

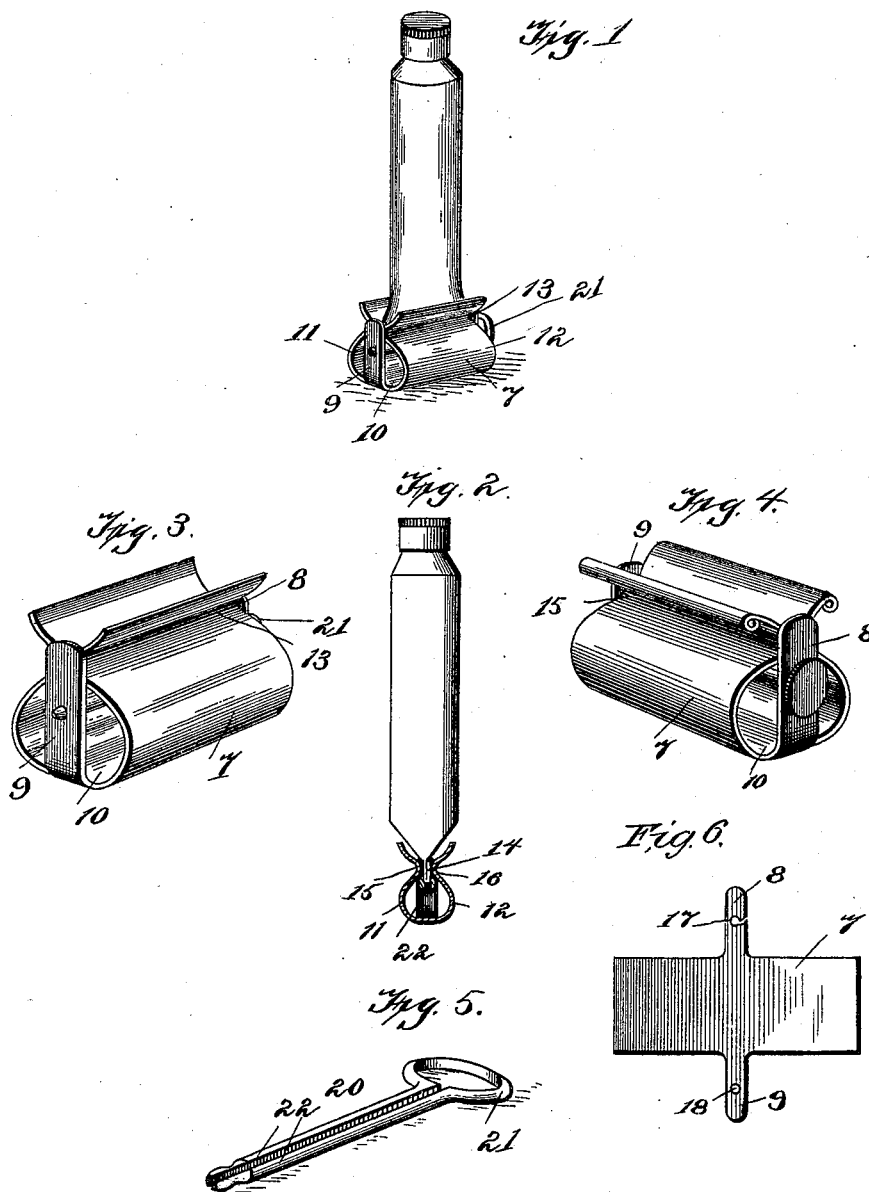
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Patented May 8, 1900.

F. A. NELSON.
COLLAPSIBLE TUBE ATTACHMENT.

(Application filed July 8, 1899.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

FRANCIS A. NELSON, OF CHICAGO, ILLINOIS.

COLLAPSIBLE-TUBE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 648,981, dated May 8, 1900.

Application filed July 8, 1899. Serial No. 723,215. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS A. NELSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Collapsible-Tube Attachment, of which the following is a specification.

My invention relates to an expunging tool or compressor to be used in connection with compressible tubes or receptacles made of ductile material and which are generally used for dentifrices, surgical dressings, ointments, oils, paints, or, in fact, any liquid material, wherein the liquid is discharged through an opening by progressively folding the closed end of the tube by a key; and the object thereof is to provide a holder or stand whereby the tube will be held in an upright position on a base and the contents can be expunged or discharged without removing it therefrom.

With this object in view my invention consists of a stand or base having a tube-receiving mouth for the reception of the closed end of the tube and carrying means below the said mouth whereby the closed end of the tube can be folded upon itself step by step to discharge the liquid through the open end, which, as is well known, is usually hermetically sealed by a screw-cap.

My invention further consists in so manipulating the closed end of the tube that practically all of the contents will be discharged through the opening.

My invention further consists in certain details of construction and combinations of parts, as will be fully disclosed in the following description, recited in the claims, and illustrated in the drawings forming a part of this specification, in which—

Figure 1 is a detail perspective view of a holder, showing a tube held therein. Fig. 2 is a transverse section of the holder, illustrating the relative positions of the several parts. Fig. 3 is a perspective view of the holder. Fig. 4 is a similar view reversed. Fig. 5 is a detail perspective view of the clamping-rod for engaging the closed end of the tube, and Fig. 6 is a plan view of a blank for forming the holder.

Referring to the drawings by reference-numerals, 7 indicates the blank, which is

formed of sheet metal cut out substantially rectangular in form and having the two diametrically-oppositely-arranged arms 8 and 9 projecting from the sides of the blank intermediate its ends. After the blank is thus formed it is shaped up, as seen in the first four figures, to form a base 10, from which extend the curved sides 11 and 12, converging at 13 to provide a contracted mouth or opening 14 and terminating in the diverging lips or guiding-lips 15 and 16. The arms are then bent up, and the inner surfaces thereof abut against the edges of the blank proper to add rigidity to the sections thereof. Each arm is provided with an opening or bearing 17 and 18, which is designed to receive the rotatable split pin 20, to be more fully described as follows: This pin comprises a head 21, from which extend the two outwardly-projecting arms 22, contracted and then swelled at their free ends, so that when they are inserted in the bearings of the arms 8 and 9 the spring in the arms will allow the swelled head to pass through, but when the contracted portion is reached the arms will spring apart sufficiently to hold the pin therein, but allow the same to be rotated by turning the head 21 with the hands.

The operation of my device is as follows: All the parts being assembled, the end of the tube being held vertically by the holder, the closed end will lie between the arms 22, and by simply turning the pin progressively step by step the contents of the tube will be successfully discharged through the tube-opening, it of course being understood that the cap has been first removed.

While I have described in detail what to me seems the cheapest and most desirable construction for accomplishing the result it is desired to attain, I would have it understood that I do not limit myself to the exact details of construction disclosed, but reserve the right to make such slight changes and alterations as would properly come within the scope of my invention without departing from the spirit thereof.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a collapsible-tube holder, the combination, with a base formed from a cruciform

piece of sheet metal, two of the arms of which are bent toward each other and having their tips bent outward to form a hopper-like opening therebetween, and the other arms are perforated and bent up into engagement with the edges of the other arms at said openings and a split turning pin through said perforations in position to grasp the closed end of the tube.

- 10 2. In a collapsible-tube holder, the combination, with a sheet-metal base, the sides of which are bent toward each other and have their tips bent outward to form a hopper-like opening and the ends are provided with integral arms, perforated in alinement with

each other, and a split key through said perforations, said key comprising a head and two flexible arms, the free ends of said arms being contracted near their tips to engage with the arms at that end and retain the key in position for engaging with the closed end of the tube, substantially as described.

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Witnesses:

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Witness signature with mark:

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