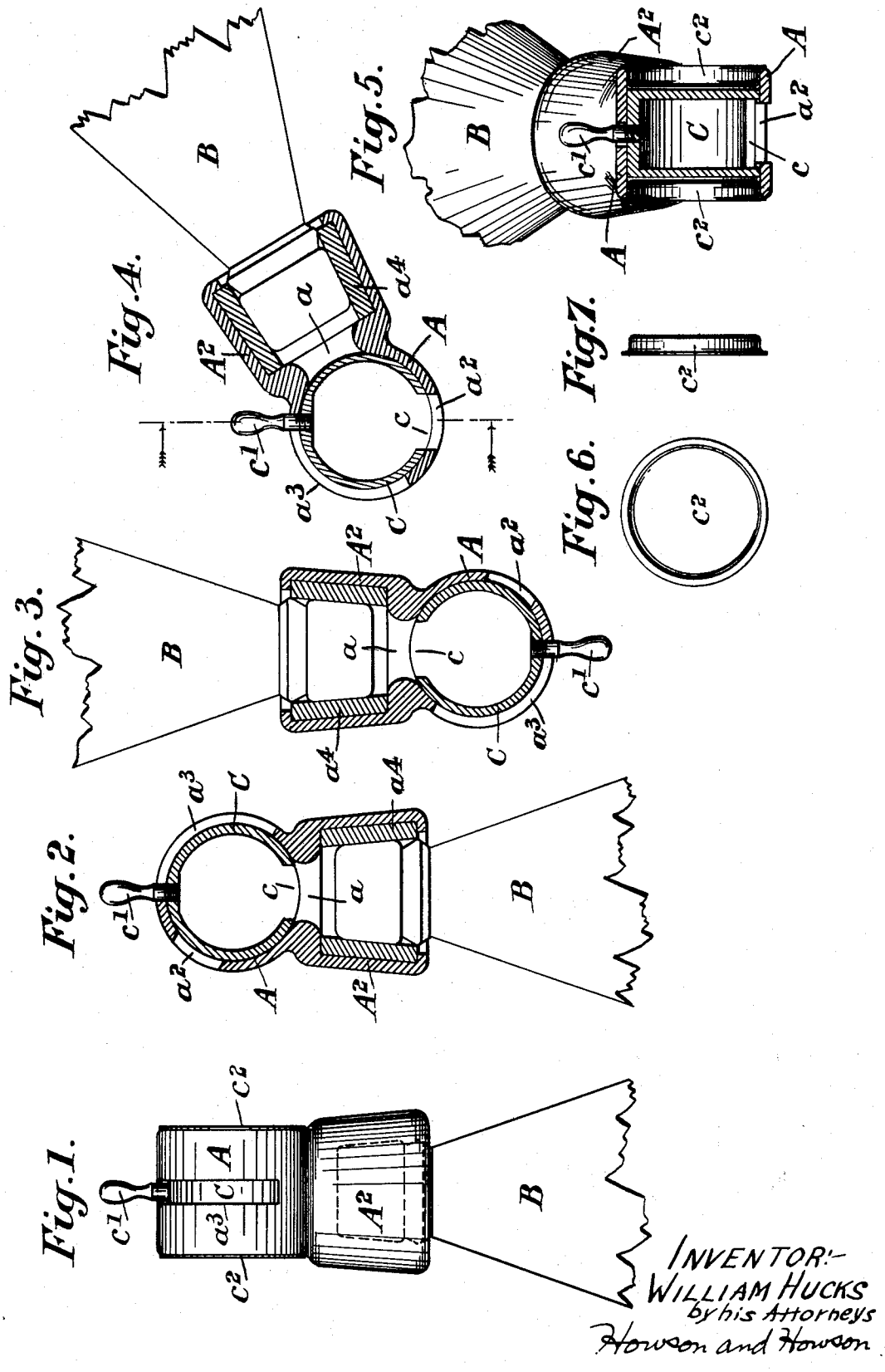
March 16, 1926. 1,577,235

W. HUCKS

DEVICE FOR USE IN REMOVING MEASURED QUANTITIES OF THE CONTENTS OF BOTTLES AND LIKE CONTAINERS

Filed August 19, 1924 2 Sheets-Sheet 1



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Filed August 19, 1924 2 Sheets-Sheet 2

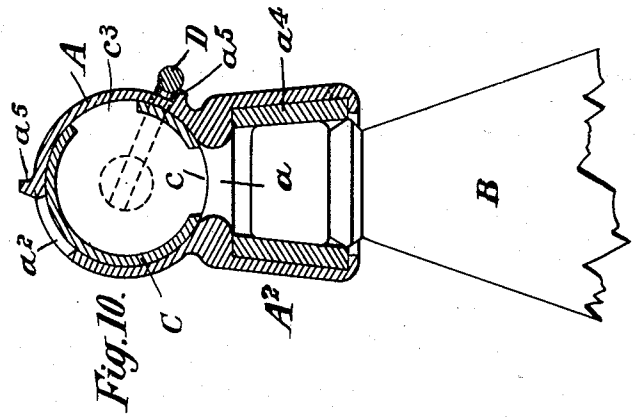


Fig.10.

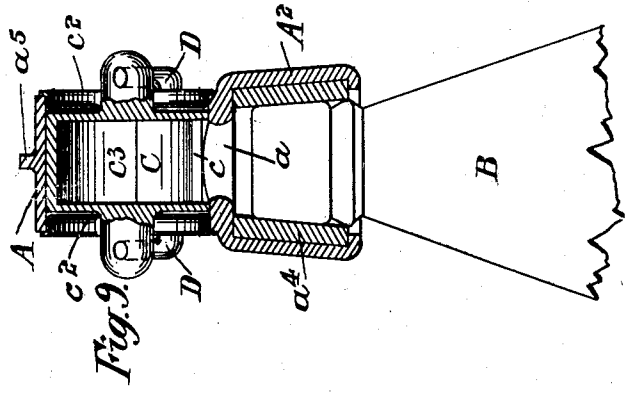


Fig.9.

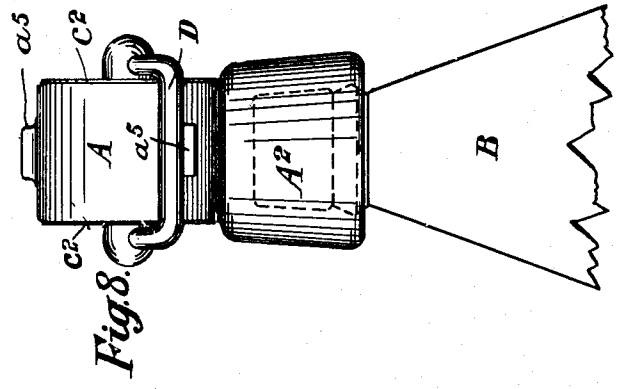


Fig.8.

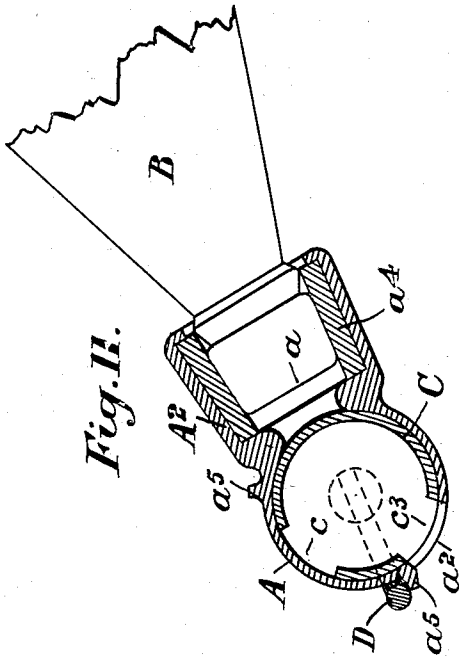


Fig.11.

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UNITED STATES PATENT OFFICE.

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DEVICE FOR USE IN REMOVING MEASURED QUANTITIES OF THE CONTENTS OF BOTTLES AND LIKE CONTAINERS.

Application filed August 19, 1924. Serial No. 733,019.

To all whom it may concern:

Be it known that I, WILLIAM HUCKS, a subject of the King of Great Britain, residing at James Street, Camden Town, in the county of London, England, have invented a new and useful Improved Device for Use in Removing Measured Quantities of the Contents of Bottles and like Containers, of which the following is a specification.

This invention relates to devices, apparatus, or attachments by means of which measured quantities of the contents can be removed from a bottle, the object of the invention being to provide a device which is much more simple and reliable than devices heretofore used for this purpose.

The device, according to my invention consists of a cylindrical casing or body-part having opposite openings constituting respectively an outlet for liquid from the bottle to the measuring vessel and an outlet for the liquid from the measuring vessel which is constituted by a hollow rotary drum, or cylinder, which fits inside, and can be partially rotated in, the casing, or body-part by means, for example, of a handle outside the casing or body-part. The said drum, or cylinder is made to constitute a single chamber and is rotated about an axis which is at right angles to the axis of the opening which is secured to the bottle, an opening (or openings) being provided through the periphery, or side of the drum, in communication with the interior thereof which opening, or openings, by movement or partial rotation of the drum, or cylinder, can be brought into position before one, or other of the openings in the side of the casing, or body-part, but is, or are, incapable of being in communication at the same time with both openings in the casing or body-part. The side of the casing, or body-part, is provided with a cap-piece, or continuation from the opening by which liquid is to pass from the bottle into the drum or cylinder, which constitutes the measuring vessel. The said cap-piece, or continuation, is adapted to receive the mouth, or neck, of the bottle and is provided with an internal rubber washer to effect a tight closure around the mouth or neck.

I will describe, with reference to the accompanying drawings, how the invention can be performed.

Figure 1 is a side elevation and Figures 2, 3 and 4 are sections of a device in accordance with this invention, Figure 2 showing the position when the device is out of use, Figure 3 showing the position when the bottle is inverted to fill the measuring vessel and Figure 4 showing the position when the liquid is being discharged from the said measuring vessel. Figure 5 is a transverse section in the position shown in Figure 4. Figures 6 and 7 show separately one of the lever-lids used as closing ends for the measuring vessel. Figures 8, 9, 10 and 11 show a modification, Figure 8 being a side elevation, Figure 9 a longitudinal section and Figures 10 and 11 transverse sections showing, respectively, the device in the normal position when out of use and in the pouring, or discharging, position.

Referring first to Figures 1 to 7:—The casing, or body-part of the device is marked A. It has an inlet opening at a for liquid from the bottle (indicated at B) and an opening at a^2 from which the measured quantity of liquid is poured. The drum, or cylinder, C, constituting the measuring vessel is capable of being moved through part of a rotation in the casing, or body-part, A, by means of the handle c^1 the slot a^3 in the casing, or body-part A allowing of this movement. A cap-piece A^2 is formed on the part A and lined with rubber a^4 for the reception of the end of the neck of the bottle which is normally in communication with the interior of the vessel C through the openings a and c.

The drum, or cylinder, C can be very simply made as shown from a short cylindrical part with the ends constituted by cupped metal covers c^2, c^2, resembling those which are sometimes used to close tins and are known as "lever-lids".

The connection between the said bottle and the measuring device may be effected by any suitable means, for instance, simply by the grip of the rubber washer, as shown, or the known wire-lever fastening, one part thereof being connected with the cap-piece and the other part being engaged with the bottle-neck.

When it is desired to obtain a measured quantity of liquid from the bottle B, the opening c in the drum, or cylinder, C is brought into coincidence with the opening a

in the casing, or body-part, A and in the cap-piece A^2 as shown in Figure 2, and the bottle is inverted, as shown in Figure 3, when liquid, from the bottle B will pass into the interior of the drum, or cylinder, C and when the bottle is tilted and the said drum, or cylinder is further partly rotated to bring the opening c therein into coincidence with the outlet a^2, as shown in Figure 4, the contents of the drum, or cylinder, C will be discharged through the openings c and a^2 into the receptacle placed to receive it, whilst the opposite opening a through the casing, or body-part A, is closed and prevents the flow of liquid from the bottle through the drum, or cylinder, to the outlet. The bottle, with the device attached to it, is then inverted and is ready to be again manipulated, as explained, when a further measured quantity of liquid from the bottle is required.

In the modification shown in Figures 8 to 11 (where the parts corresponding to those shown in Figures 1 to 7 are marked with the same reference letters) the construction is such that a counterweighted lever D, will move over in reverse directions (to an extent limited by the stops a^5) when the bottle is tilted, or brought back to its upright position, the said lever being shown as a double-armed lever connected with the trunnions formed on, or fixed to, the ends of the drum, or cylinder, C, constituting the measuring vessel. As the extent of movement is necessarily somewhat limited there are two openings c and c^3 in the drum, or cylinder, in order that, during the tipping movement, the openings for the passage of liquid from the bottle into the drum, or cylinder, C and for pouring out the liquid from the said drum, or cylinder, shall not be open at the same time.

What I claim is—

1. An apparatus adapted to be attached to bottles for removing measured quantities of the contents therefrom, said device comprising a casing having a conical opening adapted to be secured over the outlet of a bottle, a drum with closed ends having an opening in its side mounted in said casing, the axis of said drum being at right angles to the axis of said conical opening, and the whole of the interior of said drum constituting a single chamber for holding liquid, and means such that when the bottle is inverted and the drum is moved round into one position said chamber will be in communication with the interior of the bottle so that some of the liquid contained in the bottle will fill the chamber and when the drum is partially rotated into an other position the chamber will be in communication with the outlet from the said device so that liquid will flow out from the chamber through the said outlet.

2. An apparatus in accordance with claim 1, in which device there is combined with the measuring drum, a counterweighted lever which causes the requisite relative opening and closing at the proper times, of the openings in the casing and the drum.

3. An attachment for bottles for removing measured quantities of the contents therefrom comprising a cylindrical casing having an opening in its curved surface, a truncated conical hollow member with its axis at right angles to that of the casing connected to another opening in the casing's side adapted to fit snugly over the bottle head, and a drum with an opening in its curved surface fitted in the casing and rotatable therein, in combination with means for turning said drum so that its opening comes successively opposite the two openings in the casing, substantially as described.

4. An attachment for bottles for removing measured quantities of the contents therefrom comprising a cylindrical casing having an opening in its curved surface, a truncated conical hollow member with its axis at right angles to that of the casing connected to another opening in the casing's side adapted to fit snugly over the bottle head by means of a rubber lining, and a drum with an opening in its curved surface fitted in the casing and rotatable therein, in combination with means for turning said drum so that its opening comes successively opposite the two openings in the casing.

5. An attachment for bottles for removing measured quantities of the contents therefrom comprising a cylindrical casing having an opening in its curved surface, a truncated conical hollow member with its axis at right angles to that of the casing connected to another opening in the casing's side, adapted to fit snugly over the bottle head by means of a rubber lining, and a drum with an opening in its curved surface fitted in the casing and rotatable therein, in combination with a counterweighted lever for turning said drum so that its opening comes successively opposite the two openings in the casing according as the bottle is turned one way or the other upon its axis.

In testimony whereof I have signed my name to this specification.

WM. HUCKS.