Aug. 20, 1929. R. M. WITT 1,725,689

TUBE

Filed July 2, 1927

Fig. 1.

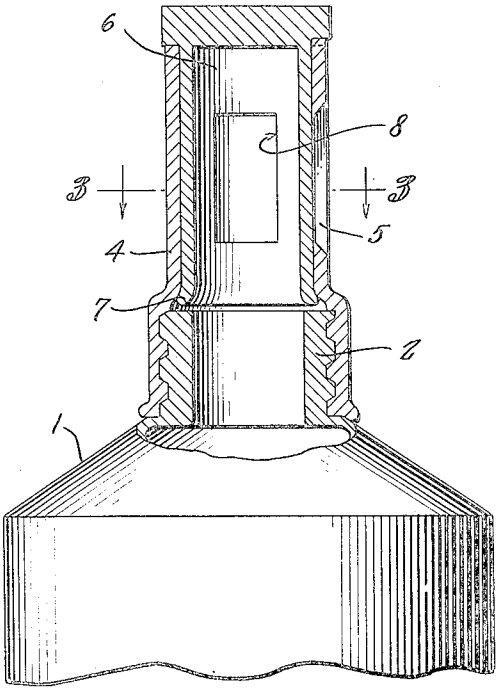


Fig. 2.

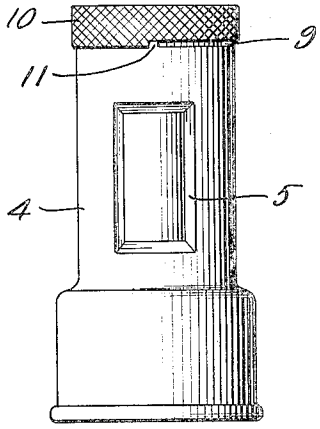


Fig. 3.

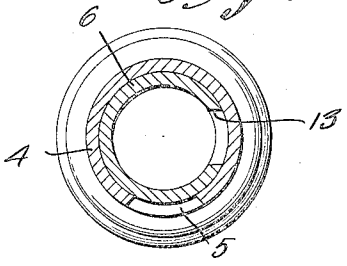


Fig. 4.

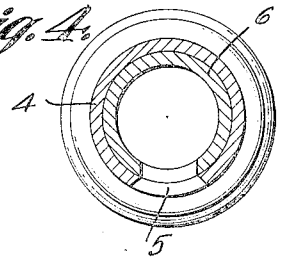
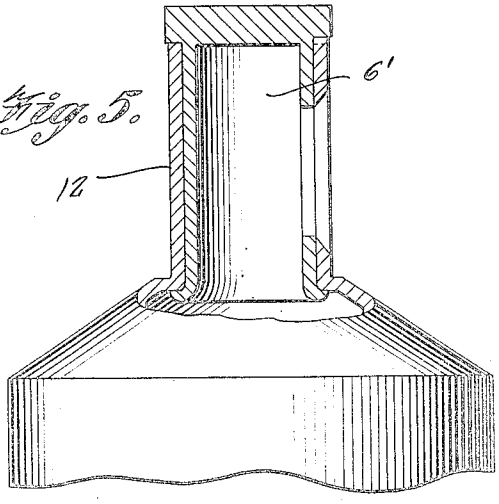


Fig. 5.



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UNITED STATES PATENT OFFICE.

ROY M. WITT, OF LYNCHBURG, VIRGINIA.

TUBE.

Application filed July 2, 1927. Serial No. 203,124.

This invention relates to valve means for paste tubes and the like, the general object of the invention being to provide means whereby the discharge opening of the tube can be opened and closed by a partial rotary movement of the valve member, with means for keeping the material in the valve member in contact with the material in the tube at all times so that the material in the valve member will not become dry and hard.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing my invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a fragmentary elevation with parts in section.

Figure 2 is an elevation of the cap.

Figure 3 is a section on line 3—3 of Figure 1, showing the valve member in closed position.

Figure 4 is a similar view with the member in open position.

Figure 5 is a view similar to Figure 1, but showing a modification.

In these views 1 indicates the tube which is provided with the threaded neck 2 and 4 indicates the cap which has a threaded end to engage the neck. This cap is of cylindrical shape and extends longitudinally of the tube and has its upper end open and it has a discharge port 5 in its side, the sides of which flare outwardly so that the brush will remove practically all the paste from the walls of the port when the brush is drawn across the same. The valve member 6 is also of cylindrical shape and fits within the cap and has its inner end open and its outer end closed, this closing part being knurled on its periphery to form a hand grip whereby the cap can be turned. As shown, the head or outer end of the valve member is of slightly greater diameter than the exterior diameter of the cap so that it can be easily gripped between the fingers. The inner end of the cap is expanded, as shown at 7, and this expanded part extends into an enlarged part of the cap to hold the valve member in the cap. An opening 8 is formed in the side of the valve member, which will communicate with the port 5 when the valve member is turned to a certain position so that some of the contents of the tube can be discharged through said opening and the port.

An elongated notch 9 is made in the closure part 10 of the valve member and a teat 11 is formed on the outer end of the cap to engage the notch to limit the turning movement of the valve member.

Figure 5 shows a modification in which the tube is provided with a cylindrical neck 12 instead of the cap and this neck receives the valve member 6'. In other respects this form of the invention is similar to that first described. As shown in Figures 3 and 4, I prefer to make the side walls of the opening 8 in the valve member slightly beveled to provide cutting edges for readily separating the material in the port 5 from that in the valve member.

From the foregoing it will be seen that the device can be moved to discharging position by a slight rotary movement of the valve member and then by moving the valve member to its original position, the discharge port will be closed. The contents of the valve member remain in contact with the material in the tube at all times so that the material in the valve member cannot dry out. By making the valve member a part of the tube, there is no danger of it becoming lost as there is when a screw cap is used, which must be detached each time the tub is opened and while I show the valve member with an opening, it will, of course, be understood that I may make this valve member of semi-cylindrical form, for instance, so that the solid portion will act to close the discharge port and then by turning the member to move the solid portion from over the port, the material can be discharged through said port.

It is thought from the foregoing description that the advantages and novel features of my invention will be readily apparent.

I desire it to be understood that I may make changes in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claim.

What I claim is:—

A container of the class described comprising a longitudinally extending cylindrical outlet member having its outer end open

and with a port in its side, said port being of rectangular shape with its walls beveled outwardly and said member having an internal shoulder adjacent its inner end, a cylindrical valve member rotatably mounted in the cylindrical member by having its inner end expanded into engagement with the shoulder, the outer end of the valve member being closed by a head part of greater diameter than the exterior diameter of the outlet member with its inner face abutting the outer end of said outlet member, with an elongated notch in said inner face, a projection on the outer end of the outlet member engaging the notch for limiting the rotary movement of the valve member and said member having a port in its side for registering with the port in the outlet member when the valve member is moved to a certain position.

In testimony whereof I affix my signature.

ROY M. WITT.