J. ADAMS & J. BONSHIRE.

MANUFACTURE OF GLASS-WARE.

No. 183,274. Patented Oct. 17, 1876.

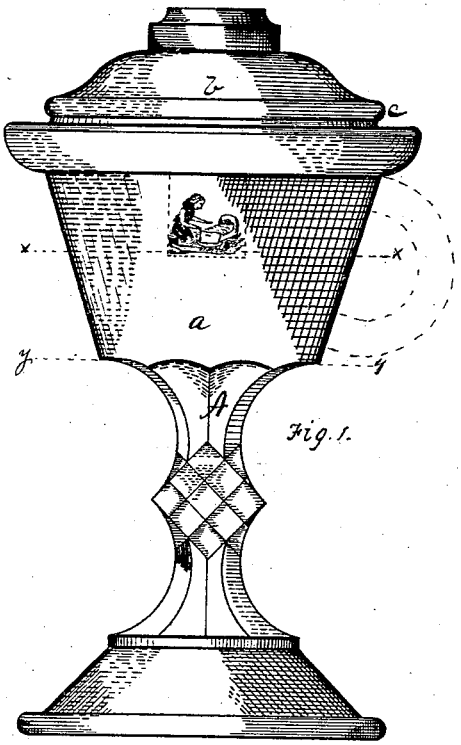

Fig. 1.

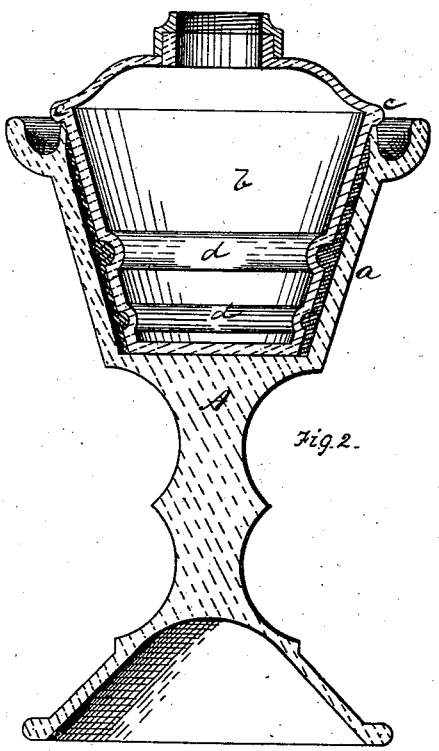

Fig. 2.

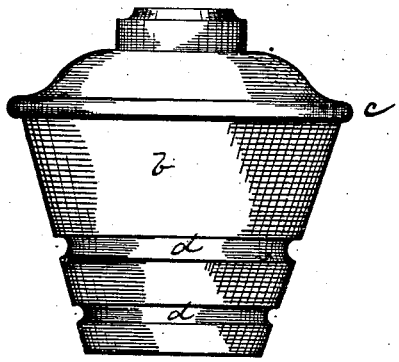

Fig. 3.

Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN ADAMS AND JACOB BONSHIRE, OF PITTSBURG, PENNSYLVANIA, ASSIGNORS TO ADAMS & CO.

IMPROVEMENT IN MANUFACTURE OF GLASSWARE.

Specification forming part of Letters Patent No. **183,274**, dated October 17, 1876; application filed September 26, 1876.

To all whom it may concern:

Be it known that we, JOHN ADAMS and JACOB BONSHIRE, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Manufacture of Glassware; and we do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is an elevation of a lamp, illustrating our invention. Fig. 2 is a sectional view of the same, and Fig. 3 is a detached view of the bowl.

Like letters refer to like parts wherever they occur.

Our invention relates to the manufacture of hollow glassware having a bowl and foot or base, such as a lamp or like article; and consists in forming the foot or base and bowl separately, the foot or base having a cup-section for the reception of the bowl, and subsequently securing the parts by cement or equivalent means, whereby a lamp or like article of two colors may be produced and ornamented, as desired.

Heretofore in the manufacture of glass lamps and like articles of the class specified the base or foot has been pressed with a cup or cavity, and the bowl blown or formed therein, so that the two were united by the welding of the glass.

While such a process is practicable, it has been to a great extent abandoned, because of the uncertainty of result attending it. Where two colors of glass were employed the difference of contraction in cooling gave rise to unusual loss, both in annealing and afterward.

The object, therefore, of the present invention is to obtain the advantages of strength and finish incident to the pressed cup-base and independent bowl, and at the same time to avoid the great loss which arises in the manufacture under the common method, and in accomplishing this we are also enabled to ornament the lamp or like article in a cheap, effective, and durable manner.

We will now proceed to describe our invention, so that others skilled in the art to which it appertains may apply the same.

In the drawing, A represents the base, provided with a cup-cavity, *a*, to receive the bowl *b*. This base may be pressed in the usual manner, and the cup *a* may be as deep as the lamp-bowl, or of less depth, as indicated by the dotted line *x x*, if preferred.

When a hand-lamp or like article is to be produced, the foot or foot and stem may be omitted, and only the cup portion above the dotted line *y y* pressed up, and provided with the usual handle. (Likewise shown in dotted line.)

b indicates the bowl, which is blown or pressed independently of the cup *a*, and is usually formed with a rib, *c*, to rest upon the cup *a*, and make a neat finish therewith, and with an annular depression, *d*, for locking the bowl within the cup by means of cement or equivalent means.

To obtain the best results, the pieces should be separately annealed. They are then united by means of plaster-of-paris, cement of any suitable nature, or, if preferred, a spring may be arranged in the cup to take into the recess *d* of the bowl, the latter device being permissible when the cup is opaque.

For purposes of ornamentation the cup *a* should be of clear or transparent glass, and the pattern, of any desired class or character, is then formed upon the inside of the cup, after which a ground of any color may be applied, and the bowl *b* finally inserted and cemented in position.

The advantages arising from the construction set forth are, first, strength and finish; secondly, the ability of the manufacturer to produce articles of two colors without the great loss incident to the present methods; thirdly, the ability to cheaply and readily ornament the article; and, fourthly, the protection afforded to the ornamentation.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. As an improvement in the manufacture of glassware of the class specified, first form-

ing the bowl and its cup-base independently, and subsequently uniting the two by cement, substantially as and for the purpose specified.

2. The hollow article of glassware herein described, composed of the independent bowl and cup-base sections, the two being united by a cement, and inclosing the ornamentation in the space between the sections, substantially as and for the purpose specified.

In testimony whereof we, the said JOHN ADAMS and JACOB BONSHIRE, have hereunto set our hands.

JOHN ADAMS.
JACOB BONSHIRE.

Witnesses:
F. W. RITTER, Jr.,
A. C. JOHNSTON.