

No. 613,089.

Patented Oct. 25, 1898.

W. H. STANTON.
MOLD FOR MAKING GLASS TUBES.

(Application filed June 6, 1898.)

(No Model.)

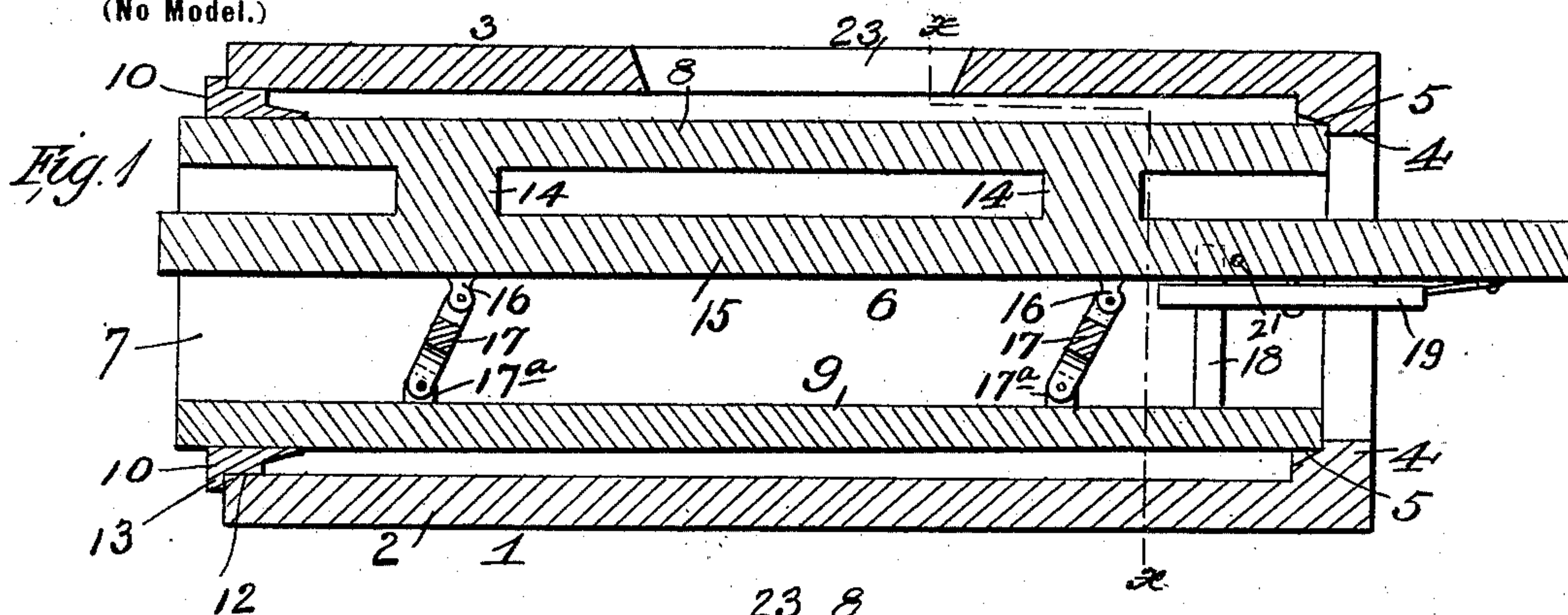


Fig. 2

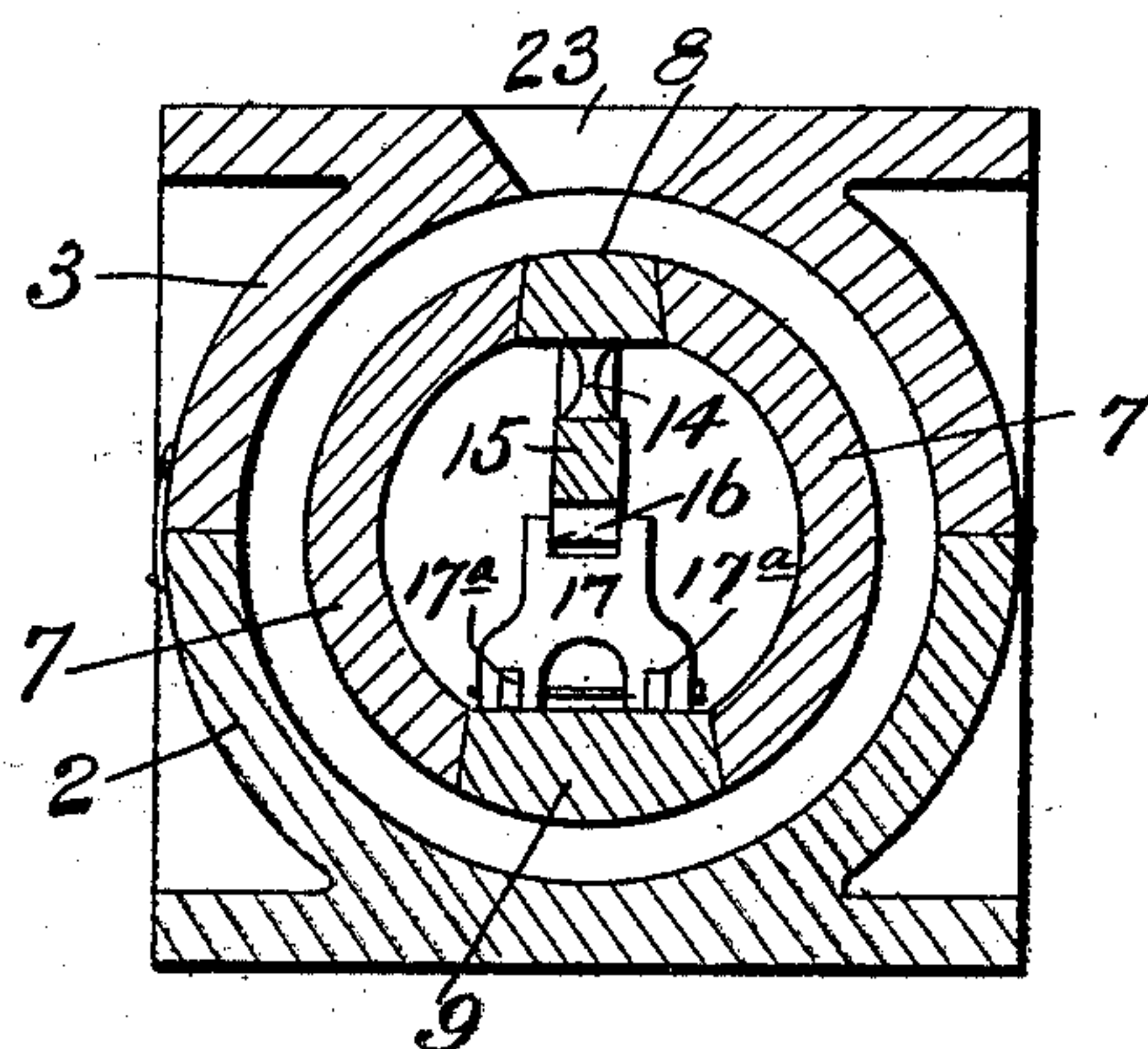


Fig. 3

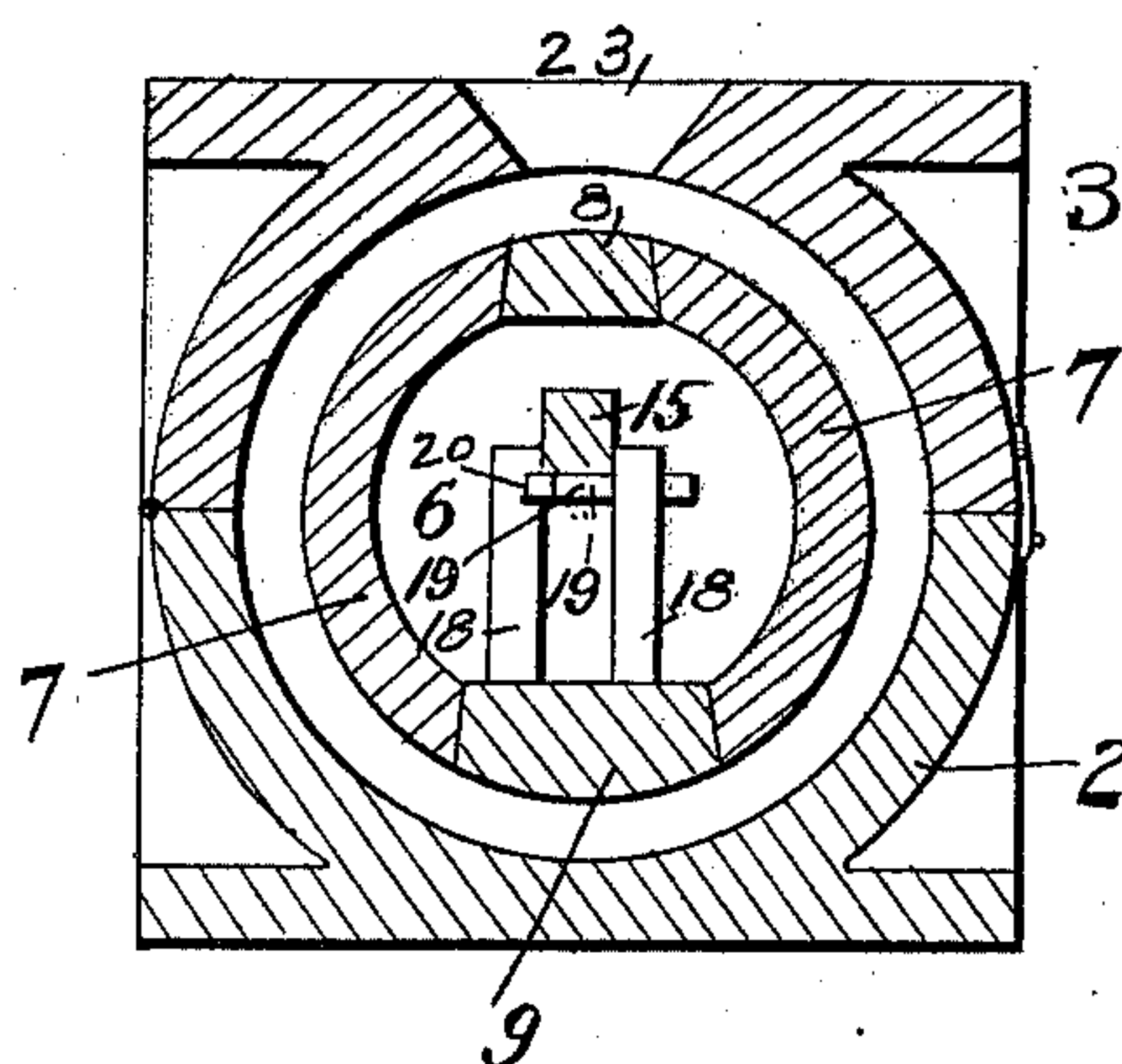
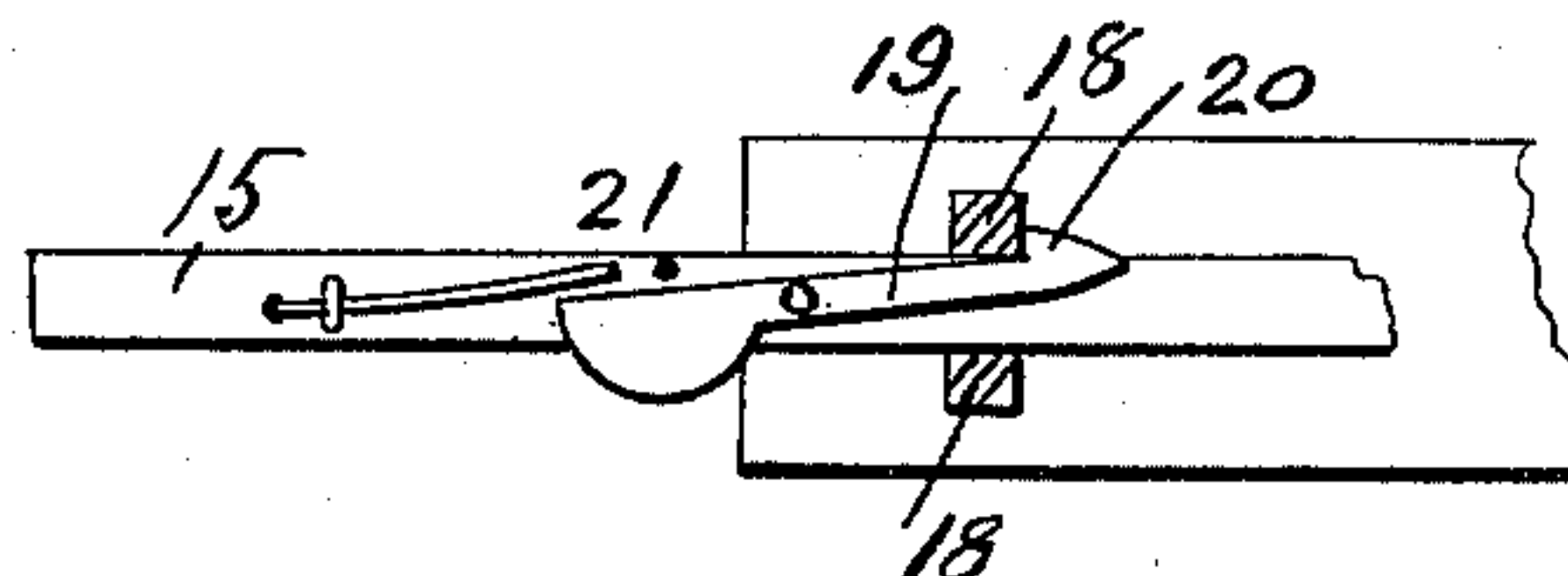


Fig. 4



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UNITED STATES PATENT OFFICE.

WILLIAM H. STANTON, OF SCRANTON, PENNSYLVANIA.

MOLD FOR MAKING GLASS TUBES.

SPECIFICATION forming part of Letters Patent No. 613,089, dated October 25, 1898.

Application filed June 6, 1898. Serial No. 682,631. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. STANTON, a citizen of the United States, residing at Scranton city, in the county of Lackawanna and State of Pennsylvania, have invented new and useful Improvements in Molds for Making Glass Tubes or Pipes, of which the following is a specification.

My invention relates to molds for molding glass tubes or pipes; and its object is to provide an improved construction of the same whereby the core may be collapsed or contracted to enable the latter to be easily and readily removed or withdrawn from the molded pipe.

The invention consists in the novel construction and combination of parts herein-after fully described and claimed.

In the accompanying drawings, Figure 1 is a central longitudinal section of a mold constructed in accordance with my invention. Fig. 2 is a vertical transverse section on the line *x x*, Fig. 1. Fig. 3 is a similar section looking in the opposite direction. Fig. 4 is a detail view.

In the said drawings the reference-numeral 1 designates the flask or casing of the mold, consisting of two semicylindrical sections 2 and 3, hinged to each other and provided with a suitable hook and pin at the free edges for holding them in a closed condition. At the end of said mold where the male end of the tube or pipe is formed said sections are provided with semicylindrical flanges 4, formed in the inner sides with a groove 5.

The numeral 6 designates the core of the mold, made up of a number of segments, four being shown in the present instance, and numbered, respectively, 7 7 and 8 and 9. One end of this core engages with the flanges 4, while the other end is provided with a removable collar 10, formed with a peripheral groove 12 to form the female end of the pipe or tube and with a flange 13, which abuts against the end of the mold-sections.

Formed integral with the core-segment 8 is one or more lugs 14, which are secured to a bar 15, extending through the core. This bar is also provided with one or more lugs 16, to which are pivoted links 17, also pivoted to lugs 17^a of the opposite segment 9, which is somewhat larger than the segment 8. The

said bar passes between arms 18, secured to the segment 9, and is also provided with a spring-actuated catch or pawl 19, pivoted thereto and provided with a hook 20 at the inner end which engages with one of said arms and holds the bar in place when pushed in. Secured to said bar is a pin 21, which abuts against said arms and limits the inward movement of the bar.

The numeral 23 designates an opening in the upper section of the mold for pouring in the molten glass.

In practice the said bar is pushed in, so that the segments 8 and 9 will be expanded and the core be thus made to assume a cylindrical form, the male end of the core engaging with the flanges 4. The collar is then placed on the opposite end of the core, with its flange abutting against the end of the mold. The molten glass is then poured into the mold through the opening 23 and will flow all around the core. After sufficiently cooled the pawl is operated so as to disengage its hooked end 20 from the arm 18 and the bar 15 pulled out, which will cause the links 17 to turn on their pivots, drawing the segments 8 and 9 toward each other and contracting the core so that it can be readily removed or withdrawn from the molded pipe or tube. The pins 21 limit the forward or inward movement of the bar 16. The construction is such that the links never assume a position at a right angle to the axial line of the core, but only an acute angle.

Having thus fully described my invention, what I claim is—

1. In a mold for making glass tubes or pipes, the combination with the hinged semicylindrical sections provided at one end with flanges formed with grooves in the inner sides of the core comprising the expansible and contractible segments, and means for expanding and contracting the same, and the removable collar at the end of said core formed with a groove and flange, substantially as described.

2. In a mold for making glass tubes or pipes, the combination with the hinged semicylindrical sections provided at one end with flanges formed with grooves in the inner sides, of the expansible and contractible segments, the collar at one end thereof formed with a

groove and a flange, the lugs secured to one of said segments, the bar secured thereto, the links pivoted thereto and to the lugs of the opposite segment, substantially as described.

5 3. In a mold for making glass tubes or pipes, the combination with the hinged semicylindrical sections having flanges at one end formed with grooves in their inner sides, of the expansible and contractible sections, the
10 collar at one end thereof, the bar connected with one of said segments, the link pivoted

thereto, the opposite sections to which said link is pivoted, the arms secured thereto, the spring-actuated hooked pawl, and the stop-pin, substantially as described. 15

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM H. STANTON.

Witnesses:

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O. B. WRIGHT.