

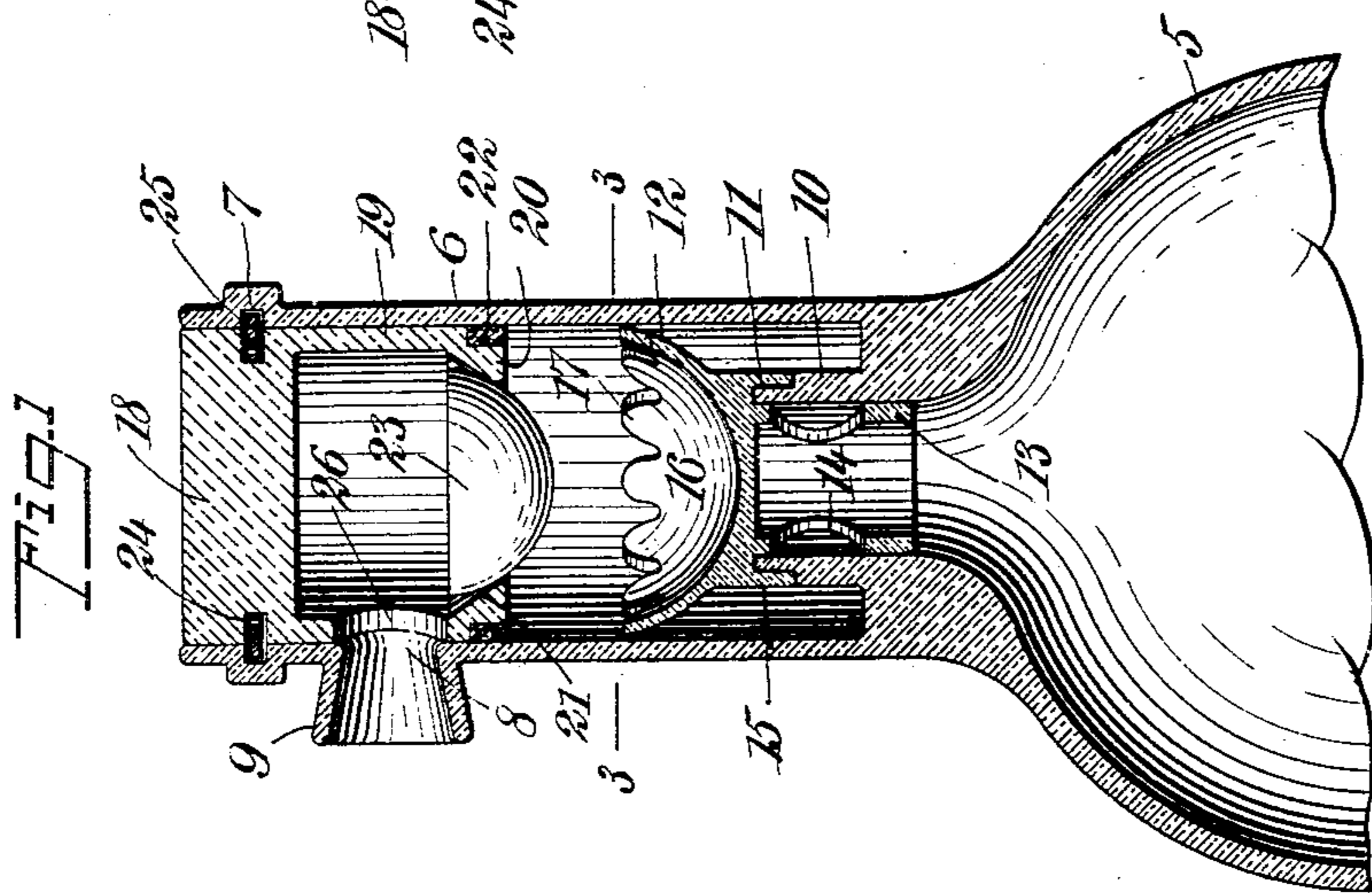
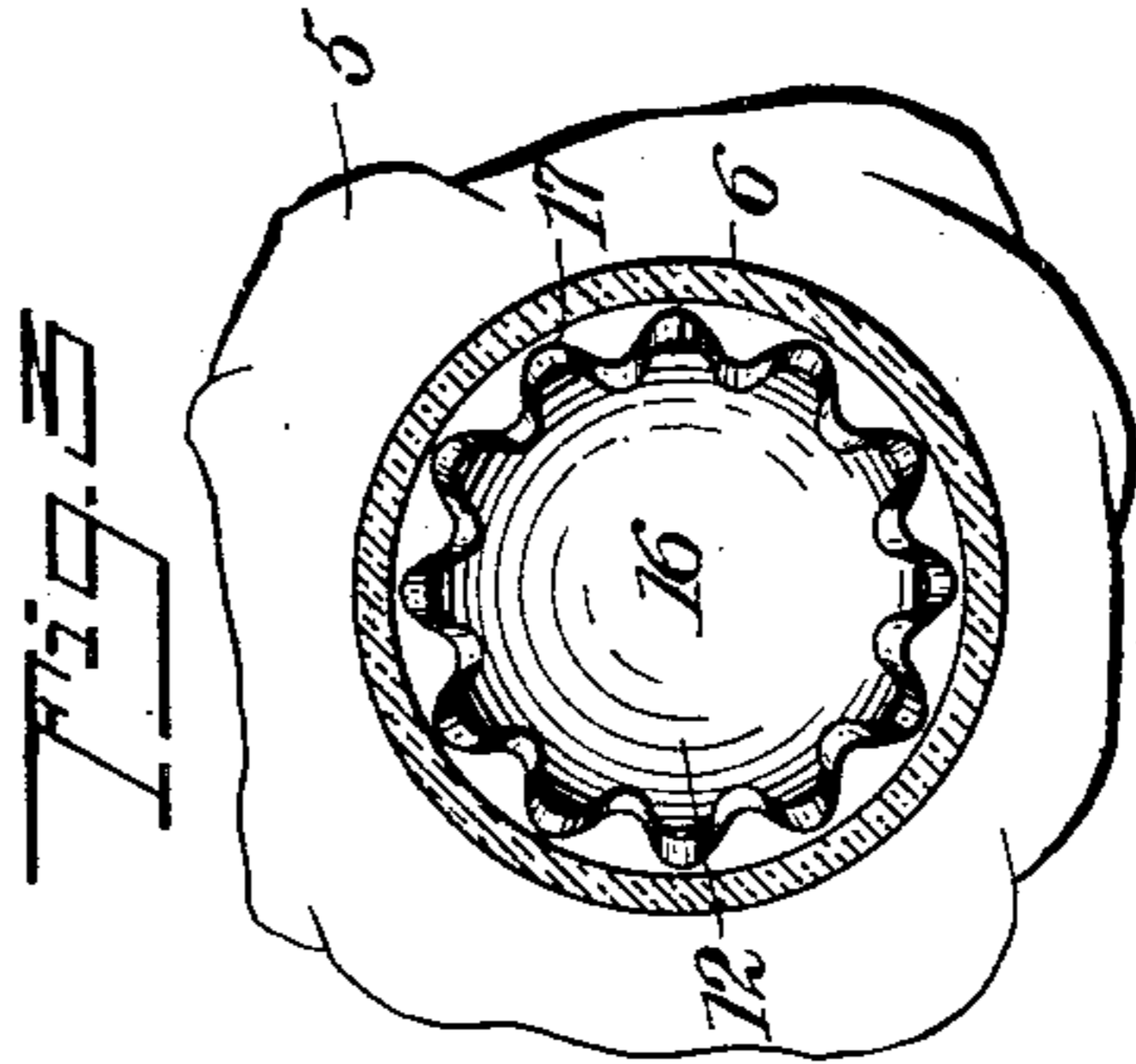
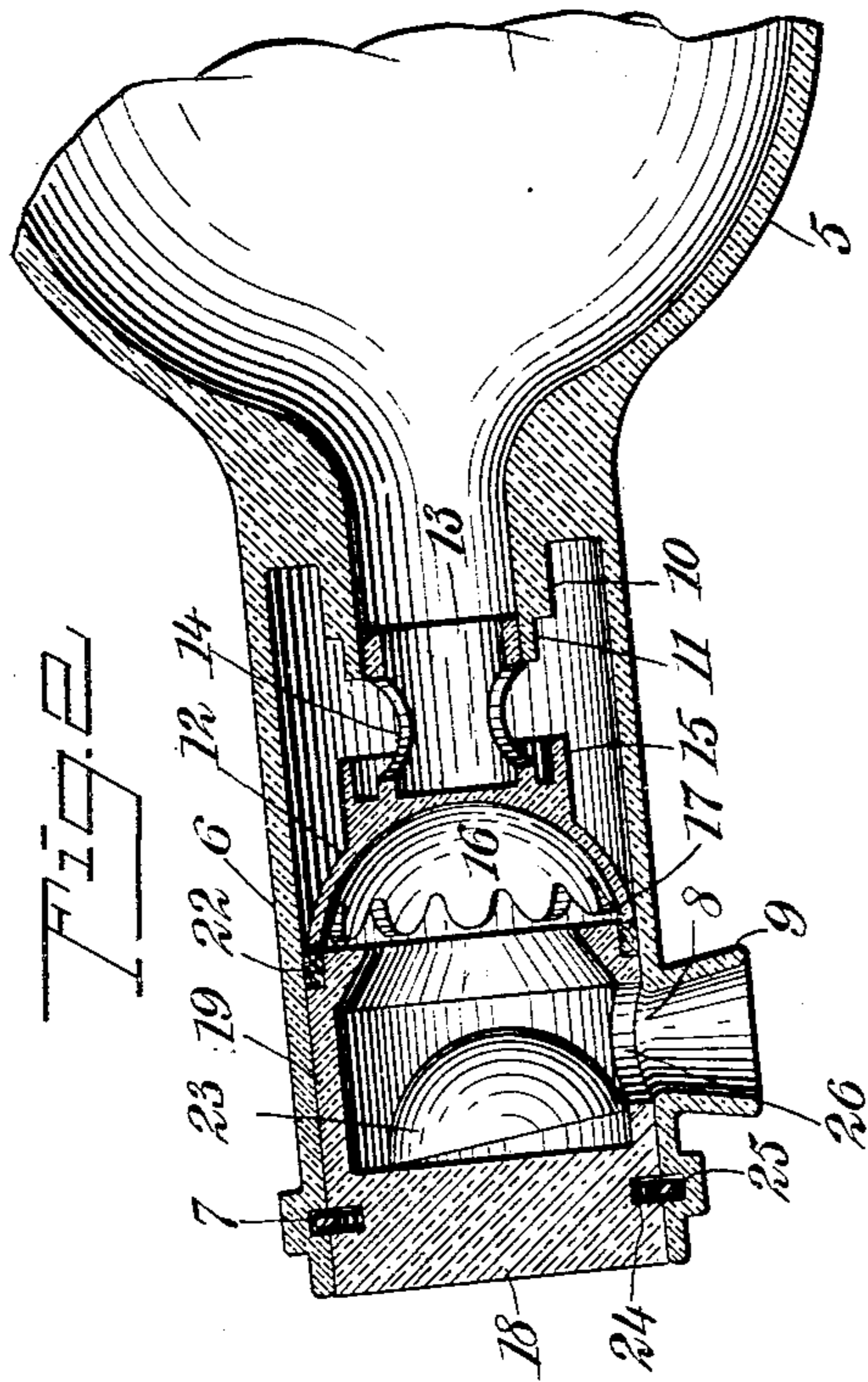
No. 734,924.

PATENTED JULY 28, 1903.

I. MORGENROTH.
NON-REFILLABLE BOTTLE.

APPLICATION FILED APR. 2, 1903.

NO MODEL.



WITNESSES

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ISAAK MORGENROTH, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO
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NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 734,924, dated July 28, 1903.

Application filed April 2, 1903. Serial No. 150,750. (No model.)

To all whom it may concern:

Be it known that I, ISAAK MORGENROTH, a subject of the German Emperor, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Non-Refillable Bottle, of which the following is a full, clear, and exact description.

The present invention relates to bottles of that class which are especially designed to prevent refilling by unscrupulous or unauthorized persons with an inferior grade or a spurious liquor after the original contents shall have been emptied from the package.

The object that I have in view is the provision of a simple and inexpensive construction which allows the bottle or package to be originally filled in an easy manner, after which the several parts may be quickly assembled to prevent access being obtained to them for subsequent removal and at the same time allow the liquid to be easily and readily decanted.

Further objects and advantages of the invention will appear in the course of the subjoined description, and the novelty will be defined by the annexed claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional elevation of a portion of a non-refillable bottle constructed in accordance with my invention. Fig. 2 is a similar view showing the bottle in a position for decanting the liquid contents thereof, and Fig. 3 is a horizontal section on the line 3 3 of Fig. 1.

The bottle 5 is provided with a neck 6. The end of the neck is open, and within this open mouth the neck is provided with an internal annular groove or channel 7. The neck is provided in one side thereof with an outlet-opening 8, which is surrounded by a lip or flange 9, the latter projecting laterally from one side of the bottle-neck, as clearly shown by the drawings. The bottle is provided at the bottom portion of the neck with an up-standing annular flange 10, which is located in parallel or concentric relation to the lower portion of the neck, and this flange is cut

away or recessed to form a seat 11 for a slidable valve 12. The valve 12 is made in one piece with a sleeve 13, having a series of ports or openings 14, and said valve is also formed with a flange 15, which is concentric with the sleeve 13 and is disposed outside of the same, the depth of the flange being less than the depth of the sleeve. The valve 12 is furthermore provided with a cavity 16 in the upper side thereof, and the edges of this concave valve are scalloped or corrugated, so as to produce a plurality of lips 17, as shown by the drawings.

18 designates a plug or stopper having a sleeve 19 made in one piece therewith. The lower part of this stopper-sleeve is formed with an internal flange 20, the upper face of which is curved or inclined, as at 21, to form a valve-seat. The sleeve and the stopper are adapted to be fitted snugly in the mouth portion of the bottle-neck, so that the sleeve will terminate at a point below the opening 8 and the lip or flange 9. The sleeve 19 is furthermore provided with an external groove adapted to receive a packing 22 of any suitable material, thus making a tight joint between the sleeve and the bottle-neck to prevent the escape of liquid between the wall of the bottle-neck, the sleeve, and the plug. Said sleeve 19 provides a chamber adapted to receive a gravity-valve 23, having a convex lower surface and a flat upper surface. This valve is arranged to occupy the seat 21 at the lower part of the sleeve 19, and said valve thus lies below the pouring-opening 8 of the bottle. Any suitable means may be employed for holding the plug 18 within the mouth of the bottle; but, as shown, said plug is provided with an external annular groove 24, which contains a spring or expansible locking-ring 25.

In the service of my improved bottle the liquid is poured therein before the valve 12, the valve 23, and the plug 18 are placed in position. After the bottle shall have been filled by any suitable or desirable means the operator places the valve 12 in the neck of the bottle. This valve drops or slides into place, so that its sleeve 13 will pass into the flange 10 of the bottle, while the flange 15 of the valve will occupy the seat 11, the valve 12 filling the space across the bottle-neck.

The expansible spring 25 is now placed in the groove 24 of the plug and the valve 23 is introduced into the chamber 19 of the plug-sleeve. The plug and its contained parts are now slipped into the open mouth of the bottle until the groove 24 registers with the groove 7 of the bottle-neck, whereupon the spring 25 expands, so that it will lie partly in the coincident grooves 7 24, thus locking the plug and its parts in position within the mouth of the bottle. The adjustment of the plug brings the packing 22 below the pouring-opening 8, and the valve 23 likewise takes a position below this pouring-opening.

When it is desired to decant the liquid from the bottle, the latter is turned to the position shown by Fig. 2, wherein the flange 9 depends from the under side of the bottle-neck. This operation of inverting the bottle allows the valve 23 to move by gravity from the seat 21 and to a position substantially at one side of the pouring-opening 8. At the same time the valve 12 and its sleeve 13 slide in the bottle-neck, so as to withdraw the flange 15 from the seat 11 and adjust the sleeve 13 to a position wherein the ports 14 are uncovered. The liquid can now flow from the bottle into the sleeve 13 through the ports 14 and into the chamber of the bottle-neck. The liquid flows through the openings or spaces provided by the engagement of the lips 17 with the inner end of the plug-sleeve 19, when the liquid is free to flow into said sleeve 19 through a lateral opening 26 therein and make its exit through the pouring-opening 8. When the bottle is again turned to the upright normal position, (shown by Fig. 1,) the valves 23 and 12 resume their closed positions by gravity, and the liquid cannot be withdrawn nor can any other liquid be poured into the bottle, because said valves 12 23 will close the respective passages and prevent the inflow of the liquid.

The parts of my improved bottle are simple and cheap in construction and they can be

readily assembled to assume the operative position shown by the drawings.

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

1. A non-refillable bottle having a fixed flange projecting into the neck thereof, a valve having a cavity and a scalloped edge, and a perforated tube depending from the valve and arranged to fit within said flange of the bottle, the valve in its normal position being seated on the upper edge of said flange.

2. A non-refillable bottle having a pouring-opening, a plug in the bottle-neck and having a sleeve which is formed with a lateral opening and a valve-seat below the opening, a valve movably confined within said sleeve, a flange projecting into the bottle-neck, and another valve slidably fitted to the flange and provided with a series of projections which are adapted to abut the plug-sleeve and limit the displacement of the valve in one direction.

3. A non-refillable bottle having a pouring-opening and an upstanding flange within the neck thereof, a plug having a sleeve and fitted within the bottle-neck for the lower end of the sleeve to lie below the pouring-opening, a gravity-valve housed in the sleeve and normally seated therein below the pouring-opening, means for fastening the plug in the bottle-neck, and a gravity-valve having a perforated sleeve, said valve being slidably fitted in the neck for its sleeve to enter the flange, the upper end of said valve having corrugations adapted to impinge the inner end of the plug-sleeve on displacement of said valve from the upstanding flange.

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

ISAAK MORGENROTH.

Witnesses:

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