METHOD OF FORMING AN ELEMENT OF A LIPSTICK

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3 Claims. (Cl. 113—116)

This invention relates to cosmetic holders such as lipsticks and more particularly relates to the method of manufacturing a tubular member which is an element of a modern day lipstick.

There is presently on the market a relatively new type of cosmetic holder. The user of this holder can move the cosmetic stick to its upper or "in use" position by rotating the base of the holder with respect to the side wall thereof. A lifting action is imparted to the cosmetic stick through a holder which is shaped like a cup and has a radially extending exterior stud. This stud extends through a straight slot in a first tubular member into a second helical slot formed in a second tubular member. The first tubular member is attached to the case of the lipstick and the second tubular member frictionally engages the outer wall of the lipstick. Thus when the base is rotated with relation to the wall the cosmetic stick carrier member moves up or down due to the interaction of the straight and helical slots on the stud. It is the method of manufacturing the first tubular member which is attached to the base of the lipstick and has a so-called straight slot in the wall thereof that is the subject of this application.

It is a principal object of the present invention to provide a method of manufacturing this tubular member which is adapted to assembly line type of step production which consequently reduces the cost of production. An item such as a lipstick must necessarily be very competitive in finished price and any slight saving in the cost of manufacture or assembly of any components thereof become extremely important.

Further objects of this invention will be noted in the body of the following more detailed description in conjunction with the accompanying drawings wherein:

Fig. 1 is a plan view of a strip of sheet metal showing the steps of forming the tubular member;

Fig. 2 is a cross sectional view taken on lines 2—2 of Fig. 1;

Fig. 3 is a cross sectional view taken on lines 3—3 of Fig. 1; and

Fig. 4 is a perspective view of an embodiment of the member formed by the method of this invention.

Referring to these drawings the tubular member is cut from a strip of sheet metal 1 by first die cutting a slot 2 adjacent and substantially parallel to a longitudinal edge of the strip. Next a second slot 3 transverse to the strip and perpendicular to the first slot 2 is die cut extending from the longitudinal center of the first slot to the opposite edge of the strip. As shown this second slot 3 flares symmetrically a short distance from where it joins the first slot. It will be noted with the cutting of the second slot 3 the body of the tubular member 4 is formed and is cut from the strip 1 except for a bridge 5 which holds the member in substantially the position it occupied as part of the strip.

The member 4 is then die stamped to form the desired grooves and shapes of the completed member. As shown, a convex groove 6 is formed adjacent the top of the member 4 and a pedestal 7 is formed adjacent the base of the member 4. Other convex beads 6a may be formed intermediate the groove 6 and the pedestal 7 as desired. The beads 6a as shown are adapted to provide raised portions for a sleeve (not shown) to slide over and permit such sleeve to rotate with respect to the member 4 with less friction in the ordinary operation of the lipstick. Also, as shown in the cross sectional views of Figs. 2 and 3 the member is waved into two joining areas 8 and 9.

The member 4 is then die cut from the strip 1 by cutting the bridge 5 along the base line of the member 4. The member is then formed into a tubular shape as shown in Fig. 4 by bringing the opposing ends of the pedestal 7 together.

By providing a method whereby the strip 1 and member 4 are attached until the last step of actually forming the tubular shape by bringing the pedestal ends together, it is possible to control the position of the member in an assembly line type of operation. Thus by use of a registry means, such as the semi-circles 10 spaced uniformly longitudinally along the strip, the strip and partially completed tubular members at one end thereof can be moved along in an intermittent "stop-start" manner and each of the above die cutting and die stamping operations can be performed simultaneously at different stations during each "stop." It will be appreciated that the stations can be positioned much further apart than is indicated in Fig. 1 in order to accommodate the necessary machinery.

Thus, the method provided makes it possible to manufacture the tubular members in an assembly line, rapid, efficient manner which merely requires supervision over the feeding of the strip into the machine and the removal of the almost finished member from the opposite end of operation.

Having thus described my invention, I claim:

1. The method of forming a tubular member of a lipstick from a strip of sheet metal comprising the steps of die cutting a first slot extending adjacent and substantially parallel to a longitudinal edge of the strip; die cutting a second slot extending perpendicularly from the longitudinal center of the first slot to the opposite edge of the strip, said second slot being formed having a symmetrically widened portion a short distance from said first slot; die stamping the resultant member to form a groove extending adjacent the top thereof and waving the member into a joined double arc formation; die cutting the member from the metal strip and bringing the opposed ends of the strip together between said first slot and said flare of said second slot to form a tubular shaped member having a pedestal with a perpendicular slot extending therefrom.

2. The method of forming a tubular member of a lipstick from a strip of sheet metal comprising the steps of forming a series of registry holes spaced equidistant longitudinally along the strip; die cutting a first slot extending adjacent and parallel to a longitudinal edge of the strip intermediate and adjoining series of registry holes; die cutting a second slot extending transversely and having a symmetrical widened portion between the first slot and the arc edge of the strip and centered between an adjoining series of registry holes; die cutting the resultant member to form a groove extending adjacent the top thereof and waving the member into a joined double arc formation; die cutting the member from the strip and bringing the opposed ends of said strip between said flare and said first slot together to form a tubular shaped member having a pedestal and a perpendicular slot extending therefrom.

3. The method of forming a tubular member of a lipstick from a strip of sheet metal comprising the steps
of forming a series of registry holes spaced equidistant longitudinally along the strip; die cutting a first slot extending adjacent and substantially parallel to a longitudinal edge of the strip intermediate an adjoining series of registry holes; moving the strip a distance equal to the space between an adjoining series of holes by means of said registry holes; die cutting a second slot extending transversely between the first slot and the far edge of the strip, said second slot having a symmetrical widened portion a short distance from said first slot and centered between an adjoining series of holes; moving the strip a distance equal to the space between an adjoining series of holes by means of said registry holes; die stamping the resultant member to form a groove extending adjacent to the top thereof and waving the member into a joined double arc formation; moving the strip a distance equal to the space between an adjoining series of holes by means of said registry holes; die cutting the member from the strip and bringing the opposed ends of said member between said first slot and said flare of said second slot to form a tubular shaped member having a pedestal with a perpendicular slot extending therefrom.

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