

No. 734,277.

PATENTED JULY 21, 1903.

W. H. NIEMEYER.
NON-CORRODIBLE PUMP PISTON.
APPLICATION FILED MAY 4, 1903.

NO MODEL.

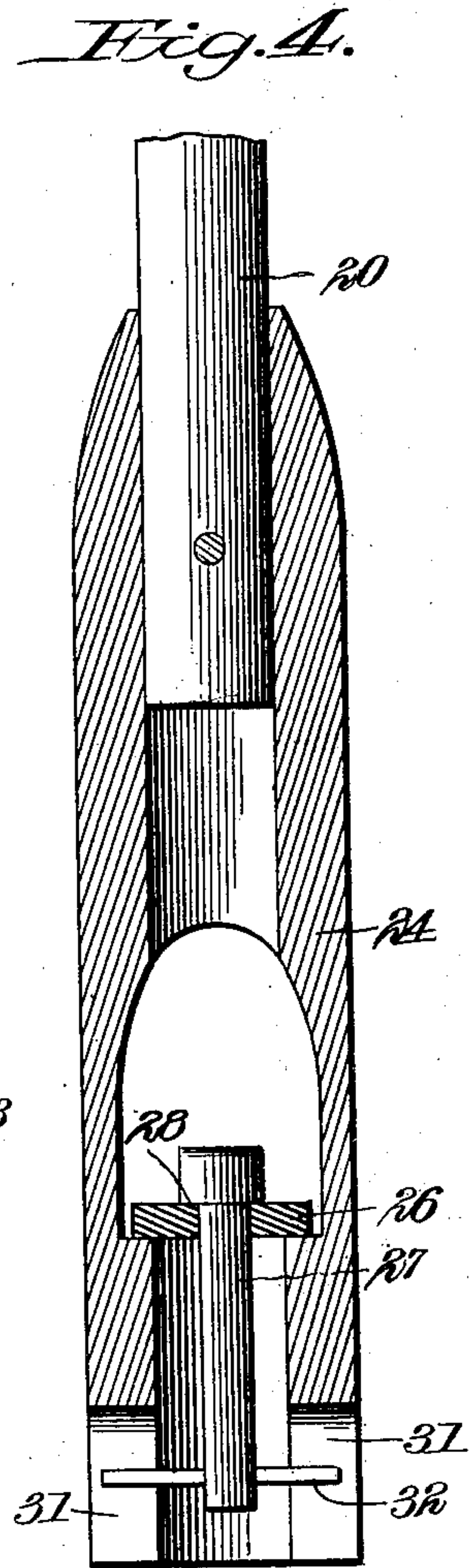
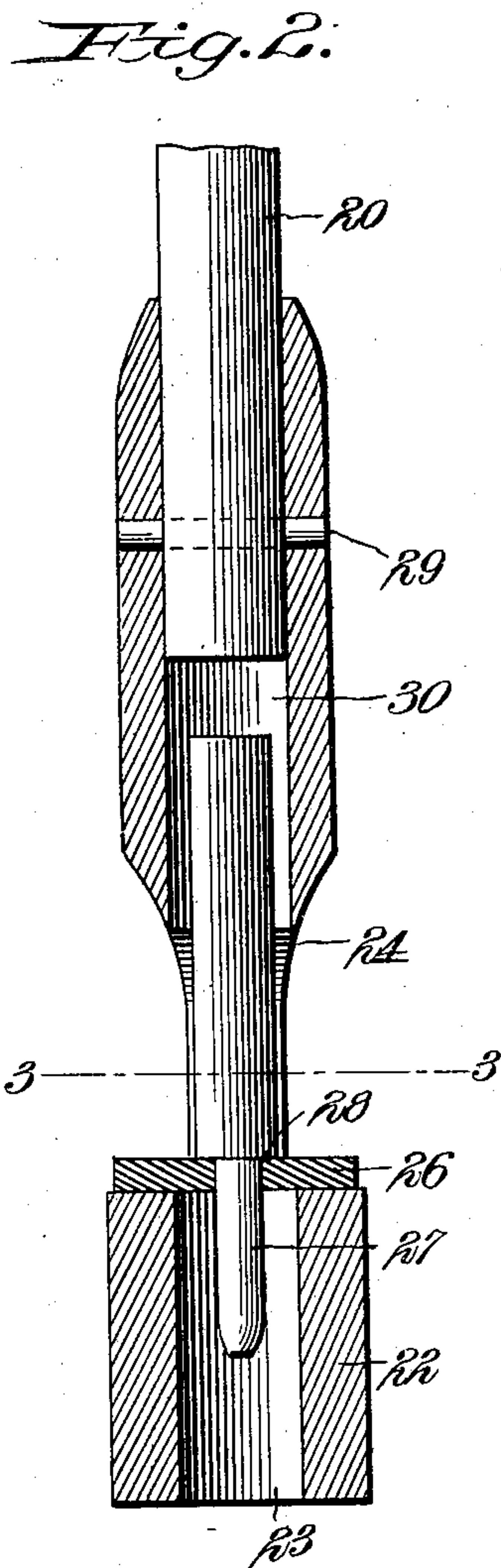
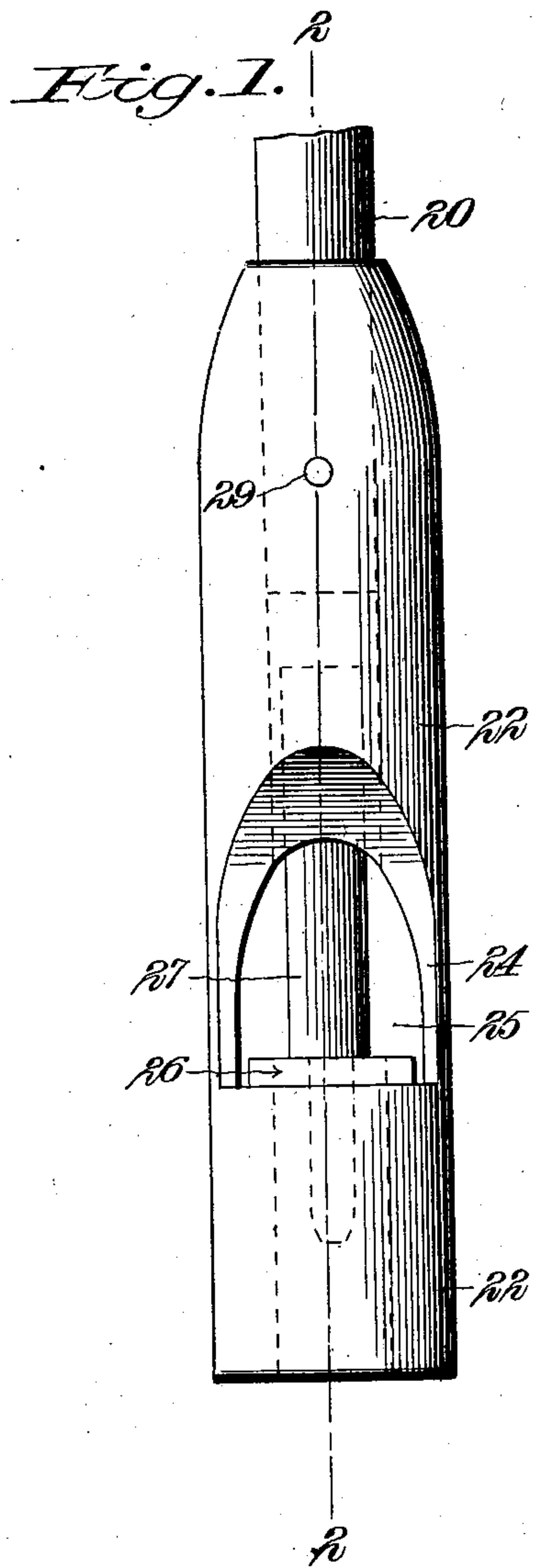
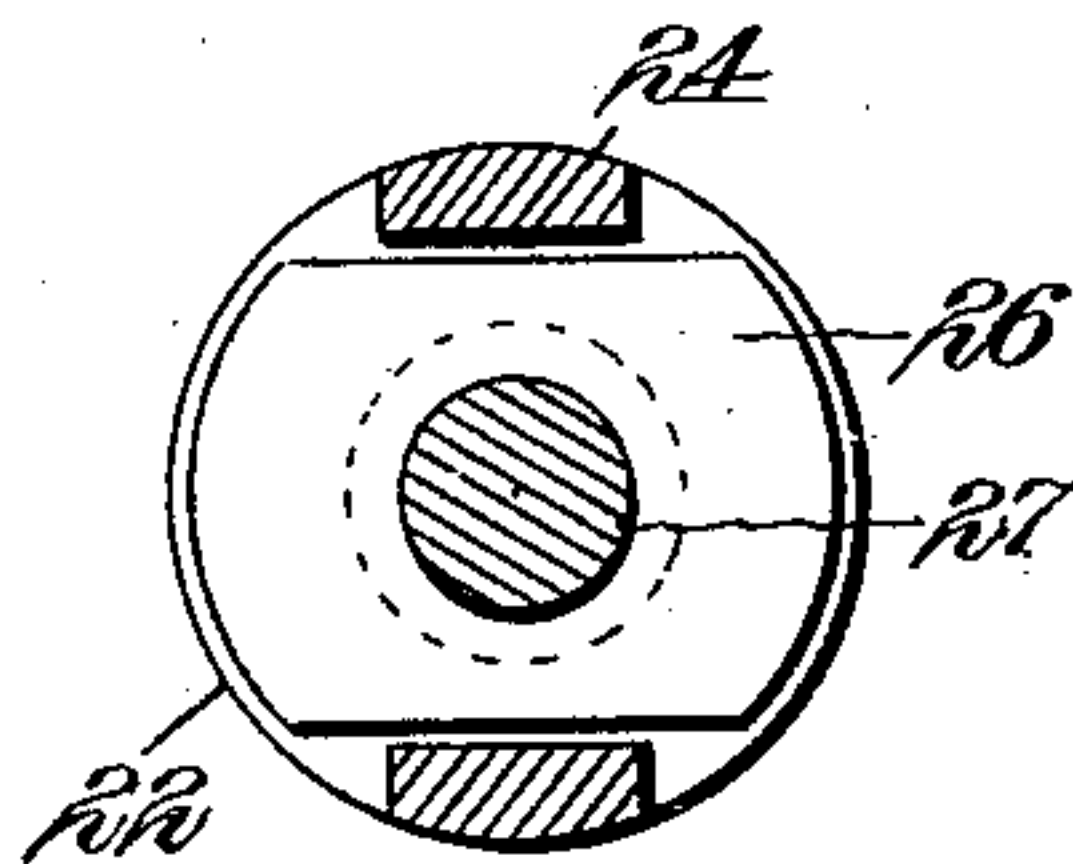


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

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NON-CORRODIBLE PUMP-PISTON.

SPECIFICATION forming part of Letters Patent No. 734,277, dated July 21, 1903.

Application filed May 4, 1903. Serial No. 155,618. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. NIEMEYER, of Baltimore city, State of Maryland, have invented new and useful Improvements in Non-Corrodible Pump-Pistons; and I do hereby declare the following to be a full, clear, and exact description of said invention, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to pumps, and particularly to that type of portable pump which is adapted to be inserted in a cask or other receptacle in order to withdraw therefrom the liquid contents, such as vinegar. A pump of this type is shown in the patent granted June 11, 1901, to J. J. Caylor, No. 676,353, upon which pump my invention is designed as an improvement.

The object of this invention is to simplify and cheapen the construction of the piston and the valve carried thereby and to render the same more durable.

To these ends my invention consists in the construction and combination of parts hereinafter described and claimed.

In the drawings, Figure 1 represents a side elevation of the lower end of a pump-piston embodying one form of my invention. Fig. 2 represents a vertical section on the line 2 2 of Fig. 1. Fig. 3 represents a horizontal section on the line 3 3 of Fig. 2. Fig. 4 represents a vertical section at a right angle to that of Fig. 2, said Fig. 4 representing a preferred embodiment of my invention.

Similar reference characters indicate similar parts throughout the several views.

A wooden piston-rod is represented at 20, said piston-rod having secured to its lower end the piston or plunger 22 having a vertical hole 23 formed therethrough, said piston or plunger being preferably formed integral with the yoke 24, which is secured to the piston-rod 20 by a wooden pin 29. The yoke 24 is formed with openings 25 above the piston or plunger, through which openings the liquid passes after it has passed through the hole 23. The upper end of the piston or plunger is formed as a valve-seat, and upon this valve-seat a non-corrodible disk-valve normally rests. Said valve is preferably

formed of leather. The valve-stem 27 is formed with a reduced lower end, so as to form a shoulder 28 at the upper end of said reduced portion. The valve 26 is provided with a central opening and is driven upon the reduced lower end of the valve-stem until said valve rests against said shoulder. It will readily be understood that the valve resting upon the valve-seat and the shoulder 28 resting upon the valve results in limiting the downward movement of the valve-stem.

In the embodiment of the invention represented in Figs. 1, 2, and 3 the head of the yoke above the lateral openings 25 is formed with a vertical recess 30, the top of which recess may be formed by the lower end of the rod 20. The valve-stem extends into this recess 30, and the upper end of said recess acts as a stop, coacting with the upper end of the valve-stem to limit the upward movement of the stem and valve. The construction and proportions of the parts are such that although the valve is free to move bodily away from the valve-seat it does not move far enough in either direction to permit of the lateral disengagement of either end of the valve-stem from the hole or recess into which it extends, and therefore said valve will always readily find its seat after being raised therefrom.

In the embodiment of the invention represented in Fig. 4 all of the above-mentioned essential characteristics remain; but the upper end of the valve-stem is dispensed with, there being only enough of said upper end to form a head, which will provide the shoulder 28. In said Fig. 4 the lower end of the piston or plunger is slotted, as at 31, on one or both sides of the vertical hole 23, and a pin 32 projecting laterally from the lower end of the stem 27 extends into the slot 31 and rides freely therein, the upward movement of the valve-stem and valve being limited by contact of the pin 32 with the upper end of the slot 31. The pin 32 may be of aluminium or any other non-corrodible material that may be preferred.

Having now described my invention, I claim—

1. A non-corrodible pump-piston comprising a wooden piston-rod having a wooden yoke secured to its lower end, said yoke being

formed with an integral piston or plunger at its lower end, the said piston having a vertical hole and having its upper end formed as a valve-seat, a wooden valve-stem having a
5 reduced lower end forming a shoulder and extending into the hole in the piston, a non-corrodible disk valve driven on the valve-stem and resting against said shoulder, and a stop to limit the upward movement of the valve-
10 stem.

2. A non-corrodible pump-piston comprising a wooden piston-rod having a wooden yoke secured to its lower end, said yoke being formed with an integral piston or plunger at
15 its lower end, the said piston having a vertical hole and having its upper end formed as a valve-seat, a wooden valve-stem having a

reduced lower end forming a shoulder and extending into the hole in the piston, a non-corrodible disk valve driven on the valve-stem 20 and resting against said shoulder, the lower end of the piston or plunger being formed with a vertical slot, and the lower end of the valve-stem having a lateral pin extending into said slot whereby the upward movement of
25 the valve and stem will be limited by contact of the pin with the upper end of the slot, substantially as and for the purpose described.

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

WILLIAM H. NIEMEYER.

Witnesses:

HOWARD D. ADAMS,
EDWARD OVERBECK.