(Model.)

J. H. J. HAINES.

ATTACHMENT FOR FILLING CANS.

No. 381,236. Patented Apr. 17, 1888.

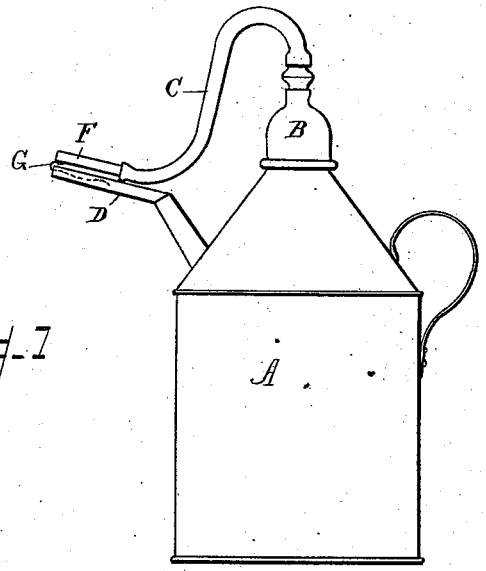

Fig. 1

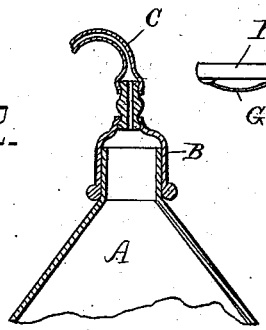

Fig. 2.

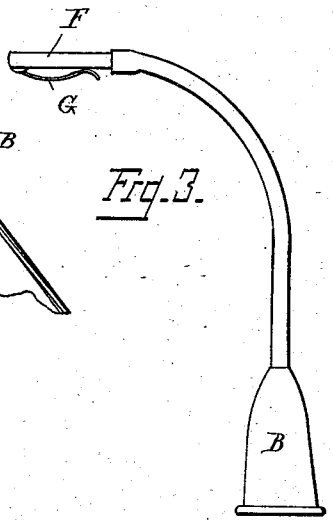

Fig. 3.

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UNITED STATES PATENT OFFICE.

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ATTACHMENT FOR FILLING-CANS.

SPECIFICATION forming part of Letters Patent No. 381,236, dated April 17, 1888.

Application filed January 30, 1888. Serial No. 262,336. (Model.)

To all whom it may concern:

Be it known that I, JOHN H. J. HAINES, a citizen of the United States, and a resident of Flushing, in the county of Queens and State of New York, have invented a certain new and useful Automatic Check Attachment for Filling-Cans, of which the following is a specification.

The object of my invention is to provide a simple, effective, and cheap device adapted for attachment to filling cans or vessels of any description, and designed to automatically stop the flow of liquid from the can or vessel into the vessel or receptacle into which the liquid is being poured when the level of the liquid in the latter reaches a predetermined point, thus avoiding the danger of overflowing the latter.

My invention is designed principally for application to filling-cans intended to hold illuminating-oils and used in filling lamps, though it can be employed in connection with any sort of a vessel or can intended for use in decanting the liquid into another vessel or receptacle and provided with a suitable nozzle or spout.

In the accompanying drawings, Figure 1 shows in side elevation an ordinary filling-can with my improved attachment applied thereto. Fig. 2 shows in vertical section the mouth of the can, the cap, and the portion of the tube connected therewith. Fig. 3 shows in side elevation the check attachment separated from the can and having its elastic cap made in one piece with the flexible tube.

A indicates the body of the filling-can, and D the nozzle thereof, from which the liquid flows.

C indicates a flexible tube, of rubber or other suitable material, having a tip, F, preferably made of some rigid substance, and provided with a means whereby it may be attached to the nozzle D, as shown in Fig. 1. A convenient device for this purpose consists of a spring-clip, G, Fig. 2, adapted to enter the nozzle D, but not to interfere with the flow of liquid from the latter.

The tip F may be made of any suitable material best adapted to resist the action of the liquid with which the can is employed. When the check is to be used with a coal-oil filling-can, I prefer to make the tip of brass. At its opposite end the tube C is provided with a suitable cap adapted to fit over the mouth of the can A.

In devices of the same general nature it has heretofore been proposed to employ a plug which will fit into the mouth; but the sharp edges of the latter, in cans of ordinary construction, sooner or later render the plug useless. To avoid this objection I propose to employ a cap, B, instead of a plug. The cap may be conveniently made of some elastic material—such as rubber—and may be formed in one piece with, or attached to or connected with, the flexible tube C, as desired. The tube and cap are illustrated as made in one piece in Fig. 2. When made of rubber, it may be sprung over the mouth of the can A, so as to form an effectual seal against the entrance of air excepting through the tube C. When made of rubber, it may also be applied readily to cans having mouths of various sizes. I may use any other form of cap adapted to embrace the mouth of the can on its outside in contradistinction to a plug; but I prefer to use an elastic cap, as indicated.

The tip F may be adjusted on the nozzle D in any desired position, either with its end flush with the end of the nozzle or projecting beyond the same. It is preferable, however, to arrange it in the manner shown.

The flexible tube C adapts the check for attachment to cans of different sizes, as will be readily understood. When it is applied in the manner indicated and liquid is decanted from the can A into a vessel—such, for instance, as a lamp—the liquid will continue to flow from the can as long as the air is permitted to freely enter the space above the body of the liquid in the can. Air will thus enter through the tube C and the mouth of the can so long as the tip F of the tube is exposed to the air; but the moment the level of the liquid in the vessel into which the liquid is being poured rises so as to close the mouth of the tube C the flow of liquid from the can will cease, owing to a well-known principle of hydrostatics. By this means the overflow of the vessel may be entirely avoided by taking care to insert the nozzle D into the vessel below the top of the same. It is likewise obvious that the vessel—such as a lamp—may be filled to

any desired level by inserting the nozzle and tip F to the desired level.

I do not limit myself to the form of cap B shown, but prefer to employ the elastic cap described.

After using, the check attachment may be removed, if desired, and may be applied to the same or another can whenever desired.

What I claim as my invention is—

1. In a check or safety attachment for filling cans or vessels, a flexible tube provided at one end with a flexible or elastic cap adapted to be sprung over and closed directly upon the mouth of the can itself and at its opposite end with means for attachment to the nozzle of the can.

2. As a new article of manufacture, a safety attachment for filling-cans consisting of a flexible tube having at one end a tip provided with means for attachment directly to the side of the spout or nozzle and parallel therewith, and having at its opposite end an elastic cap adapted to be sprung over the mouth of the can itself.

Signed at New York, in the county of New York and State of New York, this 26th day of January, A. D. 1888.

JOHN H. J. HAINES.

Witnesses:
WM. H. CAPEL,
HUGO KOELKER.