

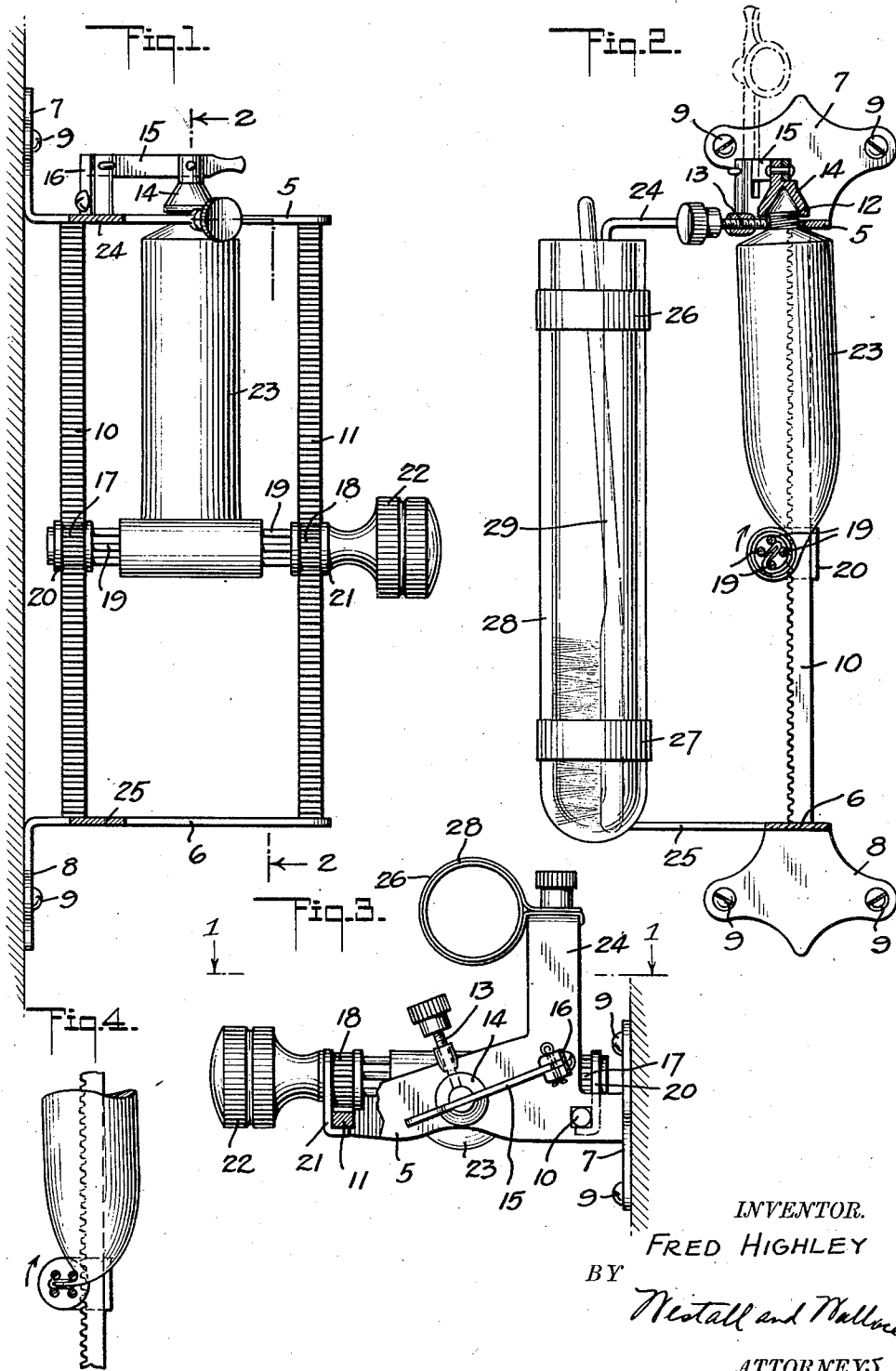
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TUBE HOLDER AND CONTENTS DISPENSER

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TUBE HOLDER AND CONTENTS DISPENSER.

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The invention is shown embodied herein in a device especially adapted to hold a tube of dentifrice and to serve as a tooth brush holder.

5 It is the primary object of this invention to provide a device wherein the tube may be fixed in position and the tail thereof gripped and collapsed by compressing the tube, the compressor member being progressively advanced toward the neck or mouth of the tube. Another object of this invention is to provide a compressor member which winds and collapses the tube about a spool, the spool being positively advanced in the direction of the neck. A still further object of this invention is to provide a spool which is positively advanced and wherein there is means for maintaining the spool axis in alignment during its advance.

20 These objects together with other objects and corresponding accomplishments are obtained by means of the embodiment of my invention illustrated in the accompanying drawing, in which:

25 Fig. 1 is a plan view partly in horizontal section as seen on the line 1—1 of Fig. 3; Fig. 2 is a section as seen on the line 2—2 of Fig. 1; Fig. 3 is a side elevation of the device secured in position upon a wall, a fragment of the latter being shown in section. A fragment of the structure is shown broken away and in section to better illustrate the compressor carriage; and Fig. 4 is a fragmentary view showing the initial position of the tube and compressor spool.

30 Referring more particularly to the drawing, a frame for the holder comprises end plates 5 and 6. These plates are provided with feet 7 and 8 serving as means for attaching the device to the wall by means of suitable screws 9. Extending between the plates 5 and 6 are rails 10 and 11 toothed on the one side to form racks. The plate 5 has an opening 12 to receive the neck of a tube. The necks may be of various sizes, and in order to insure holding the tube in position, I have provided a clamping screw 13 operating through a threaded opening so that it may be moved to engage the neck of a tube disposed in the opening. The cap of the tube before its insertion in the holder may be removed and in order to protect the mouth of the tube, I have provided a cap 14 mounted on the end of a pivoted arm 15. The arrangement is such that the cap may be

swung over the mouth of the tube. A leaf spring 16 is arranged to press against the arm 15 so as to hold the cap either in closed position or in open position.

The compressor member or carriage comprises pinions 17 and 18. These pinions are connected by rods 19 arranged in the form of a cage.

Guides 20 and 21 in which the pinions and pins are rotatably mounted overlap the rails 10 and 11, maintaining the pinions in mesh therewith. The construction is such that both pinions are compelled to rotate together and travel along the rails 10 and 11 maintaining the spool axis in alignment during its travel along the rails. Secured to the spool is a knob 22 for turning the spool.

A collapsible tube 23 is inserted in position with its neck in the opening in plate 5. The tail is then inserted between the rods as shown in Fig. 4, the latter serving as a key. The tube is then collapsed by rolling the spool toward the neck which may be conveniently performed by turning the knob 22. The tube is thus progressively wound on the spool and collapsed, the contents being ejected through the mouth and at the will of the operator.

In order to provide a complete accessory, I have provided means for holding a tooth brush. Extending from the side plates and formed integral therewith are arms 24 and 25 to which straps arranged in the form of eyes are secured. These straps are indicated by 26 and 27. They are arranged to receive a tube 28 preferably of glass. The tube is of such length and diameter that it may conveniently house a tooth brush shown in Fig. 2 and indicated by 29. A plurality of tubes may be mounted on the frame to provide individual compartments for brushes.

It is obvious that I have provided a complete tooth cleaning appliance holder which may be of ornate appearance. A tube of paste may be quickly fixed in position and held by the neck, the spool carriage being retracted to the end of the tube. The tail is then inserted between the rods on the key spool as shown in Fig. 4. The construction is such that the tail may be inserted between the rods at any one of four different angular positions of the spool and likewise different positions of the spool along the rails.

This makes a key cage convenient for engagement with the tail of the tube in order to start compression. The tube is collapsed by winding, the advance along the tube of the compressor being positive. There are various uses to which the invention may be applied with changes in the structure and without departing from the invention. Thus, the device may be arranged to hold a tube of shaving cream and other shaving appliances.

What I claim is:

1. A tube holder and contents dispenser comprising a frame having means to support a tube therein, a rack extending axially of said tube, a pinion riding on said rack, a key spool of less diameter than said pinion secured to said pinion so as to be rotated thereby and arranged to wind said tube thereon, said spool being arranged to receive the tail of said tube.

2. A tube holder and contents dispenser comprising a frame having means to sup-

port a tube therein, parallel racks extending axially of said tube, a carriage extending between said racks having pinions riding thereon, said carriage comprising a key cage formed of parallel spaced rods secured to said pinions so as to be rotated therewith the diameter of said pinions being greater than the diameter of said key cage.

3. A tube holder and contents dispenser comprising a frame having means to support a tube therein, parallel racks extending axially of said tube, a cage including pinions riding on said racks, and rods extending between the pinions, said rods being circumferentially spaced about the edges of the pinions to form a drum whereby the end of a tube may be inserted between a pair of said rods and the tube may be wound about the drum.

In witness that I claim the foregoing I have hereunto subscribed my name this 9th day of July, 1925.

FRED HIGHLEY.