

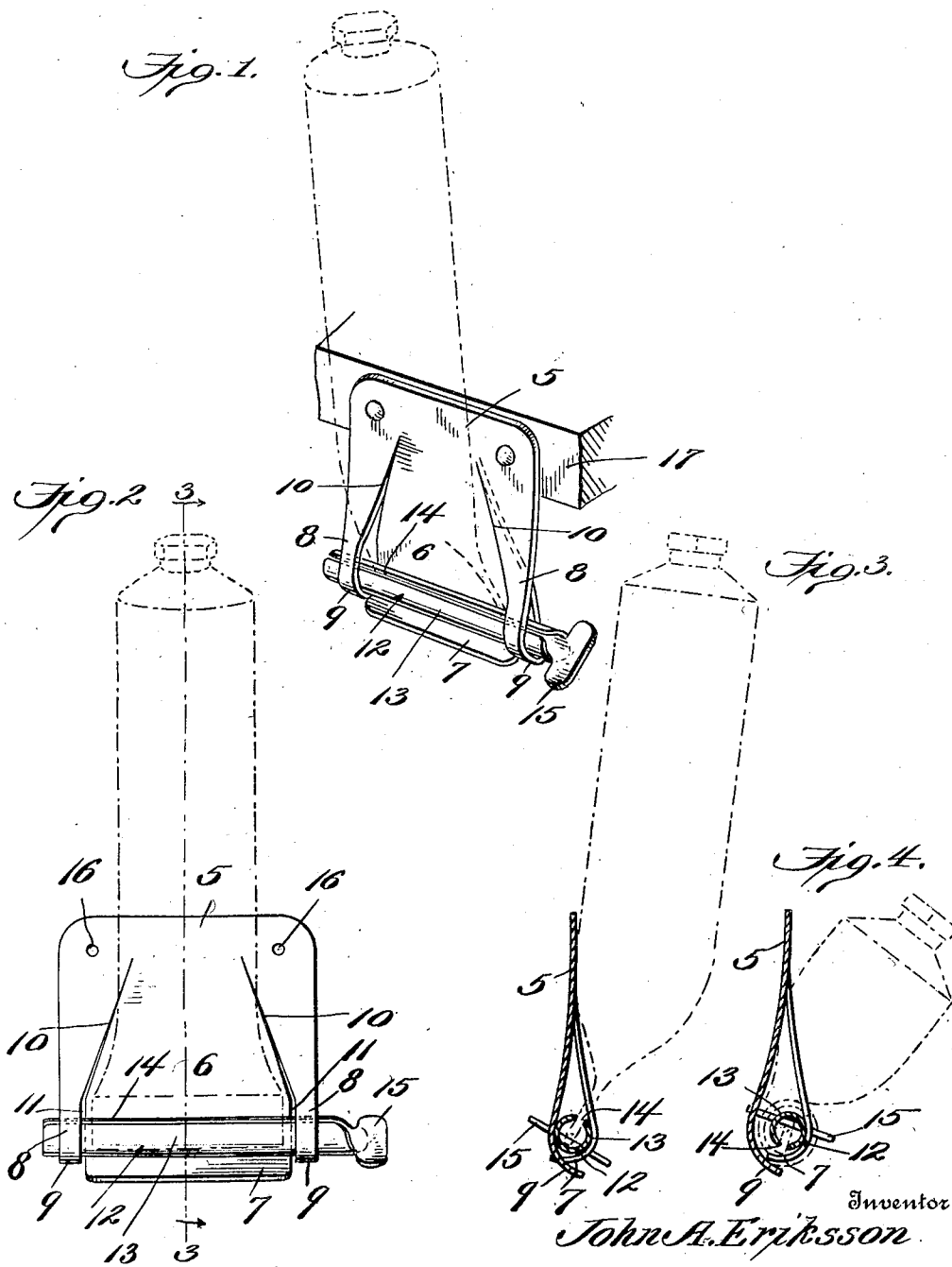
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DEVICE FOR EJECTING PASTE AND CREAM FROM COLLAPSIBLE TUBES

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# UNITED STATES PATENT OFFICE.

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DEVICE FOR EJECTING PASTE AND CREAM FROM COLLAPSIBLE TUBES.

Application filed June 4, 1924. Serial No. 717,823.

*To all whom it may concern:*

Be it known that I, JOHN A. ERIKSSON, a citizen of the United States, residing at Bloomfield, in the county of Essex and State of New Jersey, have invented new and useful Improvements in Devices for Ejecting Paste and Cream from Collapsible Tubes, of which the following is a specification.

This invention relates to a device for ejecting paste, cream and analogous substances from collapsible tubes, and the general object of the same is to provide a simple and effective attachment that may be readily applied to a ledge or any suitable support in a position for ready accessibility and to which a collapsible tube may be easily applied and effectively compressed or collapsed to expel the contents thereof when desired for use.

A further object of the invention is to provide a device of the class specified to which the lower end of a collapsible or compressible tube may be easily applied and which will operate to regularly roll the compressed part of the tube and evenly force the contents of the rolled portion into that part of the tube which is left unrolled, and thus discharge from the outlet of the tube such quantities of the paste or cream as may be desired for use, and eventually fully and cleanly expel the entire contents of the tube, with advantageous economy in the use of a paste or cream.

The improved device is particularly intended for use with tubes containing dental and shaving pastes or creams and the like, but it will be understood that it may serve with equal efficiency in expelling from collapsible tubes other paste or cream-like material, such as surgical dressings, ointments, oils, paints or any other similar material.

The invention consists in the preferred construction and arrangement of the several parts which will be more fully hereinafter described and claimed.

In the drawing:

Fig. 1 is a perspective view of the improved attachment shown as attached to a shelf or ledge, a collapsible tube being indicated in dotted lines as associated therewith;

Fig. 2 is a front elevation of the improved device, a collapsible tube being indicated in dotted lines as associated therewith;

Fig. 3 is a transverse vertical section on the line 3—3, Fig. 2; and

Fig. 4 is a view similar to Fig. 3, showing a portion of the collapsible tube, indicated

in dotted lines, compressed and rolled and held within the improved attachment.

The numeral 5 designates a flat plate of suitable metal having more or less inherent resiliency and provided with a supporting tongue 6 having a lower curved extremity or end 7 and also provided with opposite side holding arms 8 having lower curved ends 9, the ends 9 being bent in a direction reverse to the lower curved extremity of the supporting tongue 6. The arms 8 are formed by cutting the metal plate 5 in directions diverging towards the lower end of the plate, the slots thus produced having a regular divergent formation, as at 10, and then merging into, or continuous with, longitudinally straight slots 11, the straight slots being parallel with the sides of the plate 5.

Inserted between the arms 8 and the lower curved extremity or end 7 of the tongue 6 is a tubular key 12, the bent or rearwardly curved ends 9 of the arms 8 frictionally bearing on the outer portion of the key at opposite edges of the lower curved end of the tongue. The key 12 is preferably constructed from a single piece of material, shaped to provide a tubular body 13 having a slot or inlet 14 extending the full length thereof, one end of the key being flattened and extended outwardly to produce a gripping terminal or handle 15, by means of which the key as a whole may be readily rotated in a manner which will be more fully hereinafter explained. The plate 5 also has openings 16 therein to receive suitable fastenings for attaching the same to a ledge or other support 17, as shown by Fig. 1.

In the operation of the improved device the flattened lower or closed end of the collapsible tube is inserted in the slot 14 of the key 12 and the latter rotated towards the tongue 6, thereby winding the lower flattened extremity of the tube on the key and drawing the body of the tube against the said tongue and the adjacent portion of the plate. It will be understood that, to permit the contents of the tube to be expelled for use, the usual screw cap is removed from the tube, and, as the lower portion of the tube is wound on the key 12 and compressed, the contents of the tube are expelled in the quantity desired and in accordance with the rotation of the key. As the tube is wound upon the key 12 and the diameter of the collapsed and wound portion of the tube in-

creases on the key 12, the lower ends of the  
 arms 8 and the lower curved extremity of  
 the tongue 6 which always exert a yielding  
 pressure on the wound and collapsed por-  
 5 tion of the tube, are correspondingly sepa-  
 rated. When it is desired to replace an  
 empty tube by a filled one, the key 12 may  
 be rotated in the opposite direction to partly  
 unwind and release the wound portion of  
 10 the tube therefrom, but without unwinding  
 the full length of the tube, it being only nec-  
 essary to turn the key 12 in an unwinding  
 direction for a half or full turn, to permit  
 the key to be withdrawn, thus releasing the  
 15 partially unwound tube from the holder.  
 The key is then replaced in the holder and  
 a full tube applied thereto. The improved  
 device is very simple in construction and  
 operation and will be found exceptionally  
 20 effective in performing the function for  
 which it has been devised. It is obvious  
 that changes in the proportions, dimensions  
 and minor details of construction may be  
 adopted without departing from the spirit  
 25 of the invention, and it is also proposed to  
 ornament the improved device in any suit-  
 able manner, as by plating or general de-  
 sign work, and the specific configuration  
 thereof as shown in the drawings may be  
 30 varied. While it is preferred that the im-  
 proved attachment be applied to a shelf  
 or the like as shown and heretofore de-  
 scribed, it may be used in any other position  
 desired. The improved holder may also be  
 35 used without attaching it to a support.

What is claimed as new is:

1. A device of the class specified, com-  
 40 prising a plate having a tongue and a plu-  
 rality of arms formed integrally therewith  
 and extending therefrom, said tongue and  
 arms having their extremities free and said  
 arms being bent away from said tongue

adjacent their connection with said plate,  
 said tongue having its free end bent toward  
 said arms and said arms having their free  
 45 extremities bent toward said tongue, and a  
 key rotatable between the extremity of said  
 tongue and the extremities of said arms,  
 said key having means to engage one end of  
 a collapsible tube.

2. A device of the class specified com-  
 prising a plate, a tongue of resilient ma-  
 terial carried by one edge of said plate and  
 a pair of arms also of resilient material  
 55 carried by said edge of said plate one at  
 either side of said tongue, said tongue and  
 arms having their opposite extremities free  
 and the extremity of said tongue being bent  
 toward said arms and the free extremities of  
 said arms being bent toward said tongue,  
 60 and a key mounted to rotate between the  
 bent extremities of said tongue and arms  
 and provided with means to engage one end  
 of a collapsible tube.

3. A device of the class specified com- 65  
 prising a plate having a pair of cuts ex-  
 tending from a point between the ends of  
 said plate to one end of the plate and di-  
 verging toward said latter edge to form an  
 intermediate tongue and an arm at each  
 70 side of said tongue, said tongue having its  
 free extremity bent toward said arms to  
 form a support for the end of a collapsible  
 tube and the extremities of said arms being  
 bent toward said tongue, a key rotatable  
 75 within the bent extremities of said tongue  
 and said arms and having means to engage  
 one end of a collapsible tube, the tongue and  
 arms being relatively yieldable as said tube  
 is wound upon said key.

In testimony whereof I have hereunto set my hand.

JOHN A. ERIKSSON.