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CLIP FOR CLOSING NON-METALLIC COLLAPSIBLE TUBES.
APPLICATION FILED JULY 24, 1919. RENEWED OCT. 14, 1920.

1,370,264.

Patented Mar. 1, 1921.

Fig. 1.

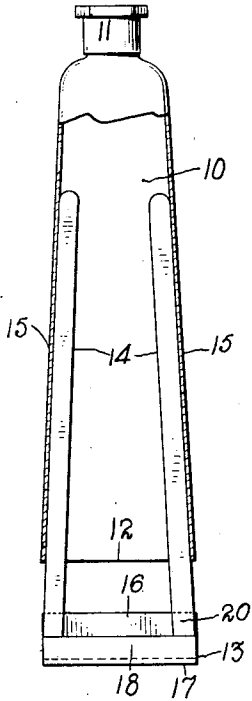


Fig. 2.

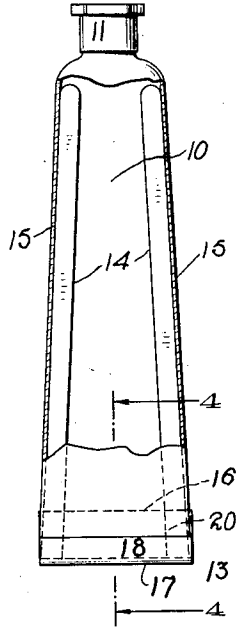


Fig. 3.

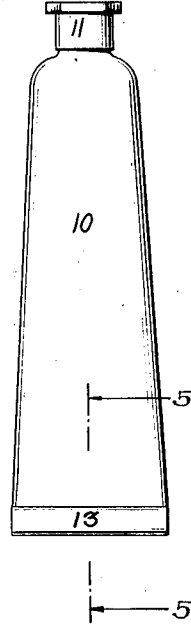


Fig. 4.

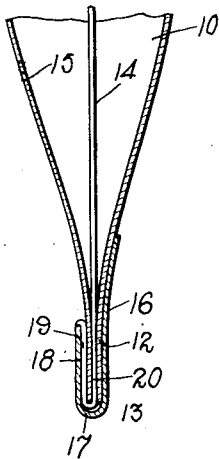


Fig. 5.

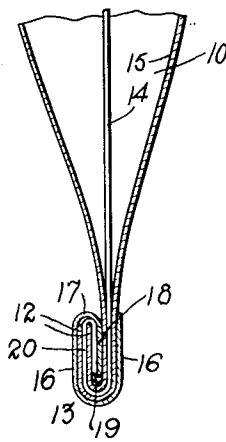
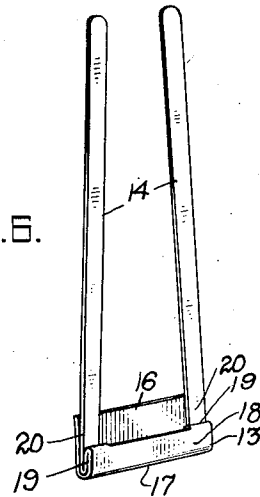


Fig. 6.



WITNESSES

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CLIP FOR CLOSING NON-METALLIC COLLAPSIBLE TUBES.

1,370,264.

Specification of Letters Patent.

Patented Mar. 1, 1921.

Application filed July 24, 1919, Serial No. 312,919. Renewed October 14, 1920. Serial No. 417,019.

To all whom it may concern:

Be it known that I, ROBERT A. BACHMANN, a citizen of the United States, and a resident of Newport, in the county of Newport and State of Rhode Island, have invented new and Improved Clips for Closing Non-Metallic Collapsible Tubes, of which the following is a full, clear, and exact description.

My invention has for its object to provide a clip for use in closing non-metallic collapsible tubes, which has fins serving to hold the tube in position when rolled.

Additional objects of the invention will appear in the following specification in which the preferred form of my invention is described.

In the drawings, similar reference characters refer to similar parts in all the views, in which—

Figure 1 is a sectional view illustrating my invention with the clip and the attached fins partially withdrawn from the body of the tube;

Fig. 2 is a view illustrating the invention with portions broken away to illustrate the construction, the clip being shown in the position it assumes before the clip and the bottom of the tube are turned over;

Fig. 3 is a side elevation showing the finished tube;

Fig. 4 is an enlarged sectional view on the line 4—4 of Fig. 2;

Fig. 5 is an enlarged sectional view on the line 5—5 of Fig. 3; and

Fig. 6 is a perspective view illustrating the clip and the attached fins.

Many attempts have been made to manufacture collapsible tubes of other material than metal such as paper and celluloid, because of the excessive cost of the manufacture of such tubes of metal, but a difficulty has been encountered in the manufacture of collapsible tubes of paper and celluloid and other materials, for the reason that it has been found to be impossible to roll the non-metallic tubes tightly, so that they will not spring open. When using collapsible tubes, it is customary to roll up the end of the tube after the material contained in the tube has been squeezed beyond the said tube end, and in the use of non-metallic tubes, this cannot be done satisfactorily, as the non-metallic tubes will spring open after they have been rolled, as stated above.

My clip is so constructed that when applied and the tube is rolled up tight, the tube will remain in this position until it is unrolled manually.

By referring to the drawings, it will be seen that the other than metal tube 10 is elongated and is of the usual type of construction with a cap 11 for sealing one of its ends. The other end 12 of the tube is sealed by means of a clip 13 which has integral fins 14 which are normally disposed in the tube body 10. The fins are preferably disposed in the said tube body 10, one at each of the tube sides 15; the fins 14 preferably extending from the ends of the clip 13. This clip 13 has a portion 16 disposed against one outer surface of the tube body 10, the clip 13 being U shaped at 17 and extending upwardly at 18 at the outer side of an opposite surface of the tube body; the fin bases 19 extending from the upper end of the clip portion 18; these fin bases extending downwardly between the clip portion 18 and the tube body 10, and then up at 20 in the tube body. As the bases 19 are preferably disposed one at each end of the clip 13, it will be understood that the fins 14 will be disposed in the tube body 10, as illustrated in Figs. 1 and 2 of the drawings.

When the clip 13 and its fins 14 are disposed relatively to the tube body 10, as shown in Figs. 2 and 4 of the drawings, the clip, the bottom of the tube body together with the fin bases 9 and the lower portions of the fins 20 are turned over, as illustrated in Figs. 3 and 5 of the drawings, to seal the bottom of the tube body 10.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A tube having opposite sides and two fins in the tube, one disposed adjacent each side of the tube, for the purpose specified.

2. An elongated non-metallic tube having opposite sides, and two metal fins disposed in the tube adjacent the sides of the tube, the fins serving to hold the tube in position when rolled.

3. A tube having opposite sides, means for sealing one end of the tube and fins extending from the said means and disposed in the tube adjacent the sides thereof.

4. A tube, a clip engaging the outer surfaces of an end of the tube, and fins extending from the clip and disposed in the tube,

the clip, the said end of the tube and the fins being turned over to seal the said tube end.

- 5 5. A tube having opposite sides, a clip engaging the outer surfaces of an end of the tube, two fins extending from the clip and disposed in the tube adjacent its said sides, the clip, the said end of the tube and the fins being turned over to seal the said tube end.

6. A U-shaped clip having two integral 10 fins spaced apart and extending from the clip downwardly and then upwardly between the sides of the clip.

7. A U-shaped clip having an integral fin extending from the clip downwardly and 15 then upwardly between the sides of the clip.

ROBERT A. BACHMANN.