June 22, 1965 C. F. MILES 3,190,500

HANGABLE TUBE DISPENSER

Filed Sept. 7, 1962

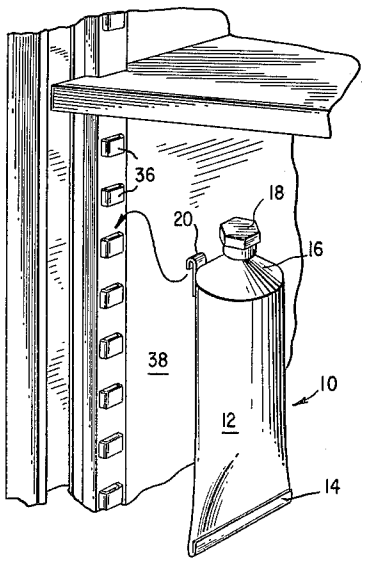


FIG. 1

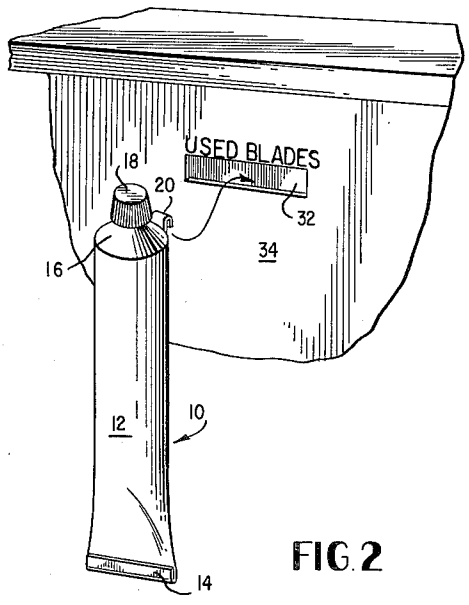


FIG. 2

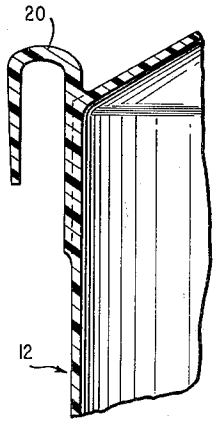


FIG. 4

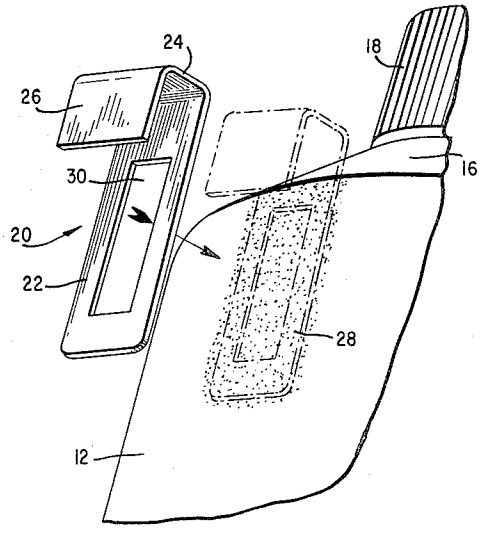


FIG. 3

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HANGABLE TUBE DISPENSER

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This invention relates to a novel hangable collapsible dispensing tube for dispensing toothpastes, shaving creams, hair preparations and the like. In particular, the invention is concerned with a new and novel supporting device affixed to the tube for supporting the same in an upright position and from which supported position the contents may be dispensed without the necessity of removing the tube from the storage position.

The prior art is replete with various hangable tube devices which devices comprise, for example, supporting elements in the form of brackets, eyes, rings, tethers and the like; however, these devices have met with only limited success for in the most part they comprise elements which must be attached to the tube either at its crimped end or adjacent the dispensing nozzle or in some combination with the closure cap. In these known devices, quite often the supportnig member itself ruptures the tube while it is being applied or while in use. In addition, substantially all of the known devices require a particular member affixed to a wall for hanging.

Tubes of the type described normally, although not exclusively, include a substantially cylindrical tubular body portion, one end of which is sealed by the conventional method of folding and crimping, and a relatively rigid shoulder portion of conical configuration terminating in a nozzle portion from which the contents of the tube may be dispensed. Since preparations normally packaged in tubes of this type ordinarily find their principal environment in the bathroom of the home, provisions are made in the form of medicine chests or cabinets within which such devices and other supplies are normally stored. In most instances shelf space in such cabinets is quite limited, and the normal supply of toilet articles leaves little, if any, unused shelf space. In the usual situation, articles frequently must be removed from the cabinet prior to gaining access to the desired one. It is therefore desirable that the materials and supplies thus stored be disposed in such a manner as to afford a maximum of facility of access for use, while at the same time occupying a minimum of shelf space.

Collapsible tubes containing, for example, toothpaste and shaving cream, the most often used materials, are usually found disposed on their sides on a shelf amid other supplies and articles. However, due to the fact that such tubes are usually formed of soft, flexible, easily ruptured material, it is desirable but most often, substantially impossible, to store the same out of contact with the other articles normally kept in a medicine chest.

In accordance with this invention an improved hangable tube dispenser is provided which comprises a simple and economically made hanging means mounted on the body of the collapsible tube, which hanging means is capable of being engaged with any of the numerous slots, projections and the like usually found in cabinets located in the home, and particularly medicine cabinets, such engagement rendering the tube easily accessible and minimizing the shelf area required for storage of the tube.

It is, therefore, a general object of this invention to provide an improved hangable collapsible tube dispenser which is simple in construction, practical in its application, and economical to fabricate.

It is another object of the present invention to provide in combination with a collapsible tube dispenser, a hanging element which may be easily attached to the tube or formed integrally therewith in such a manner as to avoid

interference with the dispensing operation, said element being capable of supporting the tube in depending relation with respect thereto.

It is still another object of the invention to provide an improved collapsible dispensing tube capable of being stored out of contact with shelves as well as with the other articles stored within a storage cabinet, thereby making possible maximum use of the storage space by storing the tube in a space which would not normally be occupied.

These and other advantages of the invention will become apparent from the detailed specification taken in connection with the accompanying drawings in which like numerals refer to like parts throughout the several views and in which:

FIGURE 1 is a perspective view showing the improved hangable tube of this invention, pointing out one manner of engaging the hanging means with the shelf supporting structure of a conventional bathroom medicine cabinet;

FIGURE 2 is another perspective view of the hangable tube of this invention, pointing out another convenient mode of hanging the same in the used razor blade opening ordinarily found in a conventional medicine cabinet;

FIGURE 3 is an enlarged fragmentary exploded perspective view of one form of the invention; and

FIGURE 4 is an enlarged fragmentary sectional view of another form of the invention.

The present invention contemplates the incorporation of a hanging means formed integrally with or as an accessory to the conventional collapsible wall type tube dispenser. In the embodiments illustrated in the drawing forming a part of this application, the support element takes the form of a substantially hook-shaped element. However, this is by way of example only and it is to be understood that many variations may be employed.

Referring now more particularly to the drawing, the form of the invention selected for illustration therein comprises a conventional collapsible wall dispensing tube **10** which includes a tubular body portion **12** having one end closed, as at **14**, by folding and sealingly crimping. The other end of the tube **10** is closed by a relatively rigid conical end closure **16** which terminates in a capped dispensing nozzle **18**.

In the embodiment of the invention shown in FIGURE 3 of the drawing, hanging means **20** is provided in the form of a hook-shaped element having a substantially rectangular base portion **22**, a bight portion **24** and a reentrant lip portion **26**. The base **22** may be flat or slightly curved to compatibly embrace the side wall of the tube whereon a quantity of suitable adhesive **28** may be disposed adjacent the shoulder **16**. The adhesive **28** is disposed over a suitable area to receive and secure the hanging means **20** to the body portion of the tube **12**. It will be observed that in the illustrated embodiment the bight portion **24** is spaced longitudinally beyond the juncture of the conical end closure **16** with the body portion **12**. In the preferred embodiment the element **20** does not extend as far as the plane normal to the axis of the nozzle **18** and of the body portion **24** and intersecting the mouth of said nozzle, however, in certain applications extension beyond said plane may be desirable. It is further contemplated that an opening **30** may be provided in the base member **22** of the hook **20** to facilitate the application of the adhesive and to secure an improved bond between the hook and the tube wall. It is to be understood, of course, that if so deired, the base of the hook member **22** may be fabricated without openings.

Many modifications of the attaching means in FIGURE 3 could be employed, and by way of example, such a modification could include a quantity of pressure sentitive adhesive or an extent of double-faced pressure sentitive adhesive tape overlying and attached to the side of the tube

and covered with the usual readily removable protective sheet having low adhesion characteristics. The tube could thus be merchandised without the supporting element **20** in operative position, the purchaser uniting the tube and element **20** to form a single unitary structure prior to use and after removing the protective sheet aforementioned.

Another form of the invention is shown in FIGURE 4 wherein the hook element **20** is integrally formed with the wall **12** of the collapsible tube **10**, and in this embodiment it will be seen that the necessity to provide a separate hook and securing means is obviated. If desired, of course, the element **20** may be made integral with the wall **12** by a fused connection of any suitable type.

As shown in FIGURES 1 and 2 of the drawings, the dispensing tube with the hook-member there attached is adapted to be disposed with said hook-member engaged on any suitable support, such as within the used razor blade slot **32** formed in the rear wall **34** of a medicine chest as shown in FIGURE 2, or, within one of the shelf supporting protuberances **36** on the side wall **38** of a medicine chest as shown in FIGURE 1. As will be readily recognized, the improved hangable tube dispenser may be stored in normally unused areas of the medicine cabinet without danger of contact with other articles or supplies therein, such storage having the additional advantage of affording ready accessibility.

Although a preferred embodiment of the invention has been shown and described herein, it is to be understood that the invention is not limited to the details of construction and arrangement of parts disclosed, except as required by the scope of the appended claims.

What is claimed as the invention is:

1. In combination, a collapsible dispensing tube having a tubular body portion closed at one end and having at its other end a substantially conical end closure portion terminating in a dispensing nozzle, a cap threaded on said nozzle, and a hook spaced from said nozzle and said cap, said hook being directly affixed to said tubular body portion of said dispensing tube at the juncture of said body portion and said conical end closure portion.

2. In combination, a collapsible dispensing tube having a tubular body portion closed at one end and having at its other end a substantially conical end closure portion terminating in a dispensing nozzle, a cap threaded on said nozzle, and a hook spaced from said nozzle and said cap, said hook including a flat base portion overlying and affixed to an external surface of said tubular body portion adjacent the juncture of said body portion and said conical end closure portion, a bight portion extending away from said base portion, and a reentrant lip portion extending generally parallel to said base and having a length less than that of said base.

3. The combintion of claim **2** wherein said base portion extends longitudinally beyond the juncture of said conical end closure portion and said tubular body to position said bight portion at a point short of a plane normal to the axis of said nozzle and located at the mouth thereof.

4. The combination of claim **2** wherein the flat base portion of said hook member is adhesively secured to said tubular body portion adjacent to said conical end closure.

5. The combination of claim **2** wherein the flat base portion of said hook member is integral with and is fused directly to said body portion.

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