D. BENNETT.

Manufacture of Glassware.

No. 210,984. Patented Dec. 17, 1878.

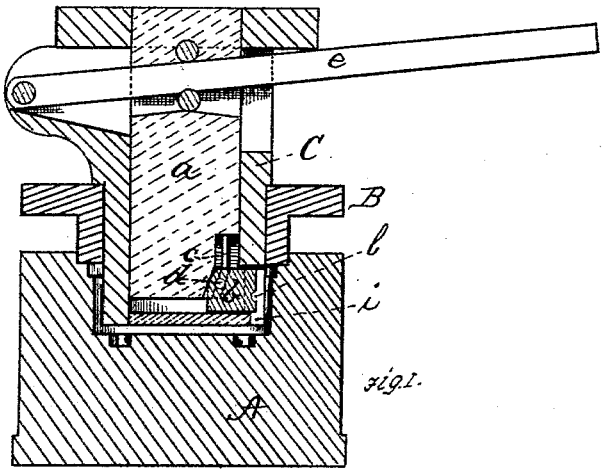

fig.1.

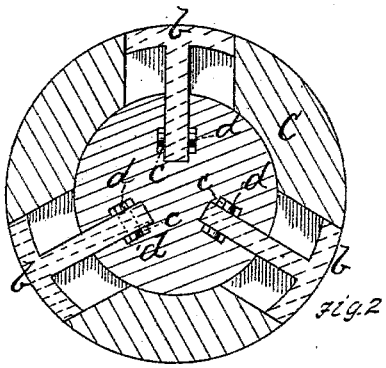

fig.2

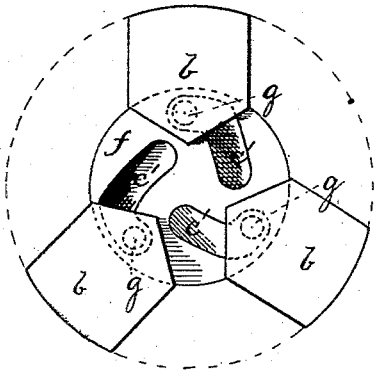

fig.3.

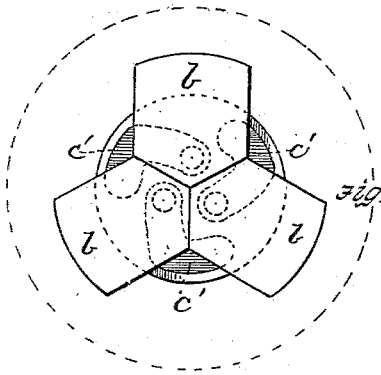

fig.4.

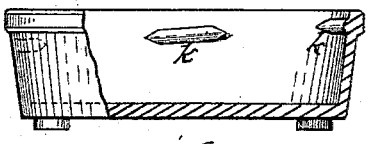

fig.5.

WITNESSES.

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UNITED STATES PATENT OFFICE.

DANIEL BENNETT, OF BALDWIN TOWNSHIP, ALLEGHENY COUNTY, PA.

IMPROVEMENT IN THE MANUFACTURE OF GLASSWARE.

Specification forming part of Letters Patent No. **210,984**, dated December 17, 1878; application filed July 19, 1878.

To all whom it may concern:

Be it known that I, DANIEL BENNETT, of Baldwin township, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in the Manufacture of Glassware; and I 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 a vertical section of devices embodying my invention. Fig. 2 is a transverse section of the same. Figs. 3 and 4 are views of one of several modifications which may be employed, and Fig. 5 is a sectional view of a jar-top.

Like letters refer to like parts wherever they occur.

My invention relates to the construction and operation of devices for pressing hollow articles of glassware wherein lugs or projections are to be formed in the interior of the article.

The object of the present invention is to provide simple and effective devices for producing a pressed hollow glass article having any desired form of projection on its interior.

For the purposes of this specification, and to illustrate the invention, I have selected a fruit-jar cover as the article to be formed, and have shown molds and plungers for forming the same.

I will now proceed to describe devices embodying my invention, so that others skilled in the art to which it appertains may apply the same.

In the drawing, A indicates the mold; B, the ring used in conjunction therewith, and C the plunger.

The plunger I form with a central cavity, within which is arranged a piston or equivalent device, *a*, for operating a series of segments, *b*, fitted to and adapted to move in slots made in the plunger C.

Any well-known mechanism may be used for operating the plugs or segments *b;* but in Figs. 1 and 2 I have shown the preferred devices—that is to say, a series of inclined or eccentric dovetailed or T-shaped longitudinal slots, *c*, formed in the piston *a*, and a series of pins, *d*, on the segments, the pins working in the slots *c*, so that when the piston is down the outer surface of the segments will stand flush with the outer surface of the plunger, completing the same, while when the piston *a* is raised the eccentric or inclined slots withdraw the segments *b* and free the plunger, so that it can be readily withdrawn.

In order to reciprocate piston *a*, a lever, *e*, pivoted on the plunger C, or other suitable device, may be used.

The modification shown in Fig. 3—that is to say, the rotary stem *f*, with eccentric grooves *e'* in the end thereof, in which pins *g* in the tops of the segments engage—I have, in practice, found very effective.

Upon the outer surfaces of the segments or sections *b*, I form grooves corresponding to the form of lugs desired upon the inner surface of the article to be formed, and the plunger will be cut away below, as at *i*, to permit it to free itself of the lugs or projections which will be formed in the article pressed.

The jar lid or cover shown in Fig. 5, and which the molds described are intended to form, is one adapted for use with a jar having a threaded neck or mouth. The projections *k* are consequently segments of a thread, and the grooves *l* of segments *b*, which form the same, are correspondingly arranged on said segments.

The material advantage of a cap or cover having the segments *k* is, that there is less friction and binding in applying or removing the cover from a jar, and consequently less loss from breakage and less difficulty in removing the cover.

I do not broadly claim locking-lugs on the interior of a cap or cover, for I am aware that such lugs have been heretofore used both on covers and jars; but,

Having thus described my invention and its advantages, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with a mold adapted for the formation of jar-covers and like articles, of a plunger provided with sections *b*, capable of being projected and withdrawn, substantially as specified, said sections grooved on their exterior surface, as at *l*, and the plun-

ger cut away, as at *i*, the whole constructed and operating substantially as specified.

2. A cover for jars, &c., substantially as shown in Fig. 5 of the drawing—that is to say, having a series of lugs or segments, *k*, corresponding in their arrangement to one turn of a thread, substantially as specified.

In testimony whereof I, the said DANIEL BENNETT, of county and State aforesaid, have hereunto set my hand.

DANIEL BENNETT.

Witnesses:

F. W. RITTER, Jr.,

JAMES I. KAY.