

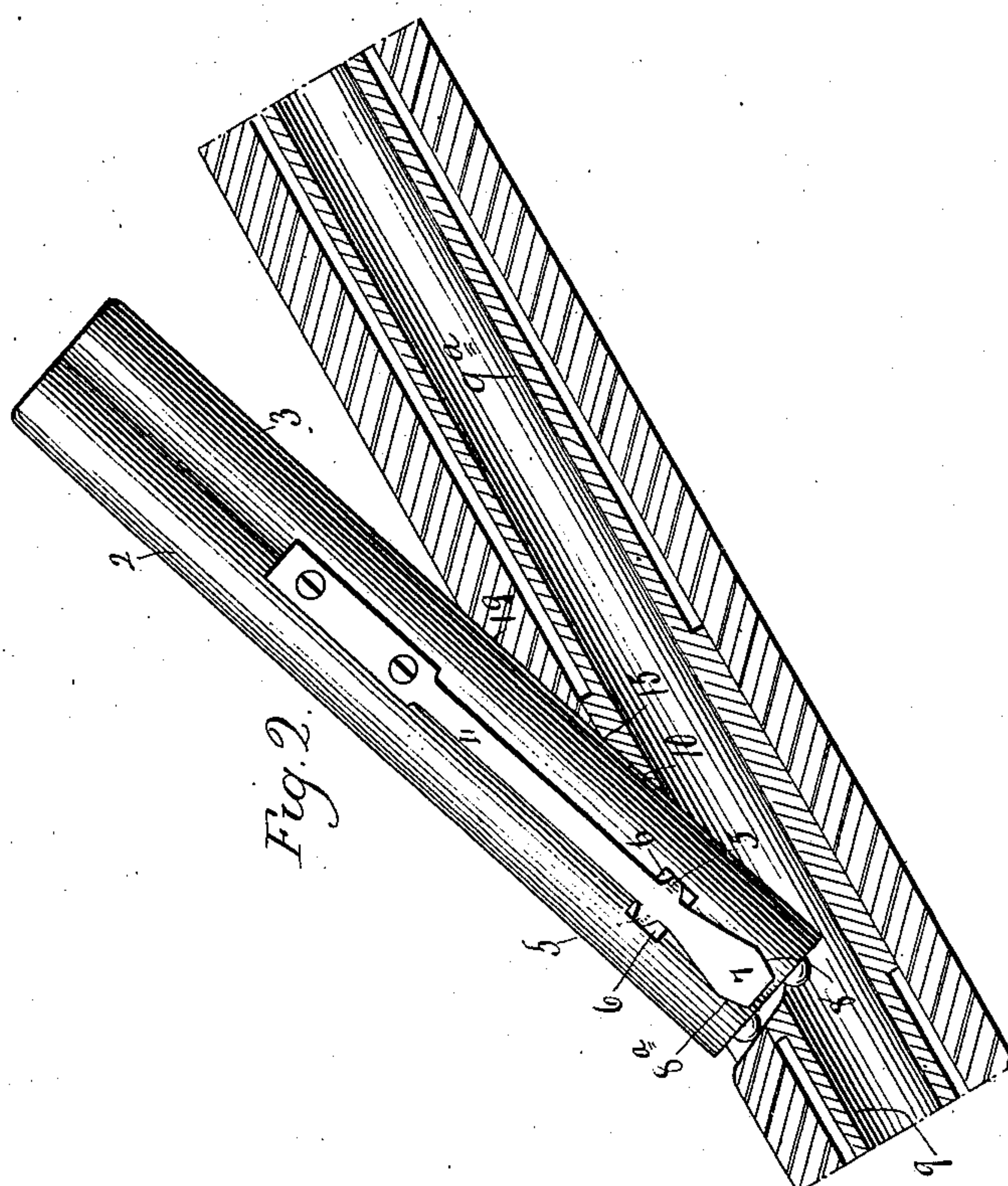
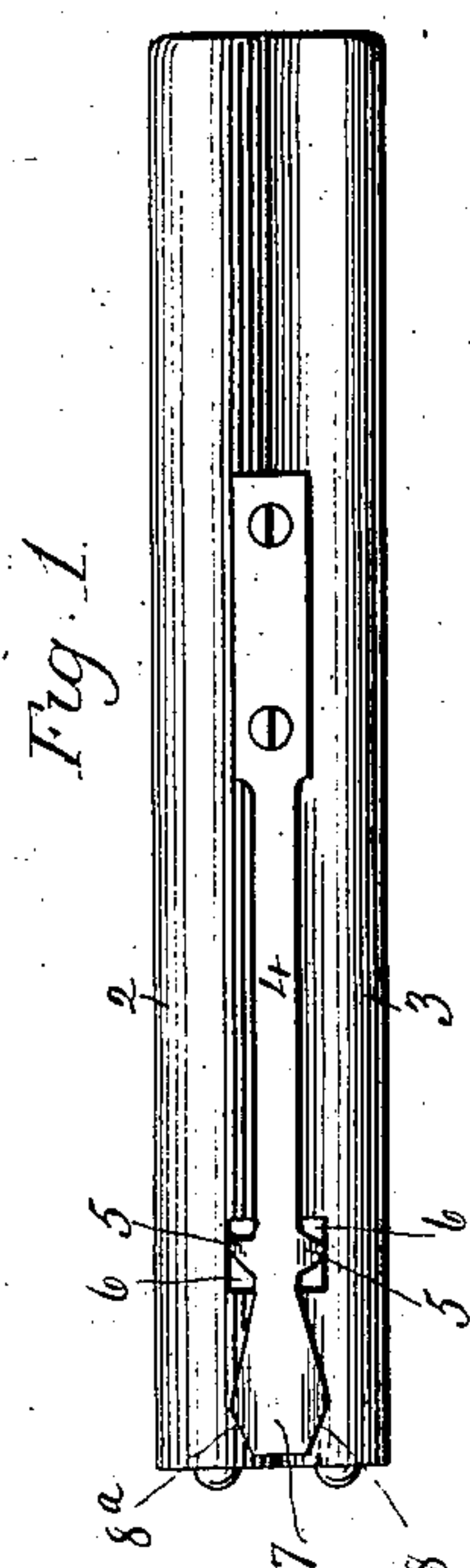
No. 719,807.

PATENTED FEB. 3, 1903.

T. C. JOHNSON.
TUBULAR MAGAZINE GUN.
APPLICATION FILED SEPT. 15, 1902.

NO MODEL.

3 SHEETS—SHEET 1.



Witnesses
J. H. Shumway
Clara L. Weed.

Thomas C. Johnson
Inventor.
By Attys Seymour & Carey

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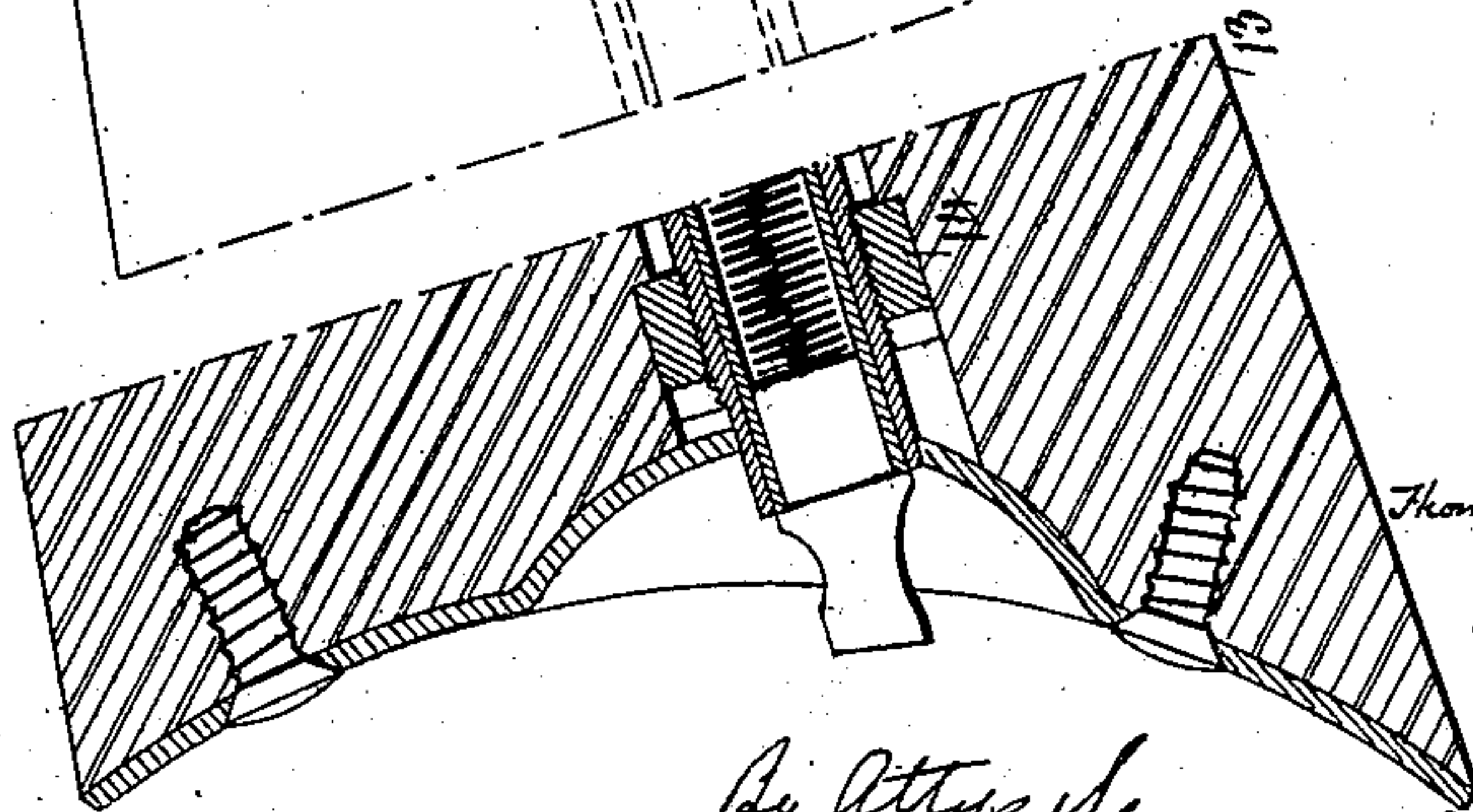
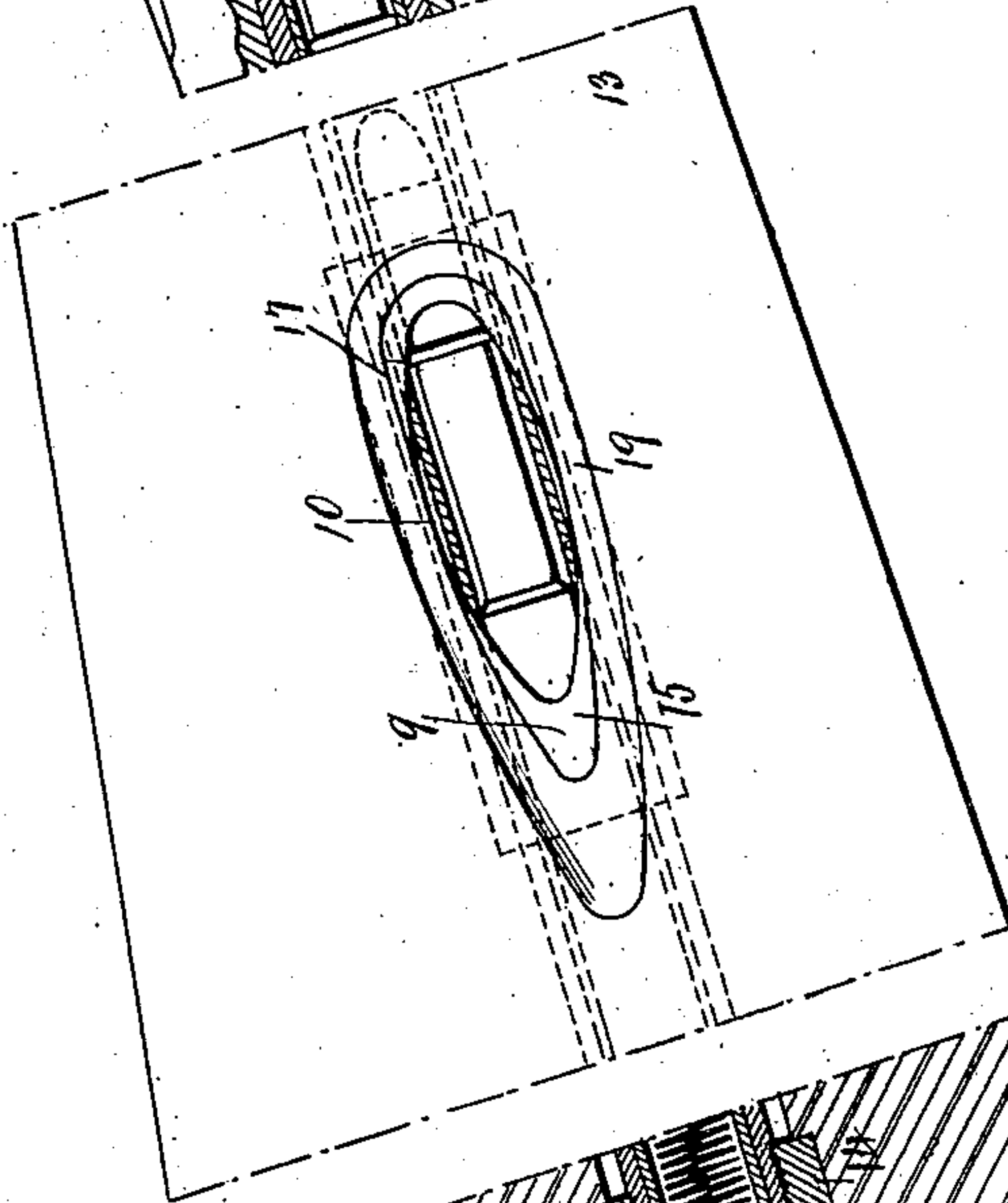
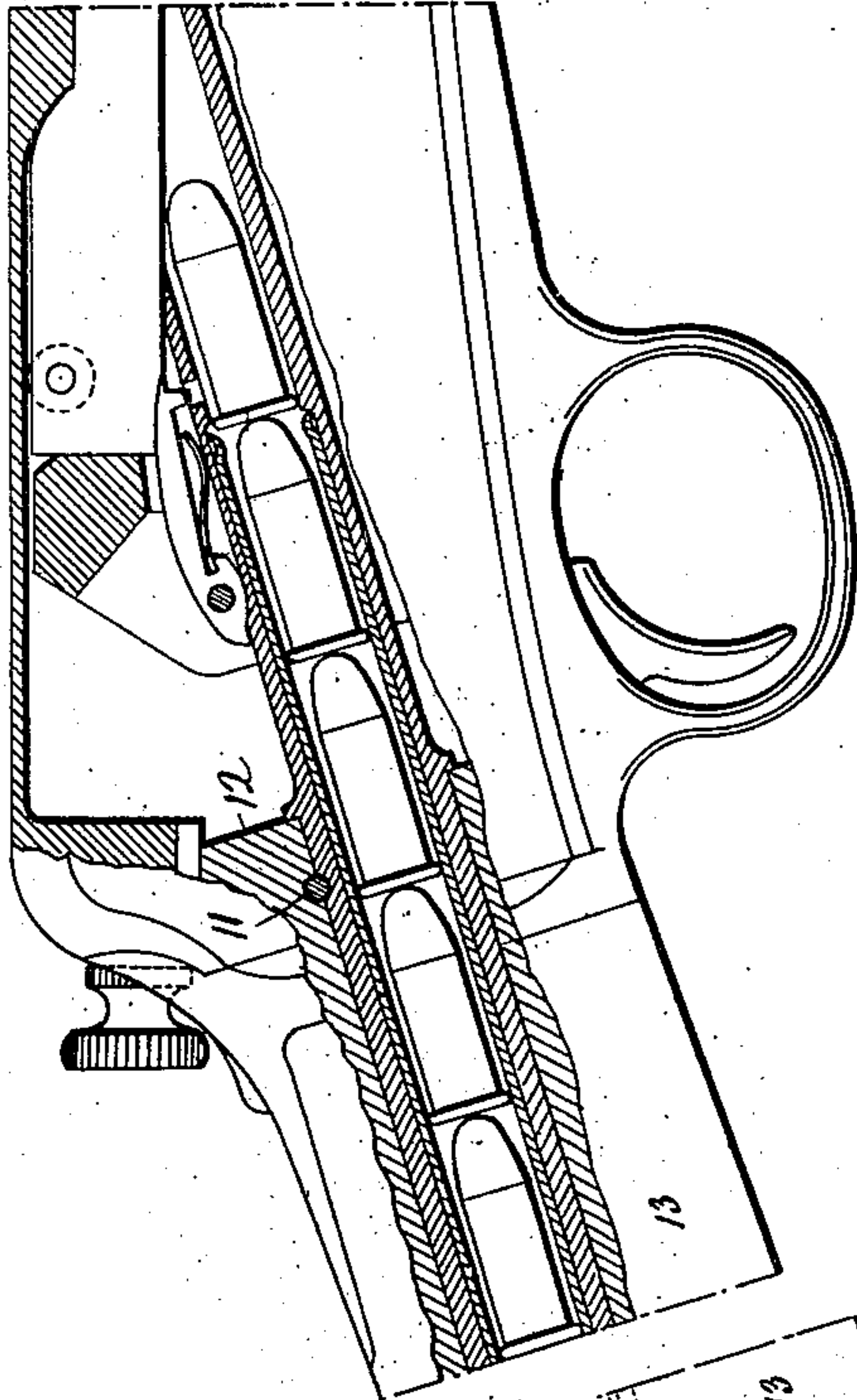
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3 SHEETS—SHEET 2.

Fig. 3.



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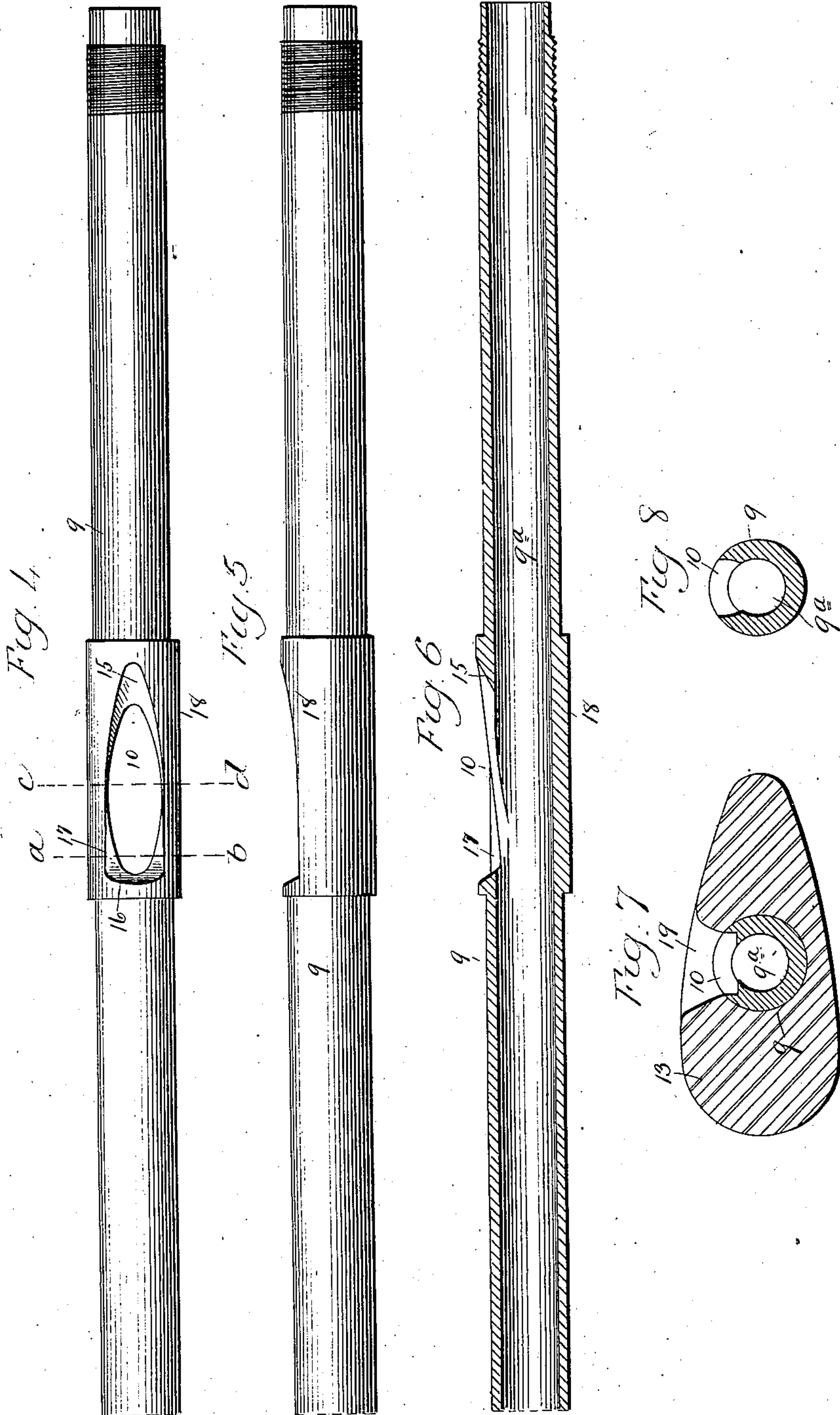
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UNITED STATES PATENT OFFICE.

THOMAS C. JOHNSON, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO WINCHESTER REPEATING ARMS CO., OF NEW HAVEN, CONNECTICUT, A CORPORATION.

TUBULAR MAGAZINE-GUN.

SPECIFICATION forming part of Letters Patent No. 719,807, dated February 3, 1903.

Application filed September 15, 1902. Serial No. 123,485. (No model.)

To all whom it may concern:

Be it known that I, THOMAS C. JOHNSON, of New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Tubular Magazine-Guns; and I do hereby declare the following, when taken in connection with the accompanying drawings and the figures of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a plan view of one form of charger which may be used with my improved gun; Fig. 2, a broken view, partly in elevation and partly in section, showing how the charger is applied to the charging-opening of the gun; Fig. 3, a broken view, in vertical longitudinal section, of a gun containing my improved charging-opening; Fig. 4, a detached plan view of the outer magazine-tube, showing the charging-opening formed therein; Fig. 5, a side view thereof; Fig. 6, a view thereof in longitudinal section; Fig. 7, a view in transverse section on the line *a b* of Fig. 4 and also showing the butt-stock of the gun; Fig. 8, a view on the line *c d* of Fig. 4 without the stock.

My invention relates to that class of tubular magazine-guns shown and described in United States Patent No. 681,481, granted August 27, 1901, to the Winchester Repeating Arms Company on my application, the object being to provide simple, compact, reliable, and convenient means for easily and expeditiously charging the magazines of such guns with cartridges.

With these ends in view my invention consists in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

My improved gun is designed with particular reference to being charged from a two-tube gravity-charger comprising two tubes 2 and 3, corresponding to each other in length and diameter, located side by side and provided with a flat spring 4, having two cartridge-retaining teeth 5 placed opposite each other at a right angle to the longitudinal axis of the spring and entering the respective

tubes through slots 6, formed therein. At its forward end the said spring is formed with an angular operating-head 7, having two corresponding but oppositely-inclined operating-faces 8 and 8^a, by means of which the spring is sprung laterally or edgewise one way or the other for clearing one tooth or the other from the cartridges in one or the other of the tubes, the rear ends of which are spun inwardly to adapt them to retain the cartridges. This charger may be considerably varied in form and details of construction and might even consist of a single tube provided with an operating-spring; but the form shown will answer for the purpose of describing my improved gun.

To adapt the gun to be charged with cartridges from a charger of the type described, I form the outer magazine-tube 9 with a long oval charging-opening 10, extending laterally through it at a point about midway of its length. The said tube 9 is connected at its forward end by a pin 11, Fig. 3, with the tang 12 of the gun, the butt-stock 13 of which is virtually secured in place upon the said tube 9 by means of a nut 14, entering its rear end and screwed upon the threaded rear end of the tube 9. For further information regarding the construction of this gun it is sufficient to make reference to my prior patent, already referred to. The said charging-opening 10, which is rounder and wider at its forward than at its rear end, may be said to enter the tube 9 at an angle of about twenty degrees, which is substantially the angle which the charger will make with the longitudinal axis of the tube when applied to the gun for charging it. The entrance of the opening into the tube at such an angle results in forming a forwardly-inclined bearing and guiding surface 15 at the rear end of the charging-opening 10. This surface continues along the sides of the charging-opening and merges into the central longitudinal passage 9^a of the tube under the rearwardly-extending portions of a charger-spring-operating surface 16, located at the forward and wider end of the charging-opening, the bearing-surface 16 being flanked on either side by stop-shoulders 17, as clearly shown in Fig. 6. The surface 16 I

may here say is not formed as an incident of producing the charging-opening 10, but is specially produced for the particular purpose of operating the cartridge-retaining spring 4 of the charger, while the shoulders 17, flanking the said surface 16, act as stops to prevent the spring from being unduly displaced laterally.

The outer tube 9, as shown, is provided with a shoulder 18, formed integral with the tube and extending throughout the length of the opening 10 and its adjacent inclined surfaces 15 and 16. Of course the entire tube might be made to correspond to the external diameter of the shoulder, or the shoulder might be produced by brazing a short sleeve upon the tube.

The butt-stock 13 is formed in its right-hand side with a clearance-opening 19, corresponding to the charging-opening 10 and having inclined walls, its rear end wall being inclined at about an angle of twenty degrees, while the wall at its forward end and the forward ends of its side walls are steeper in pitch.

To charge the magazine with the charger of the type shown in Figs. 1 and 2, the charger is first itself charged by crowding cartridges head foremost into it and past the teeth 5 of its spring 4, which yields laterally or edgewise to permit the cartridges to pass, the teeth 5 having their forward edges curved or beveled for the purpose. When the charger has been charged, one or the other of its two tubes is introduced through the opening 19 in the stock and shoved forward over the bearing-surface 15 and then inwardly through the charging-opening 10 into the outer magazine-tube 9, as shown in Fig. 2. Before the tube reaches the limit of its forward movement the spring 4 of the charger engages one or the other of its operating-surfaces 8 and 8^a, according to the tube to be discharged, with the spring-operating surface 16 at the forward end of the opening 10, whereby the spring is deflected edgewise one way or the other, as the case may be, for clearing one of the teeth 5 on the spring from the cartridges in the tube so entered into the gun. As soon

as the spring has been sprung as described the cartridges gravitate past it and enter the tube. If desired, the cartridges may be very readily fed one by one into the tube 9 through the opening 10 by hand. I thus dispense with the use of the escutcheon described in my prior patent referred to.

It is apparent that in carrying out my invention some changes may be made from the construction shown and described, and I would therefore have it understood that I do not limit myself thereto, but hold myself at liberty to make such departures therefrom as fairly fall within the spirit and scope of my invention.

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

1. In a tubular magazine-gun, a magazine-tube formed with a lateral charging-opening having a forwardly-inclined surface at its rear end, and a spring-operating surface at its forward end.

2. In a tubular magazine-gun, a magazine-tube formed with a lateral charging-opening having a forwardly-inclined surface at its rear end, and a spring-operating surface at its forward end, the inclined surface at its rear end extending inwardly under the said spring-operating surface at its forward end.

3. In a tubular magazine-firearm, a magazine-tube formed with an oval charging-opening entering it laterally and having an inwardly-inclined surface located at its rear end and extending forwardly and inwardly therefrom, and a spring-operating surface located at its forward end and extending rearwardly therefrom and flanked by stop-shoulders.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

THOMAS C. JOHNSON.

Witnesses:

FRÉDERIC C. EARLE,
CLARA L. WEED.