

C. D. FOX.  
Glass-Molds.

No. 149,461:

Patented April 7, 1874.

Fig 1

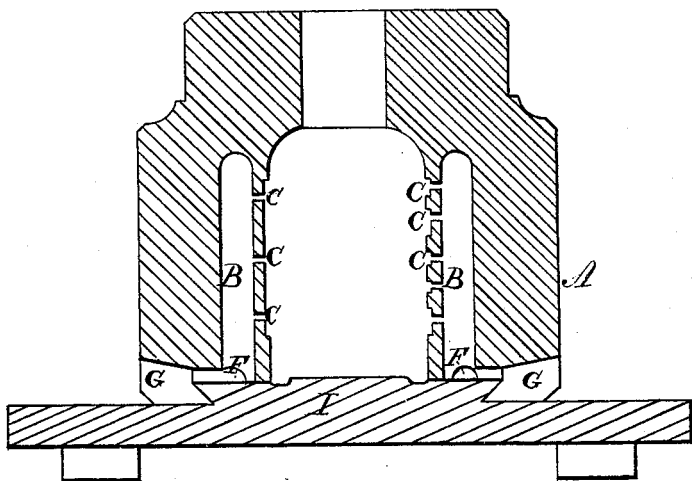


Fig 2

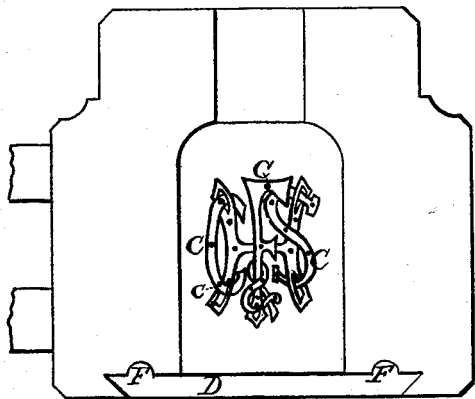
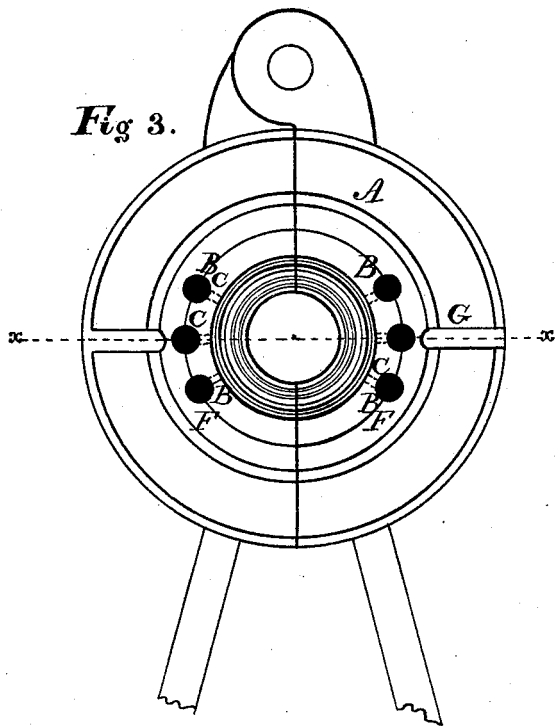


Fig 3.



WITNESSES

Eugene P. Cadson  
J. B. Connolly

By

INVENTOR

Charles D. Fox,  
Connolly Bros.

Attorneys.

# UNITED STATES PATENT OFFICE.

CHARLES D. FOX, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN GLASS-MOLDS.

Specification forming part of Letters Patent No. **149,461**, dated April 7, 1874; application filed February 5, 1874.

*To all whom it may concern:*

Be it known that I, CHARLES D. FOX, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Molds for Glassware; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form a part of this specification, in which—

Figure 1 is a vertical section through line *x x*, Fig. 3. Fig. 2 is a front or inner elevation of one section of a dividing-mold. Fig. 3 is an inverted plan view of sections.

My invention has for its object to provide a mold which will produce letters and figures on glassware more clearly and distinctly than any heretofore provided.

The nature of my invention consists in forming the mold with an air-chamber, which communicates, by means of minute perforations or orifices, with the lettering or configuration on the inner walls, so that when the glass enters the depressions for forming lettering or figuring the air will be expelled therefrom, through the perforations aforesaid, into the air-chamber, allowing the glass to fill up or out, and rendering the letters or figures on the ware full, clearly defined, and distinct.

Referring to the accompanying drawing, A represents a dividing glass-mold, of the ordinary or any suitable construction, the wall of its chamber having sunk lettering or figuring of any style or pattern. B B B are air chambers or channels, formed by casting or drilling in the sides of the mold, said chambers being either vertical, horizontal, or oblique, according to the direction of the lettering or figuring. C C are minute orifices or perforations extending from the lettering or other depressions on the inner surface of the mold to the air-chamber, one orifice being sufficient for each letter or figure.

When the glass is put into the mold in the usual manner and blown, it enters the depres-

sions for forming the letters or figures. The air contained therein is compressed, having no means of escape, and prevents the glass from completely filling up the depressions. By providing the perforations C C, however, the air contained within said depressions is permitted to escape, and the glass enters and fills the space, so that when the bottle or other vessel is withdrawn from the mold the lettering will be found to be full, clear, and raised to the desired extent.

The air-chambers B B communicate with the groove D, in which the bottom plate fits when the sides are closed, or with the annular channel F, and which affords an outlet to the air expelled from the sunk lettering or figures.

When a plate is employed, which is frequently done by inserting the same in a suitable groove or recess in the side of the mold, the back thereof may be cast hollow, or concaved, or a hole may be drilled in it, or the part of the mold back of said plate may be sunk to form an air-chamber; which will communicate with the sunk lettering by the perforations aforesaid.

F is an annular channel, into which the air expelled from the chambers B enters, and G is another channel leading to the outside of the mold. I' is the bottom plate or base of the mold.

In view of the state of the art to which this invention pertains, as illustrated in the Patent No. 22,129, granted November 23, 1858, I hereby disclaim such features of my invention as are embraced broadly in said patent.

What I claim as my invention is—

1. A glass mold having an air-chamber, B, communicating, by means of perforations or orifices C, with the interior of the mold, substantially as and for the purpose set forth.

2. A glass mold, having sunk lettering or configuration on its inner surface, from which lead opening to the air-chambers B, allowing the ejection of the air when the glass is inserted and blown, substantially as shown and described.

3. The glass-mold A, constructed with the

sunk lettering or configuration, for the purpose set forth, and having the vertical air-chambers B, minute perforations C between said lettering or configuration, and vertical chambers, and annular grooves G F, communicating with each other, and with the air-chambers B, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand, this 29th day of January, 1874.

CHARLES D. FOX.

Witnesses:

JNO. A. BELL,  
EUGÈNE P. EADSON.