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J. LEFKOWITZ

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PROTECTIVE DEVICE FOR COLLAPSIBLE TUBES

Filed Nov. 21, 1927

Fig. 1.

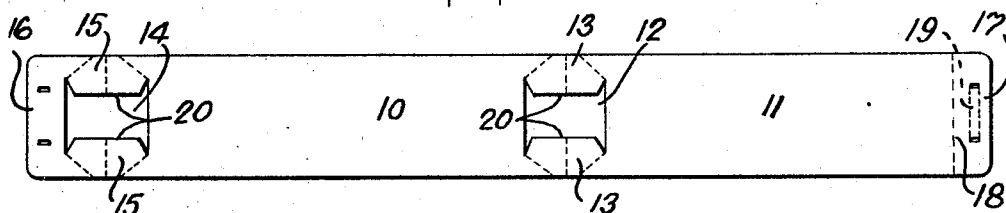


Fig. 2.

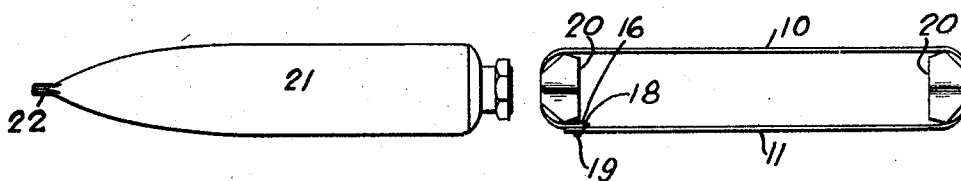


Fig. 3.

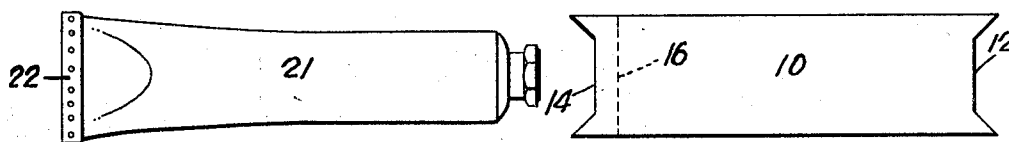


Fig. 4.

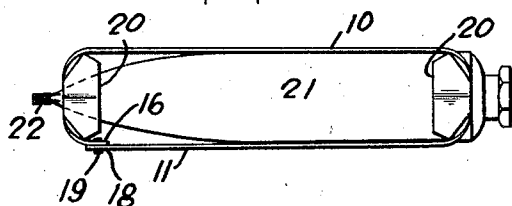


Fig. 5.

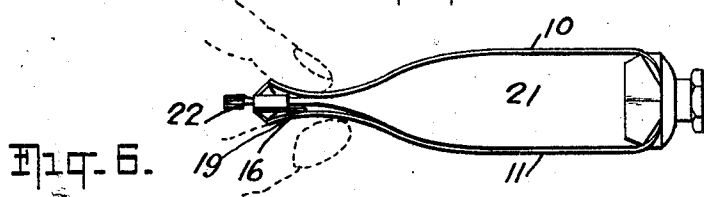
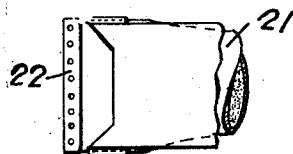


Fig. 6.



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PROTECTIVE DEVICE FOR COLLAPSIBLE TUBES

Application filed November 21, 1927. Serial No. 234,579.

This invention relates generally to toilet articles, and more particularly, to holders for collapsible metal tubes which are generally utilized as containers for toilet creams, dental
5 paste, shaving creams and the like.

A general object of the invention is that of providing a device which may be cheaply and easily manufactured and applied to the tube and will remain thereon both during shipment and use.

Another object of the invention is to provide a device which may be quickly and easily placed upon the tube; which can gradually be collapsed with the tube to effect an efficient
15 and complete discharge of the contents thereof and which, during such collapsing, will protect the tube against breakage and will become firmly locked thereon, whereby accidental displacement is obviated.

Other objects of the invention will in part be obvious and will in part appear hereinafter.

The invention accordingly comprises an article of manufacture possessing the features,
25 properties and the relation of elements which will be exemplified in the article hereinafter described, and the scope of the application of which will be indicated in the claims.

For a fuller understanding of the nature and objects of the invention reference should be had to the following detailed description taken in connection with the accompanying drawings, in which:

Figure 1 is a plan view of a blank from which the improved article is produced;

Fig. 2 is a side elevation of the article ready to receive a tube;

Fig. 3 is a plan view of Fig. 2;

Fig. 4 is a side elevational view of the article applied to a filled collapsible tube;

Fig. 5 is a view similar to Fig. 4 after a portion of the contents of the tube have been expelled; and

Fig. 6 is a fragmentary plan view of Fig. 5.

The device comprising the present invention preferably is formed from a thin, semi-rigid material, such as waxed pasteboard or the like, which has sufficient rigidity to accomplish the protective purposes above referred to and yet has sufficient flexibility to

enable a thin strip thereof to be deformed by pressure.

From a reference to Fig. 1 of the drawings it will be seen that an elongated blank may be cut out from the material used, comprising
55 solid portions 10 and 11 of approximately the same length as the body of the collapsible tube to which the device is to be applied. Intermediate these solid portions a portion 12 is cut out, preferably in the form of an I-
60 shaped slot, leaving side straps 13, which are ultimately preferably creased, as shown in dotted lines, and form a collar around one end of the tube. Also, at one end of the blank another opening 14 similar in shape to the
65 opening 12 is cut out, leaving side straps 15 and an end strap 16.

This blank then is assembled in any convenient manner so that the strap 16 is overlapped by the end 17 of the solid portion 11,
70 as shown at 18, and is secured thereto by any suitable means, as, for example, by the metallic staple-clip 19. The side straps 13 and 15 are flexible in the sense that they allow the members 10 and 11 to be squeezed together.
75 Such flexibility may be accomplished by creasing, as shown in dotted lines in Fig. 1, or by other suitable means.

After the ends of the blank are connected, the tongue-portions 20 of the straps 13 and 15
80 are bent inwardly, whereupon the collapsible tube 21 may be inserted through one of the openings 12 or 14 and moved longitudinally of the device until the shoulder-portion of the tube is engaged by one pair of side straps,
85 and the other pair engages the other end of the tube. Either end of the tube may be first inserted, and for the sake of appearance, it is preferred that the staple-clip 19 be positioned adjacent the bottom of the tube, which
90 is sealed in the usual manner by the perforated aluminum clamp 22.

When the device is positioned on the tube it will be seen that the solid portions 10 or 11 thereof protect the flat sides of the tube
95 from damage, and, since the device preferably is constructed wider than the tube, the overhanging edges of the solid portions 10 and 11 also protect the tube during shipment. The device is held in position on the tube
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by the resiliency of the bent over tongues 20 and the entire ensemble is adapted to fit snugly within a packing box of the usual type.

5 Because of the flexibility of the strap-portions 13 and 15, the side portions 10 and 11 of the device may be compressed inwardly against the tube to collapse the same and discharge the contents thereof and by pro-
10 gressively squeezing from the bottom of the tube upwardly the ejection of the entire contents of the tube may be easily and efficiently accomplished. Furthermore, as will be seen
15 by reference to Figs. 5 and 6, when the bottom portion of the tube thus has been collapsed, the increased width, due to flattening thereof, causes the protective device to become firmly locked thereon.

Although many desirable features of the
20 present device will be readily apparent, it might here be pointed out that the use of the device comprising the present invention protects the tube against breakage during use and allows printing of the name, label,
25 trade mark, etc. of the contents of the tube on the material used for making the device prior to cutting the blanks, thereby eliminating the involved steps of printing such labels and directions on the metallic surface of the
30 tube as heretofore; also the new device presents the advantage of such labels and directions being always legible, which is not the case when the tube is rolled up, as is usually done during use, and, if desired, trademarks
35 or other advertising matter also may be printed on the side portions of the device.

It might be pointed out also that the present device can be stamped out of a sheet of material by a die in a single operation, read-
40 ily assembled and placed on the tube by an automatic machine after the filling and sealing of the tube are complete; and its use will not require material alteration of the machines now in use in the industry.

45 Since certain changes may be made in the above article and different embodiments of the invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying
50 drawing shall be interpreted as illustrative and not in a limiting sense.

It is also to be understood that the following claims are intended to cover all of
55 the generic and specific features of the invention herein described, and all statements of the scope of the invention which as a matter of language might be said to fall therebetween.

60 Having described my invention, I claim:

1. A protective device for a collapsible tube, comprising wall-portions of a size and shape to cover the flat sides of a collapsible tube longitudinally adjacent to the flattened
5 end portion, a plurality of pairs of opposed

flexible straps connecting the lateral edges of said wall-portions, said flexible straps surrounding the tube at points spaced longitudinally thereof when the protective device is placed thereon.

2. A protective device for a collapsible tube, comprising wall-portions of a size and shape to cover the flat sides of a collapsible tube longitudinally adjacent to the flattened end portion, a plurality of pairs of opposed
75 flexible straps connecting the lateral edges of said wall-portions, said flexible straps surrounding the tube near each end.

3. A protective device for a collapsible tube, which is formed from an elongated blank having spaced openings therein providing solid portions and flexible side straps around the openings which, when in assembled position on a collapsible tube, provide a collapsible protective shield for the tube
80 by which the contents thereof may be expelled, said flexible side straps being arranged in pairs connecting the lateral edges of the side portions and passing laterally around the exposed portions of the tube at points
85 spaced longitudinally thereof.

4. A protective device for a collapsible tube, comprising wall-portions connected substantially at each end by a pair of laterally-disposed flexible straps, said straps having extensions which resiliently bear against the tube when the device is in position thereon.

5. A protective device for a collapsible tube, comprising wall portions of semi-rigid material, laterally-disposed flexible straps
100 connecting one end of the wall portions having portions thereof adapted resiliently to bear against the exposed sides of the collapsible tube when the device is positioned thereon, the other ends of the wall portions being
105 connected together.

6. A protective device for a collapsible tube, comprising wall portions of semi-rigid material, laterally-disposed flexible straps connecting one end of the wall portions, having inwardly extending projections which resiliently bear against the exposed sides of the collapsible tube when the device is positioned thereon, the other ends of the wall portions being connected together.

7. A protective device for a collapsible tube, comprising wall portions of semi-rigid material, laterally-disposed flexible straps connecting one end of the wall portions, having inwardly extending projections which resiliently bear against the exposed sides of the collapsible tube when the device is positioned thereon, the other ends of the wall portions being connected together, said wall portions being wider than the collapsible tube and of a size and shape to fit snugly within a packing box of the usual type.

8. A protective device for a collapsible tube, comprising wall-portions of semi-rigid material connected substantially at each end by
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a pair of laterally-disposed flexible straps, said straps having extensions which resiliently bear against the exposed sides of the tube when the device is in position thereon, the ensemble comprising the tube and the protective device being of such over-all dimensions to fit snugly within a packing box of the usual type.

9. A blank for forming a protective device for a collapsible tube, said blank being formed of thin semi-rigid material and comprising a pair of elongated walls simulating the size and shape of the wall of a flattened collapsible tube, an opening intermediate said walls adapted to receive the neck, a similar opening contiguous to the other end of one of said walls and adapted to receive the other end of the collapsible tube, and means on the non-contiguous side of said last-mentioned opening and on the corresponding end of the other side wall for permitting the ends of the blank to be joined together.

10. A blank for forming a protective device for a collapsible tube, said blank being formed of thin semi-rigid material and comprising a pair of elongated walls simulating the size and shape of the wall of a flattened collapsible tube, an opening intermediate said walls adapted to receive the neck, a similar opening contiguous to the other end of one of said walls and adapted to receive the other end of the collapsible tube, and means on the non-contiguous side of said last-mentioned opening and on the corresponding end of the other side wall for permitting the ends of the blank to be joined together; each of said openings being bounded laterally by a strap of the semi-rigid material, and each of said straps being creased so as to be both flexible and resilient.

11. A blank for forming a protective device for a collapsible tube, said blank being formed of thin semi-rigid material and comprising a pair of elongated walls simulating the size and shape of the wall of a flattened collapsible tube, an opening intermediate said walls adapted to receive the neck, a similar opening contiguous to the other end of one of said walls and adapted to receive the other end of the collapsible tube, and means on the non-contiguous side of said last-mentioned opening and on the corresponding end of the other side wall for permitting the ends of the blank to be joined together; each of said openings being bounded by a strap of the semi-rigid material, and each of said straps having an inwardly-extending projection and being creased so as to be both flexible and resilient.

In testimony whereof I affix my signature.

JOSEPH LEFKOWITZ.

CERTIFICATE OF CORRECTION.

Patent No. 1,769,065.

Granted July 1, 1930, to

JOSEPH LEFKOWITZ.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: Page 2, strike out lines 98 to 106, comprising claim 5; same page, lines 107, 116, 128, and page 3, lines 9, 23 and 41, for claim numerals 6, 7, 8, 9, 10 and 11 read 5, 6, 7, 8, 9 and 10; and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 21st day of October, A. D. 1930.

(Seal)

M. J. Moore,
Acting Commissioner of Patents.