

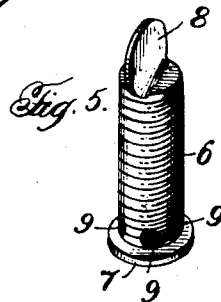
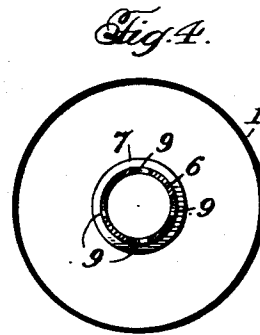
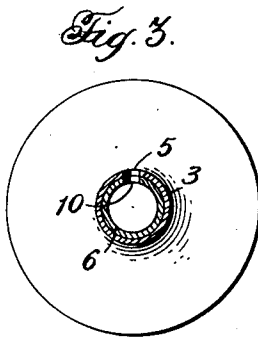
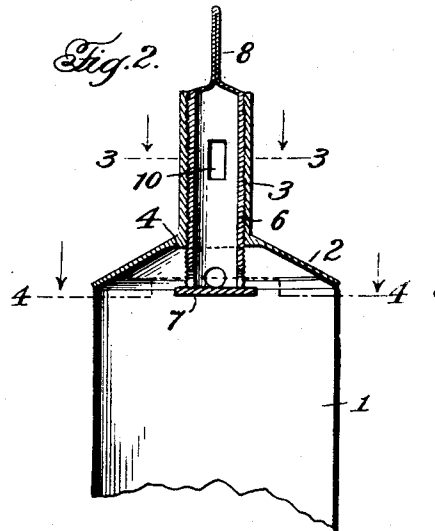
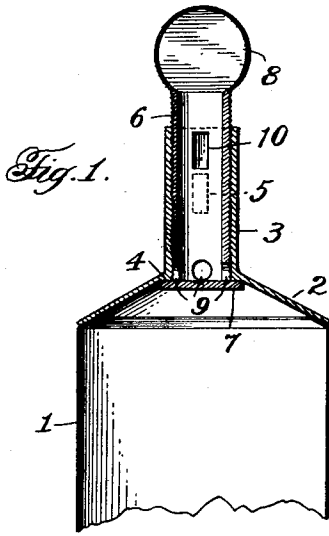
Jan. 19, 1926.

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J. R. GIBSON

PASTE TUBE

Filed Nov. 1, 1924



Inventor.

Witness:
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UNITED STATES PATENT OFFICE.

JOSEPH R. GIBSON, OF CHICAGO, ILLINOIS.

PASTE TUBE.

Application filed November 1, 1924. Serial No. 747,211.

To all whom it may concern:

Be it known that I, JOSEPH R. GIBSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Paste Tubes, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to new and useful improvements in paste tubes and more particularly to a cap or valve therefor, the principal object of the invention residing in the provision of a cap or valve which is not detachable from the tube but is easily operated for allowing the discharge of the paste or for cutting off the discharge thereof. In paste tubes as now commonly constructed, for containing pastes of various descriptions, there is usually provided a removable cap which is very easily lost or misplaced, said removable cap usually being interiorly threaded to engage an exteriorly threaded nipple or flange formed on the end of the tube.

A further object of my invention resides in the provision of a cap or valve which is rotatably connected to the tube, means being provided to limit the movement of the cap or valve in its closing or opening position.

With the above and other objects in view, which will appear as the description proceeds, my invention consists in the novel details of construction, and arrangement of parts, described in the following specification and illustrated in the accompanying drawings, and while I have illustrated and described the preferred embodiments of the invention, as they now appear to me, it will be understood that such changes may be made as will fall within the scope of the appended claims.

In the drawings:

Fig. 1 is a fragmental transverse vertical section through the tube and cap or valve with parts shown in elevation, the cap or valve being shown in closed position.

Fig. 2 is a fragmental transverse vertical section through the tube and cap or valve, showing the cap or valve in its open position.

Fig. 3 is a horizontal section on the line 3—3 of Fig. 2 looking in the direction of the arrows.

Fig. 4 is a horizontal section on the line

4—4 of Fig. 2 looking in the direction of the arrows, and

Fig. 5 is a perspective of the cap or valve.

In the drawings the numeral 1 indicates the body of the tube which as usual in tubes of the character described is of very flexible material so that it may be readily compressed or rolled for discharging the paste. The top of the tube is shown at 2 and is preferably of a somewhat more rigid character than the body portion 1, said top 2 having the interiorly threaded thimble or sleeve 3 formed thereon, a seat 4 being formed on the inner face of the top 2 at its juncture with the thimble or sleeve 3. Formed in the side of the sleeve or thimble 3, intermediate the top and bottom thereof, is an elongated opening 5 through which the paste will be discharged in a manner to be later described.

The cap or valve is shown generally at 6 and is exteriorly threaded to be received in the interiorly threaded thimble or sleeve 3. It is of hollow cylindrical formation, the lower end being closed by a plate 7 and the upper end, after insertion through the thimble or sleeve 3 is compressed together to form a finger hold 8 and close the upper end as is quite clearly illustrated in Figs. 2 and 5 of the drawings. The plate 7 is of such a diameter as to engage the seat 4, as shown in Fig. 1 of the drawings, when the valve or cap is in its closed position. Formed in the cap or valve, just above the plate 7, are a plurality of openings 9 giving communication from the tube to the interior of the cap or valve, when in open position, and while I have shown four of these openings as being used it will be understood that I do not wish to be limited to this exact number but any desired number may be provided. Formed in the side of the cap or valve, preferably adjacent the upper end thereof, is an elongated opening 10 preferably of the same size as the opening 5 and when the cap or valve is adjusted to open position this elongated opening 10 will register with the elongated opening 5 formed in the thimble or sleeve 3 so that the paste may be discharged through the two openings, it being understood that when the cap or valve is in its closed position that the openings 10 and 5 will be out of registration. As shown in Fig. 1 of the drawings when the cap or valve is in closed position the openings 9 will be positioned within the

sleeve or thimble 3 with the plate 7 engaging the seat 4 and by reference to Fig. 2 it will be seen that when the cap or valve is in open position the openings 9 will be positioned within the tube so that paste may be discharged therethrough into the interior of the cap or valve then out through the opening 5 and 10 which at that time will be in registration.

From the above detailed description it is thought that the construction, operation, and advantages will be clearly understood. The cap or valve will be inserted into the thimble or sleeve 3, through the body of the tube 1 before the upper end of the valve or cap is compressed to form the finger hold 8. When in position the cap or valve cannot be removed from the tube and therefore loss or misplacement is prevented the user always being able to close the tube after use. The plate 7 limits the movement of the cap or valve in its closing movement and the finger hold 8 limits the opening movement thereof, said finger hold being so positioned as to engage the upper end of the thimble or sleeve 3 at the time that the openings 5 and 10 are in registration. As has been previously described when closed the cap or valve will be in the position disclosed in Fig. 1 of the drawings, the plate 7 engaging the seat 4, the openings 9 being positioned within the sleeve or thimble 3, and the opening 10 out of registration with the opening 5. When the paste is to be used the cap or valve is opened to the position disclosed in Fig. 2 and when in this position the openings 9 will be positioned below the top of the tube and the opening 10 will be in registration with the opening 5. When thus positioned the paste may pass through the openings 9 into the interior of the cap or valve and is then discharged through the registering openings 10 and 5 for use. It can readily be seen that there is considerable advantage in having the finger hold 8 so positioned that it will engage the upper end of the thimble or sleeve 3 when the openings 10 and 5 are in registration. The valve or cap will be opened and closed by rotating movement and the movement thereof in either direction is limited so that there is no danger of the user lacking knowledge as to when the cap or valve is in closed position or in open position.

Having fully described my invention what I claim as new and desire to secure by Letters Patent is:

1. A tube of the character described having an extension with an opening in the side thereof, and a valve rotatably mounted in the extension, said valve including a cylindrical portion closed at each end, said cylindrical portion having openings therein, said openings being confined within the extension and out of registration with the opening of the extension when the valve is in one position and one of said openings being in registration with the opening in the extension and the other opening in communication with the tube, when the valve is in another position.

2. A tube of the character described having an extension with an opening therein, and a cap mounted in said extension, said cap being cylindrical in form and closed at each end, and provided with openings in the side thereof, the closure at the inner end of the cap forming a seat for engagement with the tube when the cap is in closed position and the openings in the cap being positioned within the extension when the cap is in closed position, the closure at the inner end of the cap being positioned away from the tube when the cap is in open position and one of the openings in the cap registering with the opening in the extension while the other opening in the cap communicates with the interior of the tube, when the cap is in open position.

3. A tube of the character described having an extension with an opening in the side thereof, and a valve rotatably mounted in the extension, said valve including a hollow cylindrical portion with longitudinally spaced openings in the side thereof and a closure at each end, the valve being rotated relative to the extension for opening the valve for the discharge of material from the tube or for closing the same against discharge, the longitudinally spaced openings being positioned within the extension when the valve is in closed position and one of said openings being in registration with the extension opening and the other within the tube when in open position.

In testimony whereof I hereunto affix my signature.

JOSEPH R. GIBSON.