

No. 771,483.

PATENTED OCT. 4, 1904.

McCLELLAND MYERS.  
GLASS MOLD.

APPLICATION FILED JAN. 30, 1904.

NO MODEL.

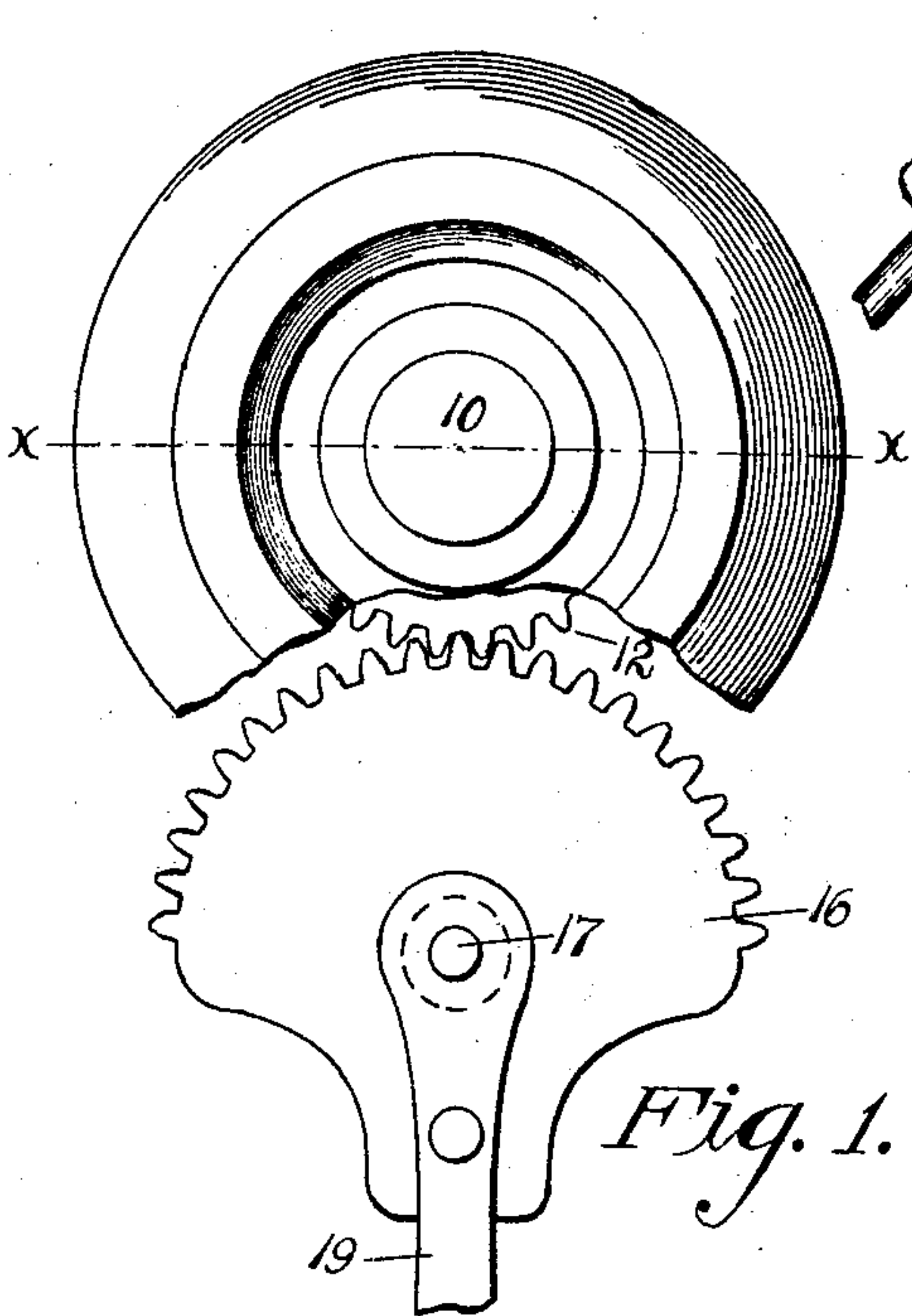


Fig. 1.

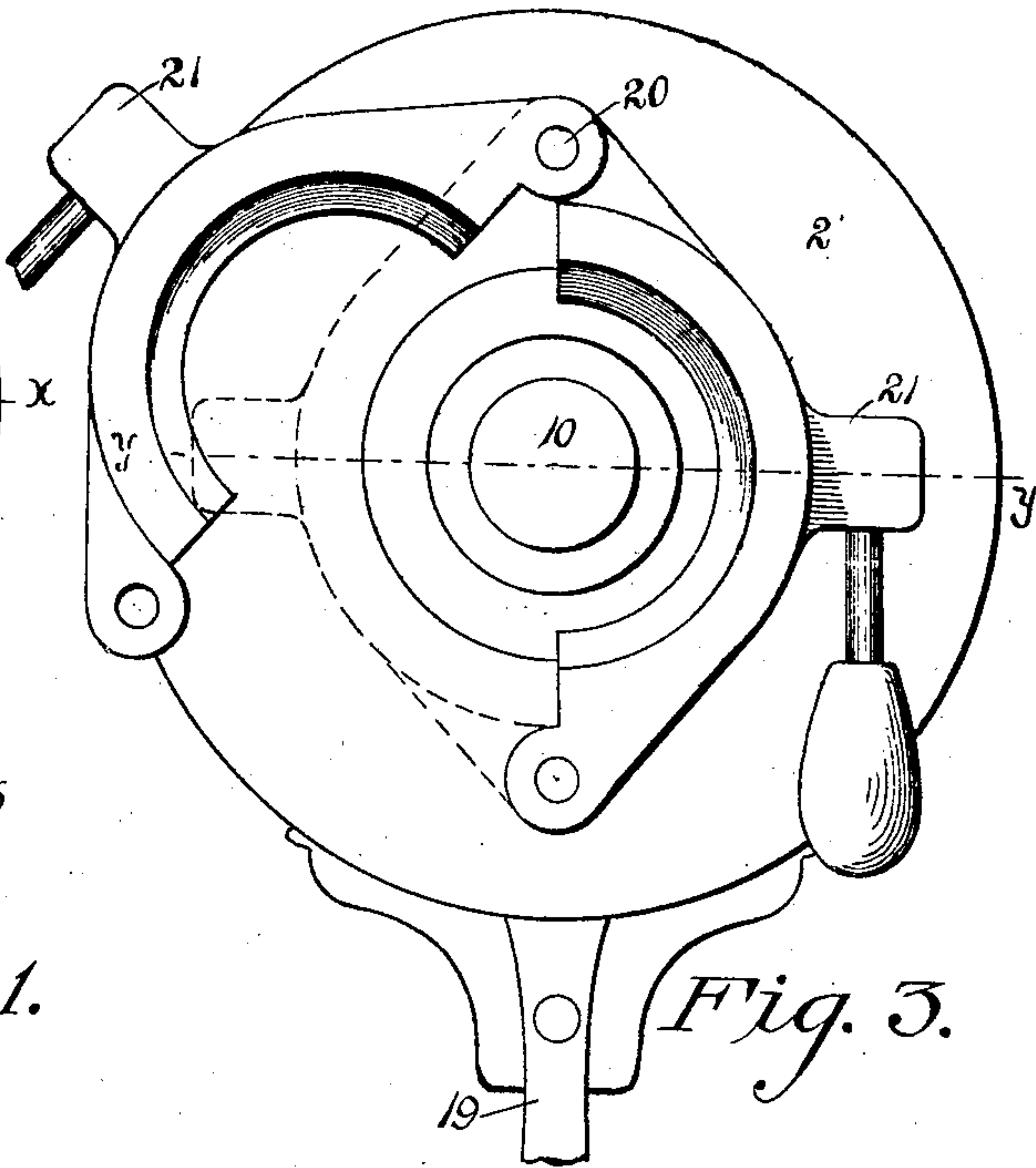


Fig. 3.

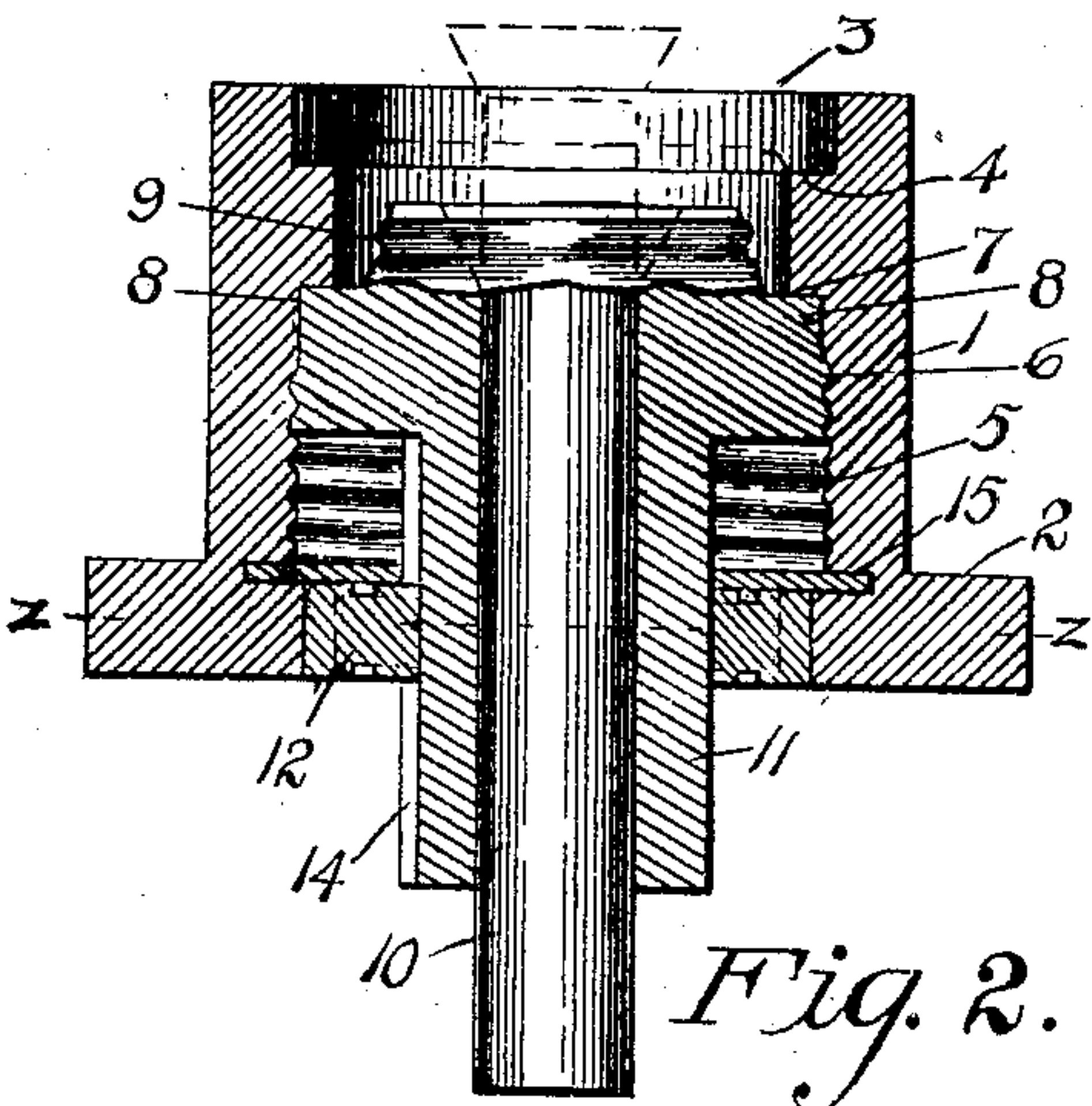


Fig. 2.

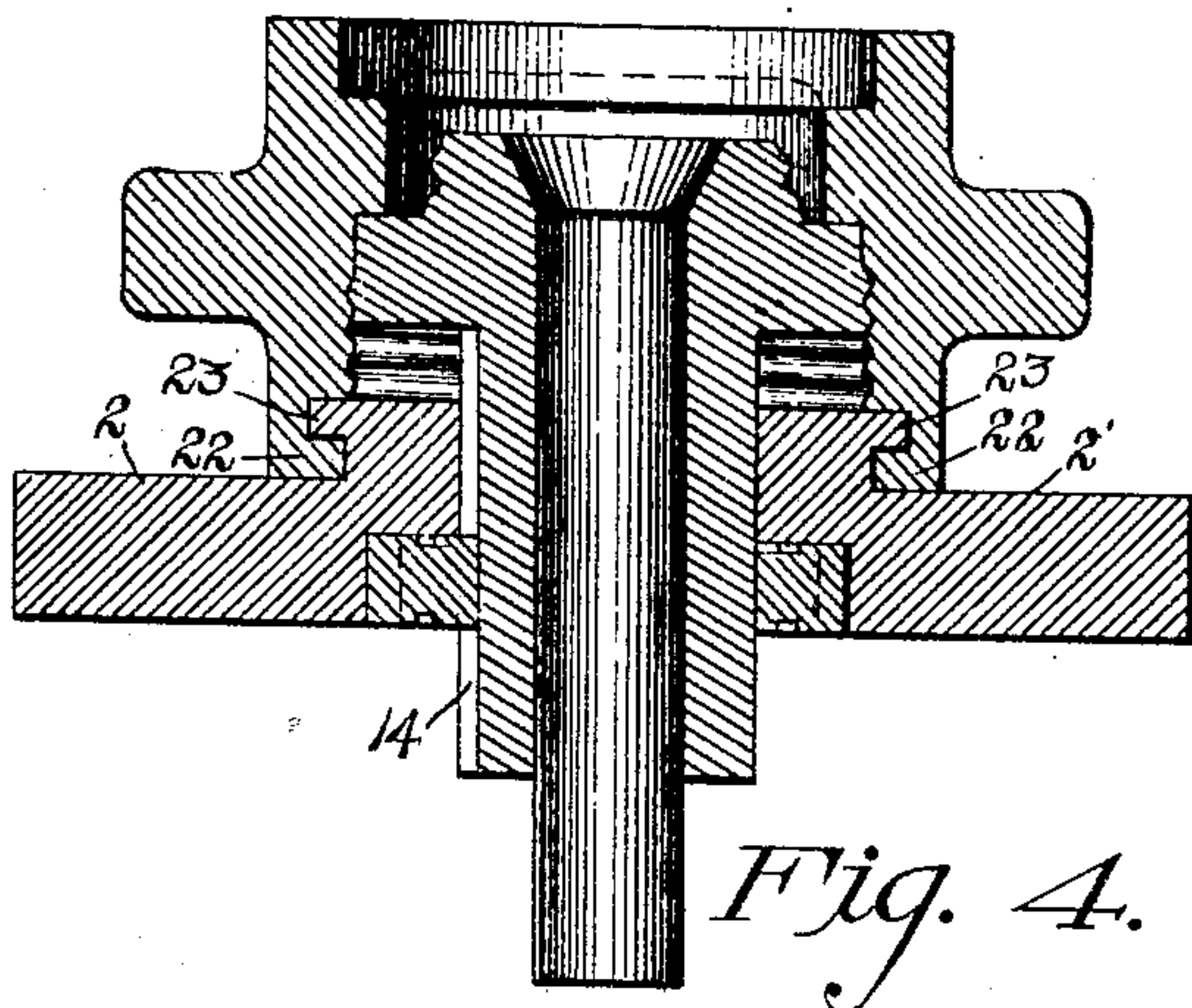


Fig. 4.

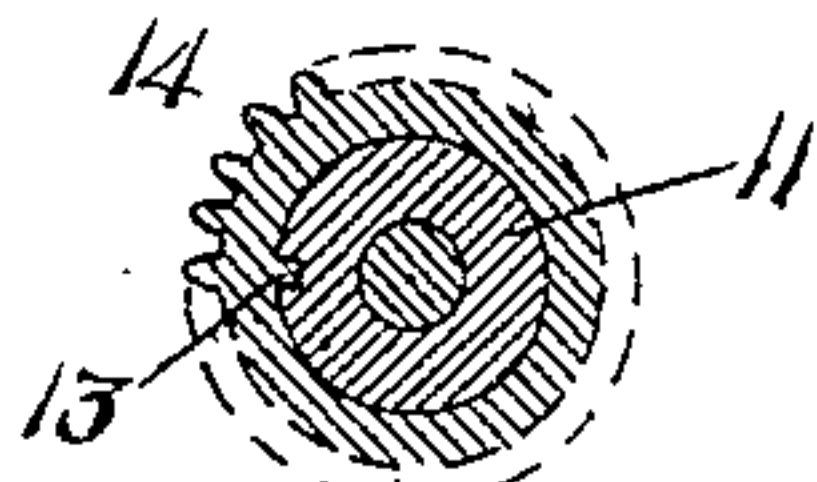


Fig. 5.

Witnesses  
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By

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# UNITED STATES PATENT OFFICE.

McCLELLAND MYERS, OF MOOSIC, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO JOHN P. ELKINS, OF INDIANA, PENNSYLVANIA.

## GLASS-MOLD.

SPECIFICATION forming part of Letters Patent No. 771,483, dated October 4, 1904.

Application filed January 30, 1904. Serial No. 191,294. (No model.)

*To all whom it may concern:*

Be it known that I, McCLELLAND MYERS, a citizen of the United States, residing at Moosic, in the county of Lackawanna and State of Pennsylvania, have invented certain new and useful Improvements in Glass-Molds, of which the following is a specification.

This invention relates to molds for making glass articles, particularly such as are internally screw-threaded, such as caps for fruit-jars, insulators, &c.

The objects of the invention are to provide a mold of the kind in which the screw-operated mechanism is included within the body of the mold, to simplify the construction of such molds, and to render them more efficient in general.

To these ends the invention consists in the construction, combination, and arrangement of parts, as are herein specified, and illustrated in the drawings, in which—

Figure 1 shows a top plan view of a solid cylindrical mold embodying my invention. Fig. 2 is a view mostly in cross-section taken on the line *xx* of Fig. 1. Fig. 3 is a top plan view of a substitute form of my mold having separable side walls. Fig. 4 is a view mostly in cross-section taken on the line *yy* of Fig. 3 when the mold is closed. Fig. 5 is a minified view, in transverse cross-section, of the sheath, gear, and plunger, taken on the line *zz* of Fig. 2.

Similar characters of reference denote corresponding parts in the several views.

Referring to the drawings, 1 designates the body of a cylindrical mold embodying my invention and adapted to forming fruit-jar caps and is arranged to rest on a table, with the base portion 2 downward. The upper portion of the interior is enlarged at 3 to receive the cover and plunger of a press in the operation of the device. An annular seat or shoulder 4 serves to limit the motion of the plunger and define the thickness of the fruit-jar cap which the mold is designed to make. The lower portion of the interior of the mold-body 1 is screw-threaded at 5, and a sheath 6, with external screw-threads, is arranged to be rotated therein, an annular seat or shoulder 7

being provided to engage with the edges 8 of the sheath 6 to limit its upward motion, thus defining the lower edges of the cap to be made. The upper end of the sheath 6 is terminated by a male screw-threaded portion 9, adapted to form the interior screw-threads of the jar-cap to be made, the screw-threads of the said member being of the exact pitch as the screw 5, before referred to. A discharge-plunger 10 extends axially through the sheath 6 and is fitted therein to allow motion lengthwise. The sheath member 6 has a cylindrical projection 11 extending downward, and a gear 12 is mounted thereon, the said gear having a projection 13 extending into a spline 14, whereby when a circular motion is given to the gear 12 the sheath 6 is revolved with it and is allowed to slide through the gear upward and downward, complying with the direction of the threads 5, a stop 15 set into the body of the mold serving to prevent the gear 12 from climbing upward during the operation of the device. A toothed sector 16, pivoted at 17 and arranged to be operated by means of the handle 19, is meshed to the gear 12 for the purpose of giving the motions required.

In the substitute form of the invention shown the base portion 2' of the mold is constructed separately and the walls of the mold are hinged together at 20 and are arranged to be opened or closed by means of handles secured to the lugs 21, flanges 22 of said side walls engaging with the lip 23 of the base 2'.

In the operation of the device the mold is placed under the plunger of an ordinary glass-press, and the glass from which the article is to be formed is dropped into the top of the mold and the plunger brought down in the ordinary manner. The member 9 is now driven upward by the action of the hand or otherwise, turning the gear 12, so as to drive the male screw-threaded member upward to its full limit. This being done and the plunger having been removed from the top of the mold, the action of the male member is reversed, unscrewing it from its position in the cap. The cap is then promptly lifted upward from its position in the mold by means



of the discharge-plunger 10, which is lifted by mechanical or other means to the position shown by dotted lines in Fig. 2, the cap formed hanging centrally on the widened top 5 of the said plunger 10, whence it may be removed by ordinary glass tongs or lifters. The operation of the substitute form of mold is substantially the same as that described, its separable walls providing ready access to the 10 interior of the mold should any glass particles interfere with the working thereof.

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

15 1. In combination with a mold comprising two hinged sections having internal screw-threads; of a sheath member having external threads rotatable in the first-named member with the said threads in engagement, an inte- 20 gral cylindrical portion depending from the sheath member, a spline in the exterior surface of the said cylindrical part, a gear mounted on said cylindrical part, means for rotating the gear, the said sheath having a down- 25 wardly-tapered recess in its upper surface merging with the center of the depending cylindrical portion, a plunger fitted in the cylinder and having a head seated in the recess, the upper surface of said head being on a

plane with the upper surface of the sheath, 30 the said plunger being held in position by its engagement with the wall of the recess in the sheath and suitable means for moving the mold-section.

2. In a glass-mold, a base carrying a mold, 35 screw-threads formed on the internal surface of the mold, shoulders on the internal surface of the mold, a sheath member threaded in the mold and having an integral depending cy- 40 lindrical portion, the said depending portion having a splined external surface, a gear-wheel mounted on the depending portion and the said depending portion being free to re- 45 ciprocate with relation to the gear-wheel, the said sheath having a tapered recess in its upper surface, a plunger having a head fitted to the said recess and normally lying flush with the upper surface of the said sheath, external 50 screw-threads formed on the outer surface of the upper portion of the sheath and means for rotating the gear-wheel, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

McCLELLAND MYERS.

Witnesses:

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