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STOPPER FAUCET

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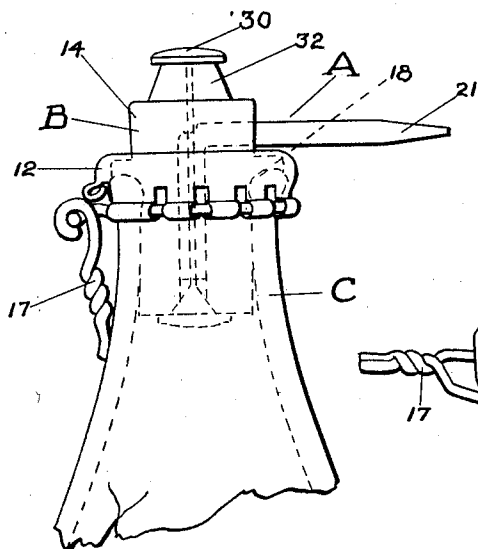


Fig. 1

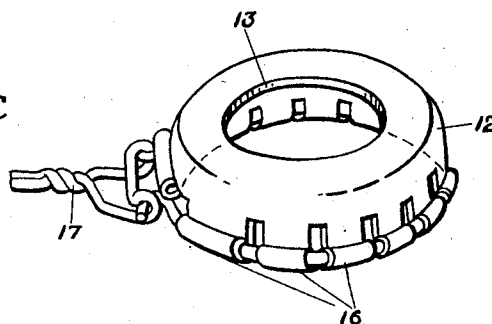


Fig. 3

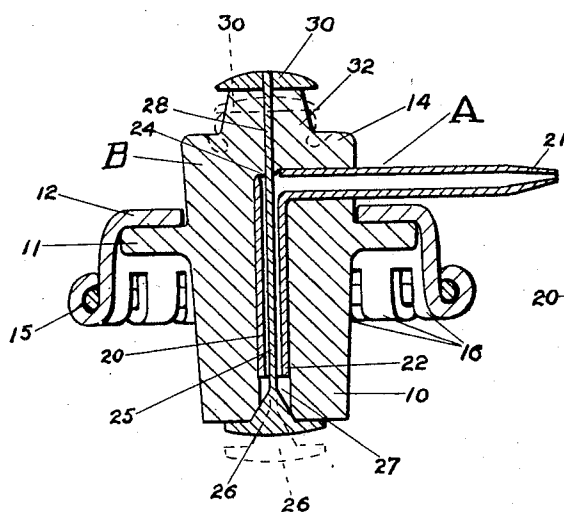


Fig. 2

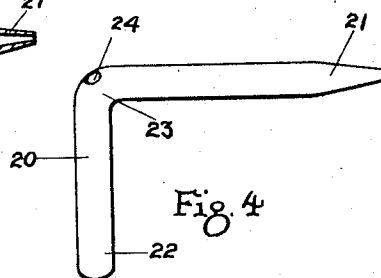


Fig. 4

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STOPPER FAUCET

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My invention relates to stopper faucets, in which I desire to provide a stopper and faucet for a bottle, having a construction of a simple nature and designed to provide a stopper which can be used on a bottle having charged water or other effervescing liquid.

A feature of my stopper faucet resides in the body portion of the faucet which is made of rubber or other flexible material and wherein the nozzle and tube of the faucet is cast or imbedded within the resilient body in the making of the same. This is important in my stopper and faucet as it permits of an economical manufacture and is such as to provide a body portion to the stopper faucet which can be made at a small cost and yet wherein the function and operation is such as to provide a stopper which can be operated by exerting pressure against the resilient body and cap of the stopper or which can be readily removed and attached to another bottle or container.

It is also a feature of the invention to provide a body having a shoulder portion which extends into the cap in a manner to provide means for holding the cap in relation to the resilient body of the stopper and also to form a closure plate or surface against which the top edge of the neck of the bottle engages to seal the bottle tightly with the body and flange forming the shoulder on the stopper faucet. This construction of my stopper faucet provides a closure for a container which may be made of a small number of parts and which can be attached easily when it is desired.

My invention includes a stopper faucet having a body portion formed of rubber or resilient material and wherein the member forming the faucet nozzle is cast or imbedded within the body in the making of the same and having a valve and operating member or end which are held under tension of the body in a position to close the nozzle of the faucet. The pressure within the container where my faucet is used assists in helping to keep the valve of the same closed.

These features and other details and objects of my invention will be more fully and clearly set forth in the following specification and claims:

In the drawings forming part of the specification:

Figure 1 is a side view of a bottle showing my stopper faucet connected thereto.

Figure 2 is a central cross section of my stopper faucet.

Figure 3 is a perspective view of the body supporting and locking member.

Figure 4 is a perspective view of the nozzle removed from the body.

In the drawings my stopper faucet A is formed with a rubber or resilient body portion B having an inwardly extending core like end member 10, which is adapted to fit in the neck C of a bottle or container so as to provide a stopper to close the same.

The body portion B may be formed of rubber or other resilient material and in the formation of the same I provide an annular flange 11, which forms a shoulder adapted to engage against the inner surface of the body supporting member 12.

The body supporting member 12 is formed with an opening 13 through which the upper portion 14 of the body B extends with the flange shoulder 11 extending about the inner surface of the member 12. The member 12 is adapted to form a locking means for clamping the stopper faucet A to the bottle neck C and is provided with a clamping ring 15 engaging the looped ends of the clamping fingers 16. By means of a suitable cam lever 17 which engages the ends of the ring 15 the lower edge of the clamping or locking member 12 is drawn taut against the lower edge of the rim of the bottle neck to lock the stopper faucet A with the flange 11 bearing against the upper edge 18 of the bottle neck.

When the stopper A is clamped to the bottle neck C the core portion 10 fits in the opening of the neck to help to close the same, while the shoulder flange portion 11 locks the body B in position to provide the stopper faucet A for the bottle.

The stopper faucet A is provided with a faucet tube 20 having the nozzle end 21 which is adapted to extend out of the portion 14 and formed with the inwardly projecting portion 22, which extends through a portion of the body B and is preferably positioned practi-

cally axially in the body B. The tube 22 connects by the elbow portion 23 with the nozzle end 21 and is formed with an opening 24 through which the operating rod 25 for the valve 26 extends. In making the stopper faucet A I prefer to cast the faucet tube 20 in the body B with the passageway 27 extending up to the nozzle tube 20 from the portion 22 and with a small opening 28 extending out through the end 14. This opening 28 is adapted to receive the upper end of the rod 25, which holds the valve 26 in place. In casting or molding the body B with the tube 20 therein, the material is adapted to extend within and closely to the opening 24 so as to provide a small opening for the rod 25, in fact the opening 28 which receives the rod through the top portion 14 is smaller than the diameter of the rod 25 and thus the rod 25 can extend through the body B and provide a practically liquid tight joint.

In placing the valve 26 with the rod 25 in position in the stopper faucet A, the rod 25 is connected to the operating cap or button 30 in a manner so that the valve 26, together with the cap 30, are held against the resilient body B under tension by the compression of the body B sufficiently to form a tight joint, which holds the valve 26 in normally closed position as illustrated in Figure 2. It will be noted that the upper portion 14 of the body B is formed with a frustum conical portion 32 of a smaller nature than the upper end 14 of the body B and forming a resilient means which can be depressed sufficiently, by pressing on the button 30 to open the valve 26. When the valve 26 is opened the liquid from the bottle C will pass freely out of the tube 20, being discharged from the nozzle 21.

By this construction I provide a stopper faucet which is extremely simple and inexpensive to make, yet being very effective, having a small number of parts and operating so satisfactorily as to provide a stopper which is interchangeable with different receptacles or bottles. The stopper faucet is held by the locking member 12 to clamp the same tightly to the bottle, securely closing the bottle and permitting my stopper faucet to be used with effervescing liquid in a very desirable manner. It is an important construction in my stopper faucet that the end of the tube 22 is spaced from the end 10 of the body, thereby providing a resilient seat for the valve 26, and that the frustum conical portion 32 is of such a small dimension as to permit the cap 30 to be readily operated and depressed to open the valve 26. This structure limits any springs and permits the casing of the faucet tube 20 within the body B. It is also a feature of the invention that the faucet tube 20 provides a reinforcing or stiffening means for the body B of the stopper faucet in such a manner as to provide the necessary

rigidity in the operation and use of my stopper faucet.

In accordance with the patent statutes I have described the principles of operation of my stopper faucet together with the best embodiment thereof, and while the drawings illustrate a particular formation and construction, I desire to have it understood that these are only suggestive of a means of carrying out my invention and that the same may be carried out by other means and applied to other uses within the scope of the following claims:

I claim:

1. A stopper faucet adapted to be inserted into the neck of a bottle including, a resilient body portion, a clamping member having a contractive edge, means for operating said edge to lock the clamping member to a container in a manner to cause said resilient body to form a stopper for the container, a valve in said resilient body, and a nozzle tube through a portion of which said valve operates extending into said body in a manner to form a passageway therethrough when the valve is opened.

2. A stopper faucet adapted to be inserted into the neck of a bottle including, a resilient body portion, a faucet tube molded in said body and adapted to form a reinforcing means therefor, a valve, a valve operating member extending through said tube, and means for clamping said body to a receptacle to form a stopper and faucet therefor.

3. A closure and faucet for a receptacle including, a resilient body portion adapted to be inserted into the neck of a bottle, a faucet member cast in said body portion, a nozzle formed on said faucet member, means for locking said resilient body to the bottle and valve means for said faucet member extending part way through the faucet member.

4. A stopper faucet including, a faucet tube having a constricted nozzle end, an elbow portion, a resilient body portion molded about said elbow portion, an opening formed through said elbow, a valve, a valve operating rod extending through said opening, the material of said body portion extending into said opening in said elbow to partially close the same and adapted to closely engage said rod, said valve being operated by compressing the body portion about the rod adjacent the opening in said elbow.

5. A stopper faucet adapted to be inserted into the neck of a bottle, means for clamping said faucet to a container, a resilient body portion having a stopper like end, a valve seated in the resilient portion of said stopper end, a tube extending through said body portion and having an elbow formed therein to support integrally a nozzle portion projecting from said resilient body, and an operating member connecting with said valve and extending through said tube.

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