No. 648,746. Patented May 1, 1900.

J. J. HOUSER.

MOLD FOR SHAPING GLASS ARTICLES.

(Application filed Sept. 21, 1899.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

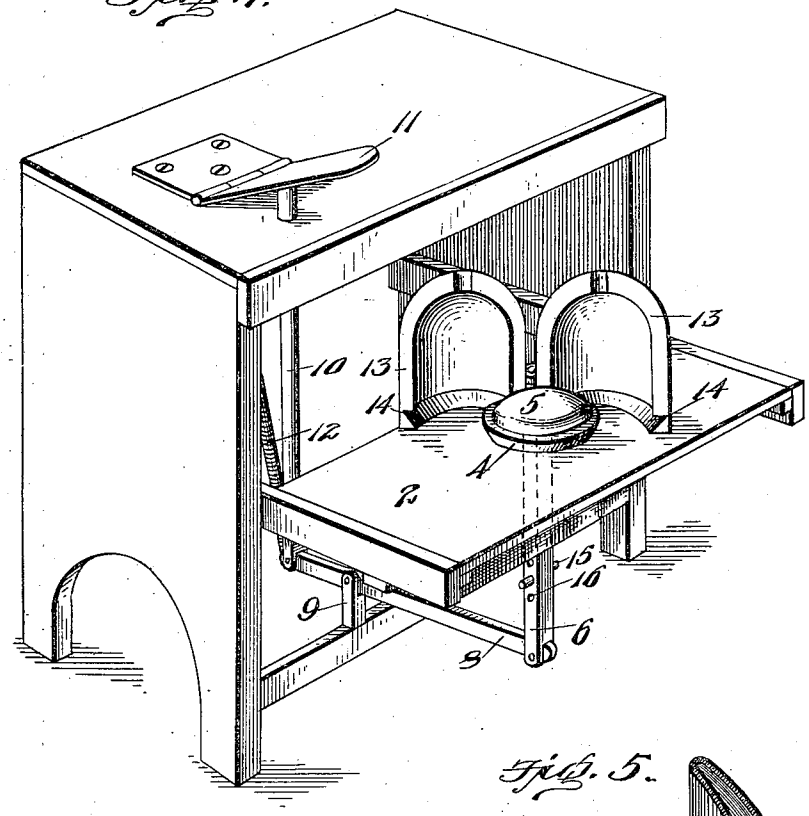


Fig. 5.

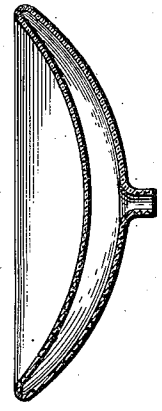
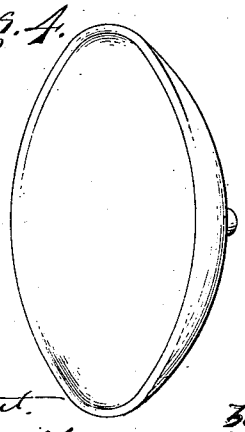


Fig. 4.



Witnesses

C. E. Hunt.

A. Willson

Inventor

J. J. Houser.

By A. B. Williamson & Co.

Attorneys

No. 648,746. Patented May 1, 1900.

J. J. HOUSER.

MOLD FOR SHAPING GLASS ARTICLES.

(Application filed Sept. 21, 1899.)

(No Model.) 2 Sheets—Sheet 2.

Fig. 2.

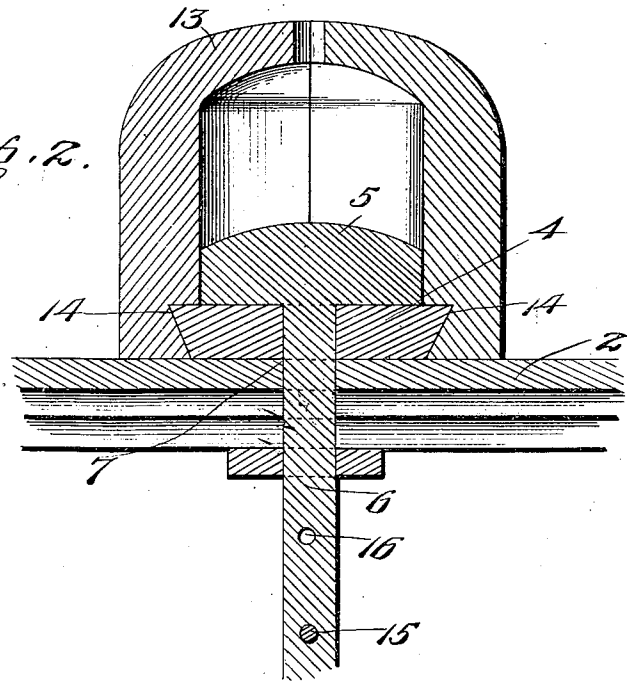
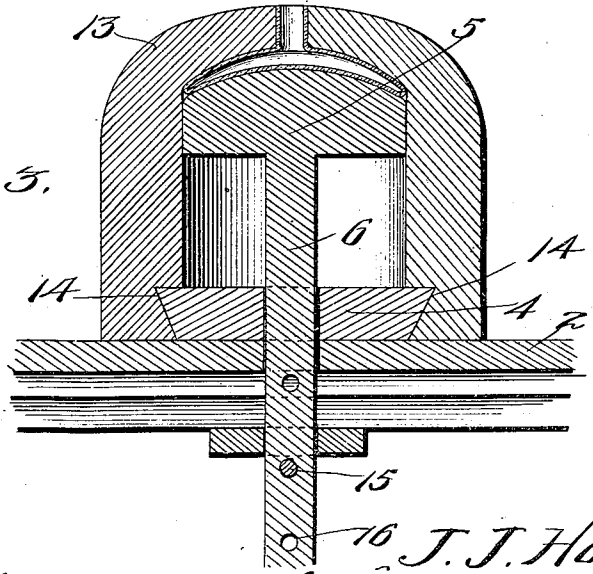


Fig. 3.



Witnesses
C. E. Hunt.
A. Willson

Inventor
J. J. Houser.
by H. B. Willson & Co.
Attorneys

UNITED STATES PATENT OFFICE.

JOSEPH J. HOUSER, OF STEUBENVILLE, OHIO.

MOLD FOR SHAPING GLASS ARTICLES.

SPECIFICATION forming part of Letters Patent No. 648,746, dated May 1, 1900.

Application filed September 21, 1899. Serial No. 731,206. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH J. HOUSER, a citizen of the United States, residing at Steubenville, in the county of Jefferson and State of Ohio, have invented certain new and useful Improvements in Molds for Shaping Glass Articles; and I do 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 appertains to make and use the same.

The invention relates to molds for shaping glass articles, and is designed with particular reference to the manufacture of concave-glass reflectors.

The object of the invention is to provide a simple, durable, and inexpensive mold of this character by means of which reflectors may be quickly and perfectly molded, provision being made to enable reflectors of different degrees of concavity to be manufactured by the same machine.

To this end the invention consists in certain features of construction and combination of parts, which will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of the machine, showing the mold-sections open. Fig. 2 is a sectional view through the shelf or table, showing the molds closed and the face-block in its lowermost position. Fig. 3 is a similar view with the face-block in its uppermost position, showing the reflector pressed to shape. Fig. 4 is a detail perspective view of a completed reflector. Fig. 5 is a longitudinal sectional view.

In the drawings the same reference characters indicate the same parts of the invention.

In the manufacture of glass reflectors it is the custom to blow the bulb in a mold and then, while the bulb is in its plastic state, press it into the shape of a concave disk. This is the type of reflector that I contemplate making with my machine, which, as hereinbefore stated, is designed for quickly making perfect reflectors of different degrees of concavity.

1 denotes the work-bench, and 2 the shelf supported by said bench. Rigidly secured to the upper side of the shelf is an annular disk 4, having a tapering periphery, the greatest circumference being at its upper edge.

5 denotes a face-block having a stem 6, that projects through a polygonal orifice 7 and is pivotally connected to a lever 8, fulcrumed upon the post 9. To the free end of this lever 8 is pivotally connected a push-bar 10, which extends upward through a hole in the table in engagement with the treadle-plate 11.

12 denotes a retracting-spring. It is evident that by the depression of the treadle-plate the face-block will be elevated.

13 denotes the mold-sections, the interior wall of which, near its lower end, is provided with grooves 14 to correspond to the periphery of the annular disk with which they engage. This novel engagement of the mold-sections with the disk prevents said sections being raised upward out of place in the operation of the machine.

The stem of the face-block is provided on the under side of the shelf with a stop-pin 15, vertically adjustable in a row of apertures 16 in the stem to bury the upward throw or movement of the face-block, and thereby control or regulate the degree of concavity to be given to the reflector.

In operation the blowpipe after having been charged with a sufficient amount of glass is inserted through the hole in the mold-sections, and the operator then blows the glass into the form of a sphere to fill the interior of the molds. This having been done, the treadle-plate is depressed, thus causing the face-block to be elevated into contact with the glass sphere and force it up against the interior of the walls of the molds, thus imparting to it the shape shown in Figs. 4 and 5. After the reflector is allowed to cool the mold-sections are then swung apart and the reflector removed, and may then be coated with quicksilver or any other agent used for the purpose.

It will of course be understood that various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

The combination with a suitable support; of a mold seated thereon and comprising a base-section and two side sections, said side sections having an interlocking connection with the base-section, which latter section is provided with a central aperture, a face-block located within the side sections and seated upon the base-section and provided with a bar that projects through the central aperture in the base-section and is formed with a vertical row of apertures, a limit-pin to engage one of said apertures, a vertically-disposed operating-rod, a treadle for depressing said rod, and a lever pivoted intermediate its ends to a fixed support and having its ends pivoted to said operating-rod and said bar, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOSEPH J. HOUSER.

Witnesses:
W. A. WARDEN,
H. A. ALBAN.