(No Model.)

G. H. FREEMAN.

POURING AND DROPPING ATTACHMENT FOR BOTTLES.

No. 261,330. Patented July 18, 1882.

Fig. 4.

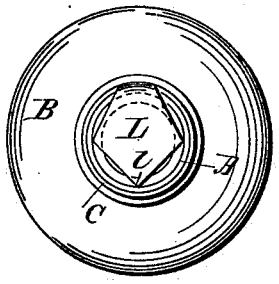


Fig. 2.

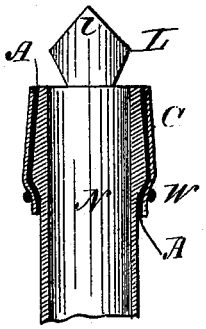


Fig. 1.

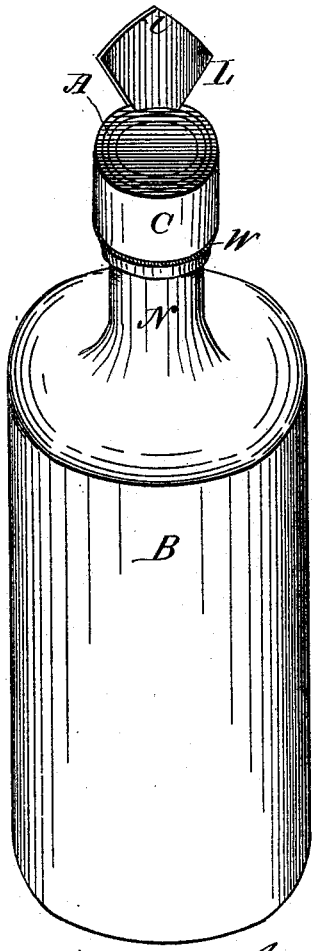


Fig. 3.

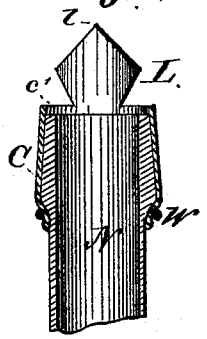
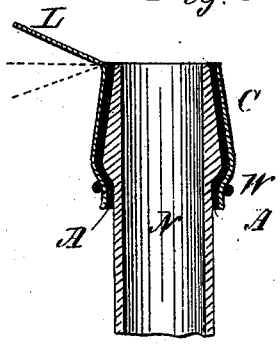


Fig. 5.



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POURING AND DROPPING ATTACHMENT FOR BOTTLES.

SPECIFICATION forming part of Letters Patent No. 261,330, dated July 18, 1882.

Application filed June 9, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. FREEMAN, a citizen of the United States, residing at New Bedford, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Pouring and Dropping Attachments for Bottles; and I do hereby declare the following to be a full, clear, and exact description of the invention such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in dropping and pouring attachments for bottles and other analogous vessels, whereby the liquid contained in the latter may be poured out drop by drop or poured out without spilling, and whereby such liquid is prevented from running down on the outside of the bottle when again brought into a vertical position.

The object of my invention is to provide a convenient attachment for bottles and other analogous vessels that will answer the purposes above stated without changing in any manner the construction of the bottle or vessel itself or the stopper thereof, and which attachment shall not interfere with the packing of such bottles; and the invention consists, first, and broadly, in attaching around the upper portion or swell of the neck of a bottle or analogous vessel a cap or sleeve of some practically water-proof material, provided with a pouring-lip adapted to be folded over the mouth of such bottle or vessel; and in the combination, with the said sleeve or cap, of an absorbing sleeve or cap interposed between the pouring or dropping sleeve and the neck or swell of the bottle or other vessel that will take up or absorb such liquid as may adhere to and run back along the pouring-lip when said bottle or vessel, after dropping or pouring out the liquid, is again brought into an upright position and prevent such liquid from running down the pouring-sleeve and the outside of the bottle or vessel.

In the accompanying drawings, Figure 1 is a perspective view of a bottle, showing my improved pouring and dropping device attached. Fig. 2 is a vertical section of the upper portion of the neck of a bottle to which the said pouring and dropping device is attached. Fig. 3 shows a slight modification in the application of the attachment to a bottle; and Fig. 4 shows the pouring or dropping lip folded over the cork; and Fig. 5 shows a section of the neck of a bottle, showing the pouring-lip bent slightly back for use.

In carrying out my invention I first take a strip, A, of absorbent material—such as felt, cloth, or other textile fabric, or a strip of blotting-paper or other absorbent material—and apply the same around the upper part or the swell of the neck N of a bottle or analogous vessel, B, so that one edge of the sleeve formed by said strip of absorbent material will lie flush with the edge of the mouth of said bottle or vessel. Upon this strip of absorbent material I apply a strip, C, of a liquid-proof or practically liquid-proof material—such as metal or metal foil—or a material that is or may be rendered practically liquid-proof—such as leather or stiff and highly-calendered paper, or a textile fabric of the required stiffness, or to which such stiffness is imparted by the application thereto of liquid-proofing substances, and such materials may be made liquid-proof by any of the well-known means. This outer strip, C, is provided with a lip, L, of any suitable or preferred shape, that shown having been found to answer the purposes admirably. In practice I preferably make this lip L of such length and width as not to project beyond the periphery of the mouth of the bottle when folded down over said mouth, as shown in Fig. 4. The lip L may be of any desired shape, though I prefer to give it the form shown—that is, a lip increasing in diameter from its point of attachment to the sleeve to or nearly to its longitudinal center, tapering from thence to a point, *l*, which forms the extremity of the lip. This form of lip is especially adapted to pouring and dropping the liquid from the bottle, the point *l* causing the liquid to flow off drop by drop, if poured out with a little care, and the enlarged portion or points in which such portion terminates will extend over the mouth of the bottle when folded over the latter.

The cylindrical or conical shape given to the strip from which the pouring and dropping attachment is made, either when applied or before its application to the bottle, will impart to the lip a concave form that will act as a channel for

the liquid and guide it to the point *l*, as will be readily understood. This is not absolutely necessary for the good operation of the pouring and dropping attachment, as the lip may be perfectly flat, and, instead of allowing said lip to remain in a vertical position for pouring, it may be bent at or nearly at right angles to the bottle or other vessel, as shown in Fig. 5.

I have described above a convenient means for applying the pouring and dropping attachment, with its absorbing-sleeve, to the neck of a bottle. Of course such means would probably not be resorted to when large quantities of the attachments are manufactured or when large quantities of bottles are to be provided with the attachment. In such case the two sleeves or caps may be formed into tubes from continuous strips of material, such tubes being afterward cut into proper lengths, allowing sufficient material for the pouring-lip L to be afterward formed on the tubes or to be formed simultaneously with the cutting of the tubes, the sleeves being then applied to the upper portion or swell of the neck when such neck is straight. For bottles the necks of which terminate in a conical swell the sleeves will have to be shaped accordingly.

Whatever method is employed to apply the attachment, it should be such as to insure a tight fit around the swell or upper portion of the neck of the bottle, otherwise a loss of liquid would result.

In practice I preferably secure the attachment upon the swell of the neck of the bottle by means of a cord or wire, W, drawn tightly around the neck of the bottle below the shoulder of the swell. This is especially advantageous for that class of bottles or vessels containing liquids that are to be frequently used and in small quantities at the time—such as bottles for containing medicinal compounds—as such frequent use would saturate the interposed absorbent material and cause the liquid finally to ooze out at the lower edge of the sleeves and run down the bottle.

Instead of a cord or wire, the sleeves may be attached at the lower edge by means of any suitable adhesive substance.

It will be readily understood that the interposed absorbing lining or sleeve A is not absolutely necessary to the good operation of the pouring and dropping attachment, as the liquid adhering to the lip L, on bringing the bottle into a vertical position, would then run along the lip into the bottle, and to more effectually secure this the upper edge of the sleeve or cap may be made to slightly project above the mouth of the bottle, as shown in Fig. 3. This slight projection *c'* would not materially interfere with the packing of the bottles, as it may be folded over the edge of the mouth thereof, if necessary.

In case the space occupied by the pouring-lip when in its vertical position does not come into consideration, then the outer or pouring and dropping sleeve need not be made of a flexible material, and a cap, constructed of any suitable rigid material, having the pouring-lip L and adapted to be applied to the upper part or swell and around the mouth of a bottle, would answer the same purpose.

Having now described my invention, I would have it understood that I do not limit myself to any particular material in the construction of the pouring or dropping attachment or to any specific absorbent material or to any specific method of applying the same to the mouths of bottles, nor do I limit myself in the use of the attachment on bottles only, as it may be used on any other vessel from which a liquid can be poured, the mouth of which is of such shape as to admit of the application of the attachment; but

What I do claim is—

1. A pouring and dropping attachment for bottles and analogous vessels, consisting of a sleeve provided with a pouring or dropping lip adapted to be applied to the mouth of such vessel, as described.

2. A pouring and dropping attachment for bottles or analogous vessels, consisting of a sleeve provided with a pouring or dropping lip adapted to be applied to the mouth of such vessel or bottle and said lip folded over such mouth, as set forth.

3. A pouring and dropping attachment for bottles and analogous vessels, consisting of a sleeve provided with a pouring or dropping lip integral therewith, adapted to be applied to the mouth of such bottle or vessel and the lip folded over said mouth, as set forth.

4. A pouring or dropping attachment for bottles and analogous vessels, consisting of a sleeve of some flexible and practically liquid-proof material, having a pouring or dropping lip formed integral therewith, and adapted to be applied to the mouth of such bottle or vessel and the lip folded over such mouth, as set forth.

5. A pouring or dropping attachment for bottles and analogous vessels, consisting of a sleeve provided with a pouring-lip, and adapted to be applied to the mouth of such bottle or vessel and form a flange or rim above said mouth and between the latter and the pouring-lip, as described.

6. A pouring or dropping attachment for bottles and analogous vessels, composed of a sleeve provided with a pouring or dropping lip, L, terminating in a point, *l*, adapted to be applied to the mouth of such bottle or vessel, as and for the purpose specified.

7. A pouring or dropping attachment for bottles and analogous vessels, composed of a sleeve having a pouring-lip, L, of gradually-increasing diameter from the point of attachment to the sleeve to about midway of the length of the lip and from the latter point tapering to a point, *l*, at the extremity of the lip, as and for the purposes specified.

8. A pouring or dropping attachment for bottles and analogous vessels, composed of a

sleeve provided with a pouring-lip and a lining for said sleeve of an absorbent material, the two being adapted to be applied to the mouth of such bottle or vessel, as described.

9. The combination, with the mouth of bottle or analogous vessel and the sleeve C, having the pouring and dropping lip L, of the cord or wire W, substantially as and for the purposes specified.

10. The combination, with the mouth of a bottle or analogous vessel, of the sleeve C, having lip L of a practically liquid-proof material and the sleeve A of an absorbing substance, as and for the purposes specified.

11. As a new article of manufacture, a pouring and dropping attachment for bottles and analogous vessels, composed of a paper cap or sleeve provided with a pouring-lip and constructed to be fitted over the neck and around the mouth of such bottle or vessel, as set forth.

12. As a new article of manufacture, a pouring or dropping attachment for bottles and analogous vessels, composed of a paper sleeve having a pouring or dropping lip and a lining of blotting paper, as described.

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

GEORGE H. FREEMAN.

Witnesses:
JAMES W. HERVEY,
NATHAN C. HATHAWAY.