No. 851,459. PATENTED APR. 23, 1907.

C. WALTER.

SIPHON HEAD.

APPLICATION FILED DEC. 20, 1906.

Fig: 1.

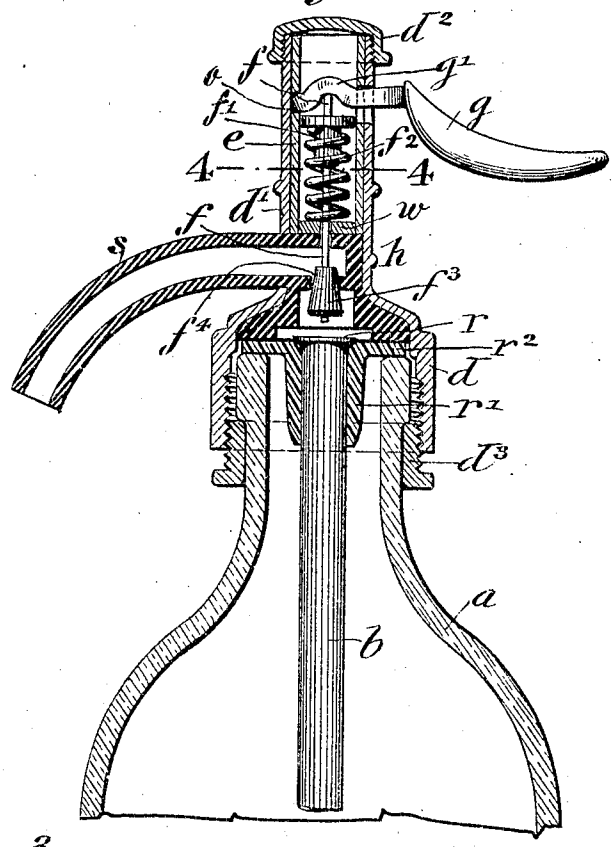



Fig: 3.

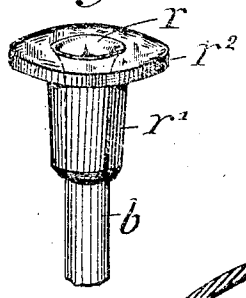
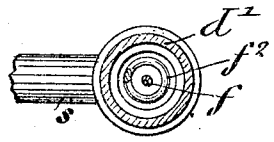



Fig: 2.




Fig: 4.




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# UNITED STATES PATENT OFFICE.

CHARLES WALTER, OF NEW YORK, N. Y.

## SIPHON-HEAD.

No. 851,459. Specification of Letters Patent. Patented April 23, 1907.

Application filed December 20, 1906. Serial No. 348,730.

*To all whom it may concern:*

Be it known that I, CHARLES WALTER, a citizen of the United States, residing in New York, in the borough of Richmond, county of Richmond, and State of New York, have invented certain new and useful Improvements in Siphon-Heads, of which the following is a specification.

This invention relates to an improved siphon-head for dispensing carbonated liquids from glass siphons.

The siphon-heads generally used are made of tin, the surface of which soon tarnishes and presents a dull and unattractive appearance.

The object of this invention is to improve the appearance and diminish the weight of the siphon-heads by employing aluminum for the body of the same.

Another object of the invention is to improve the connection of the glass tube with the siphon-head in supporting the glass siphon-tube in a reliable manner in the siphon-head, so as to prevent the breakage of the tube; and the invention consists of a siphon-head, the body of which is made of aluminum which is cast around an interior hard-metal sleeve which supports the valve-actuating lever and the spring of the valve, and in which the spout and the interior connection are made of tin in such a manner that the carbonated water comes only in contact with the tin on being discharged.

The invention consists further of the combination, with a siphon-bottle, of a siphon-tube having a rim at its upper end and supported by a rubber sleeve extending around the siphon-tube, said sleeve being provided with a circumferential flange which is retained on the siphon-neck by the placing of the siphon-head thereon.

In the accompanying drawings, Figure 1 is a vertical longitudinal section of my improved siphon-head, showing the valve in closed position, Fig. 2 is a similar section with several of the parts removed, Fig. 3 is a perspective view of the elastic socket for supporting the glass tube in the bottle, and Fig. 4 is a section on line 4, 4, Fig. 1.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, *a* represents a glass siphon-bottle, *b* the glass tube of the same, and *h* the head. The head *h* consists of an internally threaded neck *d*, a tubular portion $d^1$ above the same, a cap $d^2$ applied to the upper end of the tubular portion, and a spout *s* that is connected with the tubular portion above the neck *d*. In the tubular portion or stem $d^1$ is arranged a cylindrical sleeve *e* of brass or other hard metal which is supported on an elastic washer *w* through which the valve-stem *f* passes in upward direction. Said valve-stem is provided with a head $f^1$ at the upper end, between which and the elastic packing is interposed a helical spring $f^2$ by which the valve $f^3$ at the lower end of the stem is pressed in upward direction against a seat $f^4$ arranged in the spout *s*. The valve-stem *f* passes through an opening $f^5$ in the upper portion of the spout. Said stem is extended above the head $f^1$ and is engaged at its upper end by the curved inner end of a lever *g*, the inner portion $g^1$ of which is supported in an opening *o* in the hard-metal sleeve *e*, while its middle portion passes through slots in the sleeve, and the tubular portion $d^1$ to the outside of the latter.

A metallic exteriorly threaded collar $d^3$, which is split at one point of the same, is inserted between the neck of the bottle *a* and the internally threaded neck *d* of the siphon-head so as to make a firm connection between the neck of the bottle and the siphon-head. The neck *d* and the tubular portion $d^1$ are made of one integral tubular body of aluminum, which is spun at the upper part around the hard-metal sleeve and in suitable form around the lower part, an opening being made at one point in the tubular portion, above the neck, for casting in the spout and the interior connection of the same with the glass siphon-tube, as shown in Figs. 1 and 2. The casting of the spout and the interior connection is made in a suitable mold after the neck and tubular portion are made, so that the intimate connection of the tubular portion and neck of the siphon-head is obtained. A hole for the valve-seat and a hole for the valve-stem in the spout are either obtained by coring or drilling, as desired. By this arrangement the carbonated liquid, on being discharged on the opening of the valve, only comes in contact with the interior surface of the tin connection of the spout and does not come in contact with the aluminum body of the siphon-head, while at the same time the appearance of the head is greatly improved owing to the property of aluminum of remaining bright and untarnished. The cap and connecting-collar are likewise made of aluminum, so that thereby not only the ap-

pearance of the siphon-head is greatly improved, but the weight of the same greatly reduced, and in place of the more expensive tin, aluminum, which is cheaper than tin, is substituted for the body of the siphon-head.

The operation of the valve, in opening and closing the same by the lever against the tension of the spring, is the same as in siphons heretofore in use, but the connection of the glass tube with the neck of the bottle is made by providing the upper end of the siphon-tube with an outwardly-bent short rim $r$ and placing a rubber socket $r^1$ around the same, said socket or sleeve being provided with a circumferential flange $r^2$ made integral therewith which is held firmly in position between the rim of the bottle and the interior tin-filling of the siphon-head, as shown in Fig. 1. The rubber socket or sleeve with its circumferential flange holds the siphon-tube firmly in position and prevents it from being broken or injured while the bottle is in transit or when the same is carelessly handled, while at the same time the circumferential flange produces the tight seating of the siphon-head on the bottle and prevents the escape of any gas of the carbonated liquid in the bottle.

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

1. A siphon-head comprising an exterior shell and cap, said shell being formed of an internally threaded neck and a tubular upper portion, a hard-metal sleeve in said tubular portion, a tin valve-supporting body within said shell at its lower portion, and a spout formed integral with said body and extending without said shell.

2. In a siphon-head, the combination of an exterior shell formed of an internally threaded neck and a tubular portion above the same, a hard-metal sleeve in said tubular portion, a tin body provided with a valve-seat and located at the lower part of said tubular portion, a valve to coact with the valve-seat in said body, a spring-actuated stem for said valve extending upwardly into said sleeve, and a valve-operating lever supported within said sleeve.

3. In a siphon-head, the combination of a shell comprising an enlarged neck and a tubular portion extending upwardly therefrom, a tin body located within said shell at the lower part of said tubular portion and provided with a valve-seat and a spout, a sleeve within said tubular portion above said body, a valve to coact with said valve-seat, a stem for said valve extending upwardly into said sleeve, a head carried by said stem, a spring interposed between said head and said body, and a valve-operating lever extending into and supported within said sleeve and abutting against the upper end of said stem.

4. In a siphon-head, the combination, with a siphon-bottle and a siphon-head, of a glass siphon-tube provided with a rim at its upper end, and an elastic sleeve located at the upper end of the siphon-tube and provided with a circumferential flange or packing interposed between the neck of the bottle and the neck of the siphon-head.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

CHARLES WALTER.

Witnesses:

PAUL GOEPEL,

HENRY J. SUHRBIER.