A. J. MILLS.

UMBRELLA RIB CONSTRUCTION.

APPLICATION FILED DEC. 16, 1913.

1,109,691. Patented Sept. 8, 1914.

Fig. 1.

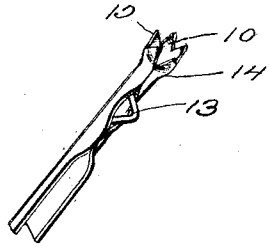


Fig. 2.

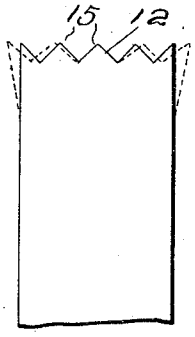


Fig. 3.

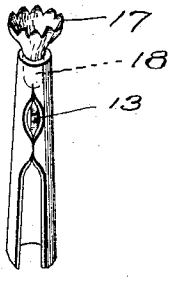


Fig. 2a.

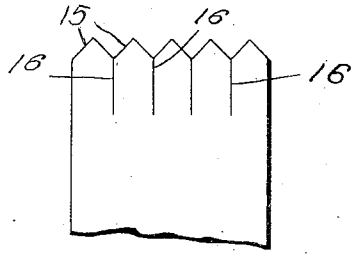
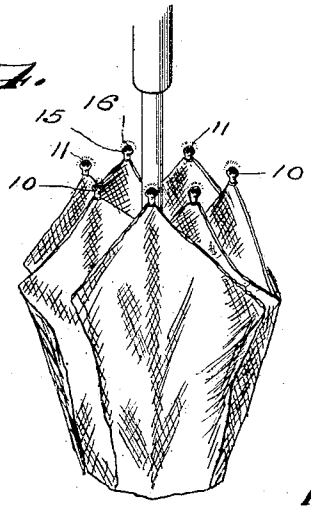


Fig. 4.



Witnesses

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UMBRELLA-RIB CONSTRUCTION.

1,109,691. Specification of Letters Patent. Patented Sept. 8, 1914.

Application filed December 16, 1913. Serial No. 807,078.

To all whom it may concern:

Be it known that I, ANDREW J. MILLS, a citizen of the United States, residing at Weir, in the county of Choctaw and State of Mississippi, have invented new and useful Improvements in Umbrella-Rib Construction, of which the following is a specification.

The invention relates to improvements in the rib end formation and has for an object to enable the embellishment of the rib ends with jewels, without materially increasing the cost.

An important object is to enable the use of a blank differing but slightly from that ordinarily used in forming umbrella ribs of the familiar type, and involving no special attachments or separate pieces to provide a setting for a jewel.

It is also an object to enable the formation of the rib from sheet metal blanks requiring no more material than the ordinary blank.

It is a further purpose to enable the formation of the cover holding eye near the end of the rib as heretofore practised, and to permit the use of the ribs in the manufacture of umbrellas in every way the same as heretofore.

Other objects and advantages will appear, some of which will be apparent from the following description, and from the drawings, in which,

Figure 1 is a perspective view of the tip of a rib constructed in accordance with my invention, Fig. 2 is a plan of the blank therefor, Fig. 2ª is a plan view of a modified blank therefor, Fig. 3 is a detail of a modification, Fig. 4 is a fragmentary view of an umbrella having my invention incorporated therein.

There is illustrated an umbrella in closed position, the tips of the ribs of which, instead of being provided with the usual small knobs, are formed with claws 10, holding ornamental stones 11 therein. The claws are adapted to be formed integrally from the material of the blank for the rib, although they may comprise a separate member secured within the crimped sides of the rib end. In Figs. 1 and 2 the claw is shown integral with the rib, the blank for which may be formed as shown in Fig. 2, with a series of serrations 12 across the end, by which jewel-holding points are provided, as will be described. The blank of which the rib is formed is of about the same length employed for ordinary rib construction, and involves the use of the same amount of material. The construction of the geat and the inner end of the rib for attaching to the stretcher and notch may be the same as customarily practised, and it is believed unnecessary to illustrate these details. The rib is shown with the usual U-shape in cross section, although this is not essential. The sides of the rib immediately adjacent the outer end may be crimped over the wire cover fastener 13 in the customary manner, and immediately outwardly thereof is preferably crimped to a cylindrical form, as heretofore customary. The outer end is spread, however, as at 14, forming a cup-like termination on the end of the rib, and the points 15 are bent inwardly over the edges of a jewel 16, as shown in Fig. 4. The size of the cup may be considerably increased by slightly expanding the metal at the extremity of the rib blank, which may be done by rolling the end of the blank before forming the setting, as dotted in Fig. 2, or by slitting the blank some distance inwardly between the points 15, as at 16 in Fig. 2ª, which will permit the formation of the cup in a size to suit the jewel to be used.

In Fig. 3 there is shown a modification by which a large or specially ornamental setting may be mounted on the end of the rib, which may be formed of other metal than that in the rib. Here, a setting 17 of any desired character is formed with a stem 18, the outer end of the rib blank being cut off square and the end has its sides crimped around the stem of the setting, as shown.

In the formation of the first described setting, the points are disposed divergently with respect to the axis of the rib, and with the adjacent end portion of the rib form a ready support for a jewel while the points are being turned inwardly thereon, obviating the liability of unsymmetrical mounting of the jewel, to a large extent.

It will be seen that the provision of this construction is obtained without complication of manufacturing methods and at low cost, while an efficient jewel mounting is provided.

What is claimed:

1. An improved manufacture of rib tip comprising a rib formed of sheet metal having a serrated outer end edge, the end por-

tion of the rib thereadjacent being crimped at opposite sides into substantially cylindrical form, the outer part being flared to form a cup-like portion for the reception of a jewel.

2. An improved manufacture of rib tip comprising a rib formed of sheet metal, the blank for which is provided with a transverse series of points across the outer end edge, a slit being formed longitudinally in the end of the blank extending inwardly from the end between the points, the sides of the blank being crimped into cylindrical form a distance from the end, the outer end portions being bent divergently and recurved to form an enlarged setting.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ANDREW JAMES MILLS.

Witnesses:
J. W. MILLER,
W. T. COBB.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."