

Sept. 14, 1943.

R. N. HOULIHAN

2,329,375

DECORATIVE TUBULAR CASING AND METHOD OF MAKING

Filed Sept. 16, 1941

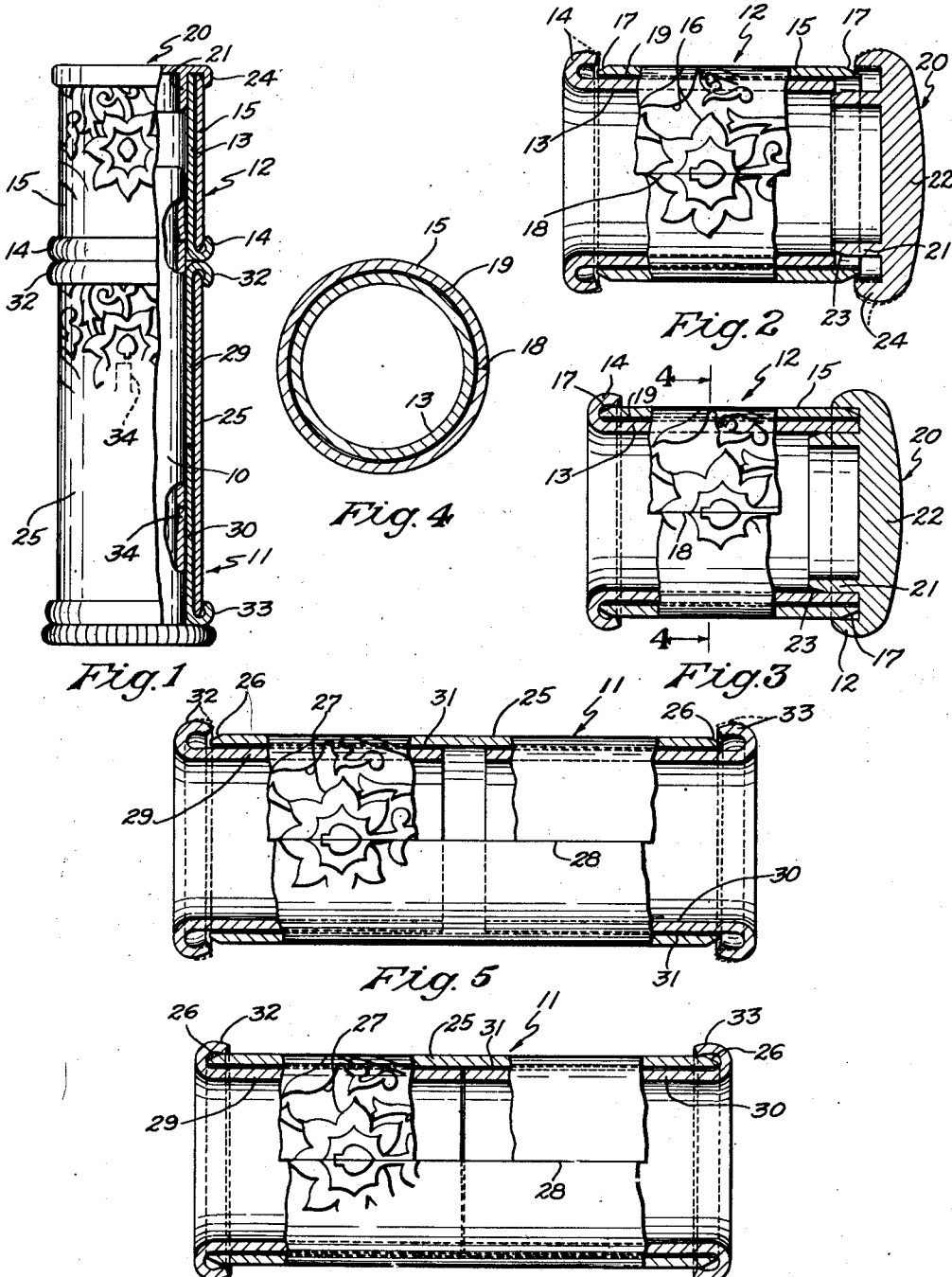


Fig. 6

INVENTOR
Rudolph M. Houlihan
BY
Hooster Davis
ATTORNEYS.

UNITED STATES PATENT OFFICE

2,329,375

DECORATIVE TUBULAR CASING AND
METHOD OF MAKING

Rudolph N. Houlihan, Bridgeport, Conn., assignor to The Bridgeport Metal Goods Manufacturing Company, Bridgeport, Conn., a corporation of Connecticut

Application September 16, 1941, Serial No. 411,042

7 Claims. (Cl. 220-63)

This invention relates to decorative tubular casings and method of making them, and has particular relation to decorative or ornamental casings for such articles as lipstick holders and other or similar cosmetic holders, flashlights, and the like.

It has been difficult to apply desired ornamentation or decorative matter to the outer casings or shells of lipstick or similar cosmetic holders because they are usually of drawn tubes or similar construction, and therefore the possibilities of decorative features or ornamentation on such articles has been distinctly limited, and also of objectionably high cost to produce. It is therefore an object of the present invention to provide an improved and new construction for such shells or casings in which the decorative possibilities are practically unlimited, and it can be manufactured at greatly reduced cost.

It is also an object of the invention to provide a construction in which the outer or decorative element of the shell or casing can be made from sheet metal and the decorative or ornamental matter applied thereto, and then the sheet rolled or otherwise bent or formed to the desired tubular form and effectively retained in this form for use as the cover or casing of different articles as specified.

It is another object to provide a construction of casing involving a decorative member, which can be assembled quickly with a few simple operations.

With the foregoing and other objects in view I have devised the construction and method of making it illustrated in the accompanying drawing forming a part of this specification. It is however to be understood that I am not limited to the specific details and arrangement shown but may employ various changes and modifications within the scope of the invention.

In this drawing:

Fig. 1 is a partial side elevation and partial section of a cosmetic or lipstick holder with the outer shell or casing members constructed according to my invention;

Fig. 2 is a partial side elevation and partial longitudinal section of the members forming the closure or cover section of the outer shell or casing in the position they occupy preparatory to the final assembly as the completed structure;

Fig. 3 is a similar view showing the members in the finally assembled position;

Fig. 4 is a transverse section substantially on line 4-4 of Fig. 3;

Fig. 5 is a partial side elevation and partial

longitudinal section of the parts forming the main portion or body of the outer shell showing them in the position they occupy preparatory to their final assembly; and

Fig. 6 is a similar view of this main shell or casing with the parts in their final assembled relation.

Throughout the figures of the drawing the thicknesses of the walls of the various members are greatly exaggerated for clearness of illustration, they being in ordinary constructions either of relatively thin sheet metal or relatively thin drawn sleeves, with the possible exception of the end cap for the cover or closure member which may be a turned or screwed machine product.

For the purposes of illustration my new construction and method of making the decorative shell or casing are shown as applied to the outer casing members, including the body shell and cover or closure, of a lipstick or similar cosmetic holder, but it will of course be understood they may be applied for the manufacture of other tubular casings such for example as those for flashlights and other articles.

In Fig. 1 of the drawing the lipstick holder comprises the inner shell 10 in which is mounted the stick of cosmetic such as lipstick or similar material in a suitable carrier with means for advancing it to expose it at the end of the shell for use and then retracting it back into the shell, which cosmetic and mechanism is not shown as they form no part of my present invention and may be of any of the usual or desired constructions. Applied to this shell 10 is the decorative casing constructed according to my invention and comprising the members composed of the main body or casing 11 and the cover or closure 12. Both of these members are of substantially the same construction and made by the same method, except that as the main casing 11 is a tubular member open at both ends, while the member 12 is a tubular member closed at one end, a slight difference of construction is employed.

Referring first to the construction of the closure or cover 12, this is shown more clearly in Figs. 2, 3 and 4. It comprises an inner sleeve 13, preferably a seamless drawn tube, with one end rolled outwardly and backwardly to form an open bead 14. Enclosing or embracing this inner sleeve 13 is an outer sleeve 15 which is formed of sheet material, such for example as sheet metal or other suitable material, rolled or otherwise bent or formed to tubular form, and it may be provided

on its outer surface before being thus rolled or formed with suitable decorative or ornamental matter, such as that indicated at 16, which may be embossing, etching or matter applied by any other suitable methods. The opposite end edges of this outer sleeve are inclined or beveled as indicated at 17, and the sleeve 15 is of such size that when its opposite longitudinal edges 18 abut, this sleeve is slightly larger than the inner sleeve 13 leaving the clearance 19 between them.

As this member forms the cover or closure for the lipstick holder, one end is closed by the cap 20 which is really a short sleeve as it comprises the short tubular sleeve portion 21 open at one end and closed at the other by a wall 22. The inner end edge of the sleeve portion is inclined or beveled on its outer wall as shown at 23. Spaced outwardly from the sleeve portion 21 is an open bead 24. The outer diameter of the sleeve portion 21 is such as to be a tight or light push fit within the sleeve 13, while the internal diameter of the beads 14 and 24 are normally somewhat less than the outer diameter of the outer sleeve 15, so that when the parts are assembled by longitudinally pushing the members 13 and 20 relative to each other and to the sleeve 15 to the positions indicated in Fig. 3 the free edges of the beads 14 and 24 will ride up on the inclined or beveled surfaces 17 causing the beads to be expanded slightly as indicated in dotted lines Fig. 2, and because of the resilient action of the metal of these beads will cause them to firmly grip or clamp the outer sleeve and press the longitudinal abutting edges 18 tightly together, thus making what is in effect a continuous outer sleeve and preventing the possibility of the edges 18 separating to form an opening or crack in the wall of the sleeve. When the members 13 and 20 are thus longitudinally forced together the free inner end of the sleeve 13 will ride up on the incline or bevel 23 on the sleeve portion 21, and the two sleeve portions 13 and 21 will telescope with a tight or light push fit as shown in Fig. 3. These tight fits between the sleeves, and particularly the gripping or clamping action of the beads 14 and 24 on the outer sleeve 15, will effectively retain the parts in the assembled relation as shown in Fig. 3. In assembling, the sleeve 13 and the sleeve 21 of member 20 are inserted in the opposite open ends of the tubular sleeve 15 to the positions shown in Fig. 2. Then by forcing the two members 13 and 20 longitudinally toward each other as above described the parts are all brought to the position of Fig. 3, which is the final assembled position, and which clamps the outer sleeve 15 by slightly expanding the beads 14 and 24 as above described.

The open ended tubular or main body portion 11 of the casing is formed in a similar manner as shown in Figs. 5 and 6. As in this case, however, the casing is open at both ends. The inner sleeve construction is composed of two similar sleeves. Thus this construction comprises the outer sleeve 25 corresponding to the outer sleeve 15 of the closure or cover 12 and it is made of the desired length. It is beveled or inclined at the outer portions of its end edges as indicated at 26, and may have the same or similar decorations or ornamentation 27 to that of the cover 12. This sleeve is also made of sheet material rolled, bent or formed to tubular form with its opposite longitudinal edges abutting, the same as described in connection with sleeve 15. Telescoped within this sleeve 25 are the inner sleeves 29 and

30. They are each similar to the sleeve 13 of the cover 12 and are inserted from opposite ends of the tubular sleeve 25. They are of somewhat less diameter than the outer sleeve 25 so as to leave the slight clearance 31 between the inner and outer sleeve, and the outer end of each sleeve 29 and 30 is rolled outwardly and backwardly to form the open beads 32 and 33 respectively, corresponding to the bead 14 of the cover member 12. The interior diameter of these beads is normally somewhat less than the outer diameter of the outer sleeve 25 when its longitudinal edges are abutting.

The parts are assembled in the same manner as described in connection with cover member 12. The sleeves 29 and 30 are inserted in the opposite ends of the outer sleeve 25 as shown in Fig. 5. Then these two inner sleeves are forced longitudinally toward each other to the position of Fig. 6 causing the free inner edges of the beads 32 and 33 to engage and ride up on the bevels 26, and as the internal diameter of the beads is somewhat less than the outer diameter of the sleeve 25, this will cause the beads to be expanded slightly as indicated in dotted lines Fig. 5. This, because of the resilient action of the metal of the beads, will cause them to firmly grip the outer surface of the sleeve 25 and will also cause them to contract the sleeve 25, causing the longitudinal butting edges 28 to be firmly clamped and held together. This will make the outer sleeve in effect continuous with no possibility of the edges separating or opening up, and will maintain a friction or gripping action of the beads on the sleeve 25 which will maintain the parts in the proper assembled relation shown in Fig. 6.

It will thus be seen that the outer decorative or ornamented sleeves 15 and 25 can be made in the flat or sheet metal condition and have one surface decorated in the desired manner, while in this condition, and then it can be rolled or otherwise formed to the desired tubular shape and then assembled with the inner sleeves by various simple operations as described. Although the casings illustrated are shown as cylindrical in form it will be evident they may be of other cross sectional shapes if desired, such for example as hexagonal, octagonal, oval or the like. The casing member 11 is assembled on the lipstick holder by forcing it over the shell 10 of this holder and will be held thereon by friction or a relatively tight fit. If desired friction lugs 34 may be cut and pressed outwardly from the shell 10 to form a frictional holding means. It is somewhat shorter than the shell 10 so as to leave the open end portion of this shell exposed. The cover or closure member 12 is telescoped or slid onto this exposed end portion of the shell and closes its open end to protect the contents of the shell. The various beads 14, 24, 32 and 33 on the casing members increase the ornamental effect.

Having thus set forth the nature of my invention what I claim is:

1. A tubular casing comprising an outer sleeve of sheet material bent to tubular form with disconnected longitudinal abutting edges, and inner sleeves telescoped into the ends of the outer sleeve and each having a bead embracing an end of the outer sleeve, said beads being of resilient material each enclosing an end of the outer sleeve and tending to contract so that the free edge of the bead grips the outer cylindrical surface of the

sleeve and tends to contract the sleeve to press the longitudinal edges of this sleeve together.

2. A tubular casing comprising an outer sleeve of sheet material bent to tubular form with disconnected longitudinal abutting edges and having end edges peripherally beveled on their outer sides, and inner sleeves telescoped into the ends of the outer sleeve and each having a hollow bead embracing an end of the outer sleeve, said beads being of resilient material each enclosing an end of the outer sleeve and the bevel thereon so that the edge of the bead grips the cylindrical portion of the sleeve beyond the bevel, and said beads tending to contract so that they tend to contract the sleeve to press the longitudinal edges of this sleeve together.

3. A tubular casing member comprising an outer sleeve of sheet metal bent to tubular form with disconnected longitudinal abutting edges, inner sleeves extending into the outer sleeve from the opposite ends thereof and each having a bead embracing an end of the outer sleeve, said beads being of resilient material each enclosing an end of the outer sleeve and tending to contract so that the free edge of the bead grips the outer cylindrical surface of the sleeve and tends to contract the sleeve to press the longitudinal edges of this sleeve together, and one end of one inner sleeve being closed by an end closure and the other end of said sleeve being telescoped with the inner end of the other inner sleeve with a tight fit.

4. A tubular casing comprising a sheet metal outer sleeve bent to tubular form with disconnected longitudinal abutting edges, the end edges of said sleeve being peripherally beveled on their outer sides, inner sleeves telescoped into the opposite ends of said outer sleeve and each having a hollow bead embracing an end of the outer sleeve, said beads being of resilient material each enclosing an end of the outer sleeve and the bevel thereon so that the edge of the bead grips the cylindrical portion of the sleeve beyond the bevel, said beads tending to contract so that they tend to contract the sleeve to press the longitudinal edges together, an end edge of one of the inner sleeves being peripherally beveled on its outer side and telescoped with the other inner sleeve

with a tight fit, and the outer end of one of the inner sleeves being closed by an end closure.

5. A tubular casing comprising an outer sleeve of sheet metal bent to tubular form with disconnected longitudinal abutting edges, inner sleeves telescoped into the opposite ends of said outer sleeve and each having its outer end edge portion rolled outwardly and backwardly forming an open bead embracing an end of the outer sleeve, and said beads being of resilient metal tending to contract against the outer sleeve so as to grip the outer surface of this sleeve and tend to contract the sleeve to press its longitudinal edges together.

6. A method of making a tubular casing comprising bending a sheet of suitable material into a tubular form with the longitudinal edges abutting to form an outer sleeve, forming inner sleeves each with an outwardly and backwardly extending open bead at one end of smaller internal diameter than the outer diameter of the outer sleeve, inserting the inner sleeves into the opposite ends of the outer sleeve, and forcing the inner sleeves toward each other to force the ends of the outer sleeve into the respective beads to cause the larger diameter of the outer sleeve to slightly expand these beads and by the resulting inward pressure of the beads on the sleeve to force the longitudinal edges of the outer sleeve together.

7. A method of making a tubular casing comprising bending a sheet of suitable material into a tubular form with the longitudinal edges abutting to form an outer sleeve and beveling the outer sides of the end edges thereof, forming inner sleeves each with an outwardly and backwardly extending open bead at one end of smaller internal diameter than the outer diameter of the outer sleeve, inserting the inner sleeves into the opposite ends of the outer sleeve, and forcing the inner sleeves toward each other to force the ends of the outer sleeve into the respective beads to cause camming action of the bevels on the beads to slightly expand these beads and by the resulting pressure of the beads on the outer sleeve to force the longitudinal edges of the outer sleeve together.

RUDOLPH N. HOULIHAN.