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M. P. LYNCH

3,379,201

INTEGRAL UMBRELLA CASE

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FIG. 1

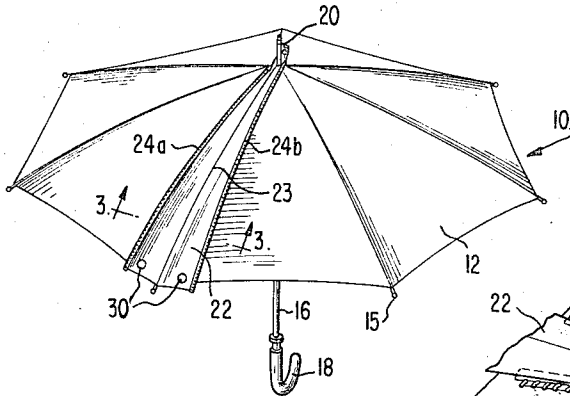


FIG. 2

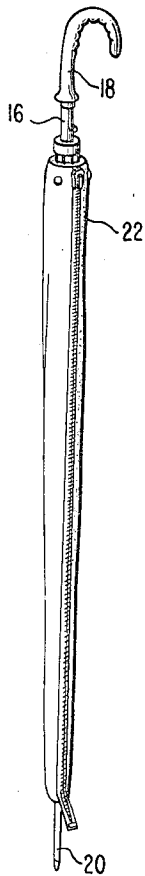
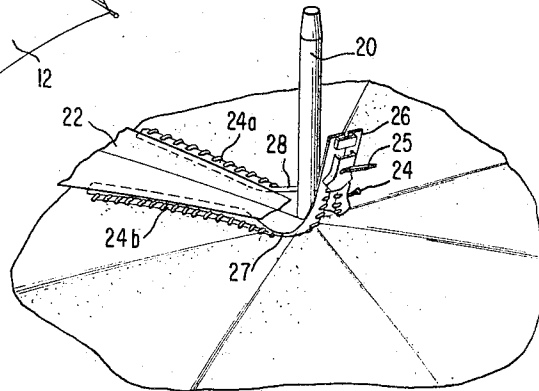


FIG. 4

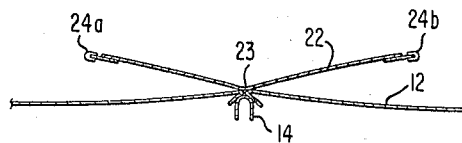


FIG. 3

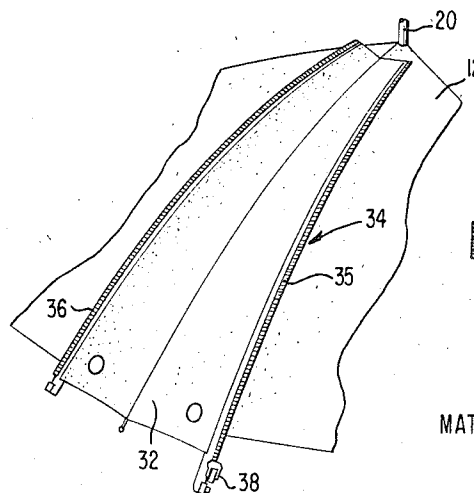


FIG. 5

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INTEGRAL UMBRELLA CASE
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ABSTRACT OF THE DISCLOSURE

A panel of stretchable material is secured along the radius of an umbrella canopy. The panel is stretched laterally in order to circumscribe the collapsed canopy and secured in encasing relationship.

The present invention relates to umbrellas, and in particular to umbrellas having an integral case structure for enclosing the umbrella in its collapsed condition.

The use of a case or sheath means for enclosing collapsed umbrellas has been known for many years. Usually the case or sheath is separate from the umbrella and must be removed therefrom and replaced before and after each use.

Since the sheath must be removed before the umbrella can be opened and after use the umbrella is usually left open to dry, the sheath that was taken off is set aside somewhere and all too often left behind and lost. The logical solution is simply to carry the case in one's pocket when it is not being used but this is such a nuisance that the use of the case in many instances is simply discontinued, desirable though its use is from the standpoint of appearance, and protection of the umbrella canopy from damage and dirt while it is being transported in its collapsed condition.

This invention proposes to obviate the difficulties outlined above by providing an umbrella case that is attached to and travels with an umbrella, while not interfering in any way with its normal use and not detracting from the appearance of the umbrella when it is in the extended or open position.

It is therefore an object of this invention to provide an umbrella construction including as an integral part thereof a panel of material which is used as a case for enclosing the canopy of the umbrella when the canopy is in its collapsed condition.

It is also an object of this invention to provide an umbrella with an integral case which is made to enclose the length of the collapsed canopy of the umbrella merely by manipulation of a fastener such as a zipper.

It is still further an object of this invention to provide an integral zipper closed case construction for an umbrella that is the ultimate in simplicity, utility and ease of operation.

In an umbrella having a collapsible canopy, an integral case comprising an elongated panel of stretchable material secured along its longitudinal axis to a radii of the canopy, the stretchable panel having a normal variable unstretched width less than the circumference of the collapsed canopy. A fastener is secured to the longitudinal edges of the panel and when activated the fastener causes the panel to stretch about the circumference of the collapsed canopy while simultaneously holding the longitudinal edges of the panel in encasing juxtaposition, thereby providing a case for the collapsed canopy.

Referring now to the accompanying drawings which depict an illustrative embodiment of the invention:

FIGURE 1 shows a perspective view of the umbrella and its attached case made according to the invention;

FIGURE 2 is a detail view of the tip end of the closure fastener of the case;

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FIGURE 3 is a detail view taken along 3—3 of FIGURE 1;

FIGURE 4 shows the umbrella collapsed with the case enclosing the canopy, and

FIGURE 5 shows a different embodiment of the umbrella and integral case.

Referring to FIGURES 1 and 3, an umbrella 10 of conventional construction is illustrated and includes a canopy 12, which is of one piece construction as illustrated, but which may be seamed as it often is in umbrella construction; rib elements 14 which are shown "U" shaped but which may be any shape used in umbrella construction, and a shaft 16, having a handle 18 on one end, and a tip portion 20 at its other end extending beyond its intersection with the canopy 12. As is usually the case the ribs 14 of the umbrella include free ends 15 and are pivotally secured at their opposite ends to the shaft 16 at the point on the shaft where it intersects the canopy.

The umbrella 10 is provided with an elongated panel 22 which is disposed as seen best in FIGURES 1 and 3 so that its longitudinal axis 23 lies along and is secured to a radius of said canopy 12. The panel 22 extends substantially the full length of the rib 14 in the embodiment of FIGURES 1 through 4 and according to the preferred embodiment is provided with a conventional zipper fastener 24 (see FIGURE 2) having an operating handle 25 and having its two halves 24A and 24B extending the full length of the unsupported side edges of case 22. The zipper 24 is sewed or otherwise attached to the panel 22 so that its permanently closed end 26 is disposed on the side of the tip 20 of shaft 16 that is opposite from the side thereof that the panel 22 is disposed. This is clearly shown in FIGURE 2, and is necessary to enable the zipper to be properly orientated with respect to the umbrella when the panel is to be wrapped about the collapsed canopy and closed thereabout to form an umbrella case. It is also necessary as shown in FIGURE 2, that each half 24A and 24B of zipper 24 be rotated about its longitudinal axis one-half revolution (180 degrees) from its normal position as shown at 27 and 28 before it is sewn or otherwise attached to the free edges of panel 22 to enable the zipper halves to be properly orientated for closing the panel to form the final case as shown in FIGURE 4. The reason for this becomes obvious if one bears in mind that the free longitudinal edges of the panel 22 are brought around the umbrella and its shaft for forming the case as seen in FIGURE 4, and when secured together the zipper edges 24A and 24B are actually disposed 180 degrees around from their position in FIGURE 1 relative to the shaft 16 of the umbrella. By securing the zipper 24 to the edges of the panel 22 with the permanently joined end of the zipper on one side of the tip 20 and the zipper halves each rotated 180 degrees relative to their joined end orientation and fastened to the panel 22 on the other side of the shaft tip, the zipper will be perfectly aligned relative to the umbrella and panel when it is desired to close the edges of the panel together to form the case over the collapsed canopy. It is desired to point out several dimensional and physical characteristics of the panel 22 which are incorporated in the preferred embodiment of this invention. The panel 22 is generally trapezoidal or triangular in shape as clearly illustrated in FIGURE 1, with the wider end thereof disposed adjacent the free ends of the ribs 14 of the umbrella and the narrow end thereof adjacent the tip 20 of the umbrella shaft. The reason for the wider end of panel 22 being disposed near the free ends of ribs 14 is quite obvious since when the umbrella is collapsed, the panel must enclose more canopy material at this end of the umbrella than at the tip end. The panel 22 may be fabricated

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from any material, natural or synthetic and preferably is a stretchable material such as "Lycra" a material described in U.S. Patent No. 3,097,192 that is capable of being extended about the collapsed canopy to enable the formation of the case itself.

A material that can be made luminescent is preferred, but any material capable of stretching and returning to its original shape can be used. As will be obvious, if the panel fabric or material is capable of stretching, then the panel itself in its open unstretched condition need not be as large as a panel of non-stretch material, making for a neater appearing umbrella and panel assembly when the canopy is extended.

In use, when it is desired to enclose the umbrella canopy within its own case forming panel 22, the canopy is collapsed in the usual manner, so that the ribs 14 lie flat against and parallel to the shaft 16. Holding the ribs and loose canopy material as close to the shaft as possible, the zipper 24 is manipulated to start closing the case forming panel at its end closest to the shaft tip 20. By pulling the zipper with one hand longitudinally and radially along the abutting panel edges, the closing operation is completed without danger of catching the canopy in the zipper and the canopy is contained within its own case as shown in FIGURE 4. Opening of the case involves simply opening the zipper or other closure. The umbrella canopy is then immediately ready for use and no separate case must be contended with.

For the sake of convenience snap fasteners 30 or the like may be provided to hold down the unsupported areas of the wider end of panel 22 when the umbrella is extended as shown in FIGURE 1.

A different embodiment of the invention is shown in FIGURE 5. The arrangement features a cover panel 32 formed substantially in the same manner as the panel 22 of the embodiment of the other figures of the drawings, and is attached to an umbrella canopy in substantially the same manner, that is, along a longitudinal axis of the panel. However the cover 32 is specifically arranged to be zippered from the free ends of the ribs 14 towards the tip 20 of the umbrella shaft 16. To enable this, a zipper closure 34 is provided which includes zipper halves 35 and 36 secured along the unsupported longitudinal edges of the panel 32, and a handle 38 for enabling manipulation of the zipper. The zipper is closed by starting it in the area of the free ends of the ribs of the umbrella and pulling the handle 38 longitudinally and radially towards the tip 20 of the umbrella while the panel 32 is guided about the collapsed canopy.

While a zipper closure fastener has been shown in the drawings for joining the edges of panels 22 together for forming the case for the umbrella, it is to be understood that any suitable fastener or fasteners capable of holding

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the longitudinal side edges 24A and 24B of the panel together when the panel has been wrapped about the collapsed canopy for forming the case could be used instead of the zipper. For example, a plurality of clips, snaps, buckles or magnets (not shown) could conceivably be used for this function.

While I have described representative examples of the invention, it is to be understood that this invention includes all modifications and equivalents which fall within the scope of the claim, as set forth below:

I claim:

1. An umbrella including a shaft having a tip portion, a plurality of rib elements pivotally secured to and about said shaft adjacent to its tip portion, and a canopy supported by and secured to said rib elements, the improvement comprising an integral case for said umbrella canopy when collapsed, said case comprising: an elongated panel extending substantially along the radius of and secured along its longitudinal axis to said canopy, said panel being formed from an elastic material stretchable in a direction normal to its longitudinal axis and said panel in its unstretched normal condition being of a width less than the circumference of said canopy when collapsed, the width of said panel varying along its longitudinal axis in accordance with the circumference of said collapsed canopy, and a closure means comprising a zipper fastener including a pair of zipper halves joined to each other at one end adjacent said shaft tip portion, said zipper halves being secured along a major portion of their length to the longitudinal side edges of said panel and being unsecured to the umbrella structure along a minor portion of their length adjacent to and including their joined end, said unsecured portion of said zipper is rotated approximately 180 degrees about its longitudinal axis relative to said secured portion of said zipper and disposed on the opposite side of said shaft from said panel, whereby the closure of said zipper fastener stretches said panel about said collapsed canopy encasing said canopy while simultaneously holding the longitudinal side edges of said panel in encasing juxtaposition.

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