

(No Model.)

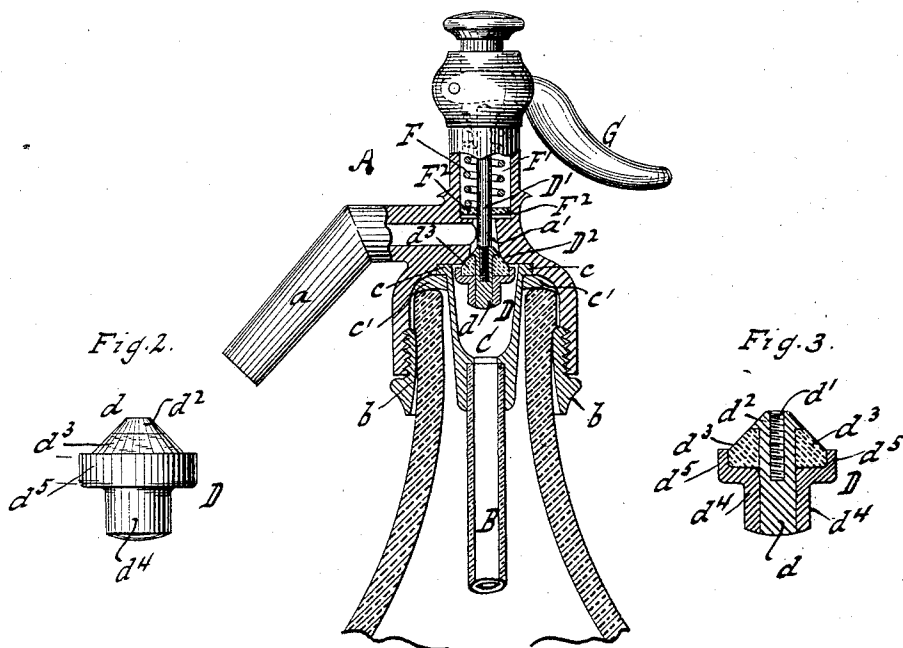
P. E. MALMSTRÖM & P. E. DUMMER.

SIPHON HEAD.

No. 327,402.

Patented Sept. 29, 1885.

Fig. 1.



WITNESSES:

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UNITED STATES PATENT OFFICE.

PETER E. MALMSTRÖM AND PAUL E. DUMMER, OF NEW YORK, N. Y.,
ASSIGNORS TO CARL H. SCHULTZ, OF SAME PLACE.

SIPHON-HEAD.

SPECIFICATION forming part of Letters Patent No. 327,402, dated September 29, 1885.

Application filed July 23, 1885. (No model.)

To all whom it may concern:

Be it known that we, PETER E. MALMSTRÖM and PAUL E. DUMMER, citizens of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Siphon-Heads, of which the following is a specification.

Our invention relates to improvements in siphon-heads, such as are intended for employment with liquids charged with gas; and it has for its object to provide a novel valve-stopper for the discharge-orifice of the head. This object we accomplish by the construction and combination of devices hereinafter described and claimed, reference being made to the accompanying drawings, illustrating our invention, in which—

Figure 1 is a longitudinal central section, with part in elevation, of a siphon-head provided with our improved valve-stopper, the said stopper being shown on its seat. Fig. 2 is a side elevation, on a larger scale than the preceding figure, of the valve-stopper detached. Fig. 3 is a longitudinal vertical cross-section of the same.

Similar letters indicate corresponding parts.

In the drawings, the letter A, Fig. 1, designates a siphon-head, which can be secured to the mouth of the bottle in the ordinary manner by screwing the said head to a collar, *b*, which collar *b* is secured to the neck of the bottle, and is provided with a suitable external screw-thread for the aforesaid purpose. The siphon-head is provided with a discharge-pipe, *a*, connecting with a channel, *a'*, formed in the said siphon-head, which channel communicates with the discharge-tube B, which can extend to the bottom of the bottle in the ordinary manner. The discharge-pipe B communicates with a thimble, C, which can be provided with a flange, *c*, which flange rests upon a gasket or washer, *c'*, which washer *c'* is interposed between the upper edge of the bottle and the body of the siphon A, to prevent leakage, and the flange *c* of the said thimble also fits into a socket or recess formed in the body of the siphon to allow the said siphon to bear upon the gasket or washer *c'*. The lower edge of the channel *a'* is formed conical or flaring, and the said edge constitutes a seat, *D*², for the

valve-stopper D. To obtain the best results both in the time of wear and in the efficiency of action, we construct this valve-stopper D with an inner core, *d*, which can have an internal screw-thread, *d'*, therein for the reception of the threaded end of the plunger D', Fig. 1, and the said core is also provided at one end with a projecting portion or head, *d*², Fig. 3, against which abuts a neck-washer, *d*³, of rubber, leather, or some other elastic or semi-elastic material, which can be slid on from the bottom of the core until it abuts against the head *d*², as described. With these two elements the valve would accomplish its purpose, provided the rubber neck-washer *d*³ were made to tightly fit the core; but in order to securely and permanently retain the said neck-washer *d*³ in its proper position upon the core *d*², we make use of a thimble having an upward-projecting surrounding rim or flange, *d*⁴, forming a socket, which receives the lower part of the said neck-washer *d*³. The face, or that part of the neck-washer *d*³ which is adapted to bear upon the conical valve-seat *D*², is formed correspondingly conical, so that when the valve is drawn upward against its seat the escape of gas or liquid is effectually prevented.

The thimble *d*⁴, for retaining the neck-washer *d*³ in its proper position, can be either screwed thereon, or, as shown in the drawings, the thimble can be forced on the core until in the proper position to wedge the said neck-washer between the thimble and the head of the core.

It will be noticed that the surface of the head *d*² is also formed conical, so as to form a continuous unbroken surface with the face of the said neck-washer.

As before stated, the stopper-valve is adapted to be secured to a plunger, D', Fig. 1, which latter extends upward through the channel *a'*, and is subjected to the action of a spring, F, in a chamber, F', so that the valve-stopper D is continually pressed against its seat *D*²; and in order to move the same from its seat a lever, G, can be employed, which is fulcrumed to the siphon-head at one end, and is adapted to act upon the end of the plunger D' when depressed.

To prevent leakage around the plunger D' at the point where it passes from the channel *a'* into the chamber F', a suitable washer, F²,

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or suitable washers can be placed in the said chamber, and upon this washer the end of the spring can rest.

5 The various parts forming the siphon-head, including the means employed for actuating the valve-stopper D, which are illustrated in the accompanying drawings, are similar to those constituting siphon-heads now in use; and we do not wish to restrict ourselves to
10 the use of such parts, since any other suitable construction of siphon-head and means for actuating the valve can be employed, as the main object of our invention is to procure a valve-stopper for siphon-heads which will
15 work efficiently, and which is not liable to become worn-out and leaky.

What we claim as new, and desire to secure by Letters Patent, is—

20 1. A valve-stopper for a siphon-head, consisting of a core, d , having a head, d^2 , an elastic neck-washer, d^3 , through which the core passes, and a thimble, d^4 , secured around the lower

end of the core, and having at its upper end a surrounding rim or flange, d^5 , forming a socket in which the lower end of the neck-
25 washer is seated, substantially as described.

2. The combination, with a siphon-head having a conical valve seat and a plunger, of the core d , having the head d^2 , connected with the plunger, the elastic conical neck-washer
30 d^3 , through which the core passes, and the thimble d^4 , secured around the lower end of the core and having at its upper end a surrounding rim or flange, d^5 , forming a socket in which the lower end of the conical neck-washer
35 is seated, substantially as described.

In testimony whereof we have hereunto set our hands and seals in the presence of two subscribing witnesses.

PETER E. MALMSTRÖM. [L. S.]

PAUL E. DUMMER. [L. S.]

Witnesses:

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