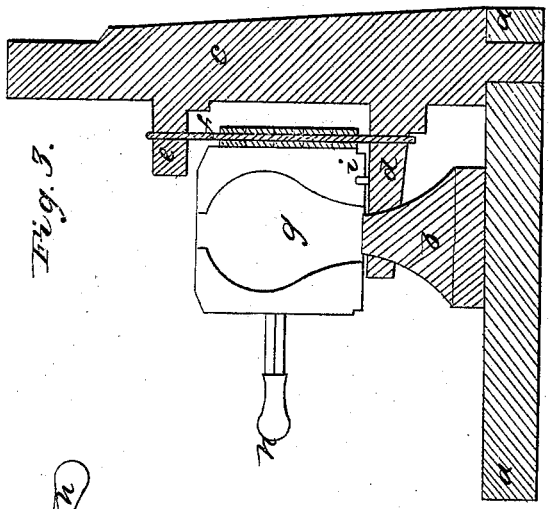
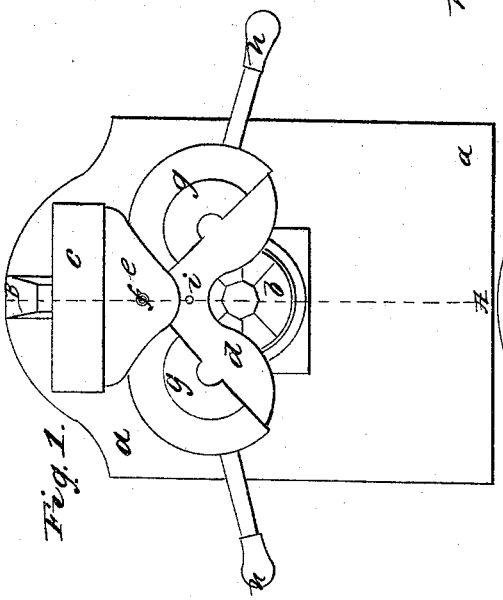
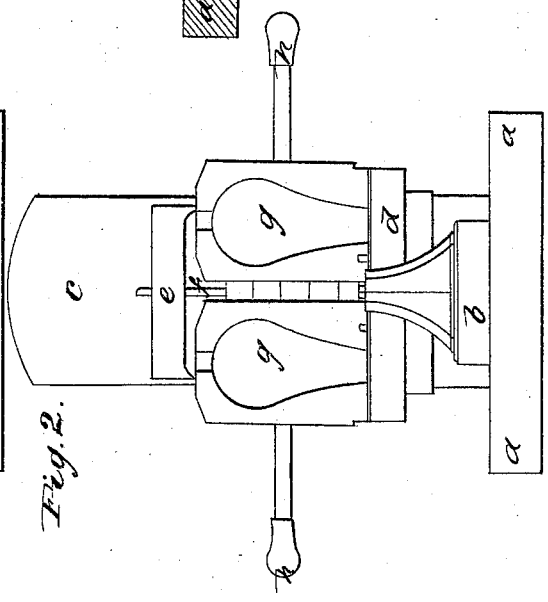
Slane & Golding,

Glass Mold.

No. 3892. Patented Jan 23, 1845.







UNITED STATES PATENT OFFICE.

P. F. SLANE AND JNO. GOLDING, OF EAST CAMBRIDGE, MASSACHUSETTS.

MAKING GLASS LAMPS.

Specification of Letters Patent No. 3,892, dated January 23, 1845; Antedated July 23, 1844.

To all whom it may concern:

Be it known that we, P. F. SLANE and JOHN GOLDING, both of East Cambridge, in the county of Middlesex and State of Massachusetts, have invented a new and useful improvement in the arrangement of the mechanical means or molding apparatus used in the process of cementing or connecting the bowl of a glass lamp to the foot or standard of the same, and that the following description, taken in connection with the accompanying drawings, hereinafter referred to, forms a full and exact specification of the same, wherein we have set forth the nature and principles of our said improvement, by which our invention may be distinguished from others of a similar class, together with such part or combination as we claim and desire to have secured to us by Letters Patent.

It is well known that the manner in which the result hereinbefore specified, as the object of our improvement, has been effected, has been to mold or press the foot or standard of the lamp, and place it in its proper upright position, and afterward apply the mold for the bowl of the lamp, in which the molten glass is placed, directly over or upon the same, and then proceed to form the bowl by blowing in the usual way, the glass in the two molds cementing itself by being in a state of fusion. The two molds must then be very carefully opened in order to deliver the lamp. The inconvenience of this method will be apparent when it is stated that the upper mold has to be applied and adjusted to the lower one for each and every lamp that is made, which application and adjustment not only require considerable time and care, but greatly enhance the liability of forming imperfect lamps. The above method has been tried and abandoned for the reasons above stated.

Our improvement which is represented in the accompanying drawings effects a great saving in time and care and by the use of it glass lamps may be made very expeditiously and without any risk as to imperfections.

Of the drawings mentioned, Figure 1 is a plan of our improved arrangement. Fig. 2 is a front view or elevation, the mold being open in both of these figures, and Fig. 3 is a vertical section taken in the plane of the line A B Fig. 1.

a a in the several drawings is a horizontal plane or platform, which should be of metal, and have its upper surface smooth and true, and when first used should be sufficiently heated, so as not to break the glass, as it is upon this platform that the foot or standard *b*, of the lamp is to rest and be moved after it has been formed and disengaged from the mold, as it should be, being then as near to a molten state as is possible, and only sufficiently hard to prevent its changing its shape. On one side of this platform a vertical standard *c* is properly secured as shown in Fig. 3, or in any other convenient manner. A horizontal shelf *d* is secured to the lower part of the standard *c*, having its upper surface perfectly parallel with the top surface of the platform *a a*. The front of this shelf is curved or cut out as shown in Fig. 1, and into the space so formed the neck or upper part of the foot *b* of the lamp is to be fitted when the operation of cementing &c., is to be performed. At some distance from this shelf *d* a horizontal projection or block *e*, Figs. 1, 2, 3, is fixed or secured to the standard, *c*, which block serves as a bearing for one end of the hinge pin or rod *f*, the other end having a bearing in the shelf *d*. The rod *f* passes through both parts of the hinge of the mold in the usual way. This mold is made in two parts *g*, *g*, perfectly similar to each other and connected by a hinge as above suggested, and each part having a handle *h*, *h*. The top of the neck of the foot of the lamp should project a little above the upper surface of the shelf *d* and fit into the cavity of the lower part of the mold. which should be shaped so as to give the desired form to the bowl and such part of the lamp as remains to be formed. The foot *b* of the lamp being fixed as above specified and being extremely hot and almost in a molten state, one half of the mold should be brought to the position required for forming the bowl, a suitable stop or stud *i* being provided as shown in Figs. 1, 3, to prevent its moving too far; the molten glass should be placed in this part of the mold, on the top of the foot *b*, after which the other half of the mold is closed like the former. The blower should then insert his tube at the hole in the top of the mold and blow until the bowl or upper part of the lamp is entirely formed or the glass has been made hollow and the exterior of it has assumed the shape or contour of the mold. The mold may then be opened and

the lamp will be delivered accurately formed, the glass of the bowl being perfectly cemented to the top of the foot *b*, and the operation may be repeated very rapidly.

It will be evident that the shelf *d* and block *e* may be arranged with the standard *c* so that their positions may be varied to accommodate molds of different sizes &c.

For some bowls it is necessary to have the mold in three parts in which case one part should be made stationary by being attached to the standard *c* and the other two parts hinged to it one on each side.

It will be seen that the parallelism of the top surfaces of the shelf *d* and platform *a a* will keep the foot of the lamp in such position that the bowl when it is formed in the mold as specified must be cemented truly and accurately to the same.

Having thus fully described our improvement we wish it to be understood that we do not claim as our invention combining the bowl of a lamp with the stem thereof by blowing it on as that has before been done but

What we do claim is combining the mold for the bowl of the lamp constructed substantially as hereinbefore set forth with the horizontal shelf *d* into which the top of the foot of the lamp is fitted and the platform *a*, *a*, on which said foot rests, by which the connection or cementing of the bowl and foot is accomplished in a truer and more perfect manner than it can otherwise be done, the whole arrangement being substantially as hereinbefore specified.

In testimony that the foregoing is a true description of our said invention and improvement we have hereunto set our signatures this second day of May in the year eighteen hundred and forty four.

P. F. SLANE.
JOHN GOLDING.

Witnesses:
EZRA LINCOLN, JR.,
T. H. BORDEN.