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T. H. W. IDRIS & R. H. GRIFFITH.
HEAD OF SIPHONS FOR AERATED LIQUIDS.
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Fig. 1.

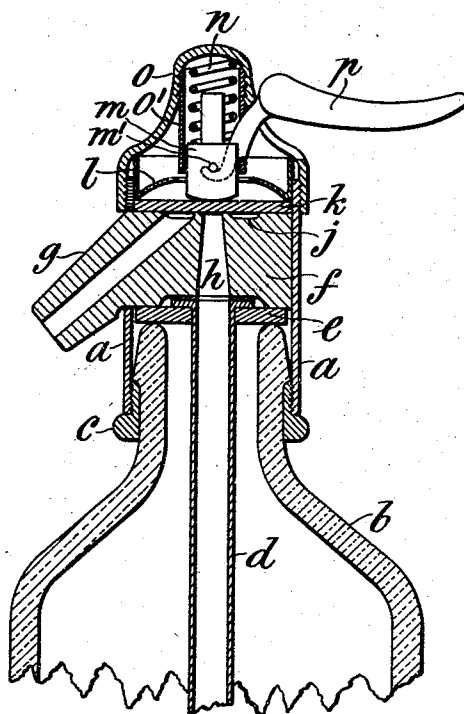
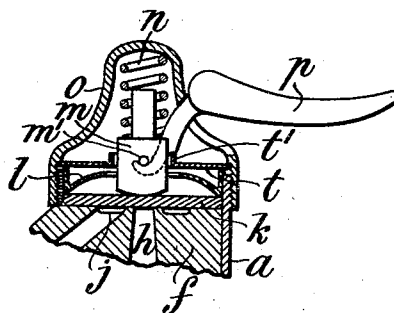


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

THOMAS HOWELL WILLIAMS IDRIS AND RICHARD HOOSON GRIFFITH,
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HEAD OF SIPHON FOR AERATED LIQUIDS.

SPECIFICATION forming part of Letters Patent No. 787,449, dated April 18, 1905.

Application filed December 5, 1904. Serial No. 235,614.

To all whom it may concern:

Be it known that we, THOMAS HOWELL WILLIAMS IDRIS, mineral-water manufacturer, residing at 110 Pratt street, Camden Town, and
5 RICHARD HOOSON GRIFFITH, manager of siphon factory, residing at 8 South Villas, Camden Square, Camden Town, in the county of London, England, subjects of the King of Great Britain, have invented certain new and
10 useful Improvements in the Heads of Siphons for Aerated Liquids, of which the following is a specification.

This invention relates to improvements in the siphon-head described in the specification of the Patent No. 653,417, dated the 10th of July, 1900; and its objects are to make it more easy to put the parts together and to increase the leverage of the handle.

Figure 1 is a vertical section of the top of a siphon made according to this invention, and
20 Fig. 2 is a similar view of a modification.

In Fig. 1 the outer casing of the head consists of a tube *a*, preferably made of nickel-plated steel or other hard metal, which is secured to the body *b* of the siphon by screwing it onto a split ring *c* in the usual way.
25 The tube *d*, descending into the siphon-body, has a flanged top. Around the top of tube *d*, but below the flange, is an annular washer *e*, of india-rubber or like material, which rests on the top of the siphon-body. Above this washer and fitting inside the tube *a* is a block *f*, of earthenware or the like. This block has
30 made in one piece with it the nozzle *g*, which projects through a slot made in the side of the tube *a*. The block is perforated axially at *h* for the passage of the liquid and has a groove *j* in its top communicating with the hole through the nozzle *g*. Above the block is a
35 disk washer *k*, forming the valve, and above this is a ring *l*, also fitting inside the tube *a*, but projecting above it. Inside the ring *l* is a plunger *m*, resting on the valve-washer *k*, and above the plunger *m* is a spring *n*. A
40 cap *o* screws onto the top of the tube *a* and pressing on the ring *l* and the spring *n* holds the parts in place.

The description so far applies equally to the

former apparatus. The lever *p*, however, for actuating the valve, instead of, as before, resting on the edge of the ring *l* as a fulcrum, now rests on the bottom of a slot in the tube
50 *o'*, fixed to or forming part of the cap *o*. The fulcrum of the lever is thus brought nearer to the pin *m'* in the slot in the plunger *m* and
55 greater power is obtained. Owing also to the form of the parts, the engagement of the hooked nose of the lever *p* with pin *m'* retains the plunger *m* and spring *n* in place in
60 the tube *o'*, so that the cap can be screwed on and off without disarranging the lever, plug, and spring, which are carried by it. This was not formerly the case.

In Fig. 2 the same objects are attained, but not so advantageously, by fulcruming the lever
65 on a tube formed by the flange *t'* of a disk *t*, screwing into the cap *o*. This disk bears on the top of the ring *l*.

What we claim is—

1. The combination of a siphon-body, a cap
70 fixed to the body, a valve inside the cap, a tube fixed in the cap, a block free to move in the tube as a guide and resting on the valve, a spring pressing the block onto the
75 valve and a lever fulcrumed at the wall of the tube and acting on the block.

2. The combination of a siphon-body, a cap fixed to the body, a valve inside the cap, a
80 slotted tube fixed in the cap, a block free to move in the tube as a guide and resting on the valve, a spring pressing the block onto the valve and a lever fulcrumed on the end of the slot in the tube and acting on the block.

3. The combination of a siphon-body, a block of earthenware or like material provided with a spout and having perforations
85 in it leading to the inside of the siphon, and to the spout, a washer interposed between the block and the siphon-body, a tube secured to the siphon-body surrounding the block and
90 extending above it, a disk on the upper face of the block, a cap above the disk secured to the upper end of the tube, a loose ring interposed between the cap and the disk, a cylinder fixed in the cap, a plunger free to move
95 in the cylinder as a guide and resting on the

disk, a spring pressing the plunger onto the disk and a lever fulcrumed at the wall of the cylinder and acting on the plunger.

4. The combination of a siphon-body, a
5 block of earthenware or like material provided with a spout, and having perforations in it leading to the inside of the siphon, and to the spout, a washer interposed between the block and the siphon-body, a tube secured to
10 the siphon-body surrounding the block and extending above it, a disk on the upper face of the block, a cap above the disk secured to the upper end of the tube, a loose ring inter-

posed between the cap and the disk, a slotted cylinder fixed in the cap, a plunger free to
15 move in the cylinder as a guide and resting on the disk, a spring pressing the plunger onto the disk and a lever fulcrumed on the end of the slot in the cylinder and acting on the plunger.

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Witnesses:

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