No. 676,009. Patented June 11, 1901.

I. RIPPER.

SIPHON FLASK.

(No Model.) (Application filed July 18, 1900.)

FIG. 3

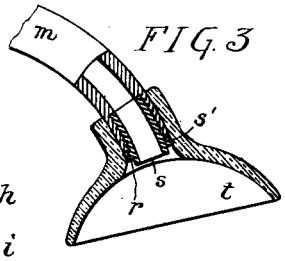


FIG. 1

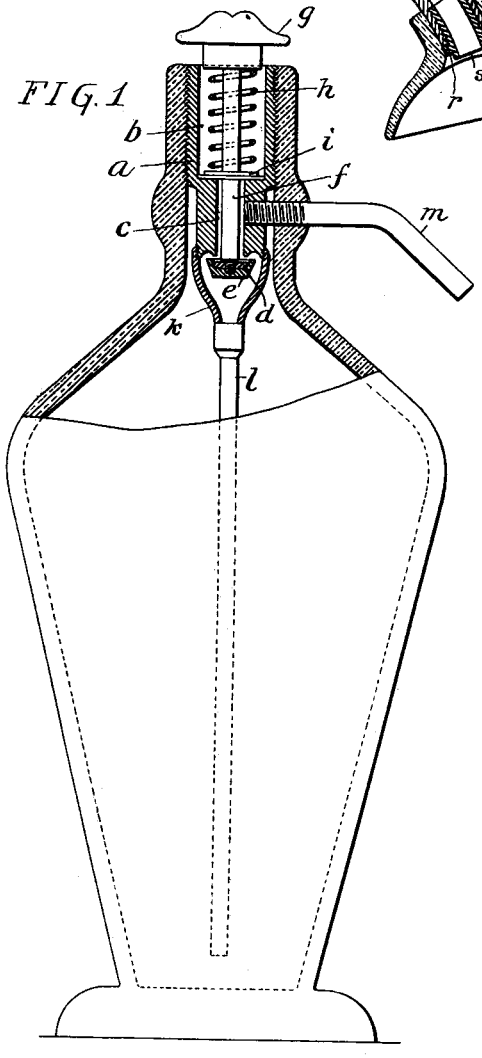


FIG. 2

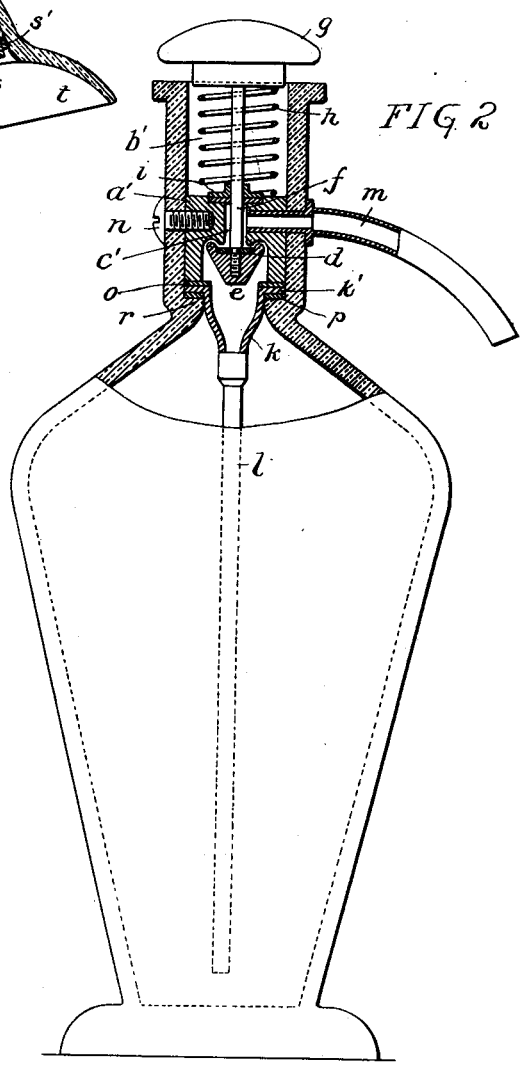
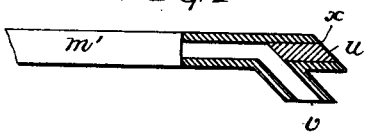


FIG. 4



Witnesses
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UNITED STATES PATENT OFFICE.

IGNATZ RIPPER, OF BUDAPEST, AUSTRIA-HUNGARY, ASSIGNOR TO MENDEL & COHNER, OF SAME PLACE.

SIPHON-FLASK.

SPECIFICATION forming part of Letters Patent No. 676,009, dated June 11, 1901.

Application filed July 18, 1900. Serial No. 24,013. (No model.)

To all whom it may concern:

Be it known that I, IGNATZ RIPPER, a subject of the King of Austria-Hungary, residing at Budapest, Austria-Hungary, have invented certain new and useful Improvements in Siphon-Flasks, of which the following is a specification.

This invention relates to a siphon arrangement for flasks wherein the effective or actuating parts are arranged within the bottle itself and the latter provided for the purposes of the apparatus with suitable openings, the actuation of the parts taking place by means of an exterior push-button. Such apparatus can be made more simple and at less cost than those heretofore in use and kept clean more easily, since practically only glass surfaces are exposed.

In apparatus constructed according to my said invention only the push-button and discharge-pipe are exposed, the other elements being covered up, concealed, and sheltered, so that the flask complies with all sanitary requirements.

In the drawings, Figure 1 represents in side elevation, partly broken away, a flask embodying my said invention. Fig. 2 is a similar view of an alternative form of said invention, and Figs. 3 and 4 enlarged details of modified forms of the discharge-pipe.

Referring now to Fig. 1, a plug or sleeve *a* is screwed into the neck of the bottle of such construction that the diameter of the upper bore *b* is greater than that of the lower bore *c*, a valve-casing *k* being attached to the lower end of said sleeve to receive the valve *e*, faced with packing-washer *d*, and the stem *f* of which is extended up through the sleeve and terminates in the push-button *g*, normally sustained above the mouth of the bottle by coiled spring *h*, acting upon washers *i*, seated against shoulders in the sleeve at the point where it is reduced from the upper and larger bore to the lower and reduced bore. To the lower end of the valve-casing *k* is connected the pipe *l*, which extends from said casing nearly to the bottom of the bottle, so that the gas-pressure therein may tend to force the contents up through said pipe to the valve-casing and into the reduced bore *c* of the sleeve when the valve is open, the upper end of this bore, it will be understood, being tightly closed by the pressure of the spring upon the washers *i*, above mentioned. From the lesser bore *c* of the sleeve leads the discharge-pipe *m*, the connection being made through a hole in the side of the neck of the bottle, and by screw engagement, friction, or in any other manner permitting a ready and easy disconnection. This discharge-pipe, it will be observed, screws into the housing of the valve-stem, which is a part of the above-mentioned sleeve, and thereby establishes a lock between said sleeve, housing, and the valve-casing, preventing them from working out of the bottle or being removed therefrom without first removing the discharge-pipe.

The alternative form shown in Fig. 2 is characterized by making the neck of the bottle itself afford the upper and larger bore *b'* of the apparatus and securing the lower reduced bore *c'* by means of a centrally-apertured plug *a'*, fastened into said neck by screw or screws *n* passing through the wall of said neck or by the discharge-pipe *m* entering therein through the neck of the bottle, or by both means. The lower part of this plug serves to clamp packing-ring *p*, annular outturned flange *k'* from valve-casing *k*, and packing-ring *o* against an annular internal shoulder *r* at the base of said neck, thereby securing the valve-casing in place with a hermetic joint.

In Fig. 3 the outer end of the discharge-pipe is shown as provided with internal screw-threads, either cut or cast. A bell-mouth *t*, of glass, porcelain, or like material, is secured thereto by flanged screw-sleeve *s* and elastic packing-ring *s'*, which makes a tight friction-joint with the bell-mouth when jammed up against the end of the discharge-pipe by driving home the screw-sleeve, the purpose of this arrangement being, on the one hand, to be able to easily clean the bell-mouth and, on the other hand, to be enabled to readily detect and remove impurities clinging thereto.

A further modification is shown in Fig. 4, in which the end of the discharge-tube *m'* is divided into two branches, one of which, *x*, is a practical continuation of the adjacent straightened reach of the tube, while the other,

v, serves as the spout. The branch x is closed by a plug u, which may be removed for clearing or adjusted to more or less obstruct the discharge and check the flow. The bell-mouth (shown in Fig. 3) can obviously be applied to the branch v in this latter construction.

The operation is as follows: The valve is opened by depressing the button, whereupon the gas-pressure in the flask forces its contents up through the inner leg l of the siphon into the chamber of the valve-casing and thence into the lower or reduced bore c, through which it reaches discharge-tube m and escapes. When the button is released, the valve is returned to place, on one hand, by the action of the spring h and, on the other, by the pressure within the flask.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination in a bottle, of a plug seated in the neck thereof, a central bore through said plug, a valve-stem passing through said bore, a valve beneath the plug operated by said stem, a siphon-leg with which said valve connects, and a discharge-pipe passing through the neck of said bottle into said plug to communicate with the bore thereof, and acting to hold said plug in place.

2. The combination in a bottle, of a plug or sleeve in the neck thereof provided with a large upper bore and a reduced lower bore, a discharge-tube connecting with the lower bore through the side of said neck and locking the plug to the neck, a valve-stem passing through said bores and terminating in a knob or push-button above the bottle, a valve at the lower end of said stem to close the lower bore, a coiled spring in the upper bore normally holding the valve closed, a valve-casing inclosing said valve and its seat, and a pipe leading from said casing downward within the bottle.

3. The discharge-tube formed with two branches, one of which is a straight continuation of the adjacent end, in combination with the adjustable plug closing said latter branch.

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

IGNATZ RIPPER.

Witnesses:

CHAS. F. ARNOLD,

RAYMOND WILLEY.