

No. 653,463.

Patented July 10, 1900.

W. WHITE & T. ROBINSON.

GLASS MOLD RING.

(Application filed Dec. 12, 1899.)

(No Model.)

Fig 1

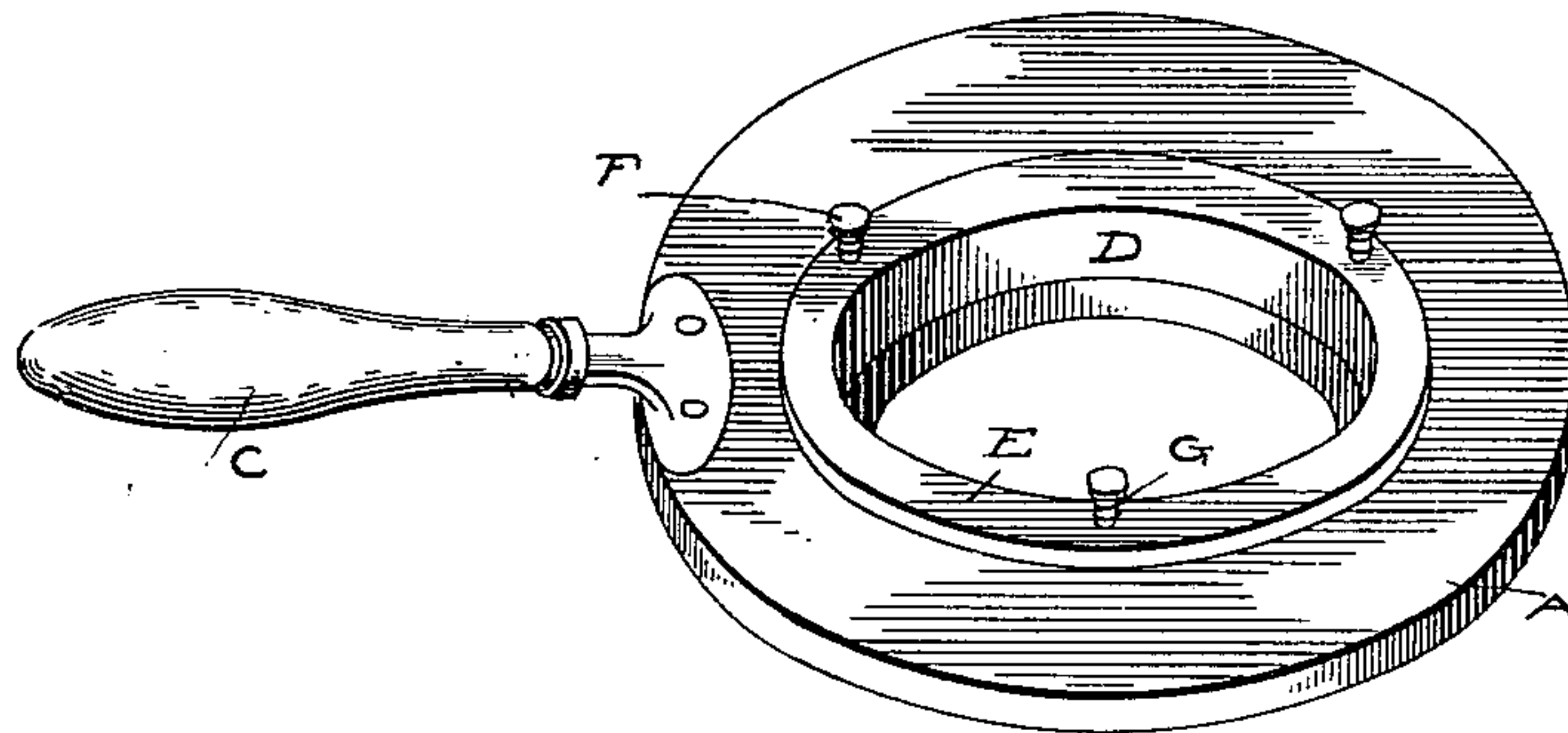


Fig 2

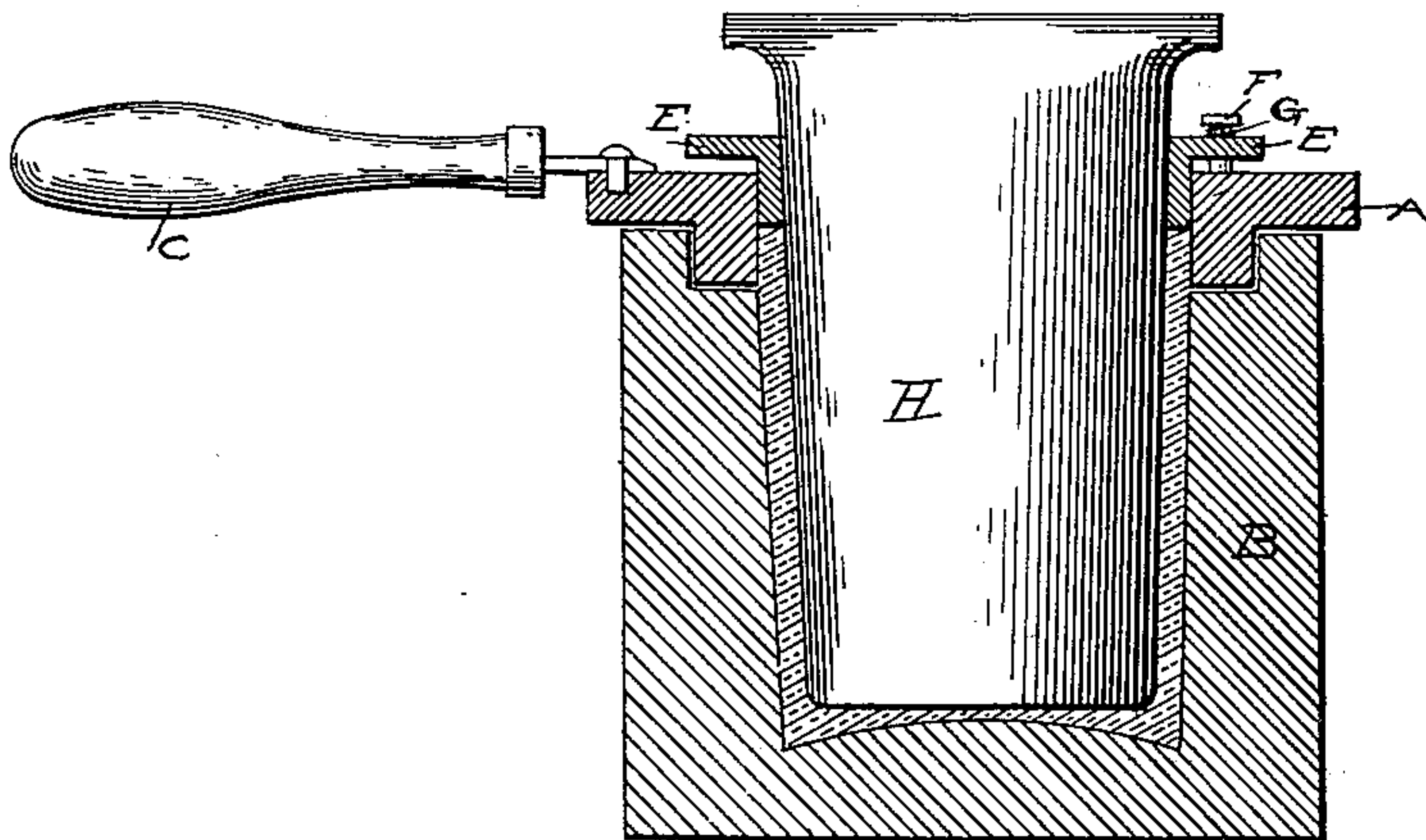
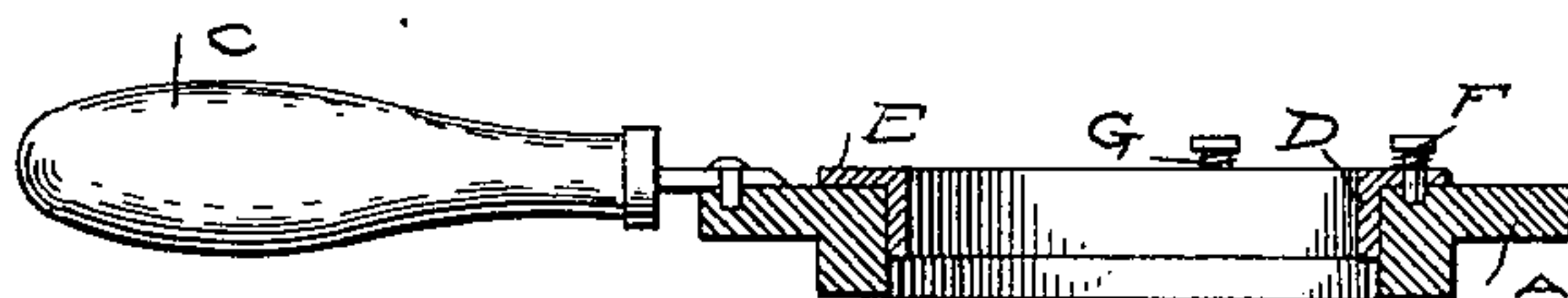


Fig 3

Witnesses-
W. S. Dawson
J. H. Laing

Inventors-
William White
Thomas Robinson,
By J. M. Nesbit
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM WHITE AND THOMAS ROBINSON, OF ZANESVILLE, OHIO.

GLASS-MOLD RING.

SPECIFICATION forming part of Letters Patent No. 653,463, dated July 10, 1900.

Application filed December 12, 1899. Serial No. 740,059. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM WHITE and THOMAS ROBINSON, citizens of the United States, residing at Zanesville, in the county of Muskingum and State of Ohio, have invented new and useful Improvements in Glass-Mold Rings, of which the following is a specification.

Our invention relates to molds for pressing glassware; and its object is to provide the mold ring or cover with an upwardly yielding or compensating member adapted to be engaged by the upper end or edge of the blank while being pressed, so that if too much glass is dropped into the mold to form the article the molding-space will be automatically enlarged to accommodate it, thus slightly elongating the article. If absolute precision is necessary, such article may be ground down to the required length.

Referring to the accompanying drawings, Figure 1 is a perspective view of our improved mold-ring. Fig. 2 is a cross-sectional view of the same. Fig. 3 is a sectional view with the ring in position on a mold, together with a plunger.

A is the mold-ring proper, adapted to fit mold B, and C is the ring-handle. The aperture of the ring forms an uninterrupted continuation of the mold-cavity, instead of being slightly smaller than the same to form an abutment for the top end or edge of the blank while forming, as heretofore.

D is a thin ring loosely fitting the aperture of mold-ring A and formed with annular lip or flange E, which overlaps ring A, arranged to have limited play on headed pins F, projecting therefrom. Springs G on said pins above the flange hold the latter and ring D normally depressed.

With the improved mold-ring in position on a mold molten glass is dropped into the latter in usual manner and plunger H given the requisite stroke for pressing. The molding-cavity is of proper size or length when ring D is in lowermost position. In Fig. 3 of the drawings we illustrate an operation wherein a little too much glass has been supplied to the mold, in which case the top of the blank is shown pressing against and lifting the said ring, thus expanding or enlarging the molding-cavity sufficiently to accommodate the charge. The pressure of the springs causes the ring D

to rise uniformly at all points. Thus there is no forcing of the glass between the plunger and mold-ring nor grinding thereof on top of the latter. The variance in the charges of molten glass is easily within range of play of ring D, so that there need be no defective or useless articles on account of overcharging with reasonably-careful operators.

Our improvements are particularly well adapted for work requiring absolute precision—as, for instance, the pressing of measuring-glasses—as the strokes of the plunger may be made with absolute precision, any surplus there may be going to the top of the article, where it remains or may be ground off, as desired. This has reference to presses actuated by manual power, as in such work surplus glass goes to form a thick bottom, which throws the scale out of true, the scale impression being cut into the mold, as will be understood. The mold-ring may be easily manipulated on machines having two or more molds, it being only necessary to position the ring just before the plunger descends.

We do not restrict ourselves to the exact form of flanged compensating ring here shown nor to the pins and springs for confining the ring, as the same may be omitted, leaving the ring resting loosely on or within the mold-ring.

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

1. The combination of a mold-ring, a supplemental ring fitting and movable vertically in the mold-ring aperture, and means for limiting the vertical movement of said supplemental ring, substantially as shown and described.

2. The combination of a mold-ring, a supplemental ring fitting and movable vertically in the mold-ring aperture, a lip or flange projecting from said supplemental ring and overlapping the mold-ring, and projections on the mold-ring adapted to engage and limit the movement of said flange, substantially as shown and described.

3. The combination of a mold-ring, a supplemental ring fitting and movable vertically in the mold-ring aperture, a lip or flange projecting from said supplemental ring and overlapping the mold-ring, and springs engaging

the flange and holding it normally against the mold-ring, substantially as shown and described.

4. The combination of a mold-ring, a supplemental ring fitting and movable vertically in the ring-aperture, and springs for resisting upward movement of the supplemental ring, substantially as shown and described.

5. The combination of a mold-ring, a supplemental ring fitting and movable vertically in the mold-ring aperture, said supplemental ring having a lip or flange overlapping the mold-ring, pins projecting from the latter upon which said flange has limited vertical movement, and springs on the pins for holding the flange and supplemental ring normally depressed, substantially as shown and described.

6. The combination with a mold ring or cover, of a supplemental ring closely fitting within the mold ring or cover and projecting into the mold-cavity and movable vertically therein, substantially as shown and described.

7. The combination of a mold, a mold ring or cover adapted to form a continuation of the mold-cavity, and a relatively-thin supplemental ring closely fitting within the mold ring or cover and projecting into the mold-cavity and movable vertically therein, substantially as shown and described.

8. The combination of a glass-mold, a mold ring or cover, a vertically-compensating ring fitting the bore of the mold ring or cover and of same thickness as the article to be pressed, thereby normally closing a vertical continuation of the molding-cavity, substantially as shown and described.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

WILLIAM WHITE.
THOMAS ROBINSON.

Witnesses:

AUGUST A. KUEHN,
JACQUES J. THOMAS.