

J. H. HOBBS.

Improvement in Manufacture of Graduated Glass-Ware.

No. 132,208.

Patented Oct. 15, 1872.

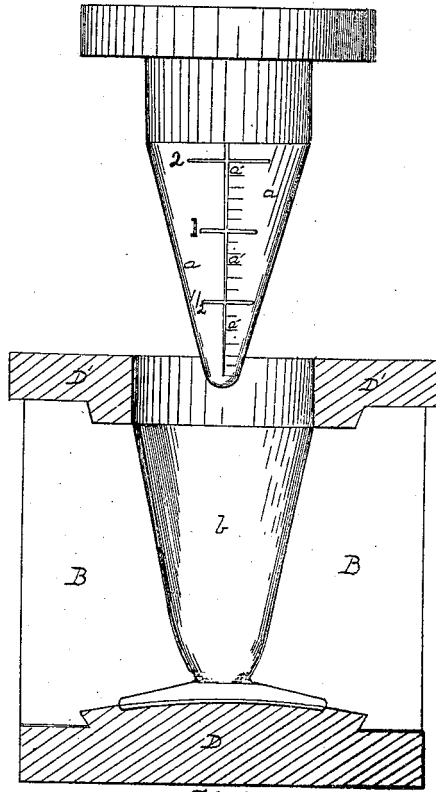


Fig. 1.

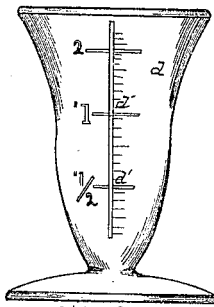


Fig. 2.

Witnesses.

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by Batewell, Christy & Kerr,  
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# UNITED STATES PATENT OFFICE.

JOHN H. HOBBS, OF WHEELING, WEST VIRGINIA.

## IMPROVEMENT IN THE MANUFACTURE OF GRADUATED GLASS-WARE.

Specification forming part of Letters Patent No. **132,208**, dated October 15, 1872.

*To all whom it may concern:*

Be it known that I, JOHN H. HOBBS, of Wheeling, in the county of Ohio and State of West Virginia, have invented a new and useful Improvement in Glass-Molds and Glass-Ware; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is an inside elevation of the one half of a two-part mold, with sectional view of the base and ring and a side view of the plunger; and Fig. 2 is a side view somewhat enlarged of a graduated glass made therein.

Like letters of reference indicate like parts in each.

My improvement relates to the manufacture of internally graduated hollow glass-ware.

To enable others skilled in the art to make and use my improvement, I will proceed to describe its construction and mode of operation.

At B I have shown one half of a two-part or jointed glass-mold, designed for pressing articles of glass-ware; or it may be considered as representing, above the smallest part of its cavity, a sectional view of a solid mold, from which the manufactured article is to be removed at the larger end of the cavity, since my improvement is applicable to both jointed and solid molds. The cavity *b* is of the form of the exterior of the article to be made. The base *D* and ring *D'* are of any convenient construction, and are designed for the usual purposes. The plunger *a* is made of the form which is desired to be given to the inside of the article to be made, and of any suitable construction, with this addition, that it is graduated, as at *a'*, to any desired scale, and from the lower end upward to any desired dis-

tance. The operation of pressing differs in no respect from that ordinarily practiced. In this way I produce any desired kind of an open-topped article of glass-ware, one of which is shown at *d*, with a graduation, *d'*, on its inner face exactly corresponding to that used on the plunger.

I am aware that it is not new to graduate the cavity of a glass-mold, and thereby produce articles of glass-ware graduated on their outer faces; but in such case the thickness of the article of glass-ware through the bottom necessarily varies somewhat with the quantity of molten glass dropped into the mold, the excess, if any, over what is required, going into the bottom part, and the deficiency, if any, being made up from that which would otherwise go to form the bottom part. Hence such mode of graduation is uncertain and unreliable. In my improvement the graduation being in the first case on the plunger, the correctness of the work produced will not be affected by variations in the quantity of glass used. If the plunger goes down deeper into the mold the graduation made in the article manufactured will be correspondingly low down, and vice versa. If the plunger be accurately graduated the work produced will in every case be equally correct, and in the respect referred to perfectly uniform.

What I claim as my invention, and desire to secure by Letters Patent, is—

Glass-ware graduated on its inner face, substantially in the manner set forth.

In testimony whereof I, the said JOHN H. HOBBS, have hereunto set my hand.

JOHN H. HOBBS.

Witnesses:

CHAS. W. BROCKMEIER,  
CHAS. N. BRADY.