J. BOURNE.

MANUFACTURE OF GLASS-GLOBES, SHADES, &c.

No. 189,180. Patented April 3, 1877.

Fig. 1

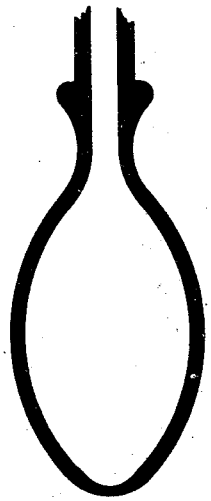


Fig. 2

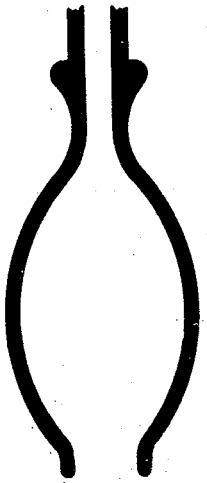


Fig. 3

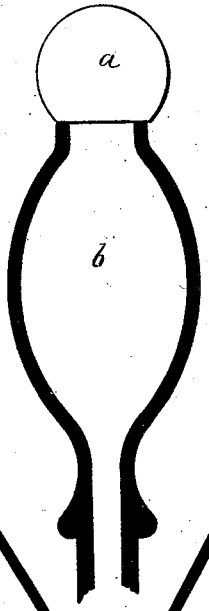


Fig. 4

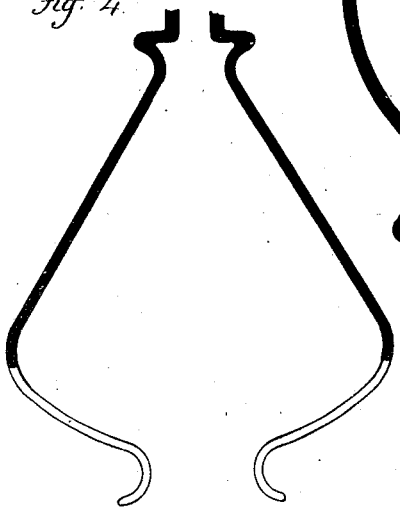
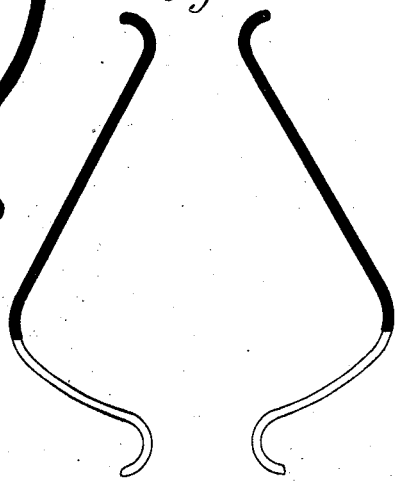


Fig. 5



Witnesses.

J. H. Thummy

Clara Broughton.

Jos. Bourne Inventor.

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UNITED STATES PATENT OFFICE.

JOSEPH BOURNE, OF WEST MERIDEN, CONNECTICUT, ASSIGNOR TO THE MERIDEN FLINT GLASS COMPANY, OF SAME PLACE.

IMPROVEMENT IN THE MANUFACTURE OF GLASS SHADES, GLOBES, &c.

Specification forming part of Letters Patent No. **189,180**, dated April 3, 1877; application filed March 28, 1877.

To all whom it may concern:

Be it known that I, JOSEPH BOURNE, of West Meriden, in the county of New Haven and State of Connecticut, have invented a new Improvement in the Manufacture of Glass Globes, Shades, &c.; 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—

Figures 1, 2, 3, 4 illustrating the process, and Fig. 5 showing a side view of the article complete.

This invention relates to an improvement in the method or process of manufacturing combined shades and globes, or shades and chimneys, for illuminating purposes—that is to say, a globe or chimney the lower part of which is of flint-glass, and the upper part of opal.

In the usual method of forming articles of glass from two colors or qualities, it has been the practice to first form a shell of the colored glass, and then introduce into that a gathering of white glass, or glass of different color, and work the two together, thus making the colored portion of two thicknesses, the color running to substantially nothing at its edge. The result of this is, that for a considerable distance from the edge of the colored glass, the colored portion will be variable in thickness, and give a cloudy appearance, preventing the clearly-defined or separate and independent appearance of the two parts, and especially is this the case with opal-glass, so that in a globe and shade thus made, the edge of the opal portion for a considerable distance above the dividing-line will be cloudy, owing to the unavoidable variableness of the thickness of the opal portion, as it runs from its thickest part above down to nothing, or nearly so, at the edge.

In another method the two parts have been successively formed and united at the time of finishing the second part. In this method it is difficult to produce a perfect and uniform joint.

This invention is designed to overcome these difficulties; and it consists in first partially forming one portion, preferably the opal, and, while still on the blow-pipe, opening the lower end, and forming a smooth and clearly-defined edge thereon; then upon this edge dropping a sufficient quantity of the other part, as clear glass, which readily adheres thereto, and subsequently proceeding to finish the article as if of one kind of glass, as more fully hereinafter described.

First, the requisite quantity of opal-glass is taken upon the tube, and blown into partial form, say as in Fig. 1. The lower end of this gathering is then opened, and the edge finished smooth, as seen in Fig. 2; then upon this edge, from the stick, the requisite quantity of clear glass *a*, as seen in Fig. 3, is placed, which readily unites to the finished or clearly-defined edge of the first part *b;* then the workman proceeds to finish the whole in the usual manner of finishing such articles of glass, as seen in Fig. 4.

Thus finishing the edge of the first portion makes a clearly-defined line around the globe or shade at the point of connection, both in appearance and in construction, for the division is readily perceptible to the touch; there will unavoidably be a ridge or unevenness at that point in vertical section, but the edge of the flint portion will be as pure and even color as that portion above, and no part of the upper portion is of two thicknesses, as must be the case in the construction before referred to.

While in practice the upper portion of the shade or chimney is first made, and then the flint portion attached, as described, this may be reversed; but it is more difficult to successfully work the glass.

I claim—

The improvement in the manufacture of combined globes and shades, and chimneys and shades, for illuminating purposes, consisting in forming upon the one part, as opal, before it is completely shaped, a finished edge, and uniting thereto sufficient glass for the second part, as flint, subsequently finishing the article as herein described, whereby a clearly-defined dividing-line between the opal and flint portions is produced, and without the overlaying of one part upon the other.

JOSEPH BOURNE.

Witnesses:

JAMES P. PLATT,

W. W. LYMAN.