

C. M. COLE.
 PASTE TUBE.
 APPLICATION FILED MAR. 23, 1908.

905,986.

Patented Dec. 8, 1908.

Fig. 1.

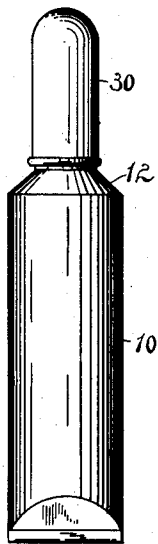


Fig. 2.

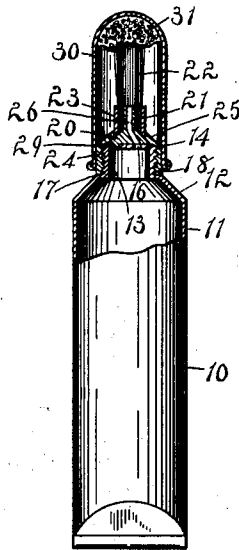


Fig. 3.



Fig. 5.

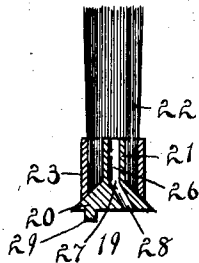
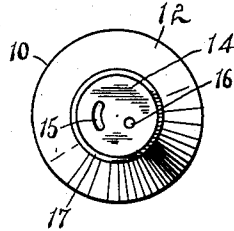


Fig. 4.



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UNITED STATES PATENT OFFICE.

CECIL M. COLE, OF BERKELEY, CALIFORNIA.

PASTE-TUBE.

No. 905,986.

Specification of Letters Patent.

Patented Dec. 8, 1908.

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To all whom it may concern:

Be it known that I, CECIL M. COLE, citizen of the United States, residing at Berkeley, in the county of Alameda and State of California, have invented certain new and useful Improvements in Paste-Tubes, of which the following is a specification.

My invention relates to containers and refers especially to those designed for holding adhesives and particularly to paste tubes provided with an applicator in the form of a brush attached directly to the tube.

The chief objects of the improvements which form the subject matter of this application, are:—to provide a container for mucilage or paste having a brush connected therewith and an associated nozzle or tube adapted to supply the contained adhesive in suitable quantities to the brush; to furnish a device of the character stated having a valve or cut-off adapted to regulate the supply of material to the brush, and to produce a construction that will permit of the ready removal of the brush and nozzle for the purpose of cleaning, should the openings become clogged.

Further objects of my invention are to provide a stop for insuring the proper registrations of the openings in the nozzle and valve; to furnish an index for determining the location of the valve orifice; to produce a simple, efficient and durable mechanism for accomplishing the purposes in view and to supply a paste tube of the collapsible variety having the advantages above set forth and that can be manufactured at a comparatively small cost.

As the tendency of devices of this class is to become clogged from the natural tendency of the adhesive material to dry quickly, provision is made to keep the brush in proper condition for use by placing a sponge in the protective cover and keeping this moistened with water.

I accomplish the desired results by the employment of the devices illustrated in the accompanying drawing forming a part of this application, and in which:—

Figure 1 is a side elevation of a container for paste in the form of a tube with protective cover in place; Fig. 2 is a similar view with the upper portion in longitudinal section; Fig. 3 is a bottom plan view enlarged of the nozzle; Fig. 4 is a top plan view also enlarged of the tube, the cover, brush and

brush-retaining sleeve being removed; Fig. 5 is a longitudinal section of the nozzle and brush.

Referring to the details of the drawing the numeral 10 indicates the body of a tube, 60 having its walls 11 of comparatively thin material, and composed of suitable metal to furnish a container of the well known collapsible variety. The walls are contracted at 12 and then continued parallel with the body portion to form a neck 13, closed by a cover plate or valve seat 14, the walls 12, neck 13 and cover plate 14 being formed integral. The said plate 14 is furnished with a concentrically curved slot 15, and 65 located diametrically opposite this slot is a feed orifice 16. The surface of the contracted portion 12 immediately surrounding the base of the neck is flattened forming an annular shoulder 17, and the outer surface of the neck is furnished with threads 18. 75 The neck 13 is surmounted by a nozzle 19, composed of a base 20, conical in shape and terminating above in a beak or tube 21. This beak is surrounded by an annular 80 cluster of bristles forming a brush 22, which extends considerably beyond the end of the beak. The bristles are held firmly by a band or ferrule 23, beveled on the lower margin to suitably engage the inclined face 85 of the base 20. The nozzle 19 and attached brush 22 are secured in position upon the plate 14 by means of a thimble or sleeve 24, contracted at one end by a flange 25 inclined with the body of the sleeve to correspond with the inclination of the outer surface of the base and having a central opening engaged by the ferrule 23. The sleeve 24 is furnished with internal threads to fit the threads 18 on the neck and the 95 lower margin of the said sleeve engages the annular shoulder 17 to make a tight joint. The parts are so adjusted that when the said sleeve is screwed into contact with the shoulder 17 the flange 25 will bear lightly 100 upon the inclined face of the base holding it by frictional contact but permitting the nozzle and attached brush and ferrule to be turned therein. The said nozzle is furnished with a longitudinal duct 26, the portion of the duct lying in the beak being axial thereto, but the said duct deviates at 27 as it enters the base, and terminates at a point 28 corresponding with the radial location of the opening 16. The under face 110

of the base 20 is furnished with a downwardly projecting lug or pin 29, preferably formed integral with said base. This pin engages the slot 15, and the ends of the slot form stops to limit the rotation of the nozzle, the relation of the parts being so arranged that when the pin is in contact with one end of the slot the duct will register with the opening 16, and when in contact with the other end the opening 28 of the duct will be occluded by the blank portion of the plate 14. The brush is protected when not in use by a cover or cap 30 which frictionally engages the sleeve 24. The cap will prevent rapid evaporation and tend to keep the brush in proper condition for a considerable time, but when the device is not in frequent use a farther aid in keeping the brush from drying out is supplied by the use of a small piece of sponge 31 inserted in the top of the cap and kept moist with water, the interior of the cap thus becoming a moistening chamber for the purpose stated.

The manner in which the parts are assembled will be understood by inspection of the views. It may be mentioned, however, that the brush is put together by assembling a tuft of bristles, suited to the purpose, about the beak 21, and securing them in place by the ferrule 23, which fits tightly around the brush its lower margin engaging the inclined face of the base portion of the nozzle. That part of the brush clamped between the ferrule and the beak may be filled with a suitable adhesive not affected by moisture, such as shellac or rubber cement, thus insuring a more durable construction of the brush. When the tube 10 is formed the lower end is left open and through this opening the tube is filled with paste and the end afterward closed.

The details of construction having been

thus set forth the method of using this device will be briefly stated: When not in actual use the cover containing the moistened sponge will be in place and the nozzle or valve be turned so that the plate or valve seat 14 will cover the aperture 28 thus preventing the escape of the contents of the tube. The said valve is turned in either direction by grasping the brush in the vicinity of the ferrule. To use the device it will only be necessary to remove the cover and turn the brush until the movement is stopped by the engagement of the pin with the end of the slot 15. The tube is now inverted and a sufficient quantity of the liquid paste will flow through the duct 26 to supply the brush.

Having thus described my invention what I claim, is:—

1. In a device for applying adhesives, the combination with a container and a perforated cover-plate therefor, of a nozzle, a perforated conical base for the nozzle, a lug on said base engaging a slot in the cover-plate, a sleeve adapted to hold said base on said cover-plate and a brush embracing the nozzle.

2. In a device for applying adhesives, the combination with a container and a perforated cover made integral with said container, of a nozzle comprising a perforated conical base engaging said cover and a beak integral with said base, a lug on the base engaging a slot in the cover, a sleeve adapted to hold said base on said cover and a brush surrounding the nozzle.

In testimony whereof I affix my signature in the presence of two witnesses.

CECIL M. COLE.

Witnesses:

D. L. JUNGCK,
LULU DE WITT.