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COLLAPSIBLE TUBE HOLDER

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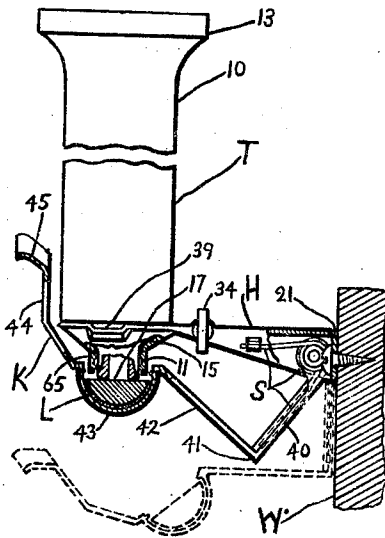


Fig. 1.

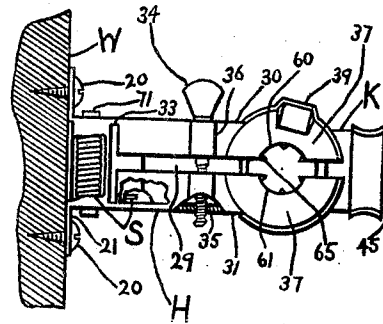


Fig. 2.

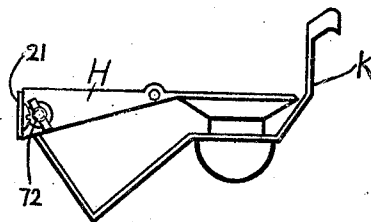


Fig. 3.

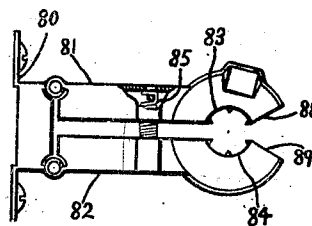
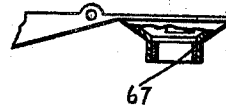


Fig. 4.

Fig. 5.



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COLLAPSIBLE-TUBE HOLDER.

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This invention relates to improvements in holders which can be attached to the wall near a wash basin, etc., for holding such collapsible tubes as are used quite generally now for tooth paste.

The object is to provide a holder which will firmly grasp the neck of a tube of any size in diameter or length, whether threaded or not, and will hold the tube in a vertical position with the neck down so that it can be squeezed with the left hand and paste will emerge at the bottom on to a tooth brush held in the right hand.

With my improved construction, I prefer to use a closing lever which can be pressed down by a brush which can then be slid under the neck of the tube, such lever carrying a self-centering cap to automatically close the opening in the neck when not discharging paste.

In the drawing, Figure 1 is a side elevation showing my device in position with a tube held therein and parts shown broken away.

Fig. 2 is a plan view of my device without a tube, parts shown broken away.

Fig. 3 is a side elevation of a slight modification of my device.

Fig. 4 is a plan view of another modification.

Fig. 5 is a detail of a modification of the neck.

In the drawings, W represents the wall, and 21 represents a base attached thereto as by means of screws 20.

H represents a bracket for holding a tube such as T which is really comprised of two elastic arms 30 and 31 which are shown as attached to the base 21 in Figs. 1, 2 and 3 by being made integral therewith.

These arms are separated by a space 29 which in the integral construction is a slot, and near the wall this slot is extended in T form at 33 so as to permit of the arms 30 and 31 being capable of movement towards and from each other.

The arms preferably are made of more or less elastic metal, and the slot 33 so narrows each arm that it will bend at that point, the tendency being however always to return, as a spring actuated or elastic arm, to its normal position.

Near their free ends, each has a curved cut 60 or 61 which preferably may extend down a little distance better to fit the neck

such as 11 of a tube T forming the jaws to grasp such neck.

The upper part of such free ends 37 and 37 preferably slope down to approximately fit the sloping shoulder 15 of such tube, and preferably there are teeth 65 on the inside of each jaw to bite into the neck of the tube and hold it firmly in place.

It is obvious that a rubber pad or similar elastic member, as shown in Fig. 5 at 67, might be used in place of the teeth.

10 represents the body of tube T and 13 the end which is to be squeezed.

Some of such tubes have a cap attached to the neck in such a way that they cannot be screwed into place, and in order to have such tubes set firmly in position I prefer to form a recess 39 in arm 30 so that such cap can rest in recess 39 and shoulder 15 will rest snugly on the top faces of free ends 37, 37.

At 35 and 36, each arm 31 and 30 has a boss or projecting member one of which, as 35, is shown as threaded so that the operating screw 34 can move the arms against their natural elasticity to close the jaws 60 and 61. The arms are so made that their elastic tendency is to open against screw 34.

K represents a closing lever pivoted on a rod 71 to base 21 and preferably shaped with a portion 40 extending from the pivot, which turns at a right angle at 41 and which extends up at 42, thence is shaped as a hemispherical cup 43, and then out and up at 44, terminating in a rest 45.

In the cup 43 is a cap L movable therein, being in such position that it will close the outlet 17 of the neck 11 when the lever is normally raised by the action of the spring S which is coiled around rod 71, the ends bearing respectively against H and K in such manner as to tend to keep it raised.

This cap L can be slipped out and replaced by another when it becomes soiled or worn.

The shape of K is such that when a tooth brush is pressed down on 45 moving the parts to the dotted position shown in Fig. 1, the tooth brush can be slid in under outlet 17 and rested on 45 and bend 42, while with the other hand at the same time the tube is squeezed, allowing the paste to be forced thereon.

In Fig. 3, I show in place of the spring S a friction pivot comprising a rod 72 simi-

lar to 71, at one end of which is a thumb nut 72 whereby friction can be applied in such manner that the arm K can be moved down and up and will stay in a vertical position.

In Fig. 4, the closing lever is entirely omitted whereby the end of the tube is open to the atmosphere, and instead of the integral holding arms 30 and 31 I show pivoted to the base 80 rigid arms 81 and 82 having at their free ends jaws 83 and 84 and a spring 85 so positioned that it will tend to move them towards each other.

The outer ends of these arms are flared at 88 and 89 whereby the neck of the tube can be pushed in to the jaws, which will automatically grasp it.

I claim:

1. A holder for collapsible tubes comprising a base, two elastic arms attached thereto capable of movement towards and from each other and having near their free ends jaws to grasp the neck of a collapsible tube, an operating screw between said arms to move them, a lever pivoted to the base with a hemispherical cup at its free end, a hemispherical cap movable in said cup, and a closing spring for said lever.

2. A holder for collapsible tubes comprising a base, two elastic arms attached thereto capable of movement towards and from each other and having near their free ends jaws to grasp the neck of a collapsible tube, means between said arms to move them, a lever pivoted to the base with a hemispherical cup at its free end, a hemispherical cap movable in said cup, and a closing spring for said lever.

3. A holder for collapsible tubes comprising a base, two elastic arms attached thereto capable of movement towards and from each

other and having near their free ends jaws having teeth to grasp the neck of a collapsible tube and a cap holder recess, an operating screw between said arms to move them, a lever pivoted to the base with a hemispherical cup at its free end, a hemispherical cap movable in said cup, and a closing spring for said lever.

4. A holder for collapsible tubes comprising a base, two elastic arms attached thereto capable of movement towards and from each other and having near their free ends jaws to grasp the neck of a collapsible tube, means between said arms to move them, a lever pivoted to the base with a cap adapted to close the opening in the neck, and a tooth brush guide extending beyond the cap in position to be conveniently reached when a tube is in position.

5. A holder for collapsible tubes comprising a base; two elastic arms attached thereto capable of movement towards and from each other and having near their free ends jaws to grasp the neck of a collapsible tube; means between said arms to positively move them towards each other; a lever pivoted to the base having a bent part, a cap adapted to close the opening in the neck positioned just beyond the bent part, and a tooth brush guide extending beyond the cap in line with the bent part of said lever and in position to be conveniently reached when a tube is in position.

6. A holder for collapsible tubes comprising a base; two arms attached thereto capable of movement towards and from each other and having near their free ends jaws having teeth to grasp the neck of a collapsible tube; and an operating screw between said arms to positively move them.

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