

No. 870,788.

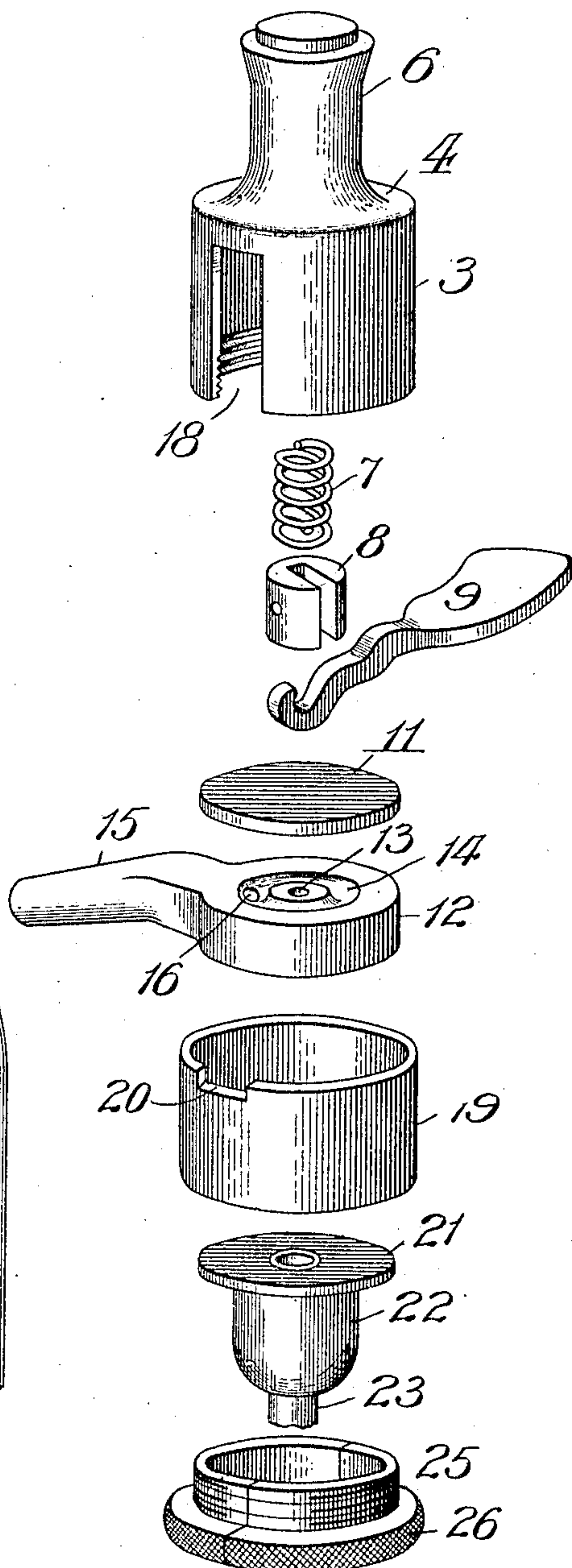
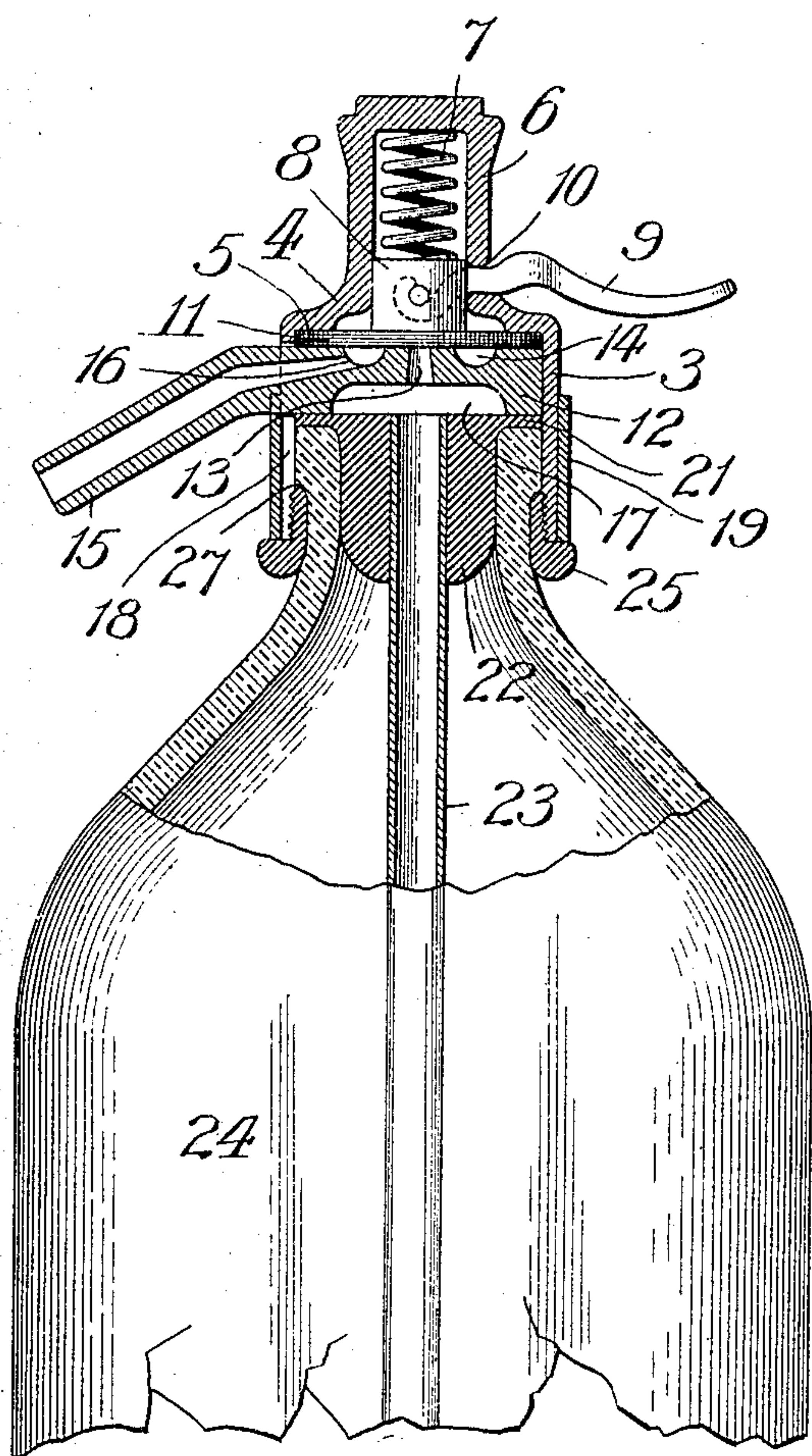
PATENTED NOV. 12, 1907.

F. B. LOMAX.
SIPHON HEAD.

APPLICATION FILED FEB. 4, 1907.

Fig. 2.

Fig. 1.



Witnesses:
Edw. Gaylord.
John Enders.

Inventor:
Frank B. Lomax,
By Dymfink, Dymfink, & Wiles,
Attorneys.

UNITED STATES PATENT OFFICE.

FRANK B. LOMAX, OF CHICAGO, ILLINOIS, ASSIGNOR TO GEORGE LOMAX, OF CHICAGO, ILLINOIS.

SIPHON-HEAD.

No. 870,788.

Specification of Letters Patent.

Patented Nov. 12, 1907.

Application filed February 4, 1907. Serial No. 355,746.

To all whom it may concern:

Be it known that I, FRANK B. LOMAX, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Siphon-Heads, of which the following is a specification.

My invention relates to an improvement in the class of valved siphon-heads which are used on bottles containing carbonated liquids, and adapted to effect drawing of the charged liquid from the bottle by the force of its gas-pressure on opening the valve. Siphon-heads of the class referred to are commonly organized to prevent the liquid from coming into contact with metal upon which it will act corrosively; and the more usual construction of such a head, upon which, particularly, my invention affords an improvement, is, generally stated, that described as follows:

A cylindrical metal body adapted to fit over the neck of the bottle and surmounted by a cap screwed into place, in which is confined a spring-pressed plunger provided with an operating lever; this plunger bearing against a disk-valve which covers openings in a spout-block of non-corrodible metal, such as block-tin, or of earthenware (porcelain) seated against a washer on the end of the bottle-neck with the discharge-tube depending from it into the bottle. When the disk-valve is raised the pressure of the charged liquid forces it upward through the tube and the opening, coincident therewith, in the "block", whence it enters the discharge-spout.

Referring to the accompanying drawing—Figure 1 shows a bottle, by a broken view in elevation partly sectional, provided with a siphon-head of my improved construction, and Fig. 2 shows in perspective all the details employed in the preferred embodiment of my improved construction of the head, in unassembled condition, but in the order of assembling them.

The body 3 of the head is composed of sheet metal (preferably aluminium, though steel or other suitable metal may be used) and is of cylindrical shape, with a top 4 forming an internal annular shoulder 5 and from which extends a thimble 6, all these parts being formed integral, or in one piece, by casting, spinning or stamping. A spiral spring 7 is confined in the thimble to bear against a plunger 8 with which is pivotally connected the inner end of a lever 9 passing through an opening 10 in the side of the thimble in which the lever is fulcrumed. The plunger bears against the center of a disk-valve 11, of suitable flexible material, which finds a rigid seat against the annular shoulder 5. The block 12, which is composed of block-tin, porcelain, or other material suitable because of its being proof against chemical action upon it of the charged liquid, consists of a disk containing a central opening 13 about which is formed a circumferential groove 14 in

the upper side of the disk, and a spout 15 communicates with the groove through an opening 16. The disk is chambered in its under side, as represented at 17.

The cylindrical body 3, which is internally screw-threaded, is shown to contain a longitudinal slot 18 extending through its lower end, to permit the block to be inserted by causing the spout 15, which is an integral part thereof, to extend through the slot. However it is not essential that the slot shall extend entirely through the lower edge of the body, nor that anything more than a mere opening be provided therein through which to enable the spout to protrude, and which may permit the insertion through it of the disk 12 into place in the cylindrical body 3. When, however, the slot 18 is formed as illustrated a metal ring 19 is provided to encircle the body 3 for preventing spreading thereof by reason of the slot; and this ring, which extends upward beyond the base of the spout, contains a recess 20 in its upper edge to embrace and reinforce the spout. Moreover, the ring closes the slot against ingress of dirt into the siphon-head. The ring 19 may be dispensed with when the opening or slot in the body 3 does not extend through its lower end. The disk 12 bears against the circumferential flange 21 about the upper end of a packing-bulb 22, of rubber or other suitable expansible packing material, containing a central opening to surround the upper portion of the tube 23 which opens into the chamber 17.

The parts thus described of my improved head are assembled in the order of describing them; and when the body 3 is applied to a bottle 24 in the position represented in Fig. 1, to surround the neck of the bottle, the flange 21 seats against the upper end of the neck and the body of the bulb enters the neck and carries the tube 23. To fasten the parts together and in place on the bottle the two sections of a split annular nut 25 are adjusted about the bottle-neck and screwed into the lower threaded end of the body 3 against the base of the bottle-neck flange 27, thereby bringing the nut-flange 26 against the lower edges of the body 3 and ring 19 and firmly drawing the shoulder 5 against the disk-valve, whereby it is clamped against the disk 12 and the latter binds the flange 21 against its seat on the upper end of the bottle-neck. Thus tightening the parts together, moreover, tends to swell the packing-bulb and tighten it in the bottle-neck and about the tube 23, to prevent leakage past the latter.

By providing the body 3 with the spring-housing upon it, shown as a thimble, in one piece, I avoid separable parts susceptible of ready separation by manipulation, with the advantage of preventing the removal and loss of parts by handling, whether intentionally or carelessly, which experience has shown to be a frequent cause of such loss. The rigid valve-seat 5 about the inner surface of the top 4 of the body is also

an advantageous feature of construction, because of the firmness with which it enables the clamping of the parts, requiring to be effectively sealed, between it and the bottle-neck.

5 What I claim as new and desire to secure by Letters Patent is—

1. In a siphon-head, the combination of a cylindrical body having a top with a spring-housing upon it, formed entire of one piece of metal, the inner surface of said top
10 forming a rigid annular shoulder about said housing, a spring in said housing, a plunger provided with an operating lever, against which plunger said spring is confined, a spout-block in said body with its spout projecting through the same, a disk-valve covering said block and seating against
15 said shoulder and against the center of which said plunger bears, packing on the bottom of said block, and means for clamping together said shoulder and packing and the valve and block between them.

2. In a siphon-head, the combination of a cylindrical
20 body having a top with a spring-housing upon it, said body, top and housing being formed entire of one piece of metal, and the inner surface of the top forming an annular shoulder about said housing, a spring in said housing, a

plunger provided with an operating lever, against which plunger said spring is confined, a spout-block in said body
25 with its spout projecting through the same, a disk-valve covering said shoulder and against the center of which said plunger bears, a flanged apertured packing-bulb at the bottom of said block, and means for clamping together said shoulder and packing and the valve and block be-
30 tween them.

3. In a siphon-head, the combination of a cylindrical body having a top with a spring-housing upon it, said body, top and housing being formed entire of one piece of
35 metal, and the inner surface of the top forming an annular shoulder about said housing, a spring in said housing, a plunger provided with an operating lever, against which plunger said spring is confined, a spout-block in said body with the spout projecting through the same, a disk-valve covering said block and seating against said shoulder, and
40 against the center of which said plunger bears, packing in the bottom of said block, and a divided nut screwing into the open end of said body for the purpose set forth.

FRANK B. LOMAX.

In presence of—

J. H. LANDES,
R. A. SCHAEFER.