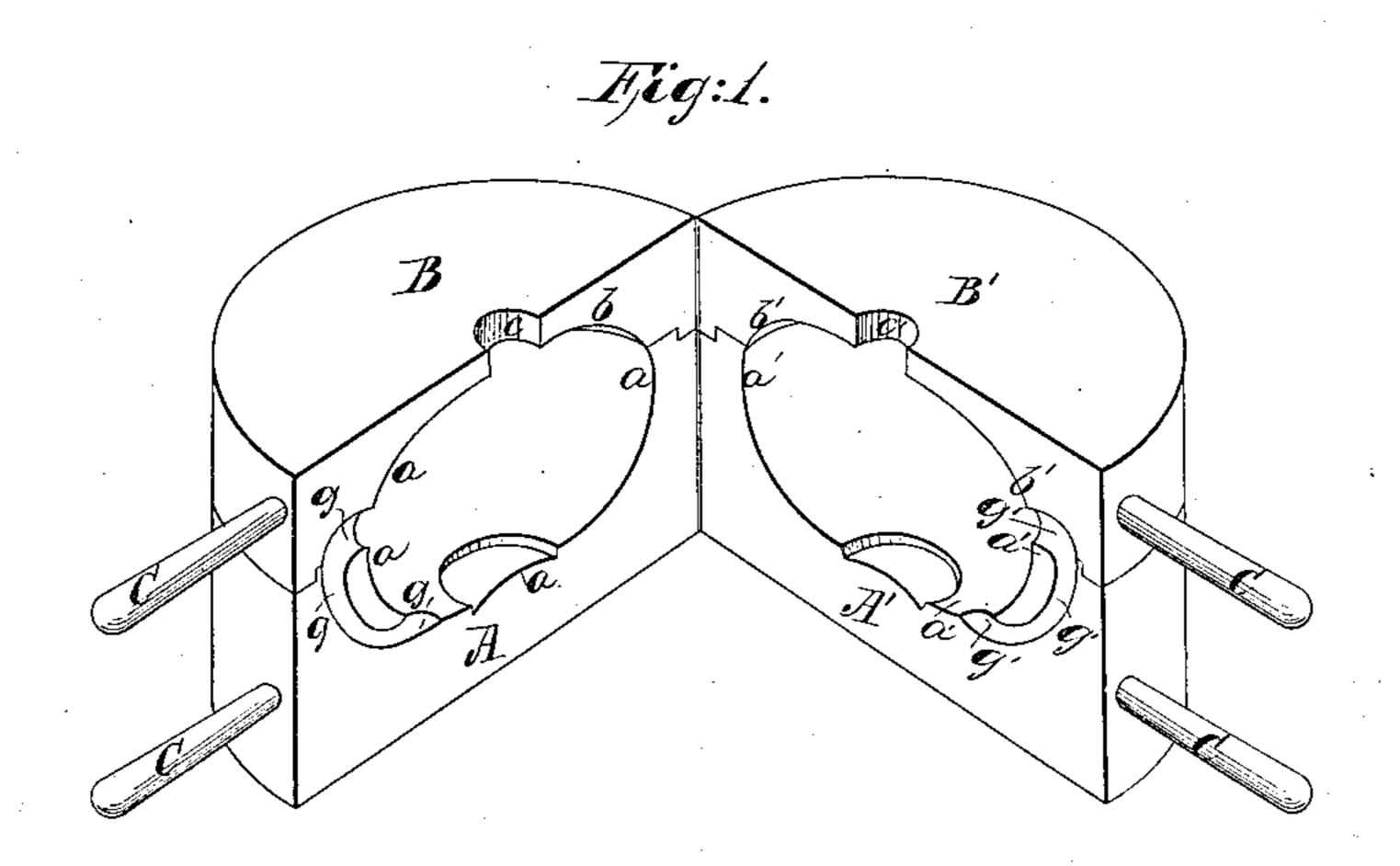
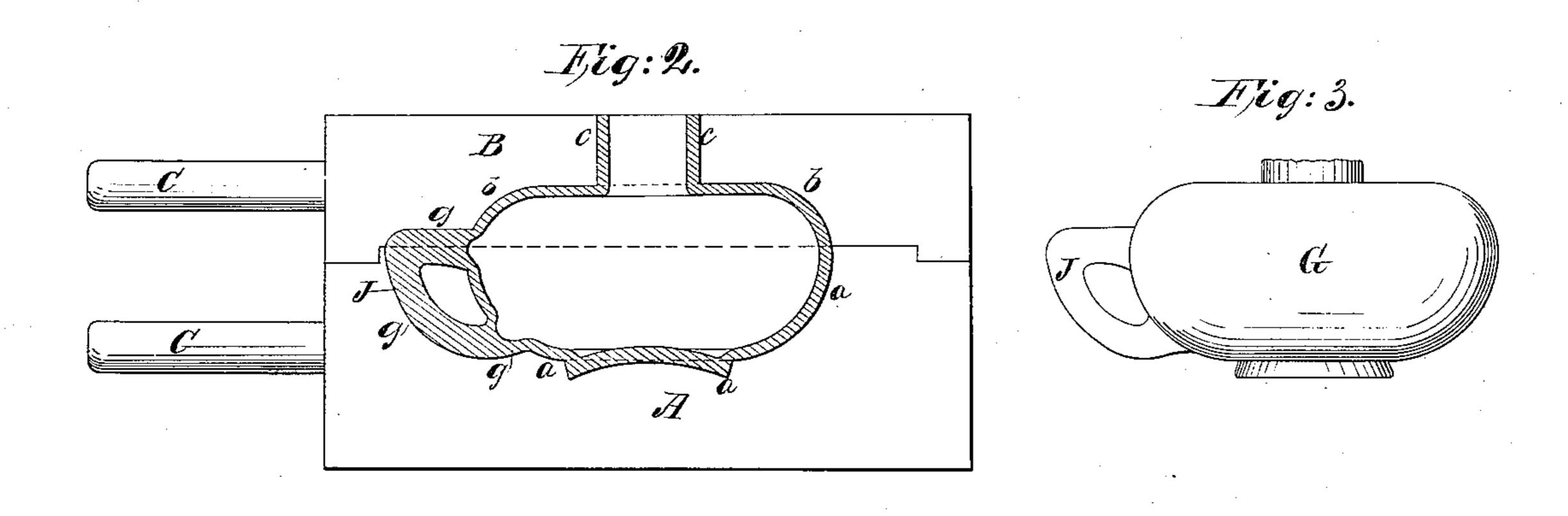
J. S.B.T.B. Afterbury, Mold for Glass Ware. No. 79,298. Patented June 30, 1868.





Witnesses: By Campbell Edusoho fer Inventors:
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J. S. ATTERBURY AND T. B. ATTERBURY, OF PITTSBURG, PENNSYLVANIA.

Letters Patent No. 79,298, dated June 30, 1868.

IMPROVEMENT IN MANUFACTURING GLASS-WARE WITH HANDLES.

The Schedule referred to in these Vetters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, J. S. Atterbury and T. B. Atterbury, of Pittsburg, in the county of Allegheny, and State of Pennsylvania, have invented a new and useful Improvement in the Manufacture of Glass-Ware with Handles; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of moulds which are adapted for the manufacture of small hand-lamps with handles.

Figure 2 is a diametrical section through a lamp and its handle within two of the half sections of its mould. Figure 3 is a side view of the product of the moulds shown in fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to an improvement in the manufacture of blown-glass lamps and other articles of blown glass requiring handles upon them.

Under the old process of making such articles as we have above mentioned, the work of shaping and applying the handles is a separate operation from that of blowing the bodies of the articles, and requires the experience of skillful workmen, who are guided by the eye alone in the performance of this part of the work.

The object of our invention is to greatly facilitate the process of making lamps and other articles in glass requiring handles upon them, and at the same time to produce such articles in a more perfect manner than hitherto, by providing suitable moulds in which the body of the article which it is desired to make can be blown, and the handle produced and attached permanently to it at successive operations in the same mould, as will be hereinafter described.

To enable others skilled in the art to understand our invention, we will describe its construction and operation.

In the accompanying drawings we have represented one form of moulds adapted for producing lamps with handles upon them, and from a description of these moulds, and the process of making the lamps, it will be seen that other articles can be produced in the same manner by simply changing the shape of the moulds, without departing from the principle of our invention.

A A' represent two half sections of the mould, which are adapted for giving shape to the lower portions of the body and handle of the lamp, G, and B B' are two half sections which are adapted for giving shape to the upper portions of the body of the lamp and its handle.

The sections or halves A A' are suitably hinged together, and provided with handles, C C, by which they can be opened and closed; and on top of these sections are elevations, which are adapted to receive corresponding recesses in the bottoms of the upper sections B B', as shown in figs. 1 and 2, so that when the two sections forming the mould complete are put together they will be properly matched, and will be held in place.

The upper halves, forming the upper section of the mould, are suitably hinged together, and provided with handles, C C, like the lower halves of the mould, and through the centre of this upper section a hole, c, is made, which produces the neck or rim of the lamp, as shown in fig. 2.

In figs. 1 and 2, aa', bb', and cc' represent the matrix in which the body of the lamp is produced, and gg, g'g'g' represent the matrix in which the handle of the lamp is produced. It will be seen that the matrix for the handle is in communication with the matrix for the body.

The operation of producing the lamps with handles upon them is as follows: We first close the two halves forming the lower section of the mould, and pour hot glass into the matrix g g', which glass will flow to the bottom of this matrix. The workman, during this last operation, prepares his ball of glass, which is blown round, or nearly the shape of the body of the lamp. This ball is then introduced into the lower matrix a, and the upper section of the mould adjusted in place over it, after which the workman blows and expands the glass in the mould so that it will conform thereto, and at the same time attach itself firmly to the exposed heated

glass in the matrix g g, thereby forming the body of the lamp, and attaching its handle, J, to it at one operation. The mould is then opened and the finished lamp taken out, for a repetition of the process.

Having described our invention, what we claim as new, and desire to secure by Letters Patent, is—A glass lamp, or other article in glass, having a moulded or cast handle and a blown body, produced substantially as described.

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J. S. ATTERBUKY, T. B. ATTERBURY.

Witnesses:

THOMAS MILBURY, A. B. STEVENSON.