Aug. 5, 1930.

R. M. WITT

1,772,379

PASTE TUBE CAP

Filed May 6, 1929

FIG. 1.

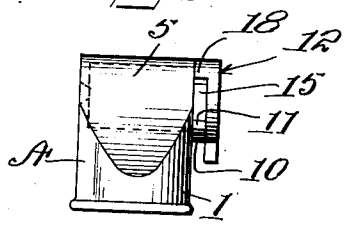


FIG. 2.

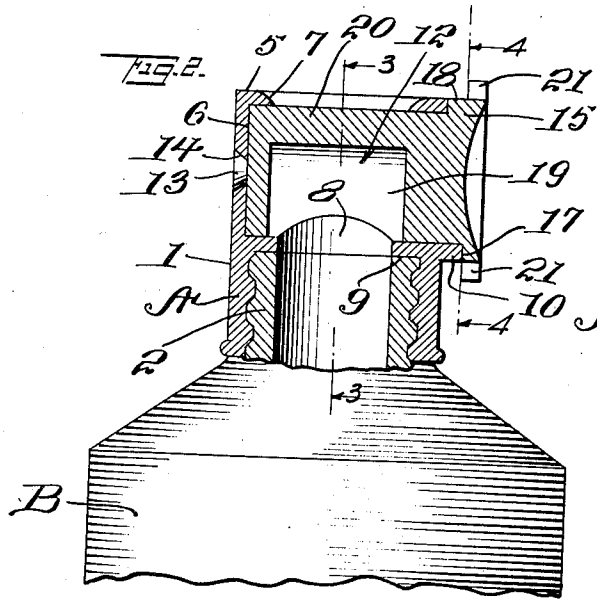


FIG. 4.

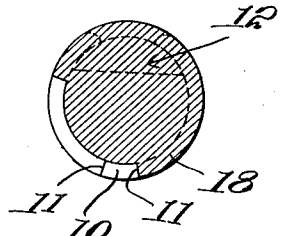


FIG. 3.

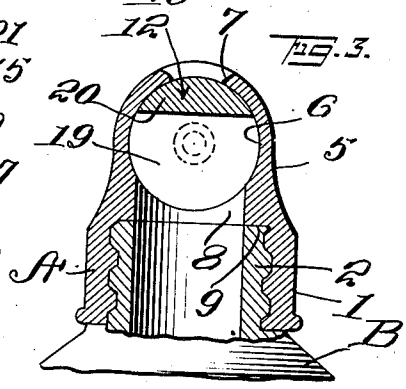


FIG. 5.

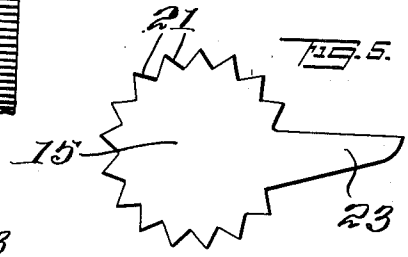


FIG. 7.

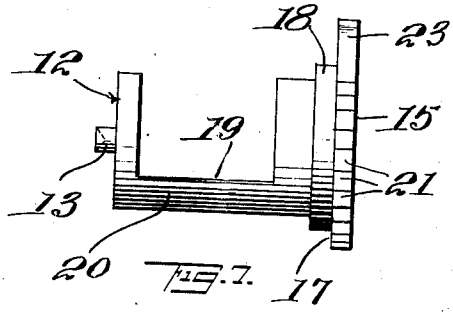
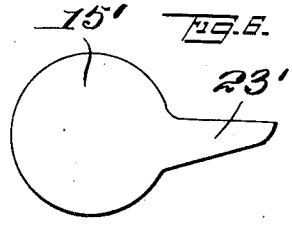


FIG. 6.



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UNITED STATES PATENT OFFICE

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PASTE-TUBE CAP

Application filed May 6, 1929. Serial No. 360,699.

This invention relates to a cap for tubes for containing toothpaste, shaving creams, etc., the general object of the invention being to provide a rotary valve in the cap for controlling the discharge opening thereof, with means whereby the valve can be moved to open and closed position by the finger of the hand holding the tube, thereby leaving the other hand free to hold the brush or other article to which the contents of the tube are to be applied.

Another object of the invention is to so form the parts that the cap can be manufactured to sell at low cost.

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 drawing and specifically pointed out in the appended claims.

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

Figure 1 is an elevation of the cap.

Figure 2 is an enlarged sectional detail view through the cap and the mouth of the tube.

Figure 3 is a section on line 3—3 of Figure 2.

Figure 4 is a section on line 4—4 of Figure 2.

Figure 5 is an end view of the valve member.

Figure 6 is a similar view, but showing a modification.

Figure 7 is an elevation of the valve member.

In these views, the letter A indicates the cap which is formed with an internally threaded neck 1 to receive the threaded mouth 2 of the tube B. The cap is also formed with a substantially cylindrical outer part 5 having a cylindrical chamber 6 therein and with an outlet opening 7 in its top or outer part and with an opening 8 which places the chamber 6 in communication with the tube when the cap is in place on the tube. The part through which the opening 8 passes forms a shoulder 9 to engage the end of the mouth of the tube when the cap is in place. One end of the cylindrical part 5 is closed and the other end open, the open end extending beyond the neck 1 to form a flange 10, part of which is cut away to form the two shoulders 11. The valve member is shown at 12 and is of cylindrical shape, with a projection 13 on its inner end for engaging a tapered hole 14 in the closed end of the cylindrical part 5. After the valve member is placed in the cylindrical part 5, with the projection 13 extending through the hole 14, said projection is upset, as shown in Figure 2, so that the valve member will be rotatably held in the chamber 6. The outer end of the valve member is enlarged, as shown at 15, the enlargement forming a shoulder 17 for engaging the flange 10 and said shoulder has a projection 18 thereon which fits in the cut-away portion in the flange 10 and is adapted to engage the shoulders 11 so that the rotary movement of the valve member is limited by this projection engaging one or the other of the shoulders.

The cylindrical member is cut away to form an opening 19 which extends from one side of the member to a point adjacent the other side so as to leave a solid part 20 which is of substantially semi-circular shape in cross section. This solid part is of such a size as to close the outlet opening 7 when the valve member is turned to place this solid part opposite the opening, as shown in Figures 2 and 3. By turning the valve member to place the solid part to one side of the chamber 6, the contents of the tube can pass through the cap, as will be understood. Attention is called to the fact, however, that when the valve member is in closed position, the opening 19 will be in communication with the interior of the tube so that the material in said opening will be kept moist from the moisture in the contents of the tube.

The enlargement 15 is formed with the teeth 21 around its periphery for facilitating the turning movement of the valve member and it is also formed with a finger 23 which is so positioned that it can be struck by a

finger of the hand holding the tube and thus the valve member can be moved to open or closed position by a finger of the hand holding the tube.

In the modification shown in Figure 6, the teeth are omitted from the enlargement 15′, as this enlargement is simply provided with the finger 23′.

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

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What I claim is:—

1. A cap for a tube containing paste or the like, comprising a body having a transversely arranged chamber therein and outlet and inlet openings communicating with the chamber, a valve member rotatably arranged in the chamber and having an opening therein leaving a solid part at one side of the member, said solid part acting to close the outlet opening when the valve member is in a certain position, a head on the outer end of the valve member and located at one side of the cap and a finger connected with a part of the periphery of the head whereby the valve member can be actuated by a finger of the hand holding the tube.

2. A cap for a tube containing paste or the like, comprising a body part and a neck for detachably engaging the neck of the tube, said body having a cylindrical chamber therein and inlet and outlet openings communicating with the chamber and in alignment with each other, one end of the chamber being closed and the other open, a cylindrical valve member fitting in the chamber having an opening intermediate its ends, said opening leaving a narrow solid portion at one side of the valve member which is adapted to close the outlet opening when the valve is in a certain position, a projection on one end of the valve member and the closed end of the chamber having a hole therein for receiving the projection whereby, by upsetting the projection, the valve member is rotatably held in the chamber, a head on the outer end of the valve member, means associated with the head for limiting the rotary movement of the valve member and a finger piece on a part of the periphery of the head.

In testimony whereof I affix my signature.

ROY M. WITT.