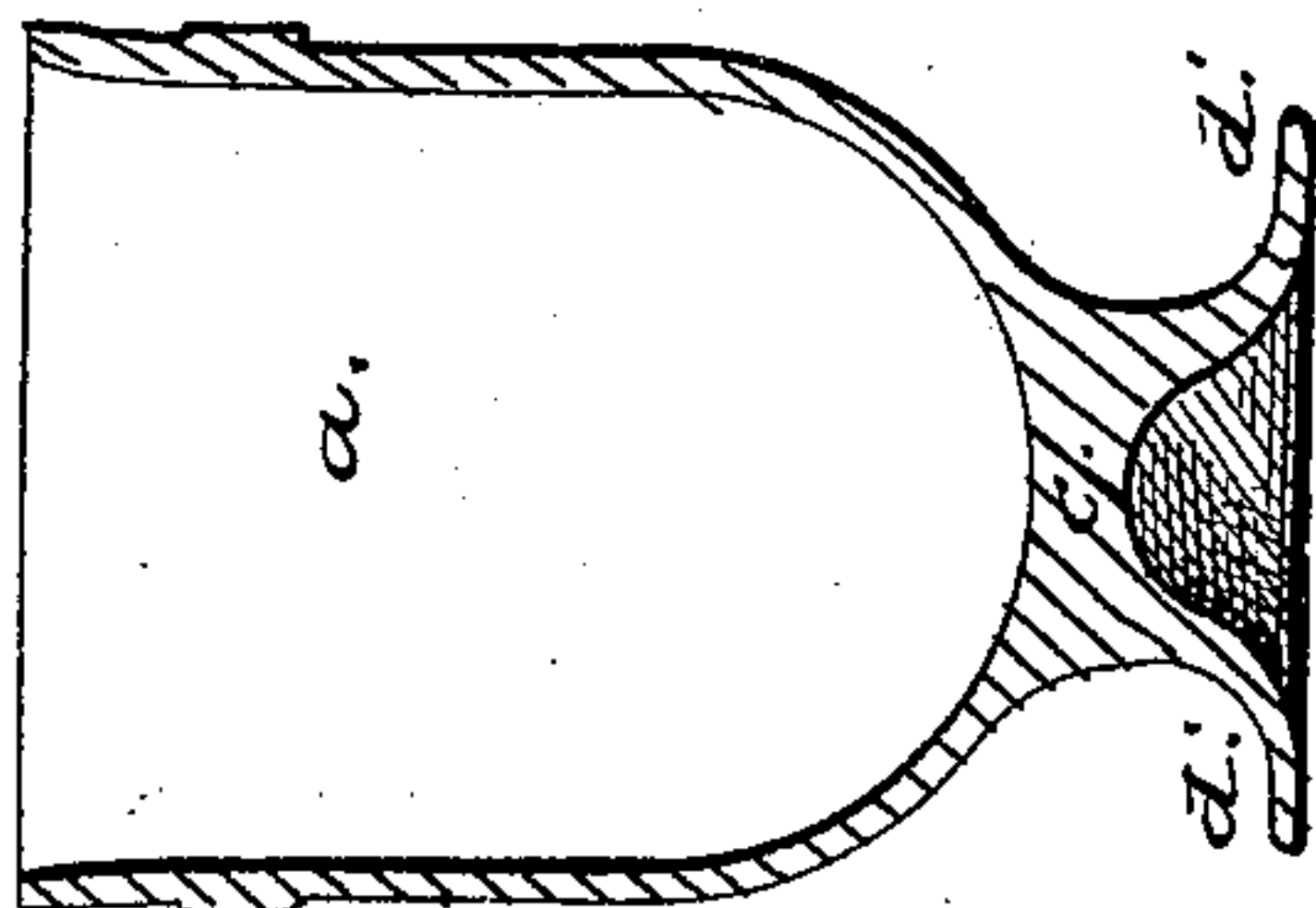


Fig. 3.



Witnesses:
W. D. Lums
Blanching

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UNITED STATES PATENT OFFICE.

JOHN P. PEARS, OF BIRMINGHAM, PENNSYLVANIA.

IMPROVEMENT IN THE MANUFACTURE OF GLASSWARE.

Specification forming part of Letters Patent No. 82,983, dated October 13, 1868.

To all whom it may concern:

Be it known that I, JOHN P. PEARS, of Birmingham, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Manufacture of Glassware; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a vertical section of one form of my improved mold, illustrating my mode of molding footed and stemmed articles of glassware. Fig. 2 is a similar section of the unfinished goblet as it comes from the mold shown in Fig. 1, and Fig. 3 is a similar section of a finished goblet.

Like letters of reference indicate like parts of each.

Footed and stemmed articles of glassware, such as goblets, wine glasses, fruit-dishes, &c., are usually made in molds which are divided into two or more parts, besides the ring at top, the bottom piece, and plunger. Sometimes the part or division in the body of the mold extends in a vertical line from top to bottom, in which case the interior or cavity of the foot and stem part of the mold is made of the shape to be given to the finished article.

One objection to this mode of manufacture arises from the extreme fluidity of the glass, which is so great that, however perfect may be the joints between the halves of the molds, the line of such joints will appear in the manufactured article as a fin or seam, which impairs its otherwise finished appearance.

Sometimes the mold is divided horizontally at the line where the body and stem of the article of glassware to be made unite, and the foot is made cylindrical or cup-shaped, as in the patent of Joseph Magoun of 25th September, 1847, in which case either the upper or lower half of the mold is also divided vertically, so that the body of the mold is in three pieces.

The object of my invention is to mold the articles of glassware above specified in such a way that they shall be free from any such fin or seam, and, when fire-polished, shall present a surface of a uniformly perfect finish; and the nature of it consists in the construction of a mold, the body of which is of one piece, having no joint or division, and no seam ex-

cepting those made by the bottom plate and collar at the upper and lower edges of the article of glassware to be formed thereby; and in molding such articles of glassware in such jointless and seamless mold, so that when the goblet or other article is taken from the mold its stem and foot shall externally be of cylindrical, or octagonal, or other polygonal shape, and of uniform exterior diameter, so much of such cylinder as is required for the foot at the same time being cupped.

To enable others skilled in the art to make and use my invention, I will proceed to describe the construction of my improved mold and my manner of molding footed and stemmed articles of glassware therein, and of finishing the same when molded.

b is the body of the mold, with a cavity of cylindrical or other desired shape, the upper part of such cavity being of the size and shape of the bowl *a* of the goblet or other article to be made, and the lower part of such cavity being of the diameter and shape of the stem *c* of the goblet, and long enough to contain material sufficient to form the stem *c* and foot *d'*, as shown in Fig. 3, care being taken that no part of the cavity of the mold below the ring *b'* shall be of greater diameter than it is at that point. The bottom of such cavity is closed by a bottom plate, *e*, from which a projection or core-piece, *e'*, extends up the lower part of the cavity, the two having a common axial line, sufficiently far to form the cup-shaped cavity *f*, Fig. 2, in the lower end of the goblet. On the top of the body *b* I fit a collar, *b'*, with an inner face, either ornamental or plain, such as it may be desired to give to the lips *s* of the goblet. Through the aperture of this collar *b'* I introduce a plunger, *g*, the outer face of which is of the size and shape to be given to the inside of the bowl *a* of the goblet. The plunger *g* then being removed, I introduce into the top of the mold a sufficient quantity of molten glass to make a single goblet, and immediately insert the plunger. The glass then fills the cavity left between the parts described, substantially as shown in Fig. 1. The plunger *g* and collar *b'* are then removed, and the goblet, as thus molded, is taken out. It then is of the shape shown in Fig. 2. The lower end is then heated in any suitable furnace, and the hollow cylin-

dical foot *d* is flared out in the usual way to the flat shape shown at *d'*, Fig. 3. The lips are then heated and flared in the ordinary manner.

I thus manufacture a goblet or other similar article of stemmed and footed glassware which is without seam or fin from top to bottom, and of a uniformly perfect finish throughout.

I also effect a saving in the cost of manufacture, as the molds described are less costly than the ordinary jointed molds, and a less amount of skilled labor is required.

I do not claim casting or molding the foot of stemmed glassware of hollow cylindrical or cup shape, and then flaring out the cup so as to form the foot, as that has been long in use; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

A mold for making footed or footed and stemmed glassware, whereof that part in which the body, stem, and foot are formed is in a single piece without part or division, in combination with the bottom plate having a projecting core, substantially as and for the purpose described.

In testimony whereof I, the said JOHN P. PEARS, have hereunto set my hand.

JOHN P. PEARS.

Witnesses:

ELL TORRANCE,
THOMAS C. PEARS.