

E. B. Horn,
Glass Mold,
Nº 5,684, *Patented Aug. 1, 1848.*

Fig: 1.

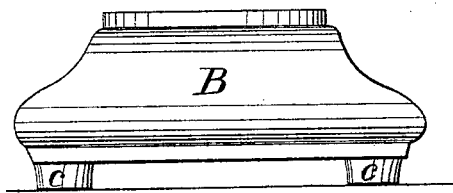


Fig: 2.

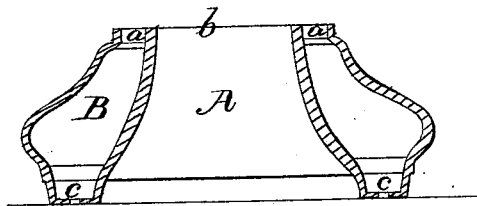


Fig 3.

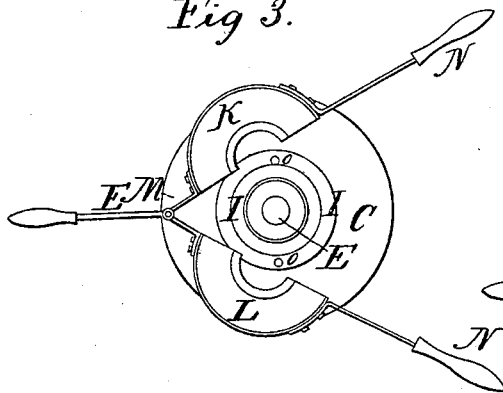


Fig: 4.

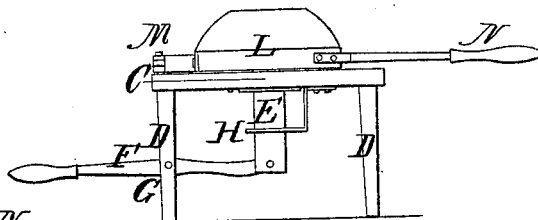
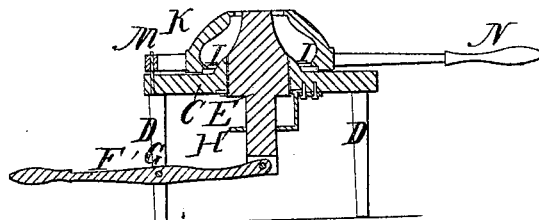


Fig: 5.



UNITED STATES PATENT OFFICE.

EDWIN B. HORN, OF BOSTON, MASSACHUSETTS.

MOLD FOR MAKING ARGAND-LAMP FOUNTAINS OF GLASS.

Specification of Letters Patent No. 5,684, dated August 1, 1848.

To all whom it may concern:

Be it known that I, EDWIN B. HORN, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Mold to be Used in the Manufacture of Ring-Shaped Argand-Lamp Fountains or Articles of Like Character; and I do hereby declare that the same is fully described and represented in the following specification and accompanying drawings, letters, figures, and references thereof.

Before proceeding to describe my invention I would remark that its purpose is to enable a glass blower to make a fountain entirely of glass, in a shape in which it has heretofore been deemed practically impossible to cast one, said shape being represented in side elevation in Figure 1, and in vertical section in Fig. 2. Such fountains for Argand burners have heretofore been constructed entirely of metal, which served to obstruct the rays of light, and created much shadow. By making the fountain entirely of glass, the rays of light pass directly through it, the chemical or other oil within it, and little or no shadow is produced. By inspection of Fig. 2, it will be perceived that said fountain is made like a flat and hollow ring, having its circular passage *b*, surrounded by a concentric opening *a*, *a*, or in other words it is composed of two hollow shells A, B, united at their bottoms, and having a space *a*, *a*, between their necks or tops, the said space being for the admission of oil. Two little hollow projections or nipples *c*, *c*, are cast on to the bottom of the fountain. To these the arms which extend from the burner and support the fountain are cemented, there being a hole or passage made through each of said nipples in such a manner as will permit the oil of the fountain to pass through the nipples and into the tubular arms and thence into the burner.

Fig. 3, exhibits a top view of my mold, the two halves by which the outer shell of the fountain is formed being represented as opened apart from one another, so as to disclose a top view of the parts by which the inner shell is thrown up and shaped. Fig. 4 is a side elevation, and Fig. 5 is a vertical and central section of the mold. In said figures, C, represents a circular table supported on any suitable number of legs D, D, D. Through the central part of the said table a plunger E, is made to operate, that is to say it is so applied to the table as to be

capable of being elevated or depressed (when elevated) at pleasure. For this purpose its lower end is jointed to one end of a treadle lever F, which turns on a fulcrum or screw G, extending from one of the legs D. When depressed or down to its lowest position the plunger is made to rest on a guide plate H, which is fastened to the underside of the table, and has a hole or passage made through it, to receive the plunger and guide it during its vertical movements. The upper part of the plunger, approximates in its shape to the frustum of a cone, and is intended to be of a shape, such as will be necessary to give in whole or in part the desired form to the inner shell A, Fig. 2, thrown up by it. In the drawings it is represented as intended to elevate the said part A and give shape to but about two thirds of it, the remaining part being shaped by a flaring ring I, I, which is fixed on the top of the table and has the plunger working through it. The outer shell of the fountain is made by the two hollow halves or parts K, L, which are hinged together or open apart on a pin M, projecting perpendicularly from the table. Each of said parts K, L, has a handle N, projected from or applied to it, the same being for the purpose of opening or closing the said external parts of the mold. Two circular depressions O, O, are made in the bottom of the matrix or mold as seen in Fig. 3. They are intended to form the nipples above mentioned.

In the use of this mold, the glass blower first blows a globe of glass of the size required, and afterward and while in a soft state flattens it, by damping it or pressing it against a table, while he holds the blowing pipe perpendicular to the surface against which the glass is forced. He may flatten the globe in such manner or he may resort to any other proper mode of accomplishing the same. When so flattened and in a hot and soft state, he places it centrally on the top of the plunger E and holds the blowing pipe vertically or nearly so. In this position of things, an attendant shuts together the two parts K, L, so as to inclose the flattened globe of glass. The glass blower next blows through the tube and at the same time places his foot on the treadle lever and elevates the plunger, so as to throw upward into shape the inner shell A. The workman continues to blow until the glass is stretched out into complete contact with all parts of

the mold, when that mold is opened, and the glass fountain separated from the pipe and cut off at the neck so as to be of the shape required.

5 Instead of the plunger being made to rise and fall it may be made stationary and the remaining parts of the mold be made to rise and fall on it, and operate in other respects as specified. This however I conceive to be
10 but a modification of my invention, and involves the point of novelty claimed by me.

What I claim therefore as my invention is—

1. The herein above described mold, as

constructed with a plunger to elevate and 15 give form in part or in whole to the inner shell of the fountain, while being cast, and blown substantially as specified.

2. I also claim the depressions O, O in their combination with the bottom or matrix 20 for the purpose as above specified.

In testimony whereof I have hereto set my signature this fourth day of June, A. D. 1847.

EDWIN B. HORN.

Witnesses:

R. H. EDDY,
D. H. TILLSON.