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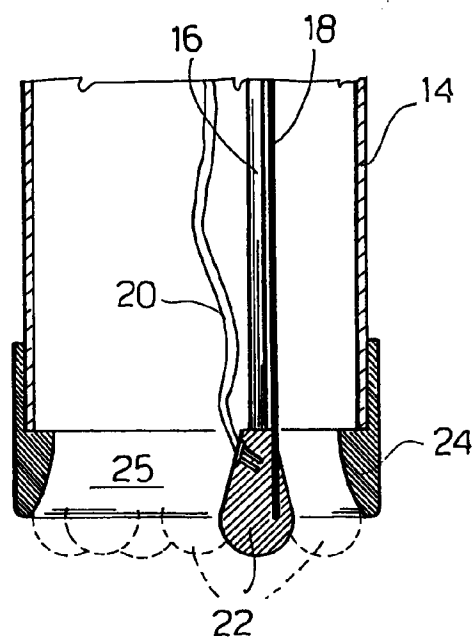
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**(54) Umbrella housed inside a tubular container and equipped with a stopper device**

(57) A stick-type umbrella, of a sort comprising a tubular container (14), a set of canopy supporting ribs (16) and a canopy (18) can take on an open position or a closed position, said ribs, when the umbrella is in the closed position, being arranged inside said tubular container with the distal ends of the ribs near the mouth or opening of the tubular container through which the ribs-canopy assembly can enter or leave the container; at least one rib carries a stopper element (22; 22a) of soft, elastic material fitted on the distal tip of at least one rib (16). When the umbrella is in the open position, the elements form a guard, in the closed position they prevent drips.



**FIG. 3**

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## Description

The invention refers to the field of umbrellas, particularly of the type in which the canopy supporting ribs and the canopy in the closed position are housed inside a tubular container, with the tips of the ribs at the opposite end to the handle, so that the closed umbrella has the appearance of a stick and if necessary can be used as such. In umbrellas of the type described in the prior art, the opening through which the ribs and the canopy enter and leave the container is generally always open or has a cap which must be applied to it manually. It has been noted that although the umbrellas of said type proposed hitherto have the advantage of facilitating drying and airing of the umbrella canopy, they nevertheless have the drawback of leaving a trail of marks and drips if a room is entered while the umbrella is wet; moreover, use of the umbrella-stick when the point is wet can give rise to problems in that it can slip on the surfaces with which it comes into contact. On the other hand, it is awkward to fit a cap manually.

The aim of the present invention is to overcome the drawbacks of the prior art. This aim has been achieved with an umbrella as claimed in claim 1. In other words, the umbrella folding into a stick according to the invention has one or more stopper elements, of soft pliant material, fitted on a part of the umbrella, generally on the end of one or more canopy supporting ribs, these elements or element cooperating, when the umbrella is in the closed position, with an edge of the opening or mouth of the tubular container, to close it.

In a preferred embodiment, one or more ribs have a stopper element at the end thereof, which, in a preferred variant of the invention, can also be used to anchor the canopy and/or possible wires controlling opening and closing of the umbrella.

In the umbrella according to the invention, the umbrella closing movement simultaneously gathers the ribs inside the container and brings the stopper elements or closing elements into place against the opening of the container, which preferably has a conical shape so that the opening is closed, preferably tightly, since the stopper elements come into contact with each other and possibly push against and compress each other.

In a variant, the closing elements can be carried by alternate ribs or even by only one rib, in which case they are larger.

The new umbrella eliminates troublesome drips on floors, without requiring additional manoeuvring to fit a cap.

A further advantage of the umbrella according to the invention consists in the fact that these stopper elements, made of soft material and generally having a roundish shape, make the umbrella safer in that they prevent injury from accidental contact with the ribs. A further advantage consists in the fact that the stick umbrella thus provided has a non-slip tip. A further advantage lies in the fact that in the closed position the

ribs are arranged in an orderly fashion.

Currently preferred embodiments will be described below with reference to the attached drawings, in which:

- 5 Figure 1 is an interrupted side view, on a reduced scale, of a stick-type umbrella; the umbrella is drawn in a closed position in which it can be used as a stick;
- Figure 2 is a view of the same umbrella on a further reduced scale, shown upside down and in the open position for use as an umbrella;
- 10 Figure 3 is an enlarged view of a detail of Figure 1, in axial section, showing the position of the stopper elements inside the end of the tubular container of the umbrella;
- 15 Figure 4 shows a variant with respect to Figure 3;
- Figure 5 is a side view of an open umbrella made with the variant in Figure 4.

20 A stick-type umbrella provided with the device according to the present invention is indicated as a whole with reference number 10 in the figure and comprises a handle or rod 12 with a grip 13, a tubular container 14, a system of canopy supporting ribs (only one of which is drawn in Figure 3 and indicated with reference number 16), a canopy indicated with reference number 18 and control wires indicated with reference number 20 and/or other elements to control opening and/or closing of the umbrella. The umbrella in general is of the type that closes with the ribs gathered together and arranged as a continuation of the rod (12), so that the ribs and canopy pass from the closed position to the open position of the umbrella by leaving the tubular container 14 and bending outwards. The particular opening and closing mechanisms are not illustrated and described here in that it is understood that the invention can be combined with various types of mechanisms.

According to a preferred embodiment of the invention, closing and protection elements indicated by reference number 22 are fitted on the distal tip of the ribs which will be situated at the opening of the container 14 when the umbrella is in the closed position. Such an element is generally made of soft, elastically compressible material, for example rubber or rubber-type material, most preferably composed of a more compressible material on the inside and a harder, more resistant layer on the outside. In one embodiment, the elements are made up at least in part of spongy material, such as foam rubber.

50 These elements are preferably shaped with flaring walls, as shown in Figure 3, although they can have other shapes, for example cylindrical or spherical. These elements 22 can be fitted on the end of the rods in any per se known manner such as pressure or gluing or the like. These elements co-operate with a collar 24 applied to the mouth of the tube 14, said collar 24 having a flaring inner section 25. The collar 24 can be integral with the tube 14 or can be a component applied to it. Each element 22 is preferably made for anchoring of

a canopy supporting rib 18 and/or a wire to control opening and closing 20. It will be seen that, with the umbrella open, the ribs have the elements 22 at the distal tips, constituting a valid protection against injury to other persons or objects that might be knocked with the umbrella. When the umbrella is closed again, the elements 22, brought to the opening of the tube 14, are arranged next to each other and against each other, so that they close the opening of the ring 24, though protruding slightly. This means that, on entering a room, the user, with the simple closing movement, obtains a tight closure of the space inside the container 14 which accommodates the wet canopy, thus avoiding troublesome drips on the floor. Moreover, the user thus obtains a non-slip tip for his stick without additional manoeuvring.

Although that described above is currently the preferred embodiment, other embodiments are nevertheless possible; for example it is possible for the closing and protecting elements to be fitted only on alternate ribs, instead of on all the ribs, or for only one closing element to be fitted on only one rib. This arrangement is shown in Figures 4 and 5 in which elements of the umbrella corresponding to those in the embodiment in Figures 1 to 3 carry the same reference numbers with the index a, no further description being necessary. It will be seen that in this case also the umbrella has canopy supporting ribs 16a that hold a canopy 18a, one of the ribs, indicated by 16'a, being longer than the other ribs and carrying at its distal end a rubber element indicated by 22a, of a relatively large size and in any case larger than the inner diameter of the entrance to the ring 24a of the tubular container 14a of the umbrella 10a. The element 22a is made of soft, elastic material, for example rubber and/or spongy material and preferably comprises a portion 22'a, nearest to the rib, that is particularly soft and flexible and an outer, relatively more rigid, hard-wearing portion, indicated by 22''a. In the open position the umbrella has a particular shape that can be seen in Figure 5; when it is in the closed position, shown in Figure 4, the ribs 16a are completely retracted within the container whereas the longer rib 16'a applies the element 22a against the flaring entrance of the ring 24a.

Further variants are possible and it is understood that all variants accessible to an expert in the field come within the scope of the present invention.

## Claims

1. A stick-type umbrella of a type comprising a tubular container (14), a set of canopy supporting ribs (16) and a canopy (18) and being able to take on an open position and a closed position, said ribs being arranged, when the umbrella is in the closed position, inside said tubular container with the distal tips of the ribs near the mouth or opening of the tubular container through which the canopy-ribs assembly can enter and leave the container characterised in

that it further comprises

at least one closing element (22, 22a) for removable closure of said tubular container opening, comprising an element of soft, elastic material fitted on the distal tip of at least one rib (16).

2. An umbrella according to claim 1, characterised in that said closing element comprises an element of soft, elastic material fitted on the distal tip of each rib.
3. An umbrella according to claim 1 characterised in that said element is in rubber-type material and/or spongy material, for example foam rubber.
4. An umbrella according to claim 1 characterised in that said closing element is made with an inner part (22'a) of particularly soft, elastic material and a harder outer part (22''a) to withstand wear.
5. An umbrella according to claim 1 characterised in that said element (22; 22a) serves to anchor a canopy supporting rib (16) and/or a wire of an umbrella opening/closing mechanism.
6. An umbrella according to claim 1, characterised in that said tubular container opening has a mouth (25) with a flaring shape that is wider towards the outside.
7. An umbrella according to claim 6, characterised in that said mouth is made in a collar (24) applied to the container.
8. An umbrella as described in the present description and illustrated in the attached drawings.

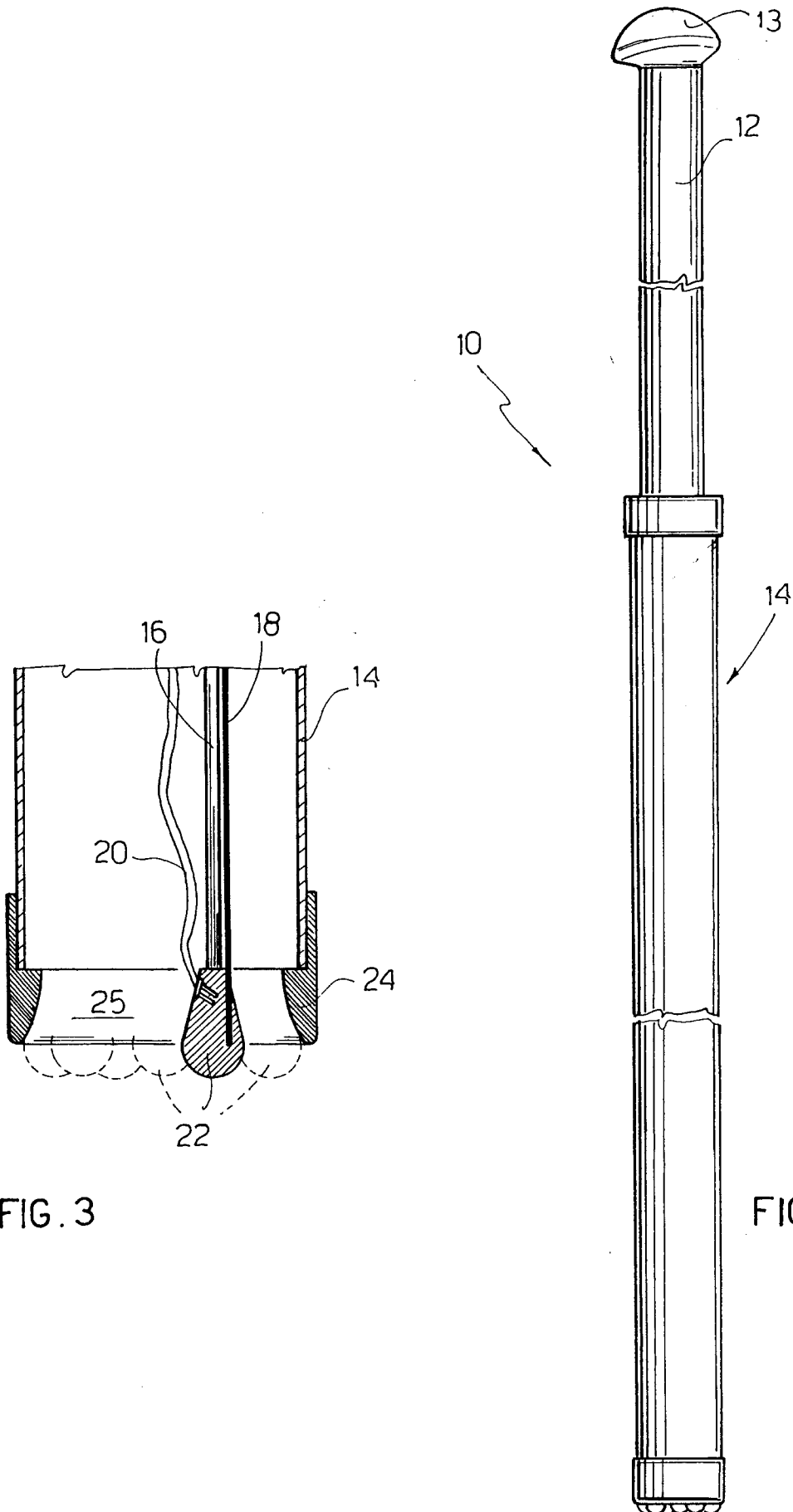


FIG. 3

FIG. 1

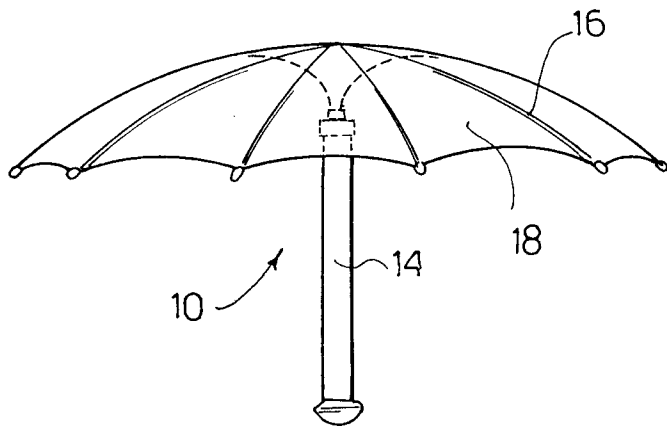


FIG. 2

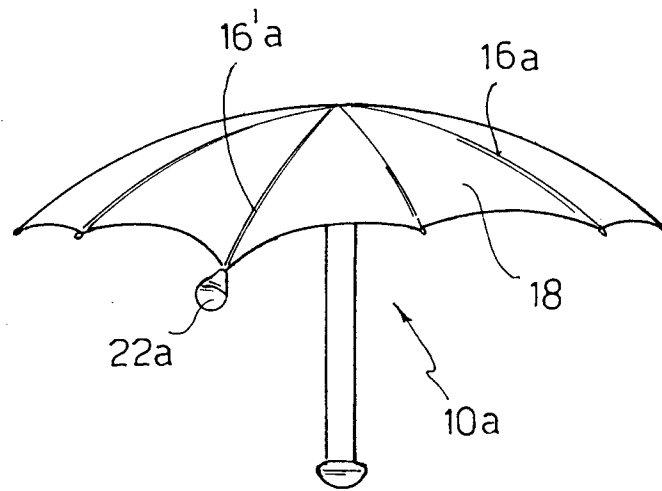


FIG. 5

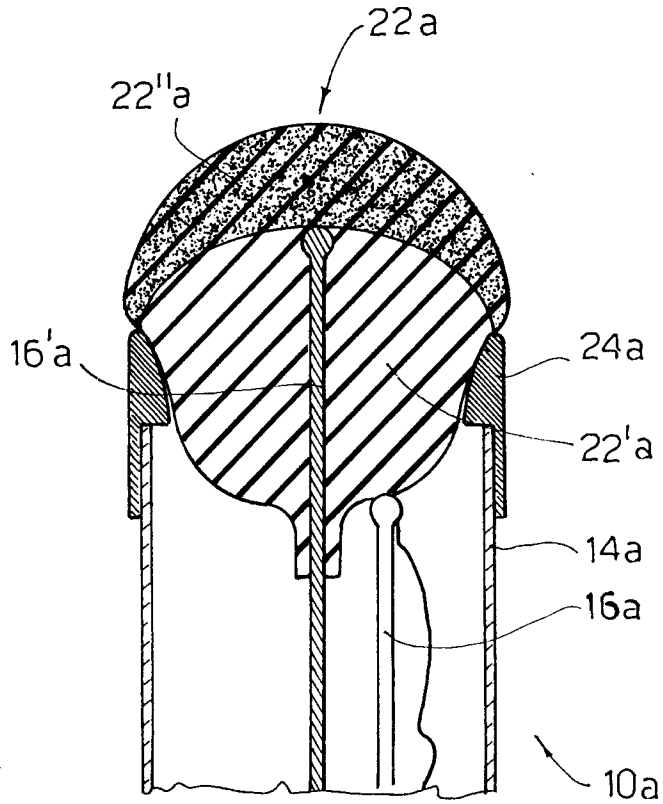


FIG. 4