

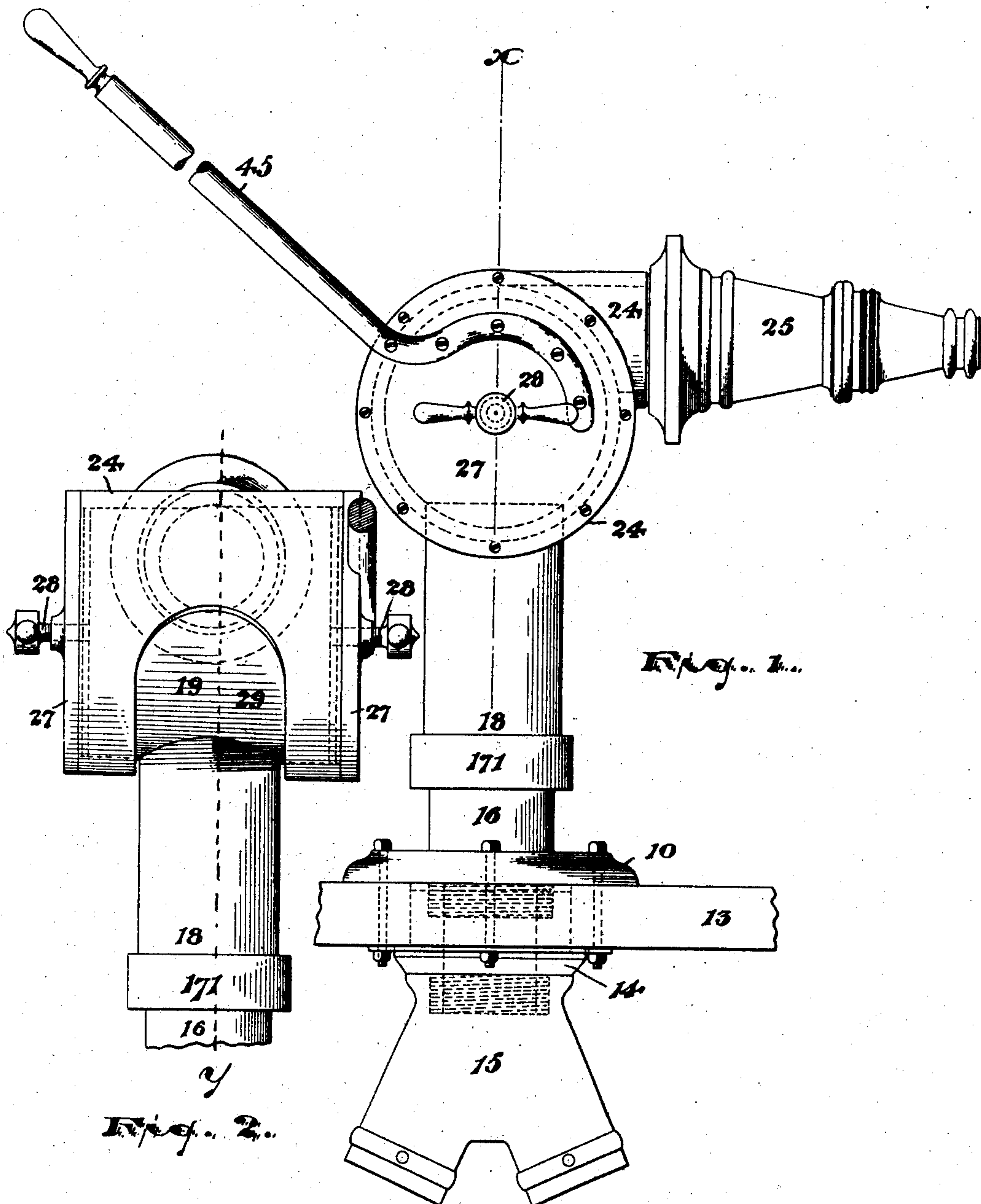
No. 865,146.

PATENTED SEPT. 3, 1907.

H. M. ALBEE.
HOSE NOZZLE.

APPLICATION FILED OCT. 25, 1906.

3 SHEETS—SHEET 1.



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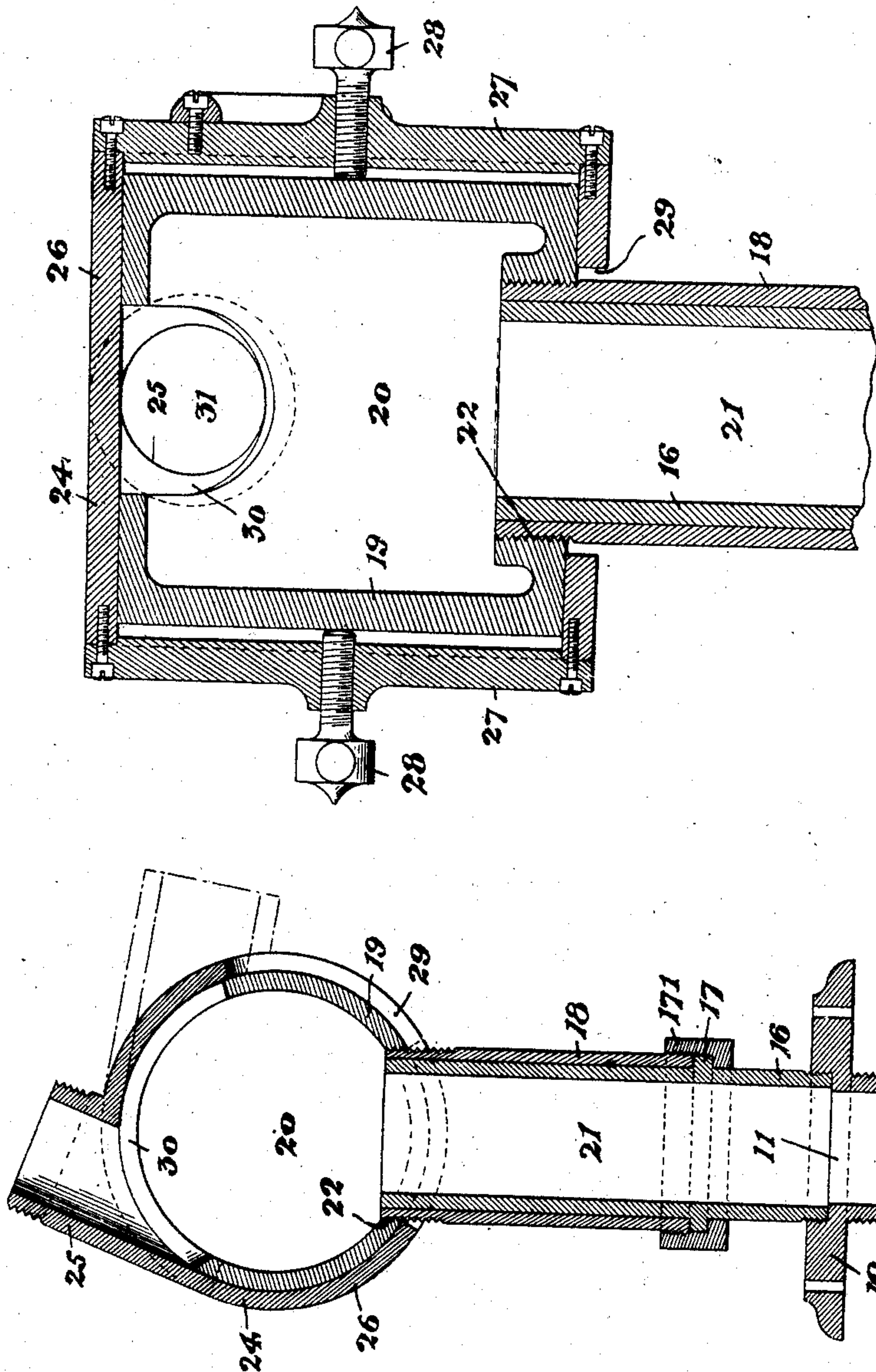


Fig. 3.

Fig. 4.

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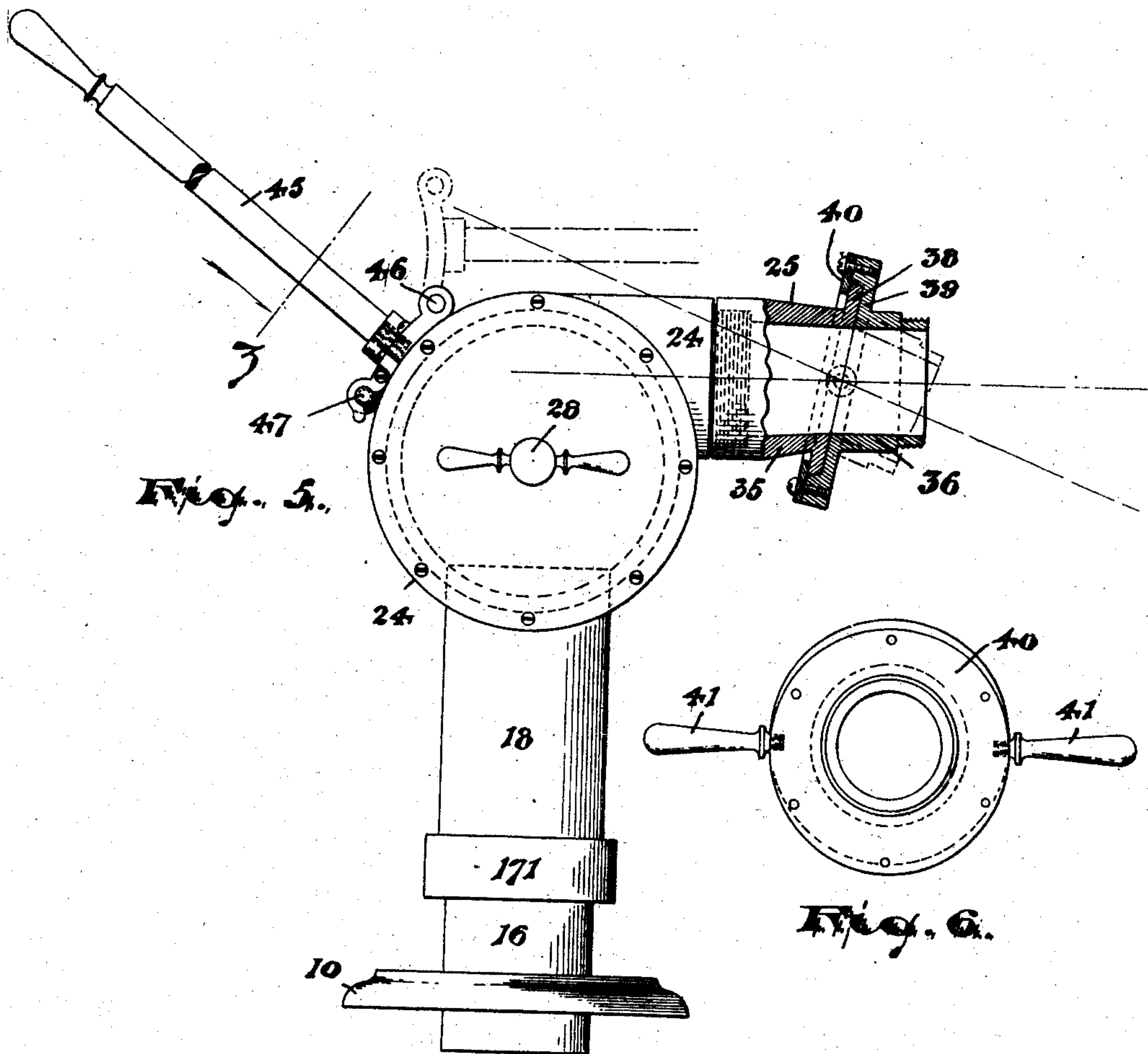


Fig. 5.

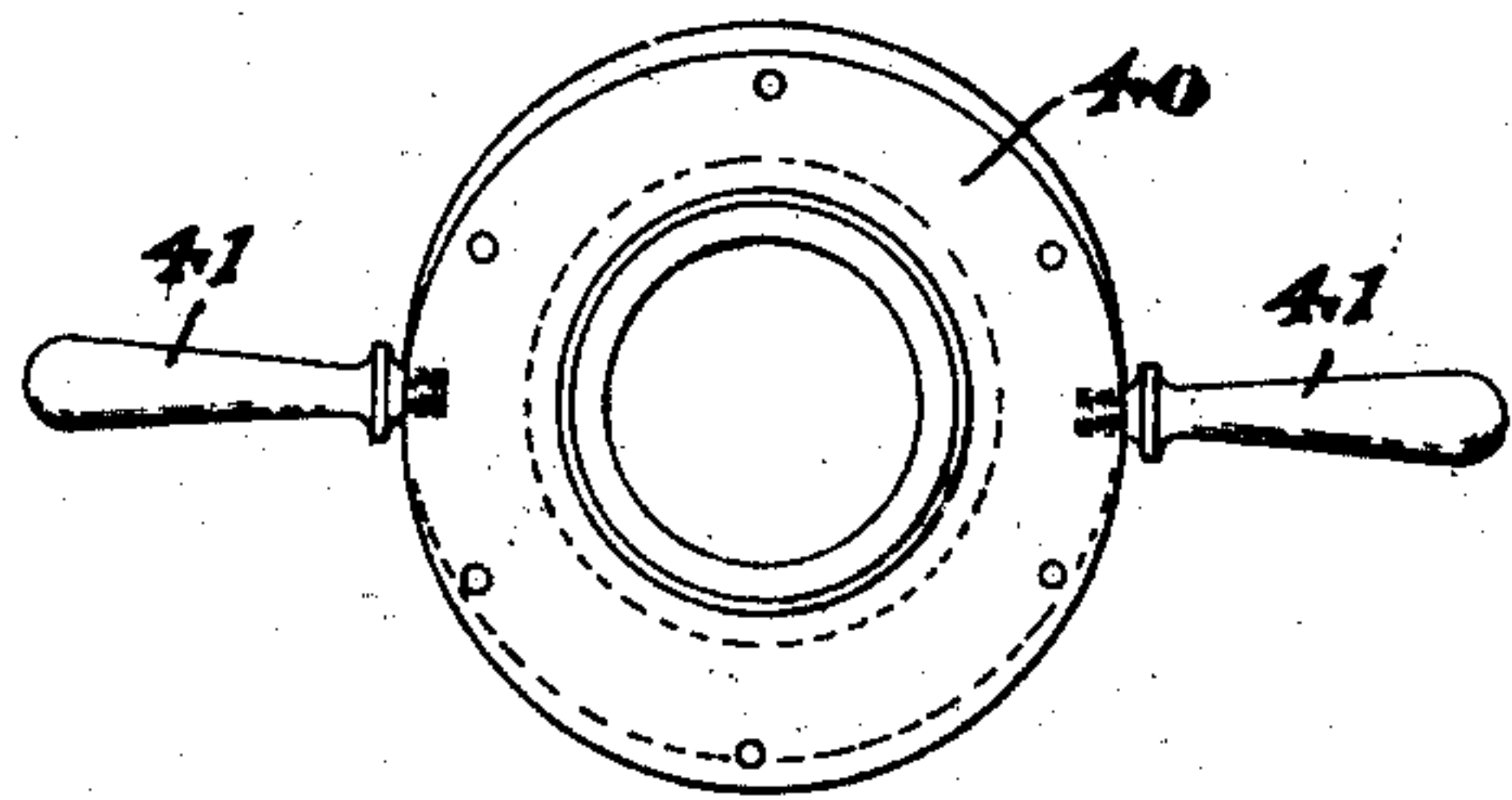


Fig. 6.

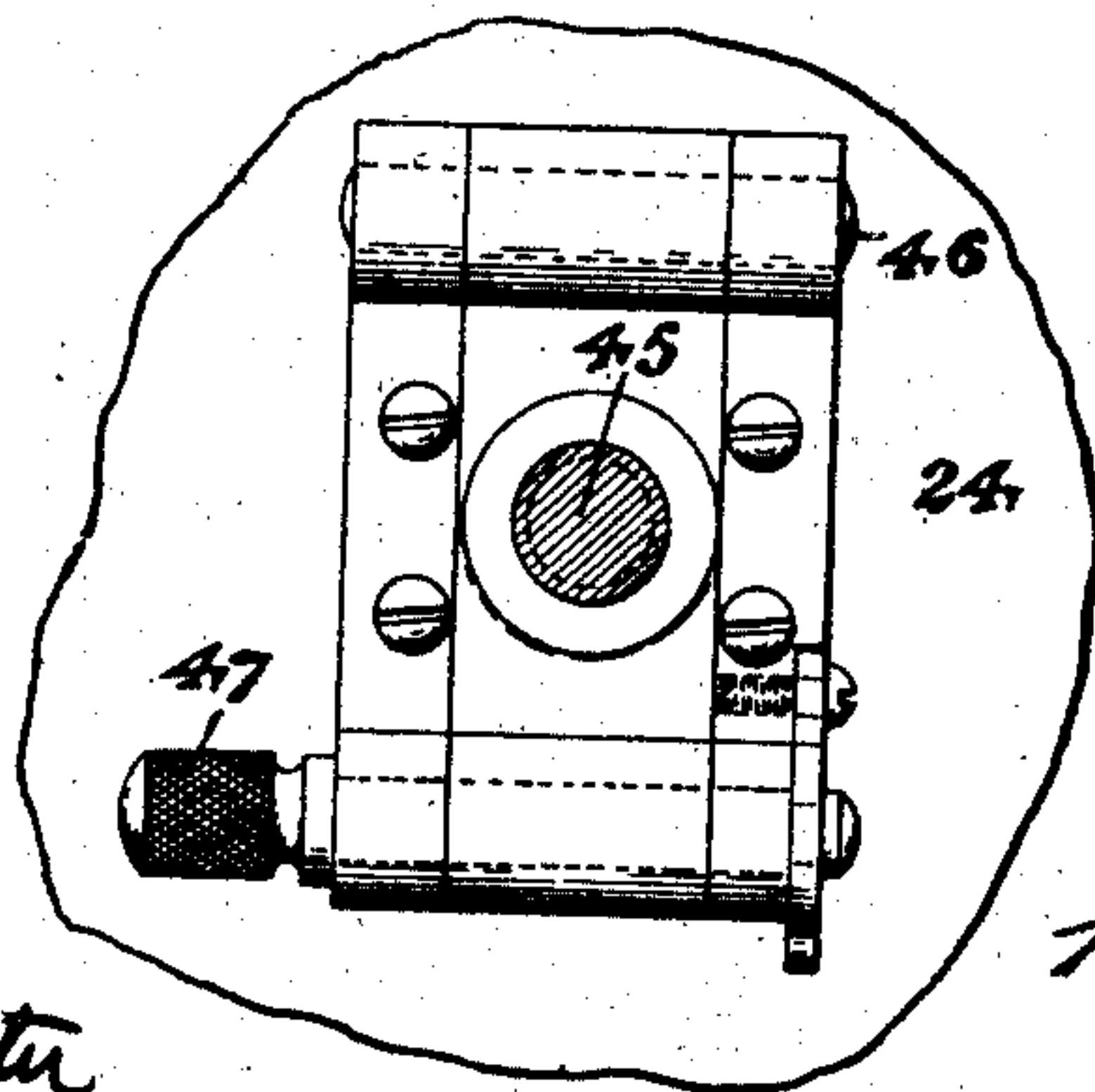


Fig. 7.

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UNITED STATES PATENT OFFICE.

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HOSE-NOZZLE.

No. 865,146.

Specification of Letters Patent.

Patented Sept. 3, 1907.

Application filed October 25, 1905. Serial No. 284,284.

To all whom it may concern:

Be it known that I, HONESTUS M. ALBEE, a citizen of the United States, residing at Nutley, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Hose-Nozzles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The objects of this invention are to reduce the cost of construction; to secure, in devices of this class, a more direct course for the water as it passes through the nozzle; to obtain a chamber or enlarged space immediately behind the final issue passage of the nozzle, and thereby to obtain a more regular, steady and compact stream of water as it flows out from the nozzle, and to simplify the construction and thus reduce the liability to damage and the necessity for repair; to lighten the weight of the device and thereby reduce the load upon the fire truck to which the device is attached, and to secure other advantages and results, some of which may be hereinafter referred to in connection with the description of the working parts.

The invention consists in the improved fire hose nozzle, and in the arrangements and combinations of parts of the same, all substantially as will be hereinafter set forth and finally embraced in the claims.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the several figures, Figure 1 is a side elevation of my improved nozzle; Fig. 2 is a rear view of a portion of the same; Fig. 3 is a sectional view taken at line *x*, of Fig. 1, and Fig. 4 is a section at line *y* of Fig. 2, Fig. 5 illustrates a modified construction, sometimes preferred; Fig. 6 is a detail view of an adjustable terminal of the nozzle, and Fig. 7 is a detail section taken at line *z* of Fig. 5.

In said drawings, 10, indicates a bed plate adapted to be bolted or otherwise fixed to the body of a fire hose truck, or other vehicle. Said bed is centrally perforated as at 11, Fig. 4, and is provided with a depending male threaded extension 12, adapted to extend through the flooring 13, Fig. 1, of the vehicle and engage a female threaded plate 14, adapted to lie underneath the said flooring, the said flooring being clamped between the two plates as indicated in Fig. 1. To this plate 14, is screwed the branched coupling 15, by which the nozzle may be connected to a water supply hose connected with a hydrant in any usual manner. The bed plate 10, is countersunk and threaded at its upper side, as in Fig. 4, to receive a stand pipe 16, having a shoulder 17, on its outer periphery, which shoulder lies about two inches more or less, above the bed plate 10. On the outside of said stand pipe 16, above said shoulder

17, is arranged a sleeve 18, which extends up to a point flush with the upper end of the stand pipe where it is threaded to receive a cylindrical piece 19, closed at opposite ends as shown in Fig. 3. The said cylindrical piece 19, is hollow and forms a water chamber 20, of considerable area which is in open communication with the passage 21, of the stand pipe. The stand pipe connects with the cylinder through a threaded opening 22, the ends of the cylinder extending horizontally beyond the connected stand pipe to increase the area of the chamber and provide a pivotal bearing for the carrier 24, of the tangentially arranged nosing 25, through which last the water finally issues. The said carrier 24, is thus adapted to oscillate on a horizontal axis to a limited extent and said carrier 24, is also adapted to turn with the sleeve 18, and cylinder 19, on the stand pipe 16, the said stand pipe serving as a vertical pivot for said parts. The sleeve 18, is prevented from being withdrawn from the stand pipe by a threaded collar 171, which engages the shoulder 17, as shown in Fig. 4. The carrier 24, for the terminal nosing forms a close and impervious peripheral joint with the cylindrical part 26, of the carrier, the heads 27, 27, closing the opposite ends of said cylindrical part, movement in the direction of the axis of said parts and frictional engagement of the heads being prevented by set screws 28, arranged at said axis. The cylindrical part 26 of the carrier 24, is slotted as at 29, to prevent the stand pipe from interfering with the pivotal movement of the said carrier on its hollow pivotal piece 19, and the said hollow pivotal piece is also slotted as at 30, Figs. 3 and 4, to permit such pivotal movement without cutting off the flow of water to the outflow passage 31, of the terminal nosing 25.

In cases where it is desired to increase the distance or scope of vertical play of the terminal end of the nozzle, more particularly to enable the stream of water to be directed downward, into a cellar for example, I have provided a second joint as indicated in Fig. 5, where one of the parts of the terminal nozzle 25, is in flanged sections 35, 36, the flanges 38, 39, lying flat upon one another, and the diametrically larger flange 39, being recessed to receive the smaller flange 38. The joint formed between the flanges is ground or made impervious to fluid and the parts are held together by a ring 40, bolted or screwed to the larger flange and extending inwardly so as to overlap the smaller flange and hold the same in place. The joint formed by the sections 35, 36, is formed in a plane inclined to the axis of the terminal nozzle and so, when one section is turned on the other, the direction of the outermost or free section is changed as will be obvious. The turning of the section is facilitated by the handles 41, shown in Fig. 6, which handles are preferably screwed to the periphery of the flange 39, so as to extend radially out therefrom.

To manipulate the nozzle, I provide, in connection with the carrier 24, a long lever-like handle 45, by means of which the said carrier may be easily turned pivotally, either horizontally or vertically. This handle may be rigidly and permanently fixed to the carrier as indicated in Fig. 1 or, and preferably, the same may be hinged as at 46, and be provided with a fastening 47, by means of which said handle may be held in place in service or be released and turned on its hinge pin to a position substantially parallel with the terminal nozzle and thus lessen the way as an obstruction when not in use.

The pivotal head or piece 19, of the sleeve 18, while being referred to as cylindrical, is in ordinary practice only approximately so. I prefer to form said head or piece slightly conoidal, the periphery tapering toward one end in correspondence with the inside walls of the part 26, of the carrier and thus, as the parts wear away because of friction in service, the wear can be taken up by means of the screws, 28, 28, one screw being relaxed and the opposite screw tightened as will be understood, the open joints between the heads 27, 27, and the ends of the piece 19, permitting of this movement to cure the wear.

In operation, the parts being in the relations described, and the water being turned on so as to pass through the flow passages provided therefor, I give direction to the terminal nozzle as may be necessary, the carrier 24, being turned on its pivotal stand pipe 16, with the sleeve 18, with great freedom, or held firmly in the desired direction by means of the hand lever 45.

The course of the water through the nozzle being quite direct, and practically the only change of course of the water passage being at the enlarged chamber 20, the water pressure is reduced but little because of friction, as will be apparent.

Having thus described the invention, what I claim as new is:—

1. An improved nozzle, comprising a supporting pipe, a sleeve arranged to turn on the supporting pipe, a cylindrical head secured to the sleeve and having a slot therein, a cylindrical carrier outside the head, a nosing tangentially arranged in the periphery of the carrier, a handle on the carrier having a transverse arm on its end, one end of the arm being pivoted to the carrier, and means for detachably securing the other end of the arm to the carrier.

2. An improved nozzle comprising a vertical pipe arranged to rotate, a cylindrical head comprising an inner and outer member, and a nosing arranged on the outer member to provide a tangential outlet for water from the head to the nosing, and a nozzle on the end of the nosing.

3. An improved nozzle comprising a vertical pipe arranged to rotate, a cylindrical head comprising an inner and outer member, and a nosing arranged on the outer member having its outside edge arranged tangentially to the casing of the cylindrical head forming an unbroken path for the water to emerge from the head, and a nozzle on the end of the nosing.

In testimony, that I claim the foregoing, I have hereunto set my hand this 21st day of October, 1905.

HONESTUS M. ALBEE.

Witnesses:

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