UNITED STATES PATENT OFFICE.

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DISPENSING DEVICE FOR LIQUID SOAP, &c.


1,184,878.


To all whom it may concern:

Be it known that I, Morris B. Rosenstock, a citizen of the United States, and resident of Nutley, Essex county, New Jersey, have made a certain new and useful invention relating to dispensing devices for liquid soap, &c., of which the following is a specification, taken in connection with the accompanying drawing, which forms part of the same.

This invention relates especially to dispensing devices suitable for use in dispensing liquid soap or other material in which the container is provided with a permanently connected cap adapted to be seated within the flanged socket in the bracket or support and positively locked in position in connection therewith so as to prevent interference with the operating mechanism which may be adjusted to regulate the amount of material dispensed, the container when in normal position also acting to protect the fastening device for the bracket so as to prevent its removal.

In the accompanying drawing showing in a somewhat diagrammatic way an illustrative embodiment of this invention Figure 1 is an elevation partially in section. Fig. 2 is a partial elevation showing the container separated from its socket; and Fig. 3 is a transverse section taken substantially along the line 3--3 of Fig. 2, the key being shown withdrawn.

The dispensing device may as indicated comprise a container 1 preferably formed of glass or other suitable material, and provided with an attaching device such as a screw thread 2 by which it may be conveniently secured to a suitable cap 3 whose threads may be formed with interruptions or enlargements 4 to prevent unscrewing in connection with suitable irregularities or interruptions in the screw thread on the container and the interposed cement or binding material which is preferably used to insure this permanent connection. The cap is preferably provided with a depending portion 5 adapted to fit within a suitable flanged socket in the end 13 of the support or bracket 18 as shown in Fig. 1, and in order to securely hold the parts in this service position any suitable locking projection or device such as the cylindrical locking projection 11 may be secured to or formed on the cap in any way so as to cooperate with a hole in the bracket. By forming a suitable recess, such as 12 in this locking projection it may be positively held in position when the rotary locking member 25 is turned into the locking position shown in Fig. 1. This locking member may be given a cylindrical form and held in alignment by a screw or pin, such as 28, cooperating with an annular recess 27 of such extent as to positively limit the amount of rotary movement of this locking member in either direction. In this way by the use of a suitable key as shown in Fig. 3, the locking member may be rotated to allow the locking projection to be inserted or withdrawn or to hold the locking projection positively in position as shown in Fig. 1. It is desirable to have the end of this locking member with which the key cooperates sunk or recessed within the surrounding material and to give it substantially the same diameter as the hole 21 within which it is located so as to minimize the danger of its improper operation. By forming a number of shallow peripheral recesses in this locking member it may be readily engaged by a key, such as 22, having its end formed with a series of wedge shaped slots or recesses which produce a number of tapering peripheral tines or gripping projections on the end of the key enabling it to readily and positively engage the irregular or polygonal end of the locking member which may thus be turned by rotating the handle 24 of this key. It is also desirable in order to prevent the removal of dispensing devices of this character by unauthorized persons to provide them with a suitable safety fastening device, such, for example, as a protected fastening screw or member which cannot be operated when the dispensing device is in service position. For this purpose the stem 14 of the support or bracket may be formed with a suitable protected fastening aperture 15, the outer end of which is normally closed by the container or cap when the dispensing device is in normal operating position. When, however, the container and cap have been removed from the support the fastening aperture is rendered accessible and the bracket may be readily secured in the desired position by inserting the fastening member, or screw 16 into the wall 17 preferably in connection with a suitable alining member or pin.
in the bracket which also engages the wall or adjacent sustaining member so as to hold the dispensing device positively in the desired angular position and also to prevent its being unscrewed or removed. The dispensing device may be provided with any suitable form of measuring valve which is preferably removably connected with the container or cap as by screwing the measuring valve casing 10 into the threaded opening in the cap so that a tight joint is made in connection with the cap washer 6, for example. A suitable plunger 7 is mounted within the valve casing preferably in connection with an adjustable plug 37 which may have a threaded engagement with the valve casing so as to be manually adjusted to regulate the effective capacity of the measuring valve and the consequent amount of liquid dispensed at a single operation. The plunger may be formed with a suitable integral flange such as 38 which normally closes the discharge opening in the valve casing in connection with a suitable washer if desired so long as the plunger is held in the closed position indicated in Fig. 1 by the spring 9. In this position the feed aperture 8 which may be formed in the upper end of the plunger 7, for example, is open so as to allow the valve casing to become filled with the liquid from the container above. When, however, the depending stem 20 is forced upward by a person using the device this feed aperture is closed and the discharge aperture 39 in the lower end of the plunger is simultaneously opened to allow the discharge of the desired amount of material for every operation of the plunger. When it becomes desirable to renew the supply of material in the dispensing device the attendant can readily release the locking member by turning it by the key to the extent allowed by the alining screw and then the container and attached measuring valve may be bodily withdrawn from the bracket or support and the measuring valve removed from the cap of the container so as to provide an opening through which an additional amount of material may be inserted. Under these conditions the measuring valve may be readily adjusted by screwing the plug 37 in or out to the desired extent before again screwing the valve casing 10 into the threaded aperture or seat in the cap. The container and valve are then inverted so as to assume the position shown in Fig. 2 and inserted into the bracket so that the cap engages the flanged socket therein and is positively locked in this position by turning the locking member so that the parts are securely held in the position shown in Fig. 1 in which all the parts of the valve mechanism are concealed or protected except the operating plunger which is free to move vertically or to rotate without releasing or throwing out of adjustment any of the other parts of the device. This invention has been described in connection with a number of illustrative embodiments, parts, arrangements, materials and adjustments, to the details of which disclosure the invention is not of course to be limited, since What is claimed as new and what is desired to be secured by Letters Patent is set forth in the appended claims:

1. In dispensing devices for liquid soap, etc., a glass container provided with an irregular screw thread, a cap having a thread cooperating with the thread on said container and formed with interrupted portions, cement interposed between said threaded cap and container to permanently secure them together, a support formed with a flanged socket to receive the end of said cap and having a stem provided with a protected fastening aperture the outer end of which is normally closed by said container to prevent release of a fastening member inserted through said fastening aperture, cooperating locking members in said cap and support and a measuring valve connected to said cap and comprising an actuating plunger.

2. In dispensing devices for liquid soap, etc., a container, a cap secured on said container, a support formed with a socket to receive the end of said cap and having a stem provided with a protected fastening aperture the outer end of which is normally closed by said container to prevent release of a fastening member inserted through said fastening aperture, alining means on said support to maintain angular alinement thereof, a locking projection on said cap, a cooperating locking member in said support, and a cooperating measuring valve connected to said cap.

3. In dispensing devices for liquid soap, etc., a container provided with a cap, a support formed with a socket to receive said container and provided with a protected fastening device, the outer end of which is normally closed by said container to prevent the release of a fastening member through said fastening aperture, a locking projection on said container, a cooperating locking member mounted in a hole in said support and cooperating with said locking projection having an operating end of substantially the same diameter as the hole in which it is seated, a cooperating key having tapering peripheral tines to engage and operate said locking member and a measuring device connected with said container.

4. In dispensing devices for liquid soap, etc., a glass container provided with a cap, a support formed with a socket to receive the end of said cap and having a stem provided with a protected fastening aperture.
the outer end of which is normally closed by said container to prevent release of a fastening member inserted through said fastening aperture, an alining pin on said support to maintain angular alinement thereof, a locking device on said container provided with a recess, a cooperating locking member in said support and a measuring valve removable connected with said cap and normally seated within said support and comprising a projecting plunger.

5. In dispensing devices for liquid soap, etc., a container provided with a cap, a support formed with a socket to receive the end of said cap and having a stem provided with a protected fastening aperture the outer end of which is normally closed by said container to prevent release of a fastening member through said fastening aperture, an alining pin on said support to maintain angular alinement thereof, a locking device on said container, a cooperating locking member in said support and a measuring valve connected with said cap and normally seated within said support and comprising a projecting operating member.

6. In dispensing devices for liquid soap, etc., a container provided with a cap, a support to receive the said container and provided with a protected fastening aperture the outer end of which is normally closed by said container to prevent release of a fastening member through said fastening aperture, a locking device on said container, a cooperating locking member in said support and a measuring valve connected with said cap and normally seated within said support and comprising a projecting operating member.

7. In dispensing devices for liquid soap, etc., a container provided with a cap, a support to receive the said container and provided with a protected fastening aperture the outer end of which is normally closed by said container to prevent release of a fastening member through said fastening aperture of a fastening member fastening said support to a wall or other sustaining element, a locking device on said container, a cooperating locking member in said support and a measuring valve.

8. In dispensing devices for liquid soap, etc., a glass container, a cap permanently secured to the lower portion of said container, a support formed with a socket to receive the end of said cap and provided with a protected fastening aperture the outer portion of which is normally closed by said container to prevent release of a fastening member through said fastening aperture, locking means to normally hold said container and support together in service position and a measuring valve secured to said cap and normally seated within said support and comprising an operating member projecting from said support and an adjustable member to regulate the effective capacity of said measuring valve.

9. In dispensing devices for liquid soap, etc., a container comprising a transparent portion, a cap permanently secured to the lower portion of said container, a support formed to receive the end of said cap and provided with a protected fastening aperture the outer portion of which is normally closed by said container to prevent release of a fastening member through said fastening aperture, locking means to normally hold said container and support together in service position, and a measuring valve secured to said cap and normally seated within said support and comprising an operating member projecting from said support.

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Witnesses:
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Louis Cohn.