

(No Model.)

G. E. HATCH.
Manufacture of Glass Lamp Founts.

No. 242,638.

Patented June 7, 1881.

Fig. 2.

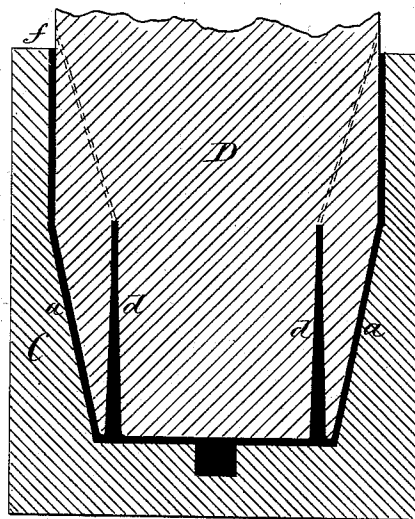


Fig. 1.

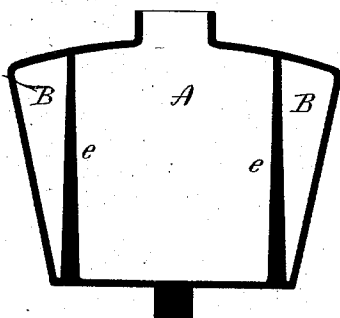
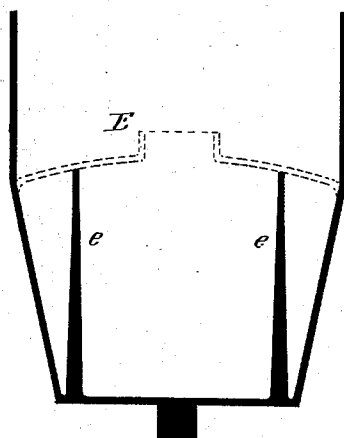


Fig. 3.



Witnesses:

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GEORGE E. HATCH, OF MERIDEN, CONNECTICUT.

MANUFACTURE OF GLASS LAMP-FOUNTS.

SPECIFICATION forming part of Letters Patent No. 242,638, dated June 7, 1881.

Application filed March 21, 1881. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. HATCH, of Meriden, in the county of New Haven and State of Connecticut, have invented a new Improvement in the Manufacture of Glass Lamp-Founts; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a vertical section of the fount; Fig. 2, a vertical central section of the mold; Fig. 3, a vertical central section, showing the method of finishing the fount.

This invention relates to an improvement in making lamp-founts such as are constructed with a chamber for the oil and a surrounding chamber to be charged with carbonic-acid gas, and known as the "Westland Safety-Lamp," the object being to construct the fount in the usual shape of other lamp-founts with a double wall, instead of spherical, as heretofore; and the invention consists in the method of construction, as hereinafter described, and particularly recited in the claims.

In Fig. 1, which shows the fount in vertical section, A represents the oil-chamber, and B the surrounding gas-chamber, the outline or exterior of the fount being of the well-known frustum-of-cone shape.

In manufacturing such founts I employ a mold, C, of the exterior shape of the fount, as usual, and into this the glass is placed and a follower, D, introduced therein. The follower is constructed at its lower end so much smaller than the mold as to leave a space, *a*, for the outer wall of the fount, and in the end of the follower there is a concentric cavity, *d*, of a depth and thickness equal to the height and thickness of the inner wall, *e*, in the fount, Fig. 1. The follower is forced into the mold after the glass is placed therein, causing the glass to flow up into the cavity *d*, and also into the space at the sides and above the height of the inner wall, so as to extend the walls of the fount—say to about the height indicated at *f*. This operation produces the blank of the fount, (shown in section, Fig. 3.) This blank is then heated in the usual manner of working glass, and the

extension at the sides is worked over to form the top into connection with the walls *e*, and so as to form the usual central neck, *E*, and as seen in broken lines, Fig. 3, and shown in Fig. 1. By this method of making the fount I am enabled to attain the usual and desirable shape, and which shape is much better adapted to the requirements of the lamp than the heretofore globe shape, supposed to be the only shape in which the said safety-lamp could be conveniently made.

It should be remarked that there must be escapes for the air in the cavity *d* in the follower, and this may be done by making apertures from the cavities outward through the follower, as seen in broken lines, Fig. 2.

In some cases the founts are made in reverse shape—that is, the larger diameter at the bottom—and in so doing the method of molding is reversed, the bottom being closed over after molding, instead of the top.

The bottom of the lamp is provided with a stem or cavity, or neither, as the case may be, and as in the usual construction.

It will be understood that there must be an opening at some point for charging the gas-chamber or space between the two walls.

I am aware that it is not new to extend the wall of glass articles in molding, and subsequently work the extended walls inward and over to form the top and bottom of the article, and therefore do not broadly claim such as my invention.

I claim—

1. The herein-described mold for making double-walled lamp-founts, consisting of the mold C, having a cavity therein corresponding to the outside of the fount, and a follower arranged to enter said mold and leave therein a space for the outer wall and an extension thereof, and also constructed with a cavity, *d*, to shape the inner wall, substantially as described.

2. The herein-described improvement in making double-wall lamp-founts, consisting in placing the glass from which the fount is to be made in a mold corresponding to the exterior of the outer wall of the lamp-fount, then forcing a follower into said mold, the said follower constructed at its end to correspond to the inside of the outer wall, and with a cavity

in its end corresponding to the inner wall, so that as the follower is forced into the mold upon the glass the glass will flow into said cavity to form said inner wall, and around the
5 outside of the follower to form the outer wall and an extension thereof, said extension being subsequently turned over onto the inner walls

and so as to complete the fount, substantially as described.

GEO. E. HATCH.

Witnesses:

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