

PERSONAL PROTECTIVE COVERING DEVICE

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of U.S. Provisional Patent Application No. 62/151,699 filed April 23, 2015, and U.S. Provisional Patent Application No. 62/307,607 filed March 2, 2016, each of which are incorporated herein by reference in their entirety.

FIELD

[0002] A device and a method for providing protection against weather elements is generally described. More specifically, a portable protective device for providing a user with full body protection against weather elements is described.

BACKGROUND

[0003] Known techniques and devices for providing protection against weather elements, such as rain, snow, hail and sleet, include conventional umbrellas and wearable rain protection garments, such as, raincoats. Conventional umbrellas generally include a pole, ribs/spines radially connected to the top portion of the pole, and a canopy attached to the ribs. The pole is often configured to be strong enough to withstand the weight of the ribs and the canopy. Although conventional umbrellas may provide some protection from weather elements, they may only provide protection from straight-falling rain and/or snow and the protection may only be for the top third of a user's body. This often means that a large portion of the user's body and/or items being transported by the user such as, for example, a baby, as for instance a baby being carried in a harness, and/or packages, shopping bags, purses, backpacks, and other valuable items, may remain exposed and/or vulnerable to weather elements and may be exposed to splashing of rain, sleet and/or snow caused by moving vehicles. Moreover, conventional umbrellas may fail to protect users from heavy rain, snow or hail or sleet, particularly when coupled with wind and rain being driven sideways by the wind. In these situations, wind coupled with snow, hail and/or sleet may result in the user's lower body becoming wet. This often results with the user having to walk, stand, or sit with uncomfortably moist or wet clothes, which is at least uncomfortable. In addition, because the underside of the canopies of umbrellas have increased surface areas, in windy conditions, the wind may create a force that pulls and/or lifts the canopy away from the user and in the direction of the wind, which may result in the user having to struggle to maintain control of the umbrella. This may cause a large portion of the user's body, including the top portion and/or items being transported by the user, to become wet.

[0004] To help alleviate some of the issues often experienced with umbrellas, raincoats are often used. Conventional raincoats are usually provided in generic sizes, such as small, medium, large and extra-large, and are wearable over the user's clothing. One downfall of conventional raincoats is

that they may be usable only for a limited time, at least in part because the user's size may change from, for example, a small to a medium. In other words, the protection that a raincoat may provide may only last for so long as the user is the same size. Raincoats may need to be replaced if they no longer fit the user. In addition, conventional raincoats may fail to provide adequate protection for the user, particularly if the user is transporting items that they cannot fit on their person, such as, for example, shopping bags, purses, paper materials, food, and/or drinks. Moreover, because raincoats may serve to provide protection from a user getting wet, they may often be made of heavy and waterproof materials that limit the exchange of air between the outside and inside of the raincoat. This may result in the user becoming hot and/or causing the user to perspire.

[0005] FIG. 1 illustrates a prior art umbrella 1 for use against weather elements. The umbrella 1 includes a vertical attachment shield 2 extending from the umbrella 1. The umbrella 1 includes a canopy 3 and spines 4 radially extended from a central portion of the canopy 3. The vertical attachment shield 2 appears to be a continuous sheet of clear material extending from the canopy 3 of the umbrella 1 towards the ground, such that vertical attachment shield 2 surrounds a user's body. One downfall with this umbrella, is that it may only provide protection to personal items the user may carry on their person, i.e., items that may be attachable to the user's body. The umbrella 1 does not appear to provide any sort of access for ease of entry and/or exit therefrom. Further, the umbrella 1 does not appear to provide any sort of ventilation, meaning that normal breathing and/or humidity will likely condensate on the inside of the vertical attachment shield 2 and impair the user's ability to see through the vertical attachment shield 2. In addition, while it is not readily apparent how the vertical attachment shield 2 is attached to the canopy 3, there does not appear to be any sort of detachability for ease of use of the umbrella 1 without the vertical attachment shield 2.

[0006] The aforementioned techniques and devices for providing protection may not provide full body protection against weather elements, may fail to provide adequate ventilation while in use, and may not provide a customized fit for an individual user.

[0007] In view of the disadvantages associated with currently available methods and devices for protection against weather elements, there is a need for a device and method that provides full body protection against the weather elements, protecting a user's clothing and anything being carried by the user so that they will remain clean, safe and/or dry, while also providing a customizable fit for an individual user. Further, there is a need for a protection device that provides all-around water resistance and ventilation for the individual user, while also being versatile enough to be retrofit to standard umbrellas of all shapes and/or sizes. In addition, there is a need for a protective device that is easily stored and/or transportable, without requiring assembly of multiple components.

BRIEF DESCRIPTION

[0008] According to an aspect, the present embodiments may be associated with a protective covering configured to slip over and at least partially cover an umbrella to provide a user with full body protection against weather elements. The protective covering may include a covering member for positioning over and/or connecting to the umbrella and a protective member extending from the covering member. According to an aspect, the protective member is substantially see-through and is composed of an impervious waterproof material.

[0009] According to an aspect, the present embodiments may be associated with a protection device configured for providing a user with full body protection against weather elements. The protective device may include an umbrella having a canopy and a shaft, as well as a protective member extending from a peripheral edge of the canopy. The shaft may include a telescopic stem configured for extension to a support structure and to support the protective device when configured in its extended position.

BRIEF DESCRIPTION OF THE FIGURES

[0010] A more particular description will be rendered by reference to specific embodiments thereof that are illustrated in the appended drawings. Understanding that these drawings depict only typical embodiments thereof and are not therefore to be considered to be limiting of its scope, exemplary embodiments will be described and explained with additional specificity and detail through the use of the accompanying drawings in which:

[0011] FIG. 1 is a perspective view of a full body protection umbrella according to the prior art;

[0012] FIG. 2 is a side, perspective view of a retro-fit protective covering according to an embodiment;

[0013] FIG. 3 is a side, perspective view of a retro-fit protective covering according to an embodiment, illustrating the retro-fit protective covering in use;

[0014] FIG. 4 is a side, perspective view of a protective device according to an embodiment, illustrating a hand-access mechanism and a weighted bottom portion;

[0015] FIG. 5 is a side, perspective view of a protective device according to an embodiment, illustrating airflow conduits;

[0016] FIG. 6 is a side, perspective view of a protective device according to an embodiment, illustrating an adjustable length of a retractable protective member;

[0017] FIG. 7 is a side view of a protective device according to an embodiment, illustrating an adjustable length;

[0018] FIG. 8 is a perspective view of a protective device according to an embodiment, illustrating the protective device in use;

[0019] FIG. 9 is a side, perspective view of a protective device having a telescopic stem according to an embodiment;

[0020] FIG. 10 is a side, perspective view of a protecting device having a telescopic stem and a support mechanism, according to an embodiment;

[0021] FIG. 11A is a side view of a handle of an umbrella having a telescopic stem, according to an embodiment;

[0022] FIG. 11B is bottom view (cross-sectional bottom view) of the handle and telescopic stem taken along lines 1-1 of FIG. 11A; and

[0023] FIG. 12 is a side, perspective view of a portable protective device according to an embodiment.

[0024] Various features, aspects, and advantages of the embodiments will become more apparent from the following detailed description, along with the accompanying figures in which like numerals represent like components throughout the figures and text. The various described features are not necessarily drawn to scale, but are drawn to emphasize specific features relevant to some embodiments.

DETAILED DESCRIPTION

[0025] Reference will now be made in detail to various embodiments. Each example is provided by way of explanation, and is not meant as a limitation and does not constitute a definition of all possible embodiments.

[0026] Embodiments of the disclosure relate generally to devices and methods for providing full-body protection against weather elements. Such devices provide particular utility in providing a full-body protection against weather elements, such as, rain, snow, sleet, hail, wind, sun, etc. According to an aspect, the devices contemplated can be a protective covering that can be retro-fitted to a standard umbrella and provide a user with full-body protection from weather elements. In such an embodiment, the protective covering may include a covering member configured for positioning over an umbrella and a protective member extending from the covering member, and typically extending a sufficient length to cover at least a portion of the body of the user. In an embodiment, the canopy opens like a conventional umbrella and the protective member may be lowered to provide protection to the user. At least a portion of the protective member is substantially see-through and is composed of an impervious waterproof material. The protective covering may be configured to slip over and at least partially cover the umbrella.

[0027] Further, embodiments contemplated relate to a protective device configured for providing a user with full body protection against weather elements. The protective device includes an umbrella, such as a collapsible, foldable umbrella, having a canopy and a shaft extending substantially from a center of the canopy. The shaft may include a telescopic stem configured for extension to a support structure and to support the protective device when configured in its extended position. Thus, the protective device is capable of providing full body protection against weather elements and stand freely, such that the user does not have to manually hold the protective device. The protective device may include a protective member extending from a peripheral edge of the canopy. According to an aspect, at least a portion of the protective member is substantially see-through and is composed of an impervious waterproof material.

[0028] Embodiments contemplated further include a portable protective device that is configured for providing a seated user with full body protection against weather elements. The portable protective device may include a collapsible chair, an umbrella attachable to a collapsible chair and a protective member attached to the umbrella.

[0029] For purposes of illustrating features of the embodiments, a simple example will now be introduced and referenced throughout the disclosure. Those skilled in the art will recognize that this example is illustrative and not limiting and is provided purely for explanatory purposes.

[0030] In an embodiment and with particular reference to FIGS. 2-3, a protective covering 10 configured to slip over and at least partially cover an umbrella 50 to provide a user with full body protection against weather elements is illustrated. According to an aspect, the protective covering 10 is adapted for retrofitting to the umbrella 50. The protective covering 10 may include a covering member 20 configured for positioning over a canopy 51 of the umbrella 50 and a protective member 30 extending from the covering member 20.

[0031] In an embodiment, the covering member 20 includes one or more attachment members 22 configured to at least temporarily couple the covering member 20 to the umbrella 50. The attachment members 22 may extend from an interior surface of the covering member 20 and may be positioned at one or more positions to attach to the umbrella 50. As illustrated in FIG. 2, one attachment member 22 may be positioned adjacent to a center post and/or shaft 52 of the umbrella 50. In some embodiments and as illustrated in FIG. 3, additional attachment members 22 may be positioned adjacent to an end opposite of the shaft 52 of one or more spines 57 of the umbrella 50. It is to be understood that the attachment members 22 may be positioned at any position on the umbrella 50 that is able to tether the covering member 20 thereon. For instance, in an embodiment, the attachment members 22 may be positioned on the covering member 20 for attachment to one or

more ends of the spines 57 of the umbrella 50. According to an aspect, the attachment members 22 include an elastic portion configured to cinch or otherwise elastically engage the umbrella 50. In an embodiment, such elasticity will prevent water from seeping under the covering member 20, between the covering member 20 and the waterproof canopy 51. The attachment members 22 may be bungee loops, tie downs or any other means configured to at least temporarily secure the covering member 20 to the canopy 51. The attachment members 22 may be attached or otherwise coupled to the umbrella 50, when the umbrella 50 is in a collapsed and folded position. According to an aspect, the attachment members 22 are accessible while the canopy 51 is in a substantially upright and open position, such that the user can secure the covering member 20 to the canopy 51 without the user being exposed to weather elements.

[0032] According to an aspect, the covering member 20 is capable of being positioned over the canopy 51 of the umbrella 50. The covering member 20 may be of any shape, including, but not limited to circular, rectangular, octagonal and square. In some configurations, the covering member 20 is adjustable to a shape of the canopy 51 by virtue of being coupled to, for example, the spines 57 of the umbrella. In some embodiment, the covering member 20 is sized to fit canopies 51 of standard umbrella 50 sizes, such as, for example, small, medium, large and extra-large. The covering member 20 may include at least one of canvas or plastic sheeting or film, including but not limited to nylon, polyester, polyethylene terephthalate (PET), polyethylene (high or low density), polycarbonate, polyvinyl chloride (PVC), vinyl, acrylic and the like, including transparent, semi-transparent and/or non-transparent materials made thereof. The covering member 20 may include a waterproof material that is substantially the same as the material of the canopy 51 of the umbrella 50.

[0033] In each of the embodiments illustrated in FIGS. 2-10, the device 10 may include a protective member 30 configured to cover the user's lower body, thereby providing further protection against the weather elements. The protective member 30 may provide additional protection against unwanted materials, living and non-living, entering the protective member 30. The protective covering 30 may include a first end 31 and a second end 32. According to an aspect and as illustrated in FIGS. 2, 9 and 10, an access port 33 may extend substantially between the first end 31 and the second end 32. In an embodiment, the protective member 30 may include an air-permeable material. In an embodiment, the protective member 30 includes a mesh material that generally prevents unwanted dirt, debris, insects and the like, from entering the interior of the protective member 30 while still allowing air to circulate therethrough. According to an aspect, at least a portion of the protective member 30 is substantially see-through, or otherwise clear to aid

user visibility, and is composed of an impervious waterproof material. The protective member 30 may include a plastic sheeting or film, including but not limited to nylon, polyester, polyethylene terephthalate (PET), polyethylene (high or low density), polycarbonate, polyvinyl chloride (PVC), vinyl, acrylic and the like, including portions that are transparent, semi-transparent and/or non-transparent materials. According to an aspect, at least a portion of the protective member 30 includes a light waterproof linen fabric, such as, for example, a linen shower curtain liner. The protective member 30 may include multiple colors, patterns and/or messages, such as company logos, school mascots, and the like, provided on the fabric from the chest or waist of the user to the second end 32. The umbrella 50 may, similar to the protective member 30, include multiple colors, patterns and/or messages provided on the canopy 51. In an embodiment, an upper portion of the protective member 30 may be substantially see through, so that it does not interfere with the user's visibility when walking. As illustrated in FIG. 3, the first end 31 may be substantially see through while the second end 32 is generally opaque, such that the user is provided with some level of privacy while the device 10 is in use. In some embodiments, the first end 31 and the second end 32 may include a substantially see through material. According to an aspect, the protective member 30 is composed of a waterproof fabric, a plastic material and/or combinations thereof. According to an aspect, the protective member 30 may be composed of a material that is substantially the same as the material of the protective covering 20. The protective member 30 may be formed contiguously with the protective covering 20.

[0034] In some embodiments, at least a portion of the protective member 30 includes a one-way visibility material configured for providing the user with a line of sight extending outwardly therethrough but not extending internally therethrough. The one-way visibility material may present one of an opaque surface or graphic image to persons positioned outside the protective member 30, thereby providing enhanced privacy for the user without compromising the user's line or sight through the protective member 30. According to an aspect, the protective material includes a tinted material that provides protection against UV rays and/or provides enhanced privacy for the user. According to an aspect, at least a portion of the protective member 30 includes an anti-fog coating configured to prevent condensation on the protective member 30. Such anti-fog coating may minimize the surface tension of the protective member 30 in a manner that does not allow beads of liquids, such as water, to form on the protective member 30. The anti-fog coating may be a surfactant film or a solution that is wiped on and subsequently wiped off the protective member 30. In an embodiment, at least a portion of the protective member 30 is anti-reflective. The protective member 30 may further include a reflective material and/or reflective portion and/or have a

reflective coating thereon. This may help facilitate safe wearability at night, such that the user using the device 10 and/or protective device 100 would be easily spotted and/or identified in the dark.

[0035] The protective member 30, as illustrated, includes a body 34. As illustrated in FIGS. 4-6, 9-10, the protective member 30 may include one or more airflow conduits 60a, 60b, 60c, which may be positioned in and/or adjacent to the body 34 of the protective member 30. Thus, the airflow conduits 60a, 60b, 60c provide a passageway for air to flow into and/or out of the enclosure formed by the protective member 30, thereby helping to provide ventilation for the user and to prevent the interior of the protective member 30 from becoming foggy. As shown in FIGS. 4-6, the airflow conduits 60a may be a strip of mesh-like material 60a that is positioned at or near the first end 31 of the protective member 30. In an embodiment, the airflow conduits 60a are provided by virtue of having a plurality of perforations and/or openings positioned substantially at the first end 31, such as, for example, the mesh-like material. In an alternative embodiment shown in FIG. 9, the airflow conduits 60b are formed by cutting a plurality of spaced-apart openings 60b in the body 34 of the protective member 30, near the first end 31. According to an aspect and as illustrated in FIG. 10, fasteners 70 may be positioned in a spaced apart relationship along an upper edge 71 of the first end 31 of the protective member 30 and used to fasten the first end 31 of the protective member 30 to the end of each spine 57 of the umbrella 50, or conversely, the fasteners 70 are attached to the ends of the spines 57 of the umbrella 50, for connecting the upper edge 71 of the first end 31 of the protective member 30. Thus, when the protective member 30 is attached using the spaced apart fasteners 70, a natural gap or airflow conduit 60c may be formed between the peripheral edge 54 of the umbrella and the first end 31 of the protective member 30. When positioned near the first end 31, the canopy 51 may serve a dual function of extending over and covering the airflow conduits 60a, 60b, 60c to keep the weather elements, such as, for example, rain water, from seeping into the protective member 30.

[0036] As illustrated in FIGS. 2, 3 and 7-9, the body 34 may include one or more scored portions 35 arranged substantially toward the second end 32. The one or more scored portions 35 may be adapted for adjusting the protective member 30 from a first length L_1 to an adjustable length L_2 , thereby allowing the user to adjust the desired length as needed. The one or more scored portions 35 may include at least one of height markings, weakened portions, segmentations and perforations. Thus, the scored portions 35 may be configured to facilitate customization of the desired length of the protective member 30. For example, the user may choose a length that is based on the user's height so that, when in use, the protective member 30 is capable of providing full-body protection against the weather elements.

[0037] According to an aspect and as illustrated in FIG. 7, the protective member 30 may include one or more length adjusters 39, typically configured as a strap, band, tie, belt, tong, and the like. The length adjuster 39 may be adapted for adjusting the protective member 30 from the first length L_1 (see also, for instance, FIG. 3) to the second length L_2 , without permanently modifying the protective member 30. According to an aspect, the length adjuster 39 is arranged near the second end 32 and substantially adjacent to the one or more scored portions 35 having, for example, the height markings. According to an aspect, multiple length adjusters 39 are positioned in a spaced-apart arrangement at intermittent locations around the periphery of the protective member 30. The second end 32 may be folded, gathered, collected, bunched, and/or rolled towards the first end 31 until the protective member 30 has been adjusted/shortened to the desired second length L_2 . The length adjuster 39 may be respectively detachably attached to an inner surface 34' and an opposing outer surface 34'' of the body 34 of the protective member 30, thereby forming a shortened second end 32' and at least temporarily maintaining the second length L_2 . According to an aspect, the length adjusters 39 may be configured with a first adjuster end 39' and a second adjuster end 39'', wherein either the first adjuster end 39' and/or the second adjuster end 39'' are detachably or fixedly attachable to the inner surface 34' and/or outer surface 34'' of the body 34. According to an aspect, the length adjuster 39 is adapted for adjusting the protective member 30 from the first length L_1 to a position under the canopy 51 of the umbrella 50, (not shown), such that the second end 32 is positioned substantially adjacent to or concurrent with the first end 31 of the protective member 30. Thus the first adjuster end 39' and the second adjuster end 39'' may be attachable to an inner surface of the canopy 51, to position the protective member 30 substantially under the canopy 51 of the umbrella 50, thus protecting the protective member 30 from the weather elements, retracting, storing and securing the protective member 30 under the canopy 51 when not in use, and/or helping to maintain the shortened length L_2 . It is contemplated that either one or both of the first adjuster end 39' and second adjuster end 39'' are detachably attached to the inner surface 34' and the outer surface 34'' of the body 34, respectively. In an embodiment, the second adjuster end 39'' is a free end that is detachably engageable with an opposing fastener 70'' positioned on the opposing outer surface 34'' of the body 34. According to an aspect, the opposing fastener 70'' is configured as a buckle (not shown) and the free or second adjuster end 39'' of the length adjuster 39 is configured to be retained in the buckle. According to an aspect, one or both adjuster ends 39', 39'' of the length adjuster 39 are completely detachable from at least one of the body 34 of the protective member 30 and the canopy 51. The first and second adjuster ends 39', 39'' of the length adjusters 39 may each include fasteners 70' that are engageable with opposing fasteners 70'' positioned on at least one of

the interior and outer surfaces 34', 34'' of the body 34, and the inner surface of the canopy 51. As described hereinabove and with reference to FIG. 10, fasteners 70', 70'' may include one or more buckles, snaps/clips, stitches (in the case of a fixed attachment arrangement), rivets, Velcro® and the like. In the embodiment in which the fastener 70 is not detachable, such as a rivet, no opposing fastener is required. In an embodiment, the length adjusters 39 may wrap around the shortened second end 32', such that the fasteners 70' on at least one of the first adjuster end 39' and the second adjuster end 39'' at least temporarily engage with and/or affix to the opposing fasteners 70'' on the inner and outer surfaces 34', 34'' of the body 34, thereby maintaining the second length L_2 . In other words, the fasteners 70' and opposing fasteners 70'' may be detachably engaged and/or detachably affixed to each other, such that the protective member 30 may be customized for use by multiple users and/or be customized to various user heights.

[0038] According to an aspect, the protective member 30 includes a continuous sheet having a first sheet edge 36a and a second sheet edge 36b, the first and second sheet edges 36a, 36b extend between the first end 31 and the second end 32 and form the access port 33 for the user's entry into and exit from the protective member 30. In an embodiment, the first sheet edge 36a is provided with a closure member 37a and the second sheet edge 36b is provided with an opposing closure member 37b. While FIGS. 2, 4-6 and 9-10 illustrate the closure members 37a, 37b extending along the first sheet edge 36a and the second sheet edge 36b, it is to be understood that the closure members 37a, 37b may be positioned at any position along the sheet edges 36a, 36b. According to an aspect, the closure members 37a, 37b are centrally located along the first and second sheet edges 36a, 36b. The first closure member 37a and the opposing closure member 37b may be alignable and engageable to close the access port 33 and releasable to open the access port 33. Such closure members 37a, 37b include, but are not limited to magnets, clips, snaps, Velcro® and the like. According to an aspect, the closure members 37a, 37b include a single-handed closure mechanism that allows the access port 33 to easily open and/or close. For example, the closure member 37a may be a hook mechanism and the opposing closure member 37b may be a loop mechanism. Such hook-loop fastening mechanisms may be strong, easy to use and substantially maintenance-free. To be sure, closure members 37a, 37b may be any closure mechanism that easily opens and/or closes, engages and/or disengages without unduly compromising the protective member 30. As contemplated herein, a zipper would not be a suitable closure member 37a, 37b, at least because it may easily jam, particularly if it extends along an entire length of the access port 33. According to an embodiment, the first sheet edge 36a and/or the second sheet edge 36b are provided with markers (not shown), such as, but not limited to a nylon or polyester binding configured to facilitate the user's ease in easily identifying

the access port 33. The markers may include a material that is easily identifiable by, for example, color, texture and/or any other means that distinguishes it from the protective member 30 and highlights the access port 33.

[0039] According to an aspect, the protective member 30 is strong and/or sturdy and is capable of withstanding the weather elements by virtue of the material used to make the protective member 30 and/or the second end 32 of the protective member 30. In an embodiment and as illustrated in FIGS. 4, one or more anchoring members 75 may be provided on the protective member 30. According to an aspect, anchoring members 75 are arranged on the body 34 of the protective member 30. In an embodiment, anchoring members 75 are removably coupled to the second end 32. The anchoring member 75 may be configured as pockets configured to receive a plurality of weights therein, thereby forming a weighted and/or stabilized second end 32 that helps to facilitate the protective member 30 hanging downwardly from the umbrella 50 in any weather condition, such as, for example, during occurrence of windy weather conditions, during which wind may blow from the side and the user may get wet and/or dirty. According to an aspect, the anchoring members 75 may help maximize the performance of the protective device 100, by providing protection in any weather condition. In an embodiment, a reinforcement material (not shown) may be positioned along the second end 32 at the hemline of the protective member 30 and between each adjacent anchoring member 75 to help to prevent the protective member 30 from being blown around and prevent the user from tripping. According to an aspect, the anchoring member 75 includes magnets that are removably attached to the second end 32. As illustrated in FIG. 4, the anchoring member 75 may be arranged at intermittent positions around a periphery of the second end 32 of the protective member 30. According to an aspect, the anchoring member 75 includes at least one of a hemmed edge having weights, beads and/or magnets removably positioned or secured therein. In an embodiment, the second end 32 includes perforations configured to receive one or more anchoring members 75.

[0040] The protective member 30 may include a window 40 having a first edge 41 and a second edge 42. According to an aspect, the first edge 41 is affixed to the protective member 30. The first edge 41 may be affixed to or may extend from the protective member 30. In an embodiment and as illustrated in FIGS. 9-10, the second edge 42 is configured to be vertically moveable and/or sealable from a closed position P_1 to an open position P_2 . According to an aspect, the second edge 42 may include a sealing and/or closing mechanism (not shown) that is substantially the same as the closure members 37a, 37b of the protective member 30. In an embodiment, the sealing and/or closing mechanism of the second edge 42 may be dissimilar from the closure members 37a, 37b. Thus, it is possible to provide an embodiment in which the sealing and/or closing mechanism of the second

edge 42 is made of a material other than the material used to make the closure members 37a, 37b. For example, in embodiments where the closure members 37a, 37b are snaps, the sealing and/or closing mechanism of the second edge may be magnets, clips, Velcro®, zippers or the like. The position “P₁” is intended to show the closed position wherein second edge 42 closes the gap and/or window 40 formed when the second edge 42 is moved to position “P₂”, in the open position. It would be understood by one of ordinary skill in the art that the second edge 42 could be fixed and the first edge 41 could be moveable to a closed/open position (not shown.) The window 40 may be arranged at any position on the body 34 of the protective member 30. According to an aspect and as illustrated in FIGS. 9-10, the window 40 is positioned away from the second end 32 and substantially toward the first end 31 of the protective member 30, such that when the device 10 is in use, the window 40 may be substantially located at or near the user’s eye level. In an embodiment, the window 40 provides a substantially waterproof seal when positioned in the closed position P₁. Thus, the window 40 may be adapted for at least one of observation and admittance of light and air therethrough.

[0041] According to an aspect and as illustrated in FIGS. 4-5, the protective member 30 may include a hand-access port 140, such as an inserted slip, window, slit, window shield or flap 142, positioned somewhat centrally in the body 34. According to an aspect, the hand-access port 140 is affixed to or extends downwardly from the protective member 30 and flap 142 is configured to be moveable along a direction defined by P₃ to P₄. The hand-access port 140 may be adapted for communication with at least one of an interior position of the protective member 30 and an exterior position of the protective member 30, such as to facilitate the opening of a car door or for retrieving packages from the outside of the protective member 30. To be sure, the hand-access port 140 may be arranged at any desired position in the body 34. In an embodiment and as illustrated in FIGS. 4-5, the hand-access port 140 is centrally arranged on the body 34 of the protective member 30, between the first end 31 and the second end 32 and at a height convenient for passing a hand of the user therethrough, such that the hand-access port 140 functions as an entryway and/or portal that facilitates the user’s ease of access to and/or to retrieval of items external to the protective member 30. According to an aspect, the hand-access port 140 is positioned in the body 34 such that it is adjacent the user’s elbow to allow freedom to open a car door or retrieve packages. According to an aspect and illustrated in FIG. 4, the flap 142 may include a closure mechanism 144 configured to close, open and/or seal the hand-access port 140. According to an aspect, the closure mechanism 144 includes a magnetic strip on the lower surface of the flap that will interact with a magnetic strip on

the body 34 and help to secure the flap 142 when not in use. The closure mechanism 144 may be substantially the same as the closure members 37a, 37b of the protective member 30.

[0042] Now referring particularly to FIGS. 5-10, a protective device 100 is illustrated. The protective device 100 may include an umbrella 50 and a protective member 30 extending therefrom, to provide a user with full body protection against weather elements. In an embodiment, the umbrella 50 includes a canopy 51 and a shaft 52 extending from a center of the canopy 51.

[0043] In an embodiment and as illustrated in FIG. 8, the canopy 51 includes an upper canopy portion 51A and a lower canopy portion 51B. The lower canopy portion 51B may be configured to extend at least to a shoulder of the user when the protective device 100 is in a substantially upright and open position. According to an aspect, the canopy includes a substantially see through material. In some embodiments, some portions of the canopy 51 may be substantially see through while others are not substantially see through. The canopy 51 may include a canopy window 45 having a first border 46 and a second border 47. The second border 47 being configured to be moveable from a closed border position P₅ to an open border position P₆, and the canopy window 45 being adapted for at least one of observation and admittance of light and air therethrough. According to an aspect, the canopy window 45 may include a mesh-like material, such as, for example, the airflow conduits 60a, 60b, 60c described hereinabove and illustrated in FIGS. 4-6 that helps facilitate the admittance of light and air therethrough.

[0044] The canopy 51 of the umbrella 50 may be supported by a plurality of spines 57 extending from the center of the canopy 51 and configured for supporting the canopy 51. According to an aspect, the spines 57 are fixed to the canopy 51 and facilitate opening and closing of the canopy 51. The spines 57 may be configured to facilitate collapsing and/or folding the umbrella 50 into a closed position. In an embodiment, the canopy 51 of the umbrella 50 includes a storage member 58 coupled to a lower surface 59 of the umbrella 50. The storage member 58 may be secured to the lower surface 59 of the umbrella by any securing means configured to hold the storage member 58 in place and withstand the weight of items placed in the storage member 58, such as being sewn to the underside of the canopy 51. As shown herein, the storage member 58 is attached along three of its sides to the canopy 51, thereby creating a pocket with an open end.

[0045] In an embodiment, the protective member 30 extends from and/or is attached to a peripheral edge 54 of the canopy 51, such that precipitation, for example, rain/water, falling off or over the edge of the canopy 51 will fall outside the protective member 30. According to an aspect, the protective member 30 extends from and/or is attached at a position underneath the canopy 51. As illustrated in FIG. 10, the protective member 30 may include fasteners 70 configured to couple

the protective member 30 to at least one of the canopy 51 and/or the spines 57 of the umbrella 50 to the protective member 30. In an embodiment, the fasteners 70 are configured for detachable fastening to the spines 57 of the umbrella 50 such that at least one airflow conduit 60c is formed between a naturally occurring gap that forms between the peripheral edge 54 of the umbrella 50 and an upper edge of the first end 31 of the protective member 30 by virtue of attaching the protective member 30 to the canopy 51. According to an aspect, the fasteners 70 include one or more snaps/clips, stitches, rivets, Velcro® and the like. The attachment of the protective member 30 to the umbrella 50 in this way may provide a substantially constant airflow between an enclosed area 38a of the protective member 30 and an external area 38b of the protective member 30.

[0046] According to an aspect and as illustrated in FIG. 6, the protective device 100 may include an extension/retraction member 61. The extension/retraction member 61 may include a rope or drawstring with some sort of pulley mechanism (not shown) configured to enable the user to extend and/or retract the protective member 30 to a desired length. According to an aspect, the extension/retraction member 61 includes a drawstring that is vertically threaded through a plurality of positions on the body 34 of the protective member 30 (also not shown) and that facilitates the extendibility and retractability of the protective member 30. The extension/retraction member 61 may otherwise be coupled to the body 34 of the protective member 30, such that the protective member 30 can be lowered from a shorter length L_2 to a longer length L_1 , (see, for instance, Fig. 5), to protect clothing and packages being carried from getting wet when the wind blows the rain or snow from the side. Lowering of the protective member 30, may provide the user and/or items being transported by the user with protection against the weather elements, and protection of the user's valuables from thieves and/or pickpockets. Similarly, the protective member 30 is retractable from the longer length L_1 to the shorter length L_2 . In other words, the extension/retraction member 61 may provide a mechanism to vary the length of the protective member 30, to protect the user. Once lowered or retracted, the protective member 30 may be locked into the position. According to an aspect, the protective device 100 may include a hands free version that does not require the user to physically/manually hold the umbrella 50 upright in order to be protected by the protective covering 30, thereby allowing the user free use of both of the user's hands. Hands free versions can be designed to provide protection for users driving golf carts, those confined to wheelchairs and those driving open vehicles, such as those used in theme parks and stadium parking lots.

[0047] According to an aspect and as shown in FIGS. 9-12, the shaft 52 of the umbrella 50 may include a telescopic stem 53. As illustrated in FIGS. 9-10, the telescopic stem 53 may be configured for extension to a support structure 80. According to an aspect, the telescopic stem 53 is configured

to support the protective device 100 when extended into its supporting position. As illustrated in FIG. 9, the telescopic stem 53 may be further connectable to a support mechanism 55, which is adapted to support the protective device 100, such that the user does not have to hold the shaft 52 and/or the telescopic stem 53 to maintain the protective device 100 in a substantially upright and open position. The support mechanism 55 may include any device that is configured to provide stability to horizontal and downward forces, such as, for example, weather elements including the wind. As shown in FIG. 10, the support mechanism 55 may be extended to and balanced on top of the ground 80. The support mechanism 55 may include multiple legs 56 and is adapted to be removably connected to the telescopic stem 53. In an embodiment, the support mechanism 55 is configured as a tripod stand, having three legs 56 extending therefrom. According to an aspect, the legs 56 may be pivotably connected to the support mechanism 55. The legs 56 may be equiangularly spaced around the support mechanism 55. To be sure, the legs 56 may be positioned at any angular position - relative to the support mechanism 55 and each other - that is capable of providing additional support to the protective device 100.

[0048] Now turning to FIGS. 11A-11B, the telescopic stem 53 is illustrated according to an embodiment in which the telescopic stem 53 extends from a non-linear handle. As illustrated, the telescopic stem 53 may have a first tubular element that is slidably positioned in a second tubular element, such that the telescopic stem 53 is extendable from a first length to a second length. In other words, the telescopic stem 53 may have one or more stem sections that operate to extend the length of the telescopic stem 53.

[0049] Now referring to FIG. 12, according to an embodiment a portable protective device 200 configured for providing a seated user with full body protection against weather elements is provided. The portable protective device 200 may include an umbrella 50 and a protective member 30 affixed to and/or extending therefrom. According to an aspect, the umbrella 50 includes a canopy 51 and a shaft 52 extending substantially from a center of the canopy 51. As shown in FIG. 12, the shaft 52 extends substantially from the center of the canopy 51, but is offset to facilitate adequate coverage of a chair 90. The protective member 30 may extend from a peripheral edge 54 of the canopy 51. The protective member 30 may include a first end 31, a second end 32 and an access port 33 extending substantially between the first end 31 and the second end 32. According to an aspect, at least a portion of the protective member 30 is substantially see-through and is composed of an impervious waterproof material as described hereinabove. To be sure, any of the features described hereinabove to other embodiments, including but not limited to venting, visibility, adjustability, and the like, can be incorporated into the portable protective device 200.

[0050] As illustrated in FIG. 12, the portable protective device 200 further includes a collapsible chair 90. According to an aspect, the shaft 52 may be coupled to a chair attachment member 93 and may be configured to support the portable protective device 200 when configured in its extended position. In an embodiment, the chair 90 includes a frame 91 and a supporting member 92, shown as a supporting fabric for accommodating the seated user. The frame 91 may be configured to receive the supporting fabric 92 and the chair attachment member 93 thereon. In an embodiment, the shaft 52 is configured for extension to the frame 91 of the collapsible chair 90 and is capable of supporting the portable protective device 200 when the umbrella 50 is configured in its extended position.

[0051] According to an aspect, a carrying member (not shown) is provided for ease of transport of the protective covering 10, the protective device 100, the portable protective device 200 and/or any components thereof. The carrying member may be configured for receiving and/or storing at least one of the umbrella 50, the protective member 30 and/or the collapsible chair 90. In an embodiment, the carrying member is configured for receiving and/or storing the umbrella 50, the protective member 30 and the collapsible chair 90, such that the user does not have to carry each separately. The carrying member may include cloth, canvas, plastic and/or any other sturdy material. According to an aspect, the carrying member includes a waterproof and foldable material.

[0052] The components of the apparatus illustrated are not limited to the specific embodiments described herein, but rather, features illustrated or described as part of one embodiment can be used on or in conjunction with other embodiments to yield yet a further embodiment. It is intended that the apparatus include such modifications and variations. Further, steps described in the method may be utilized independently and separately from other steps described herein.

[0053] While the apparatus and method have been described with reference to specific embodiments, it will be understood by those skilled in the art that various changes may be made and equivalents may be substituted for elements thereof without departing from the scope contemplated. In addition, many modifications may be made to adapt a particular situation or material to the teachings found herein without departing from the essential scope thereof.

[0054] In this specification and the claims that follow, reference will be made to a number of terms that have the following meanings. The singular forms "a," "an" and "the" include plural referents unless the context clearly dictates otherwise. Furthermore, references to "one embodiment", "some embodiments", "an embodiment" and the like are not intended to be interpreted as excluding the existence of additional embodiments that also incorporate the recited features. Approximating language, as used herein throughout the specification and claims, may be applied to modify any quantitative representation that could permissibly vary without resulting in a

change in the basic function to which it is related. Accordingly, a value modified by a term such as "about" is not to be limited to the precise value specified. In some instances, the approximating language may correspond to the precision of an instrument for measuring the value. Terms such as "first," "second," "upper," "lower" etc. are used to identify one element from another, and unless otherwise specified are not meant to refer to a particular order or number of elements.

[0055] As used herein, the terms "may" and "may be" indicate a possibility of an occurrence within a set of circumstances; a possession of a specified property, characteristic or function; and/or qualify another verb by expressing one or more of an ability, capability, or possibility associated with the qualified verb. Accordingly, usage of "may" and "may be" indicates that a modified term is apparently appropriate, capable, or suitable for an indicated capacity, function, or usage, while taking into account that in some circumstances the modified term may sometimes not be appropriate, capable, or suitable. For example, in some circumstances an event or capacity can be expected, while in other circumstances the event or capacity cannot occur - this distinction is captured by the terms "may" and "may be."

[0056] As used in the claims, the word "comprises" and its grammatical variants logically also subtend and include phrases of varying and differing extent such as for example, but not limited thereto, "consisting essentially of" and "consisting of." Where necessary, ranges have been supplied, and those ranges are inclusive of all sub-ranges therebetween. It is to be expected that variations in these ranges will suggest themselves to a practitioner having ordinary skill in the art and, where not already dedicated to the public, the appended claims should cover those variations.

[0057] Advances in science and technology may make equivalents and substitutions possible that are not now contemplated by reason of the imprecision of language; these variations should be covered by the appended claims. This written description uses examples to disclose the method, machine and computer-readable medium, including the best mode, and also to enable any person of ordinary skill in the art to practice these, including making and using any devices or systems and performing any incorporated methods. The patentable scope thereof is defined by the claims, and may include other examples that occur to those of ordinary skill in the art. Such other examples are intended to be within the scope of the claims if they have structural elements that do not differ from the literal language of the claims, or if they include equivalent structural elements with insubstantial differences from the literal language of the claims.

CLAIMS

What Is Claimed Is:

1. A protective covering configured to slip over and at least partially cover an umbrella to provide a user with full body protection against weather elements, the protective covering comprising:

a covering member configured for positioning over the umbrella;

a protective member extending from the covering member and comprising a first end, a second end and an access port extending substantially between the first end and the second end, wherein at least a portion of the protective member is substantially see-through and is composed of an impervious waterproof material.

2. The protective covering of Claim 1, wherein the protective member comprises a window having a first edge and a second edge, the first edge being affixed to or extending from the protective member, the second edge being configured to be moveable from a closed position to an open position, and the window being configured for at least one of observation and admittance of light and air therethrough.

3. The protective covering of any of the preceding Claims, wherein the covering member comprises one or more attachment members configured to at least temporarily couple the covering member to the umbrella.

4. The protective covering of Claim 1, wherein the protective member comprises a body, the body having one or more scored portions arranged substantially toward the second end, wherein the one or more scored portions are configured for adjusting the protective member from a first length to an adjustable length.

5. The protective covering of Claim 1, wherein the protective member comprises one or more airflow conduits comprising at least one of a mesh-like material and an opening, formed at the first end of the protective member.

6. The protective covering of Claim 1, wherein the protective member comprises a continuous sheet having a first sheet edge and a second sheet edge, the first and second sheet edges extending between the first end and the second end and forming the access port for the user's entry into and exit from the protective member.

7. The protective covering of Claim 6, wherein the first sheet edge is provided with a closure member and the second sheet edge is provided with an opposing closure member, wherein

the first closure member and the opposing closure member are alignable and engageable to close the access port and releasable to open the access port.

8. A protective device configured for providing a user with full body protection against weather elements, the protective device comprising:

an umbrella having a canopy and a shaft extending from a center of the canopy, the shaft including a telescopic stem configured for extension to a support structure and to support the protective device when configured in its extended position; and

a protective member extending from a peripheral edge of the canopy, the protective member comprising a first end, a second end and an access port extending substantially between the first end and the second end,

wherein at least a portion of the protective member is substantially see-through and is composed of an impervious waterproof material.

9. The protective device of Claim 8, wherein the protective member comprises a hand-access port having a flap pivotably affixed to and extending downwardly from the body of the protective member, wherein the flap is configured to be move along a direction defined by P_3 to P_4 .

10. The protective device of Claim 9, wherein the flap comprises a closure mechanism configured to close and seal the hand-access port.

11. The protective device of Claim 8, wherein the protective member comprises a window having a first edge and a second edge, the first edge being affixed to or extending from the protective member, the second edge being configured to be moveable from a closed position to an open position, and the window being configured to provide a substantially waterproof seal when positioned in the closed position and configured for at least one of observation and admittance of light and air therethrough.

12. The protective device of Claim 8, wherein the protective member comprises one or more airflow conduits comprising at least one of a mesh-like material, an opening formed at the first end, and a gap formed between the peripheral edge of the canopy and the first end of the protective member.

13. The protective device of Claim 8, wherein the canopy of the umbrella comprises an upper canopy portion and a lower canopy portion, the lower canopy portion being configured to extend at least to a shoulder of the user when the protective device is in a substantially upright and open position.

14. The protective device of Claim 8, wherein the canopy of the umbrella comprises a canopy window having a first border and a second border, the second border being configured to be

moveable from a closed border position to an open border position, and the canopy window being configured for at least one of observation and admittance of light and air therethrough.

15. The protective device of Claim 8, wherein the telescopic stem is connectable to a support mechanism configured to support the protective device, such that the user does not have to hold the shaft and the user does not have to hold the telescopic stem to maintain the protective device in a substantially upright and open position.

16. The protective covering of Claim 15, wherein the support mechanism comprises multiple legs and is configured to be removably connected to the telescopic stem.

17. The protective device of Claim 8, wherein at least a portion of the protective member comprises at least one of a one-way visibility material configured for providing the user with a line of sight extending outwardly therethrough but not extending internally therethrough and an anti-fog coating configured to prevent condensation on the protective member.

18. A portable protective device configured for providing a seated user with full body protection against weather elements, the portable protective device comprising:

an umbrella having a canopy and a shaft extending from a center of the canopy, wherein the shaft is coupled to a chair attachment member and is configured to support the portable protective device when configured in its extended position; and

a protective member extending from a peripheral edge of the canopy, the protective member comprising a first end, a second end and an access port extending substantially between the first end and the second end,

wherein at least a portion of the protective member is substantially see-through and is composed of an impervious waterproof material.

19. The portable protective device of Claim 18, further comprising a collapsible chair having a frame and a supporting fabric, wherein the frame is configured to receive the chair attachment member thereon.

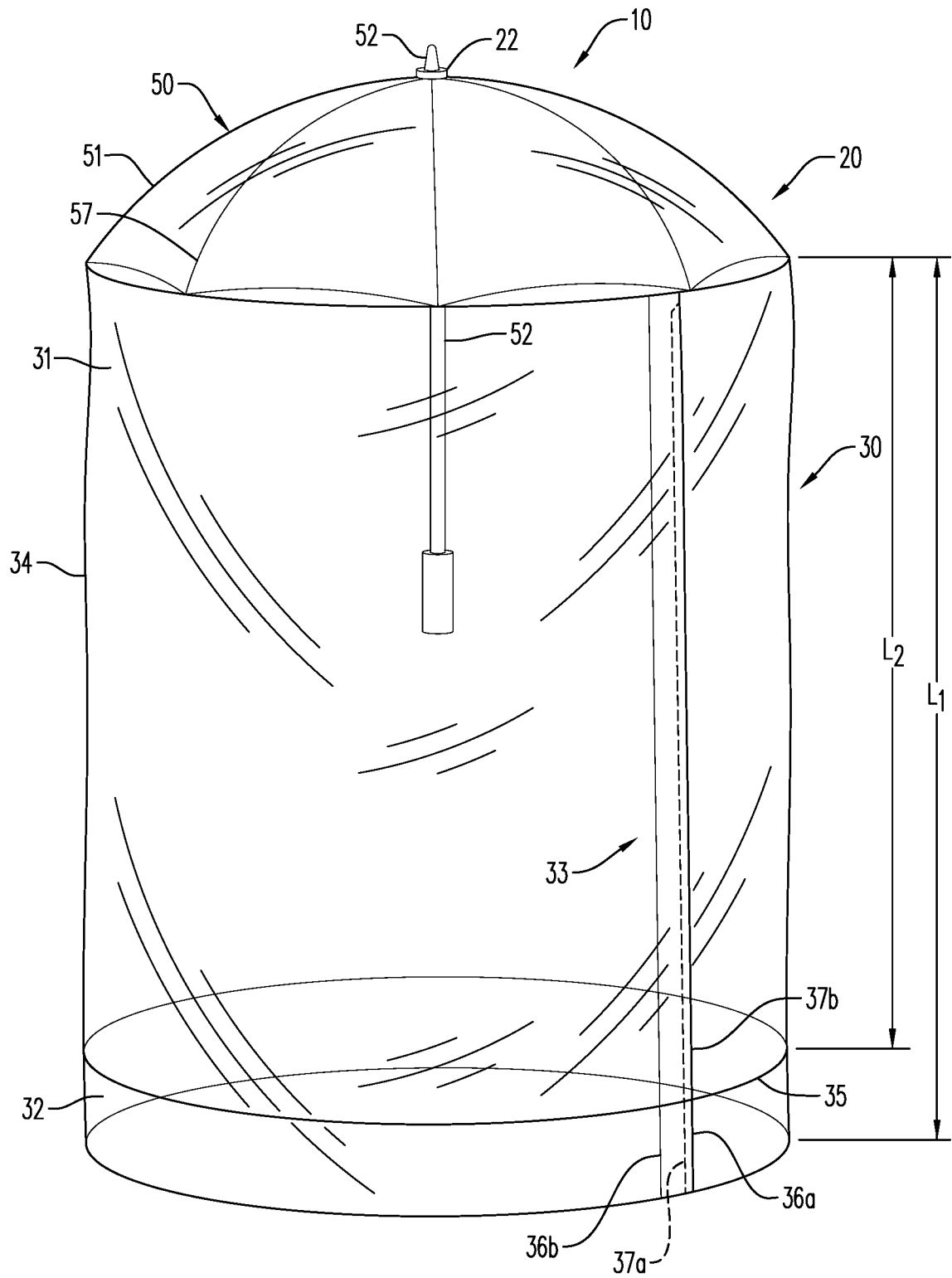
20. The portable protective device of Claims 18, wherein the shaft comprises a telescopic stem configured for extension to the frame of the collapsible chair.

1/11

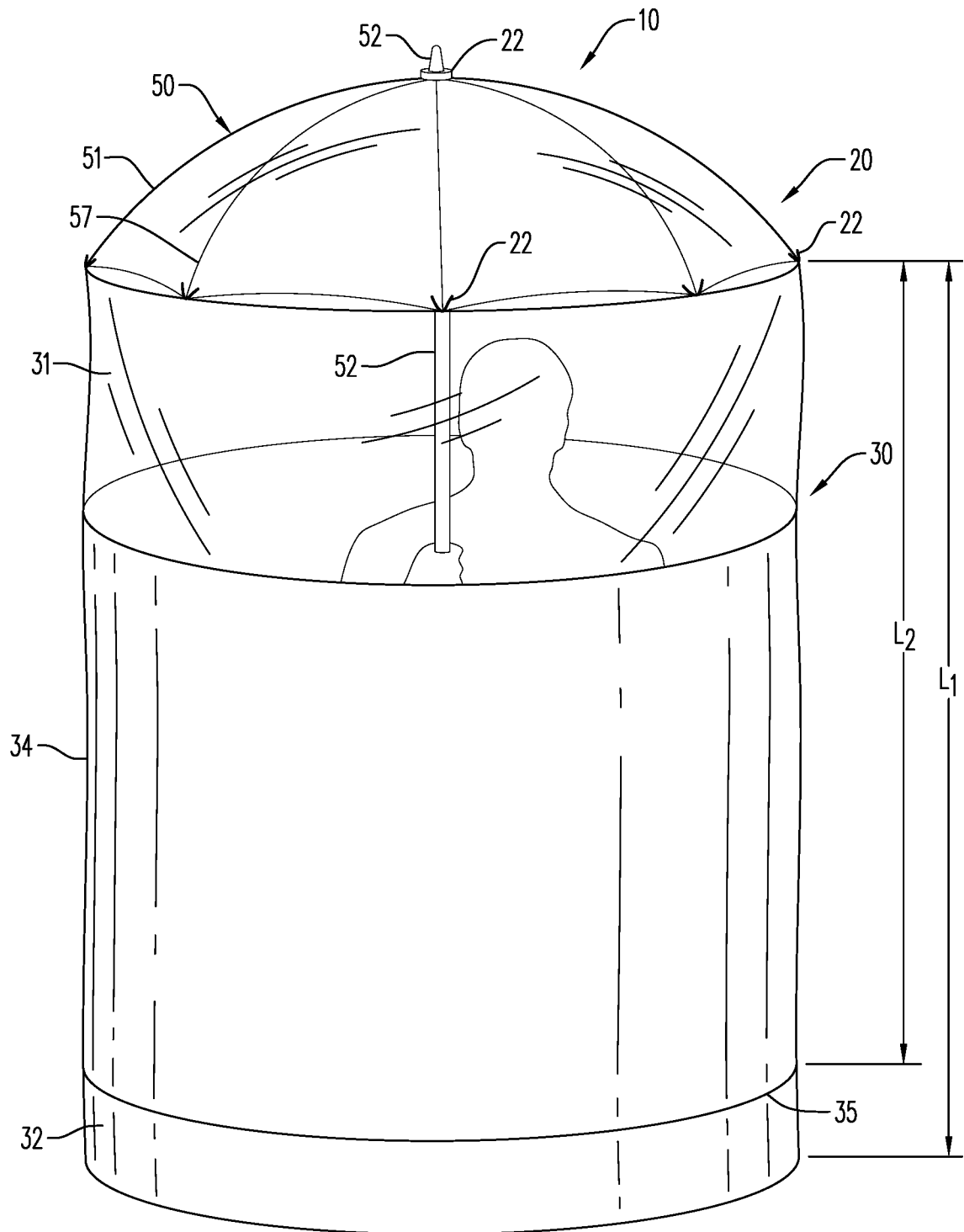


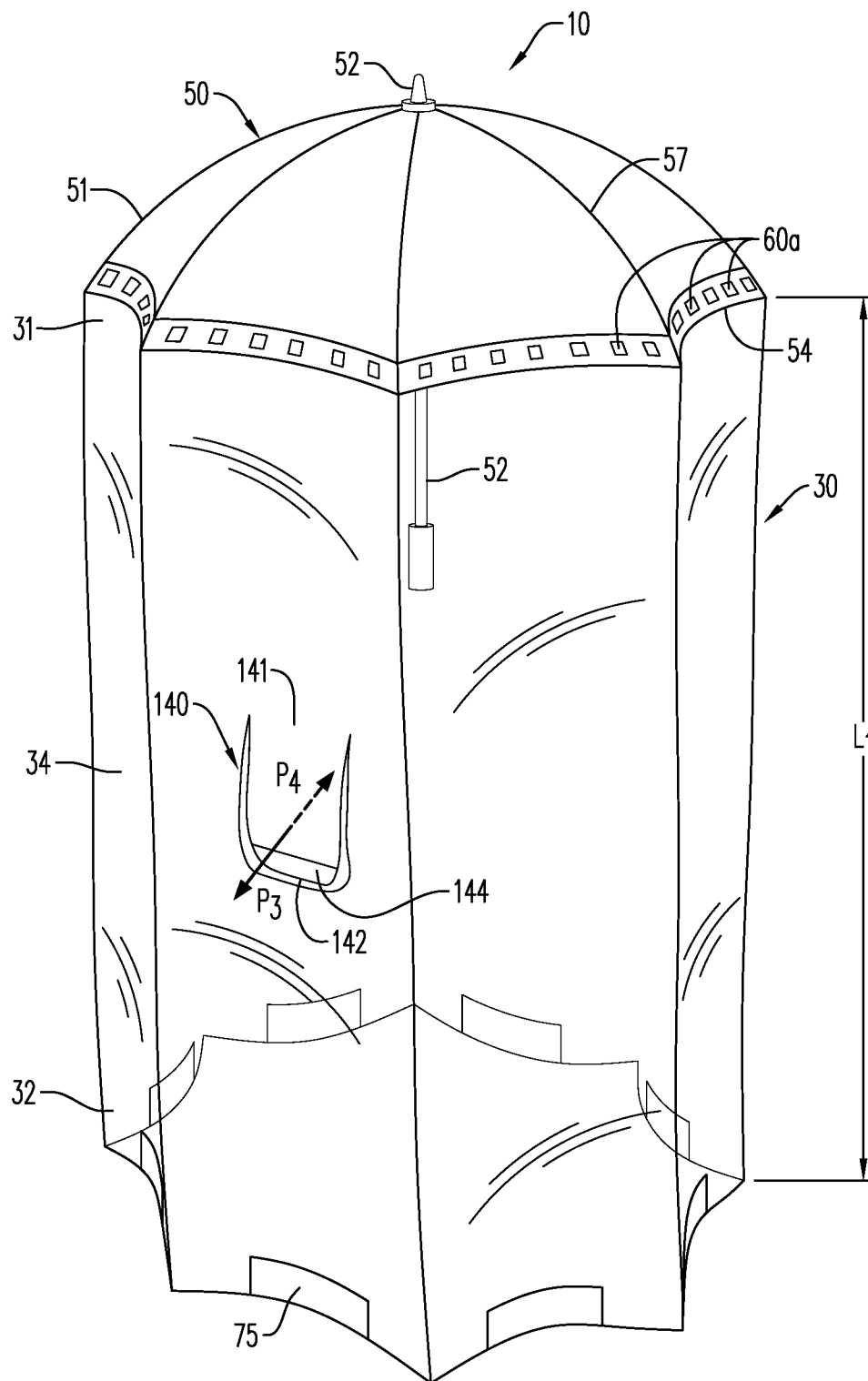
FIG. 1
(PRIOR ART)

2/11

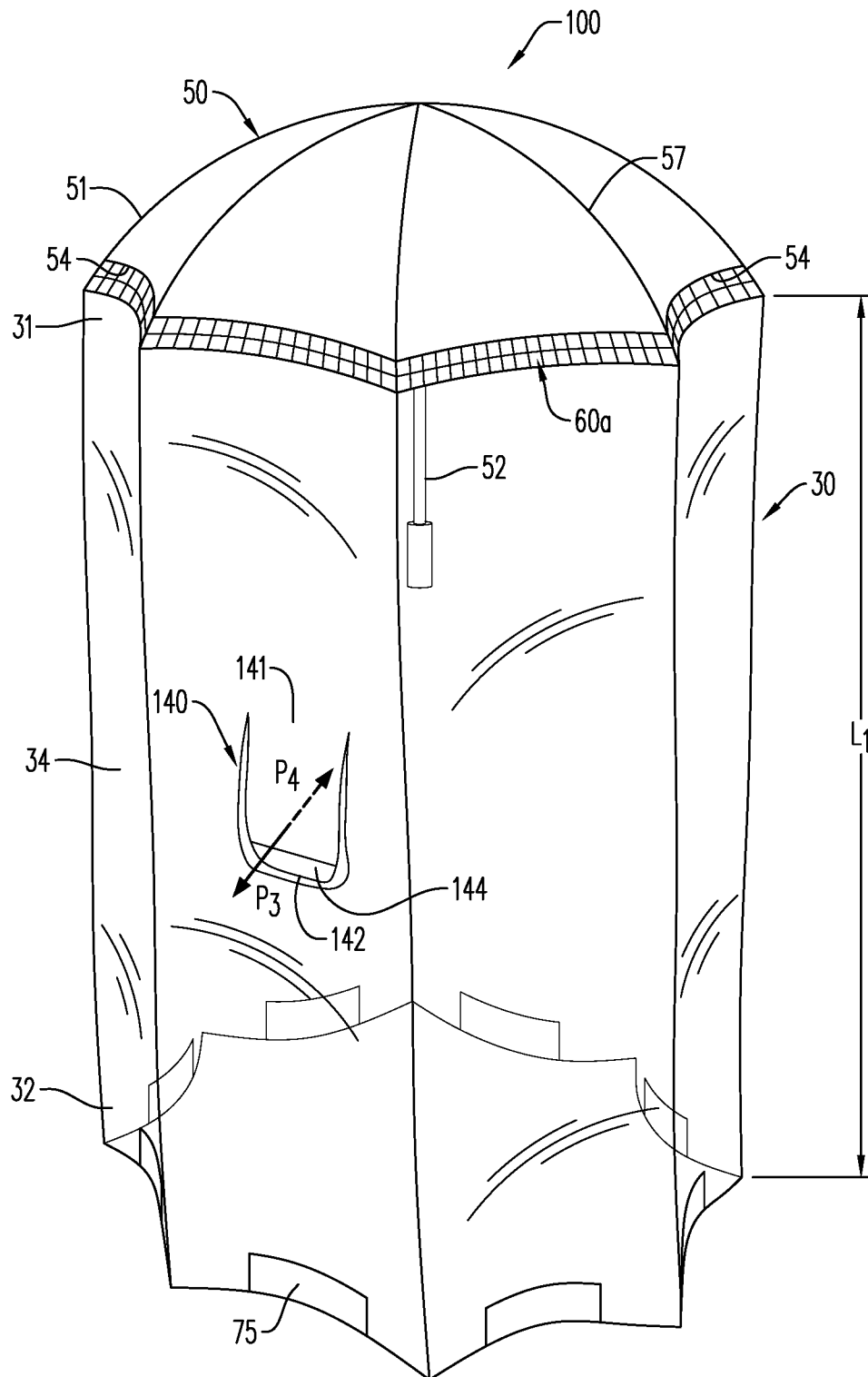
**FIG. 2**

3/11

**FIG. 3**

**FIG. 4**

5/11

**FIG. 5**

6/11

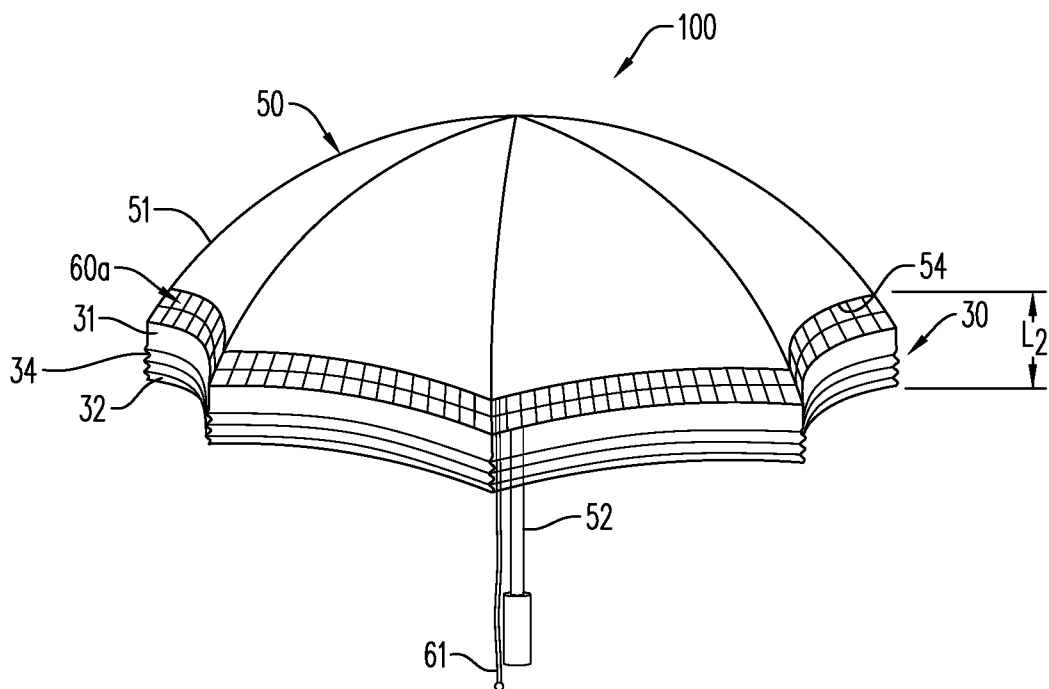


FIG. 6

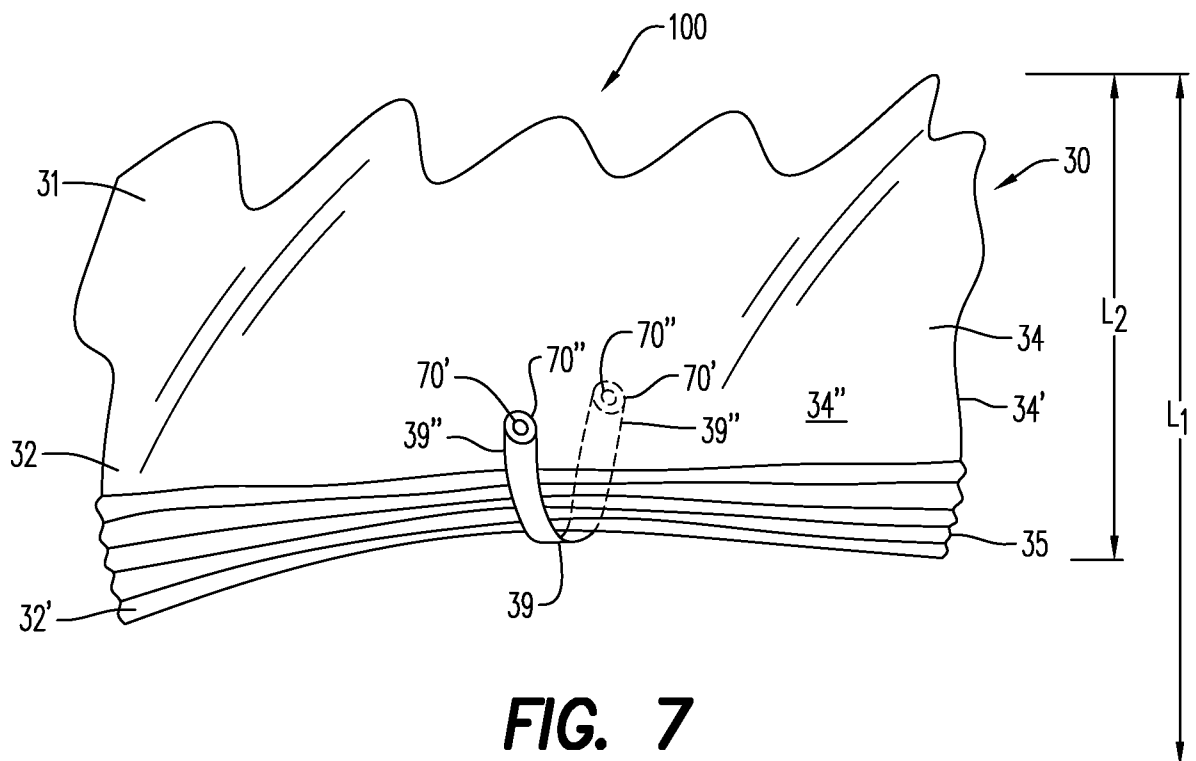


FIG. 7

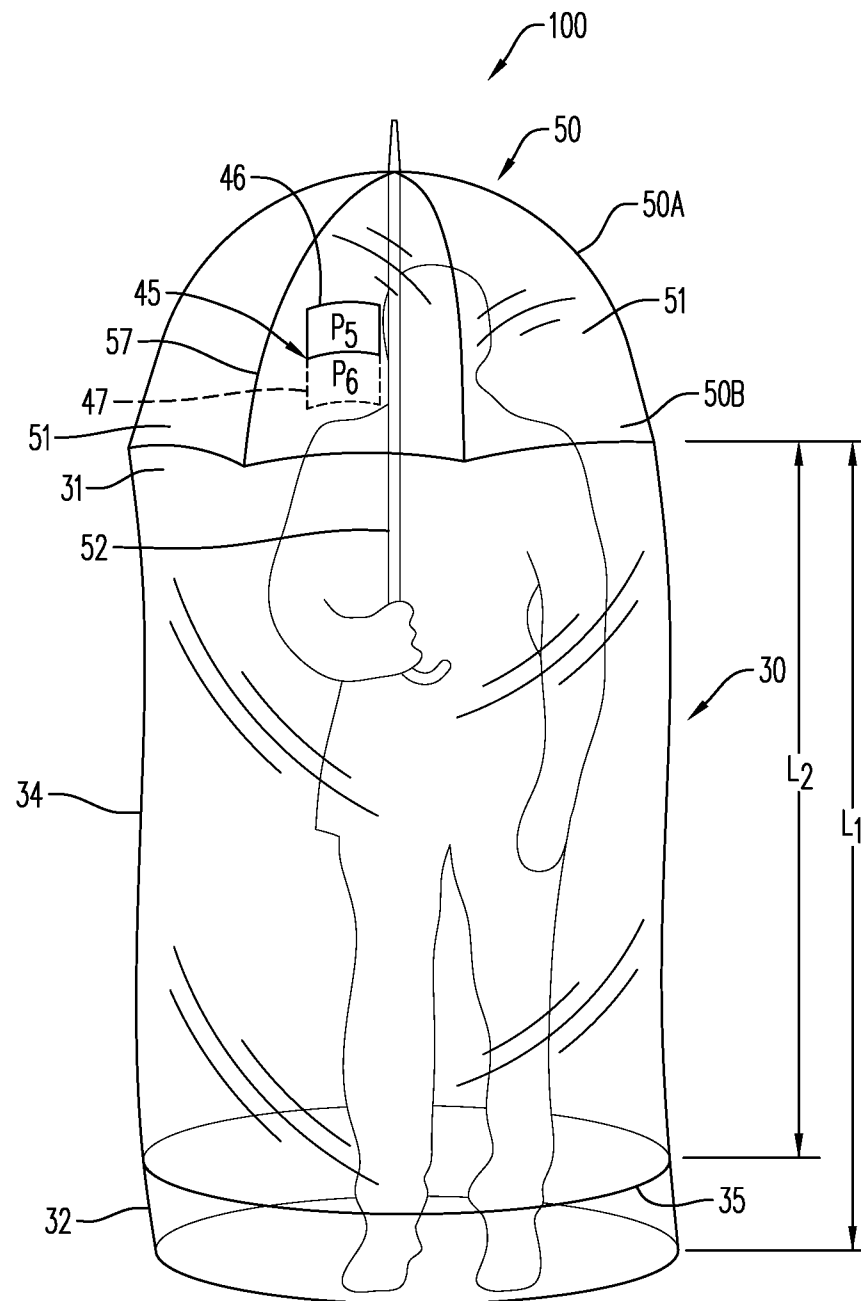


FIG. 8

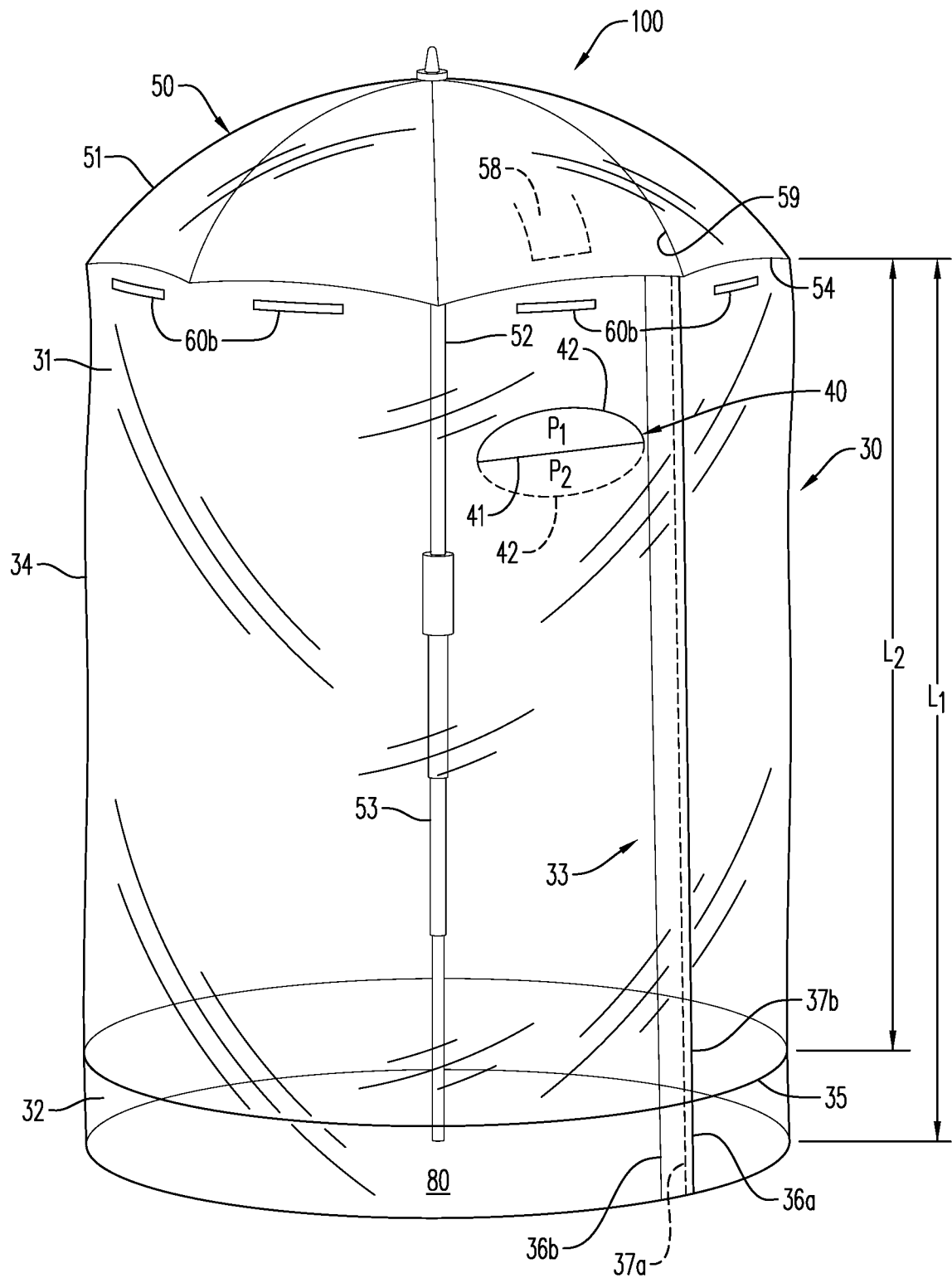


FIG. 9

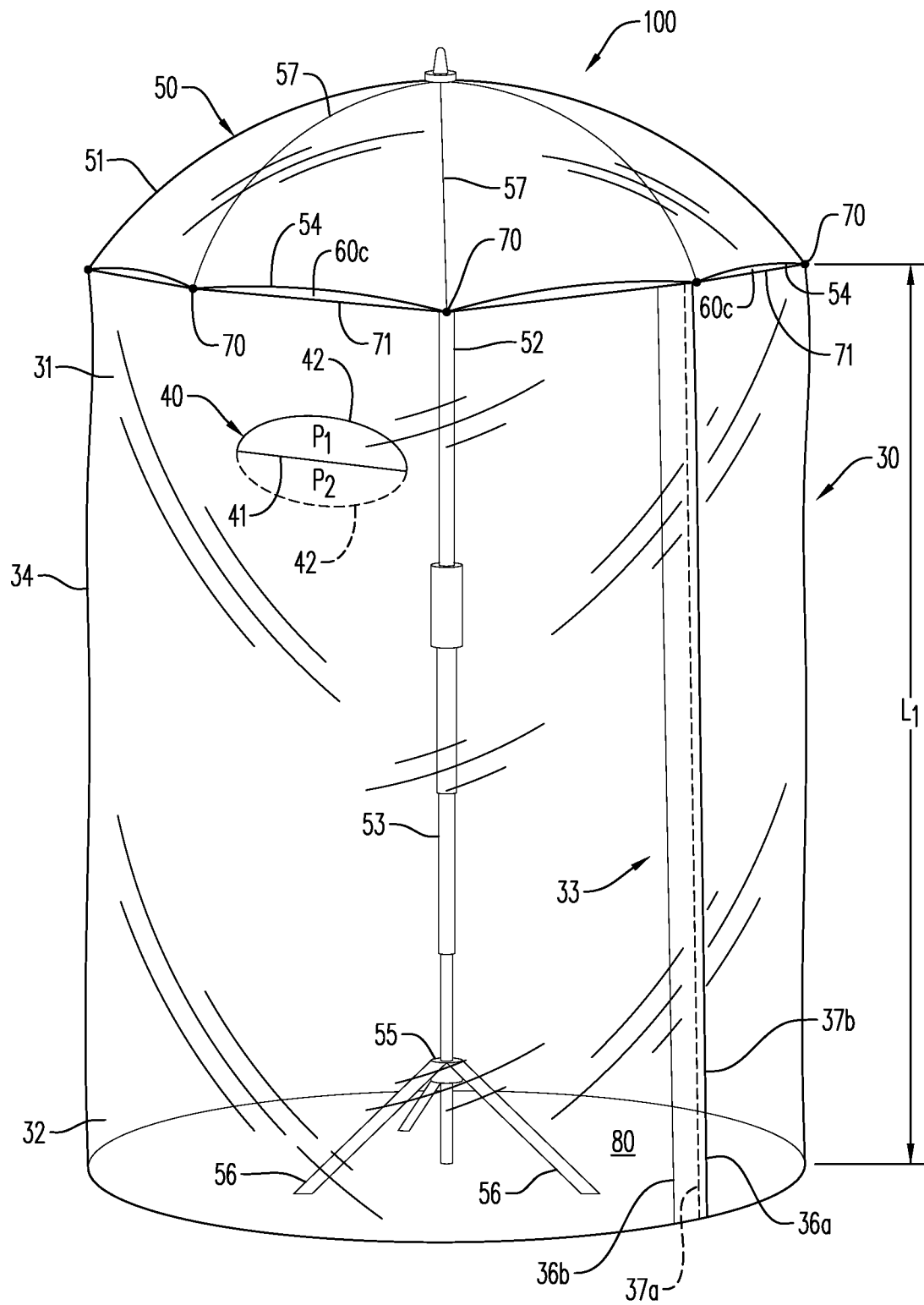
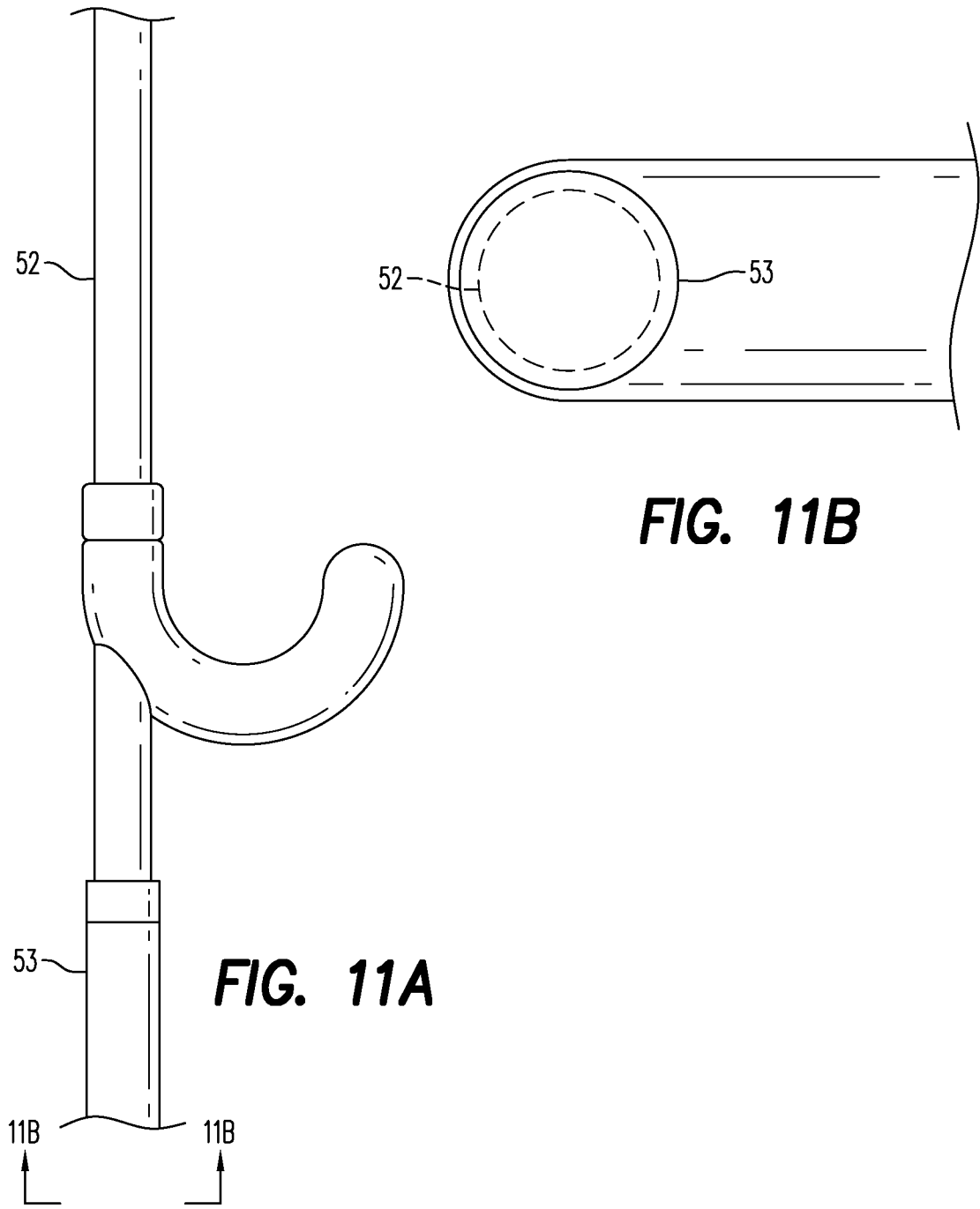


FIG. 10



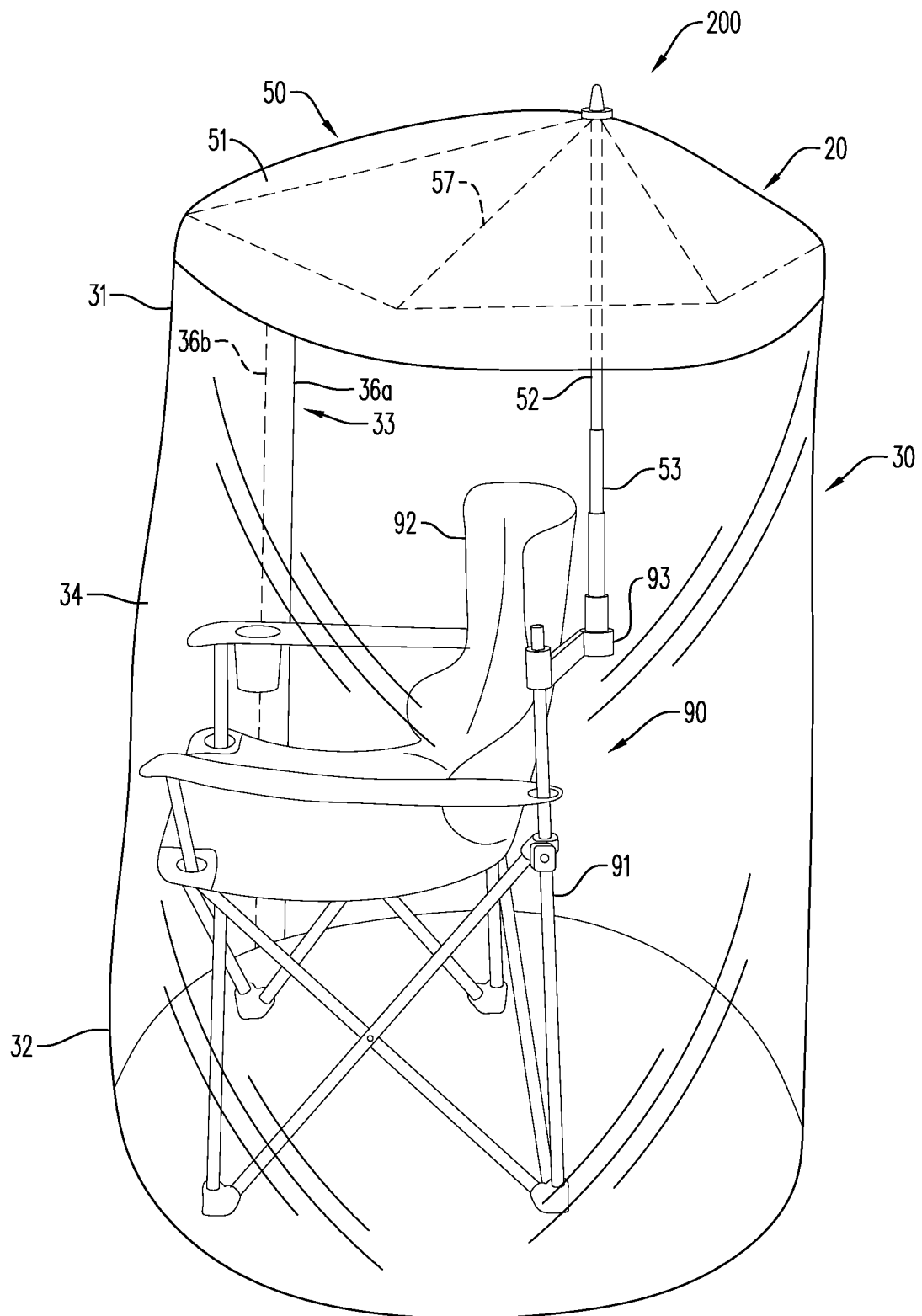


FIG. 12

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 16/28777

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - E04H 15/28, A45B 15/00, A45B 25/18, A45B 25/20 (2016.01)

CPC - E04H 15/28, A45B 15/00, A45B 25/18, A45B 25/20, A45B 2200/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8): E04H 15/*, A45B 15/*, A45B 25/* (2016.01)

CPC: E04H 15/*, A45B 15/*, A45B 25/*

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

IPC(8): E04H*, A45B* (2016.01)

CPC: E04H*, A45B*

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

PatBase, Google Patents, Google Web

Keywords: pleat, score, umbrella, clear, transparent, see through, window, body, floor, feet, length

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 1524515 A (PRESTON) 13 September 1978 (13.09.1978), entire document	1, 3/(1)
X	GB 2482279 A (MCDONALD et al.) 01 February 12 (01.02.2012), entire document	1, 3/(1), 6-7
Y		2, 3/(2), 4-5
Y	US 2,221,366 A (BISBING et al.) 12 November 1940 (12.11.1940), entire document	2, 3/(2), 5
Y	US 2006/0005871 A1 (CHURCH) 12 January 2006 (12.01.2006), entire document	4
A	US 2007/0125409 A1 (CULLEN) 07 June 2007 (07.06.2007), entire document	1-7
A	US 2005/0028451 A1 (KNOEPP) 10 February 2005 (10.02.2005), entire document	1-7

☐ Further documents are listed in the continuation of Box C.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"I" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

20 July 2016

Date of mailing of the international search report

23 SEP 2016

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US, Commissioner for Patents

P.O. Box 1450, Alexandria, Virginia 22313-1450

Facsimile No. 571-273-8300

Authorized officer:

Lee W. Young

PCT Helpdesk: 571-272-4300

PCT OSP: 571-272-7774

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 16/28777

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I: Claims 1-7 directed to a protective covering configured to slip over and at least partially cover an umbrella and including a covering member.

Group II: Claims 8-20 directed to a protective device including a shaft configured for extension to a structure and to support a protective device when configured in its extended position.

—See Supplemental Box—

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Claims 1-7

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 16/28777

---Continued from Box III---

The inventions listed as Groups I-II do not relate to a single general inventive concept under PCT Rule 13.1 because under PCT Rule 13.2 they lack the same or corresponding technical features for the following reasons:

Group I does not include the technical feature of a shaft connected to a structure and configured to support a protective device when configured in its extended position, as required by Group II.

Group II does not include the technical features of a covering member configured for positioning over the umbrella, as required by Group I.

The common features between Group I and Group II of:

a protective covering to provide a user with full body protection against weather elements, the protective covering comprising:
a protective member extending from an umbrella and comprising a first end, a second end and an access port extending substantially between the first end and the second end,
wherein at least a portion of the protective member is substantially see-through and is composed of an impervious waterproof material are taught by US 2006/0005871 A1 to CHURCH (hereinafter 'Church').

Church teaches a protective covering to provide a user with full body protection against weather elements, the protective covering comprising:

a protective member extending from an umbrella (para [0032]: secure the vertical attachment shield (10) to a conventional umbrella (20)) and comprising a first end, a second end (see Figures; para [0028]: waterproof vertical attachment shield (10); first end / underside 140 and second end / lower rim 170) and an access port extending substantially between the first end and the second end (para [0032]: vertical zippers 340 and 345),
wherein at least a portion of the protective member is substantially see-through and is composed of an impervious waterproof material (para [0029]: a vertical attachment shield (10), preferably constructed of several connecting long, rectangular pieces of transparent waterproof material, preferably nylon or plastic).

Therefore, the common features are not an improvement over the prior art.

Unity of invention is lacking under PCT Rule 13.2, because Groups I and II do not share a same or corresponding special technical feature providing a contribution over prior art.