

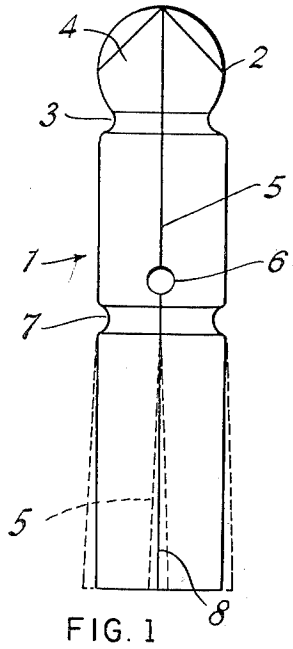
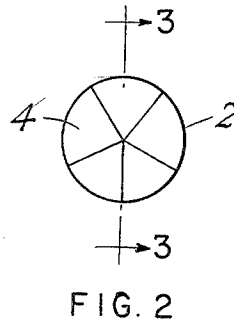
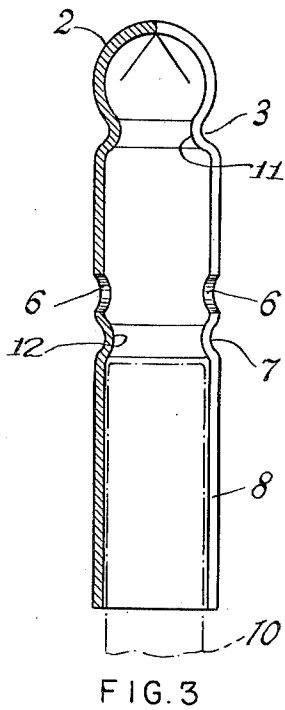
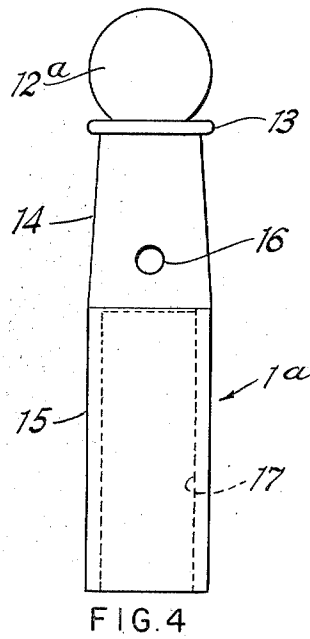
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UMBRELLA TIP

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UMBRELLA TIP

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My invention is an improvement in umbrella tips adapted to unite the edges of the cloth cover of an umbrella to the outer ends of the ribs thereof.

An important object of this invention is to provide a tip of such design that the cover can be readily attached to it, and the tip will engage the rib so firmly that jarring, knocking or other rough handling cannot displace or separate it from the rib.

Other objects and advantages will be made clear in the following description, and the novel features are defined in the appended claims. The drawings show two practical embodiments of the tip, but this disclosure is explanatory only and minor structural variations can be adopted without alteration or omission of any of the essential characteristics.

On said drawings:

Figure 1 is a side view of an umbrella tip according to this invention.

Figure 2 is a top view.

Figure 3 is a longitudinal section in line 3—3 of Figure 2; and

Figure 4 is a side elevation of a modified construction of such a tip.

The tip of Figures 1, 2 and 3 is made of metal or other strong and flexible material, stamped and rounded into a general cylindrical form, having an elongated tubular body 1 and a spherical head 2. At the junction of the head and body is an indented circumferential neck in the form of a groove 3. The blank which is bent into shape to produce the tip has triangular projections 4 on its edge at one end, and these projections, when the opposite lateral edges 5 are brought into proximity to each other are bent over and curved towards each other and thus the spherical head 2 is produced.

The body is hollow from the head 2 to the opposite end, which is open, and has aligned holes 6 for sewing threads. Adjacent the holes is another circumferential groove 7. The holes 6 and groove 7 are relatively close together and the holes 6 are about the same distance from the head as the groove 7 is from the opposite open end of the tubular body 1. The holes 6 and grooves 7 are thus in approximately mid-position on the tip and the juxtaposed edges 5 extend along the entire length of the tip, crossing both grooves 3 and 6. The effect of the edges 5, which are not secured to each other, is to form a slit 8 along one side of the body, midway of the space between the holes, and as the material is somewhat elastic, the body will give laterally somewhat to separate the edges 5 and widen the slit 8 when the end of a rib is inserted into the bore 9 within the body at the end remote from the head.

The cloth of the cover of the umbrella is sewed to the tip by means of thread passed through the holes 6. The rib of an umbrella is indicated at 10 in Figure 3. Such ribs are usually tapered somewhat and when properly inserted into the bore 9, the tip will give laterally and grip the rib so that a secure connection results. The tip cannot be separated from the rib except by a smart pull on the head 2.

The ends of such ribs often vary within small limits, even tapered smoothly, but the tip above described will

fit all ribs except a few, because the body will grip the rib tightly. The tip will give or yield laterally only from the open end up to the groove 7. The groove 7 forms a circumferential ridge or bead 11 inside the tip that presents a stop to the rib, so that the end of the rib cannot be inserted farther. The engagement between the tip and rib is very effective and the tip cannot be loosened or jarred off the rib by any amount of rough handling. When the cover is sewed to the tip, part of the edge of the cover can be seated in the groove 3 near the head 2, for neat appearance.

The grooves 3 and 7 and the beads 11 and 12 formed by them respectively inside the tip make the tip stronger and stiffer and entail a firmer gripping action on the rib, because the edges 5 can only be sprung apart between the groove 7 and the end of the tip.

Figure 4 shows a molded tip 1a of plastic material, for example with a ball-shaped head 12a, and an outside circumferential collar or bead 13. Adjacent the bead the tip has a tapered section 14 merging with a cylindrical section 15 extending to the opposite extremity. In the middle is a transverse hole 16, at the junction of the halves 14 and 15; and extending into the end remote from the head 12a is a bore 17 that terminates short of the hole 16. The end of a rib is inserted into the bore 17 and the tip engages the rib of an umbrella with the same effect as before.

The invention is thus well calculated to serve the intended purpose.

Having described my invention, what I believe to be new is:

1. An umbrella tip comprising a hollow tubular body having a head at one end, with a circumferential groove in its exterior at the junction of the head and body and holes in the opposite sides, and a second circumferential groove in its exterior adjacent said holes and between them and the opposite end, which is open, the body having a longitudinal slit in line with the middle of the space between said holes on one side of the body and extending from said opposite end to said last-named groove.

2. An umbrella tip comprising a hollow tubular body having a head at one end, with a circumferential groove in its exterior at the junction of the head and body and holes in the opposite sides, and a second circumferential groove in its exterior adjacent said holes and between them and the opposite end, which is open, the body having a longitudinal slit in line with the middle of the space between said holes on one side of the body and extending from said opposite end to said last-named groove, said grooves forming circumferential beads inside said body.

3. An umbrella tip of sheet material bent into tubular form and having a hollow body with triangular projections at one end curved towards each other to form a head, the tip having a circumferential groove adjacent said head uniting the head to the body, the tip having aligned holes one at each side, the body having juxtaposed edges in line with the middle of the space between said holes on one side of the body and extending from the head to the opposite end, which is open, the body also having a second circumferential groove adjacent said holes and between said holes and the opposite end of the body, the grooves forming stiffening beads inside the body, so that said edges can be sprung apart only between said second groove and said open end.

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