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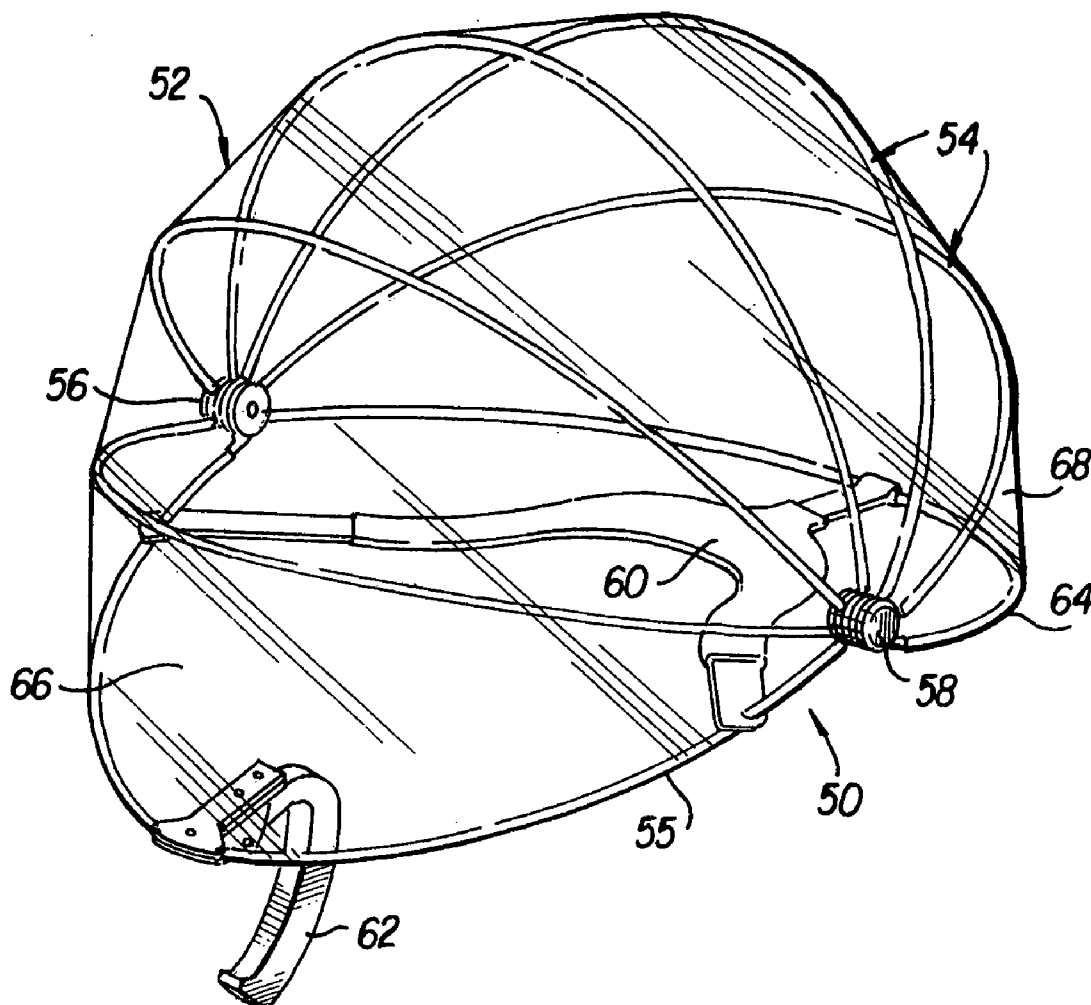
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ABSTRACT

An umbrella that includes a plurality of support members for supporting a canopy, and a pivot assembly coupled with each of the support members allowing the support members to move between an open position and a collapsed position. The plurality of support members define an outer perimeter of the umbrella. A handle engages one of the plurality of support rods at the outer perimeter offset from a center of the umbrella. A shoulder support may be coupled to one of the support members.

(21) Appl. No.: **11/393,936**(22) Filed: **Mar. 31, 2006****Related U.S. Application Data**

(60) Provisional application No. 60/666,986, filed on Mar. 31, 2005.



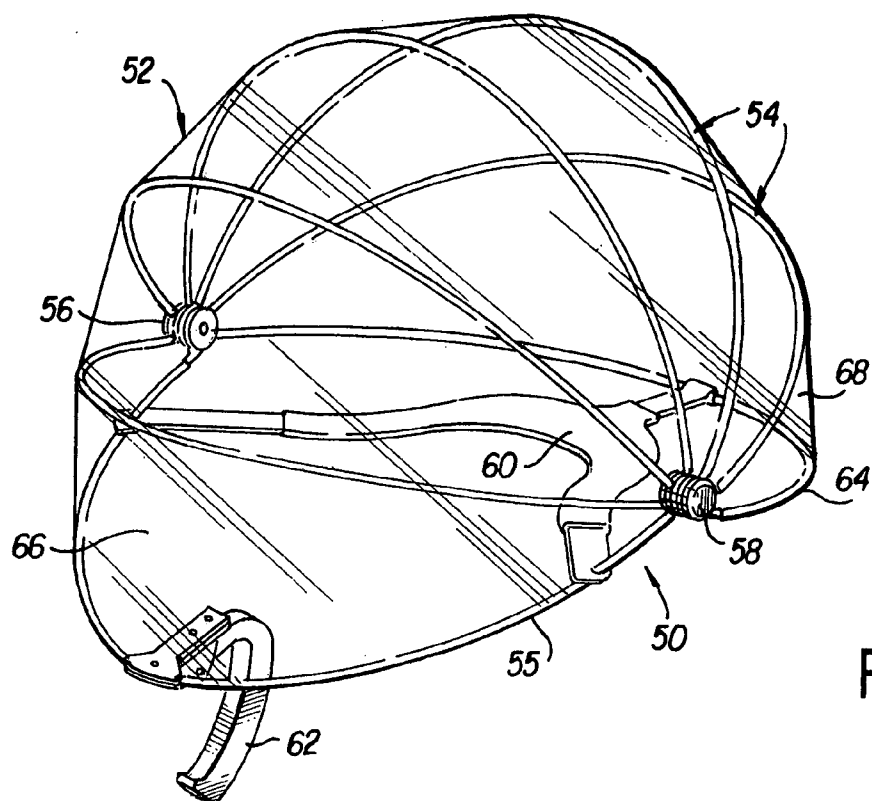


FIG. 1

FIG. 2

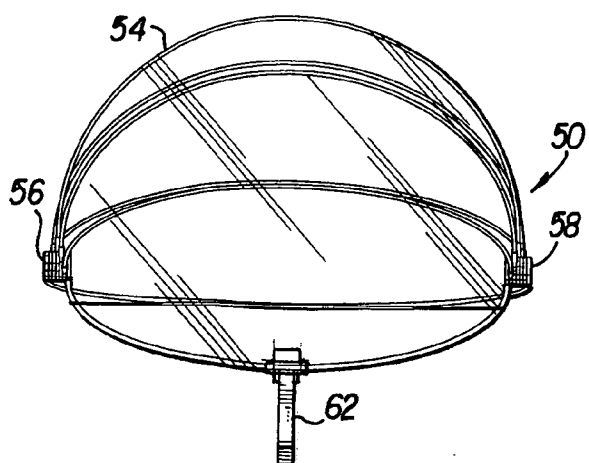
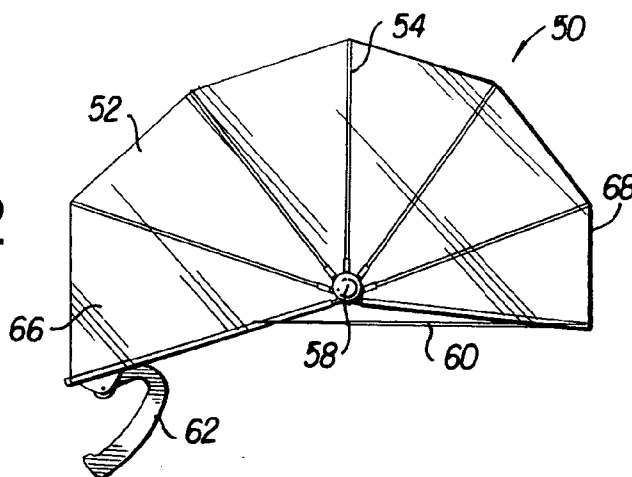


FIG. 3

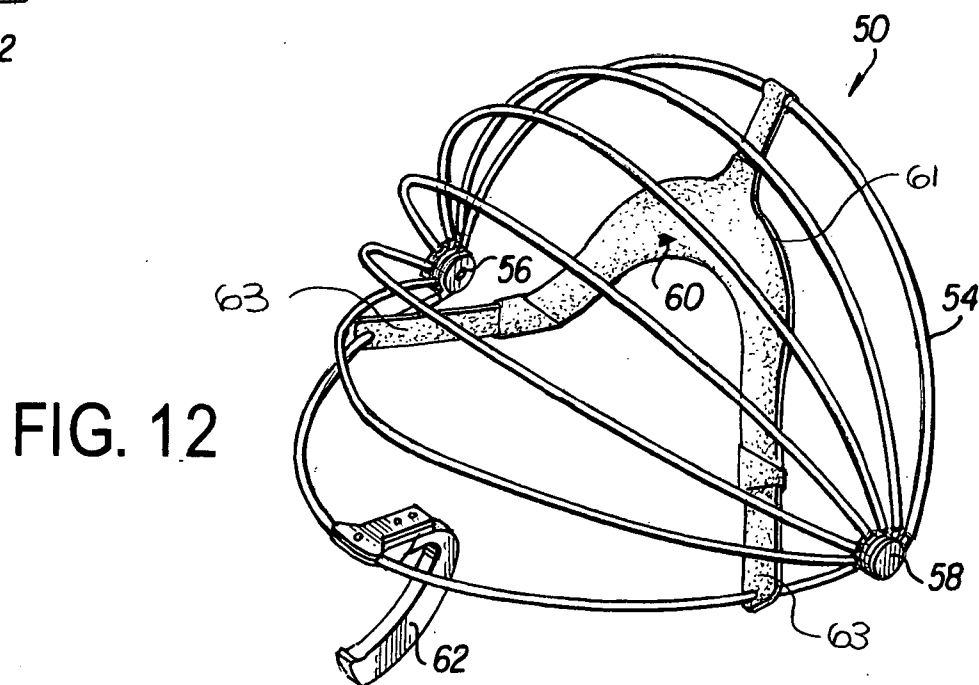
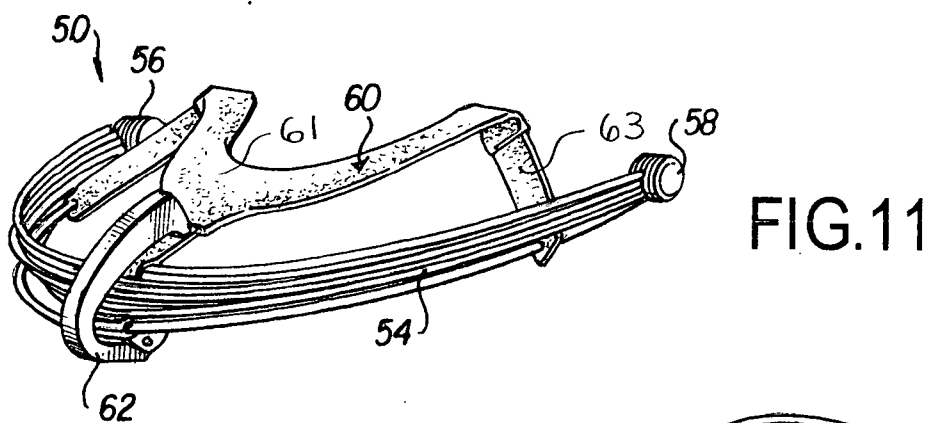
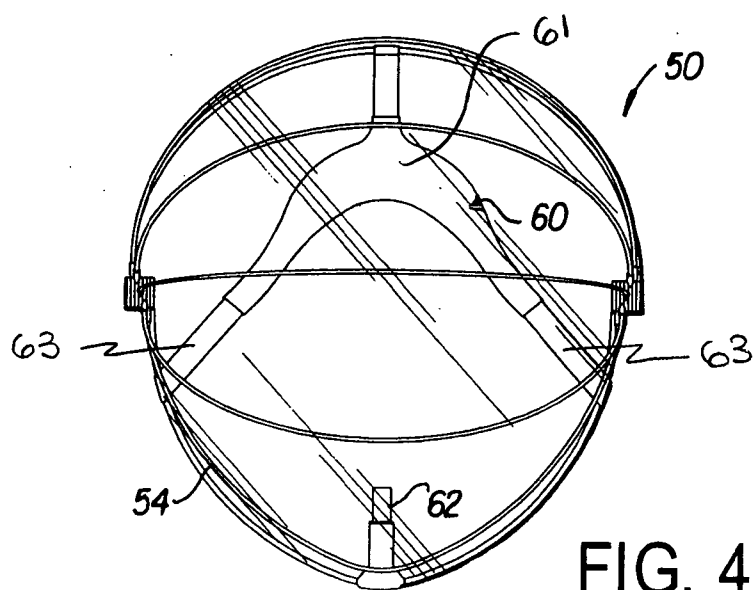


FIG. 6

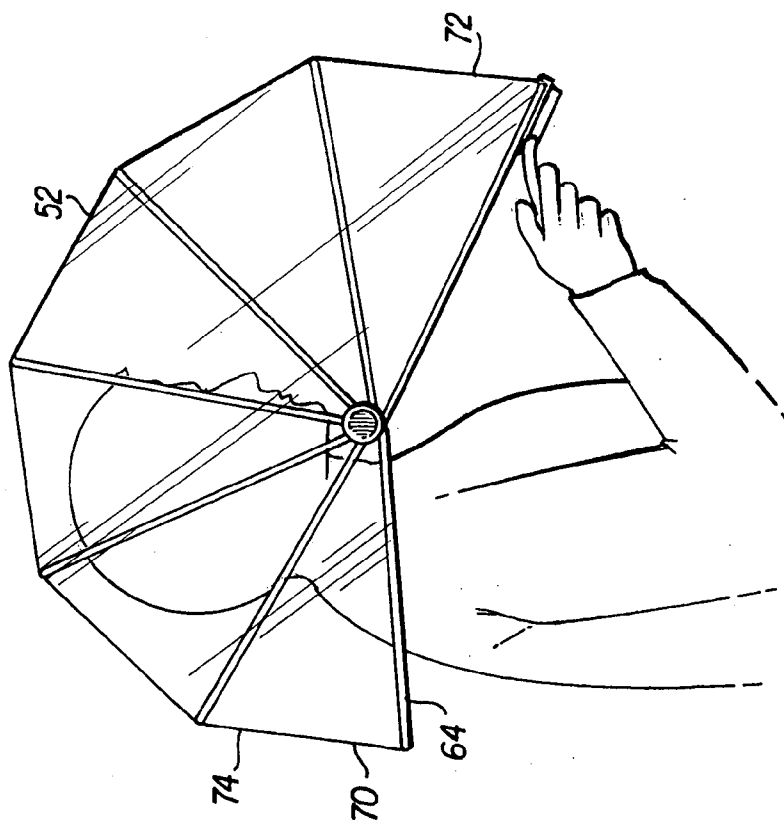
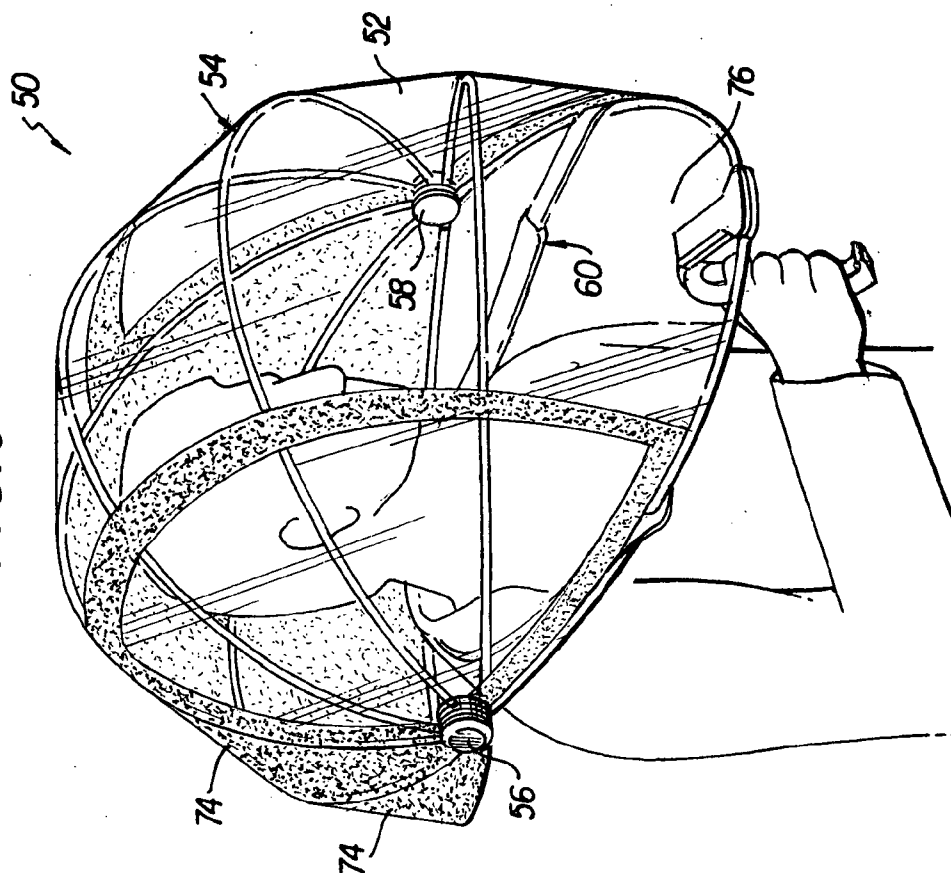


FIG. 5

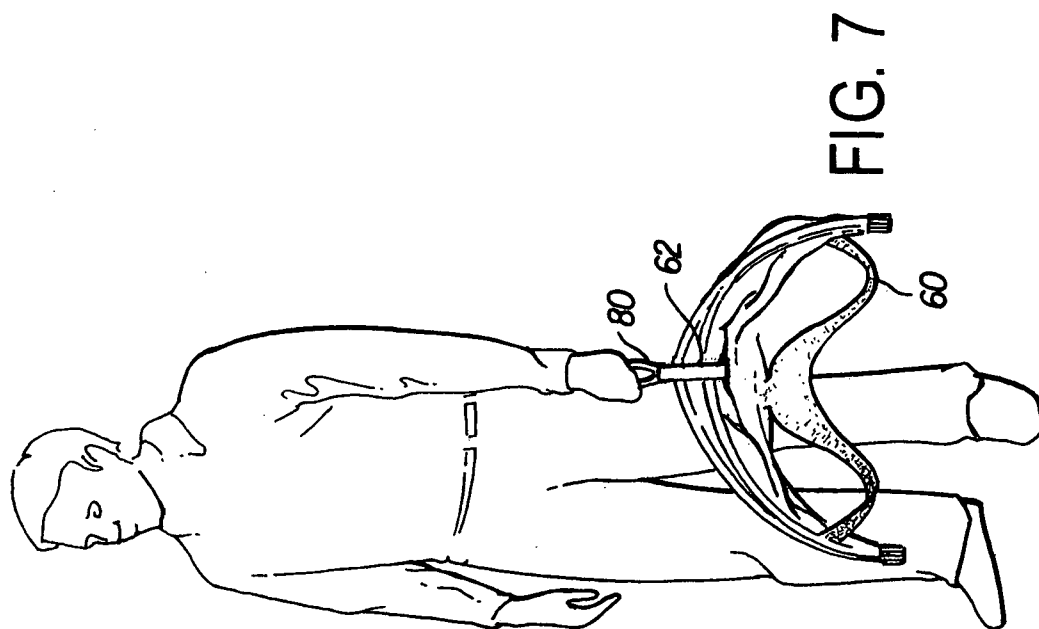


FIG. 7

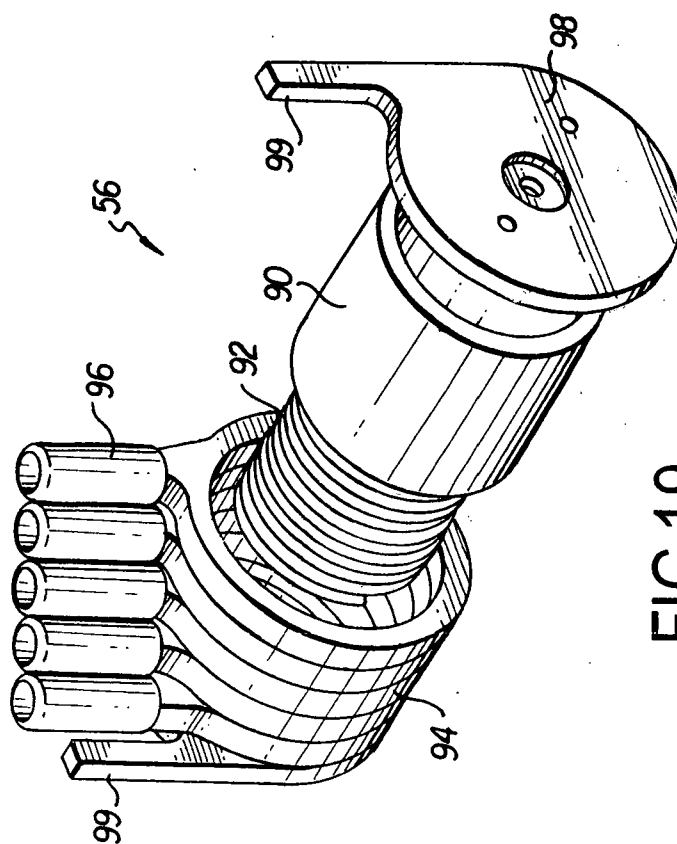


FIG. 19

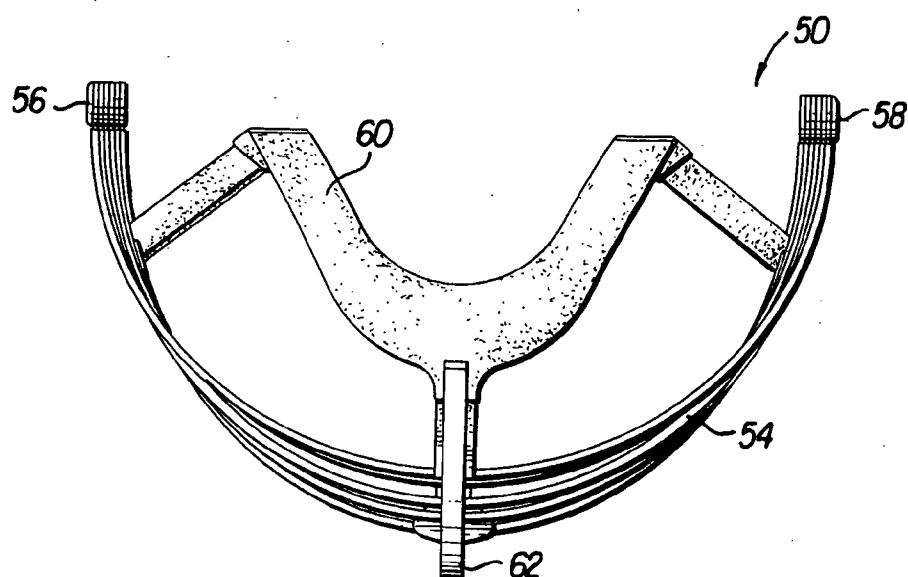


FIG. 8

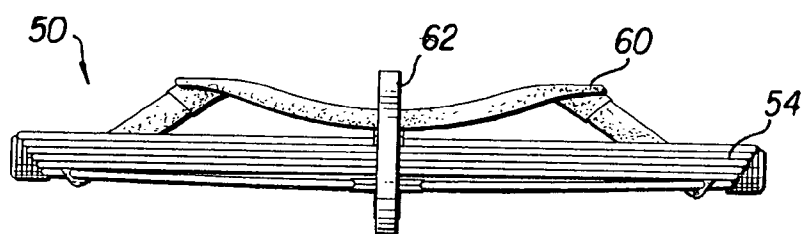


FIG. 9

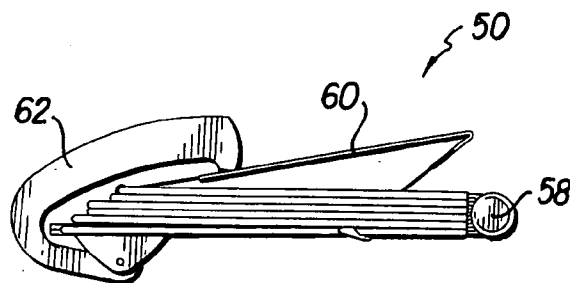


FIG. 10

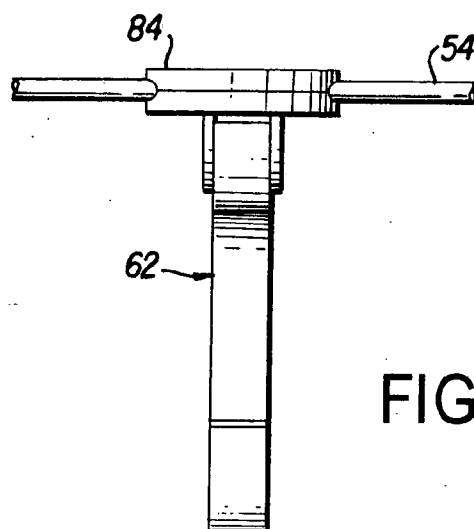


FIG. 13

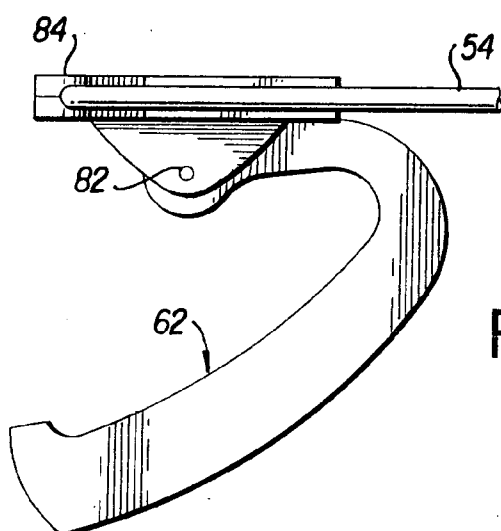
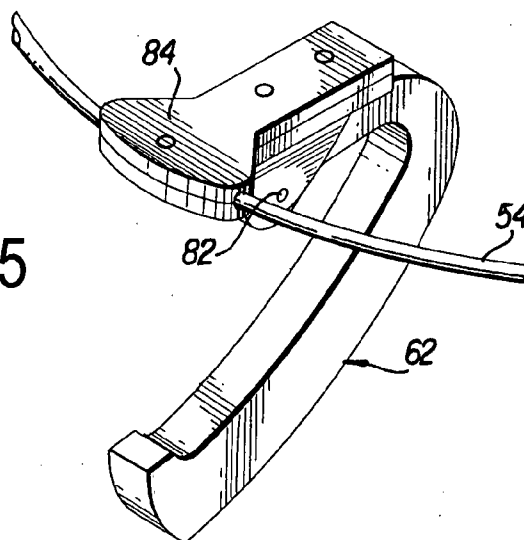


FIG. 14

FIG. 15



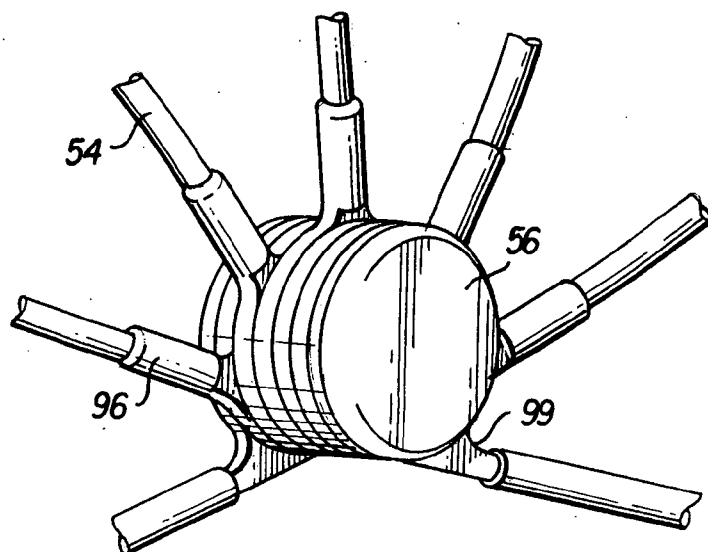


FIG.16

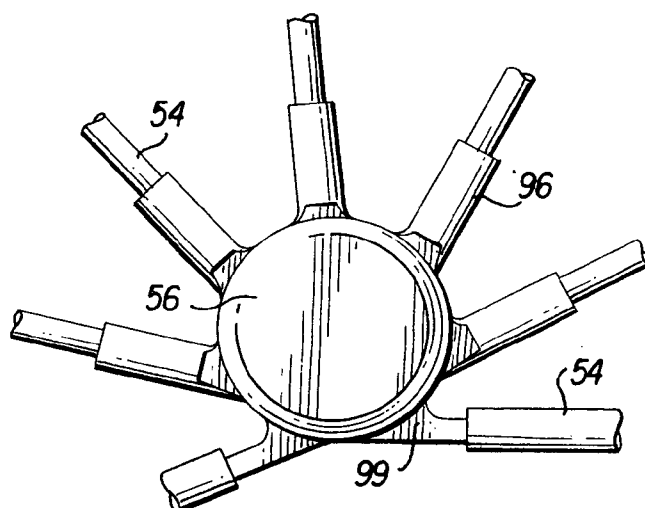


FIG. 17

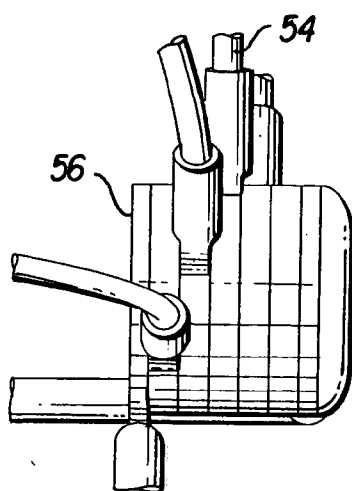


FIG. 18

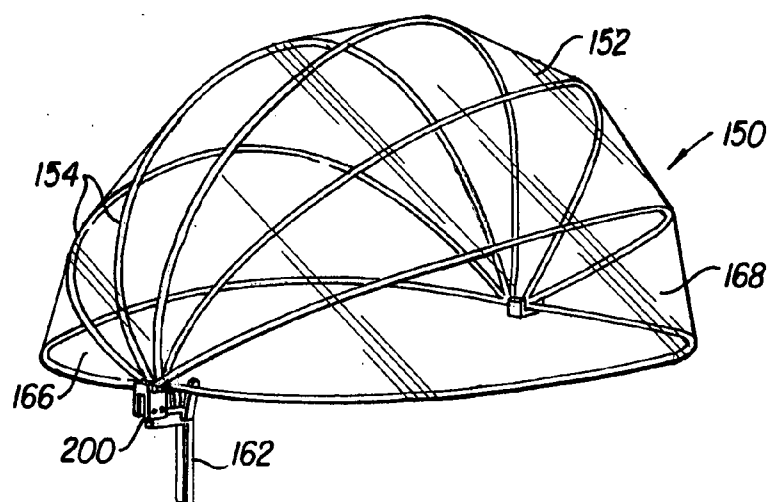


FIG. 20

FIG. 21

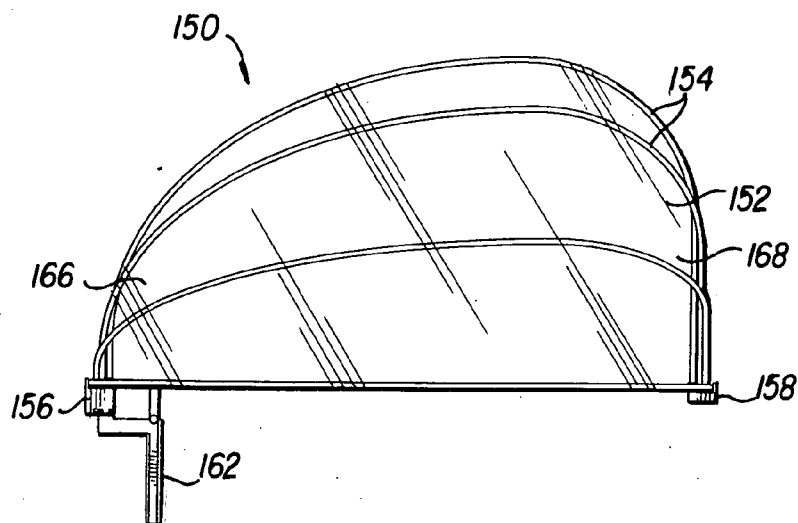
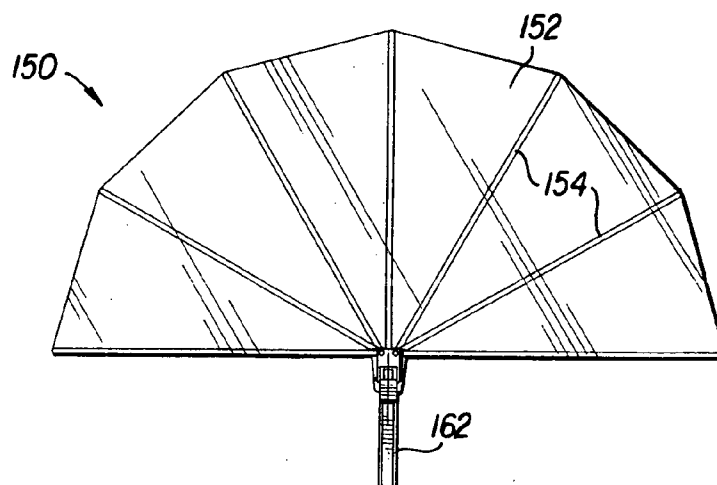


FIG. 22

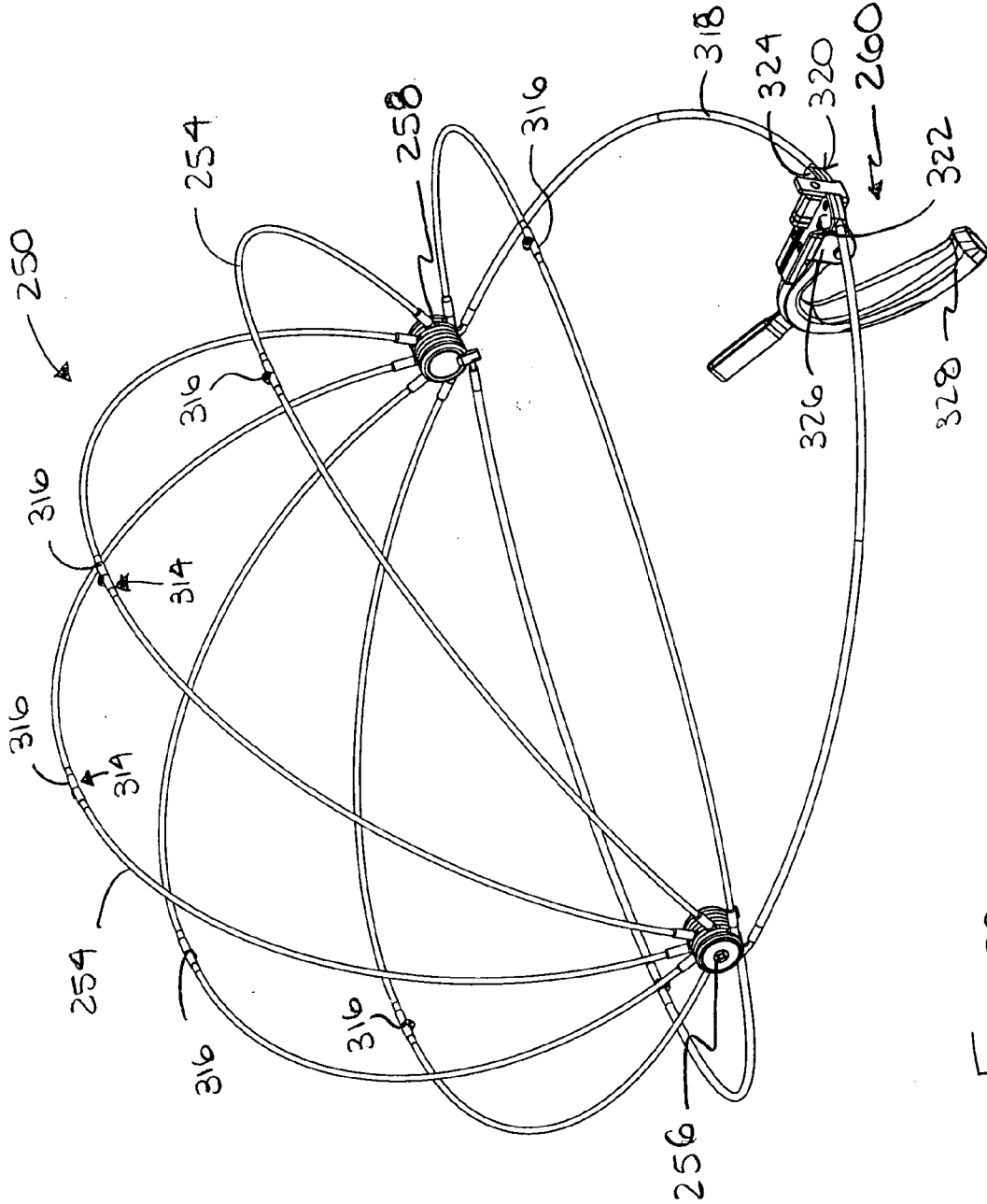


FIG. 23

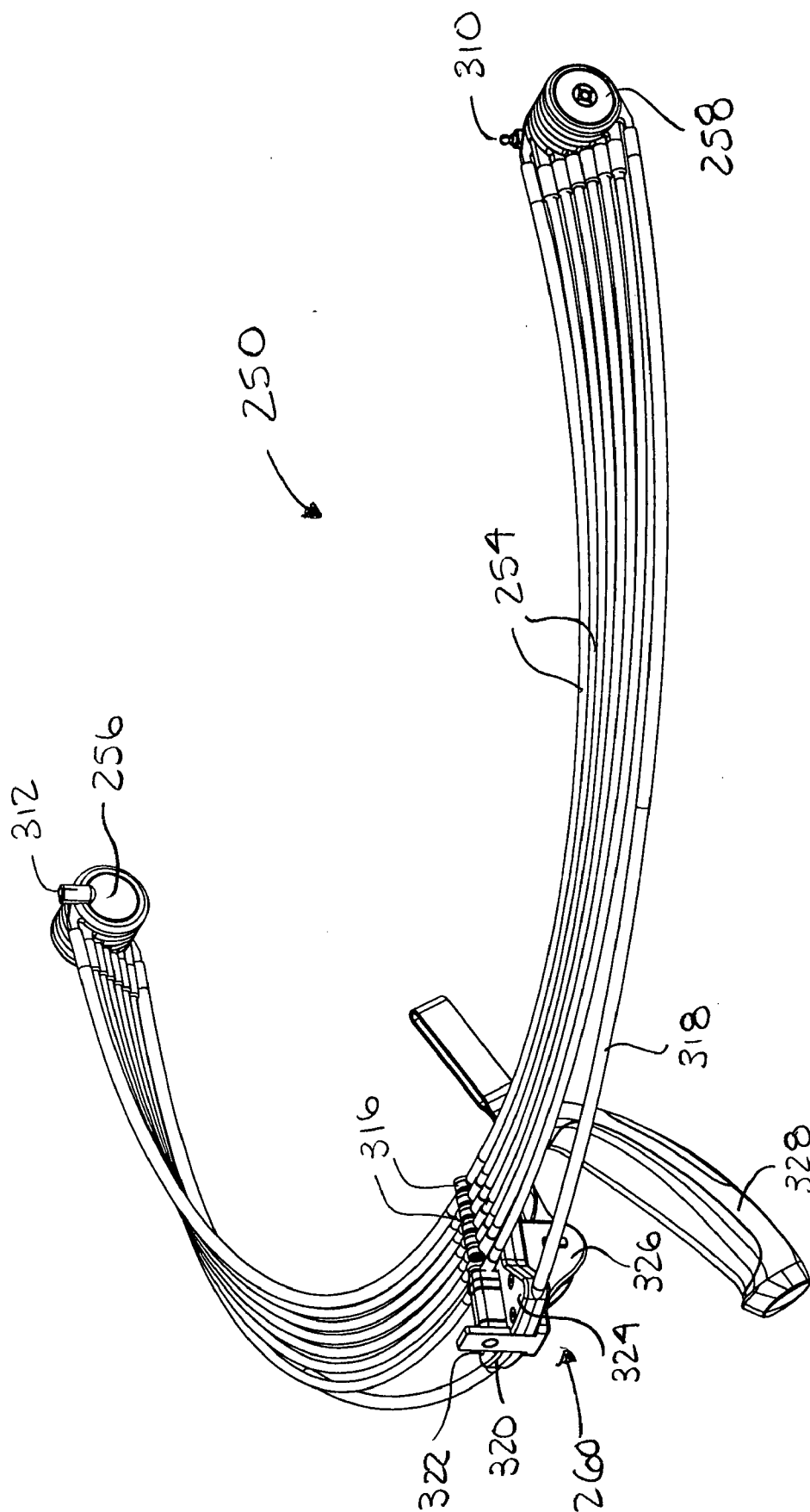
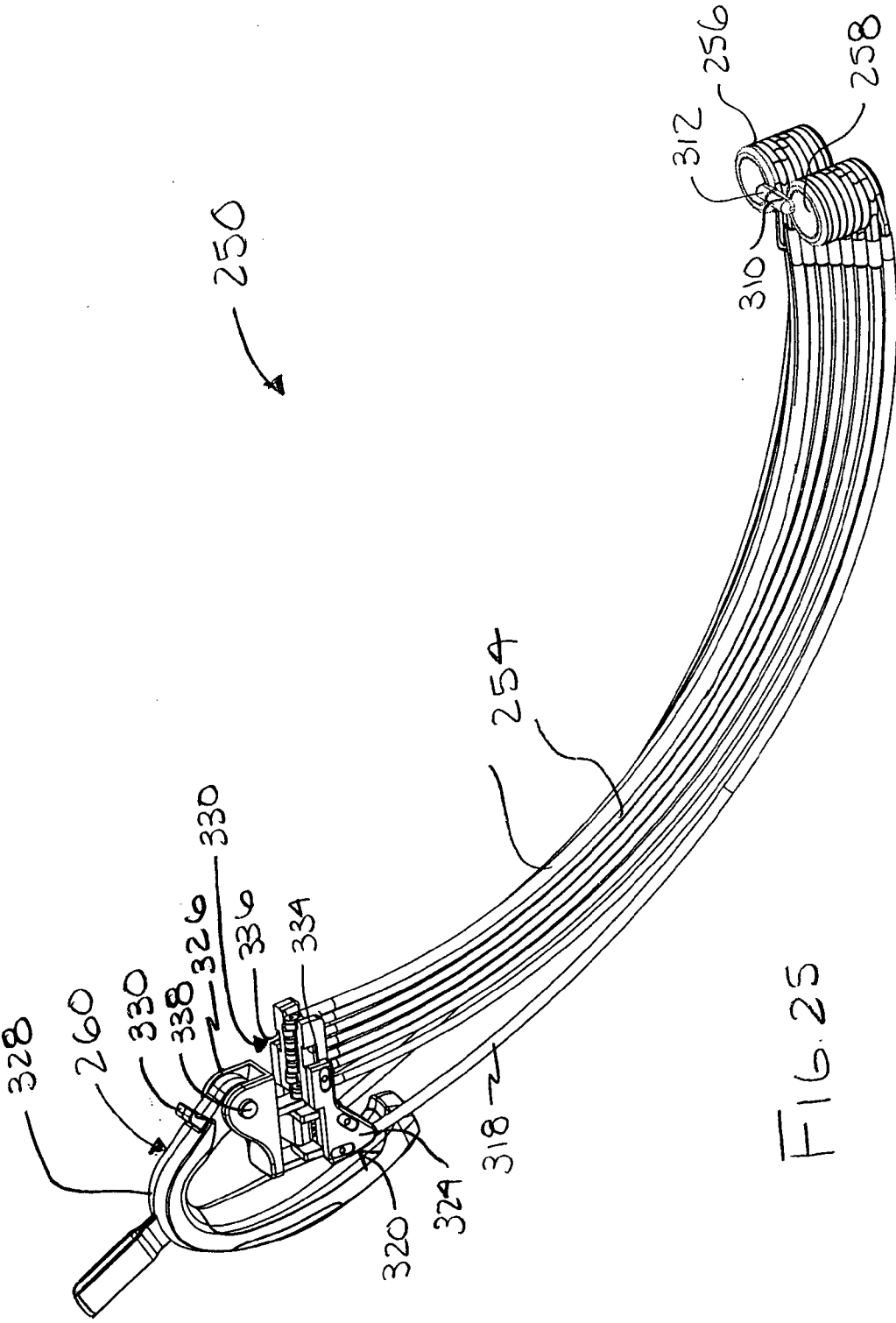


FIG. 24



UMBRELLA WITH OFFSET HANDLE

RELATED APPLICATION

[0001] This application claims priority to U.S. Provisional Application Ser. No. 60/666,986, filed Mar. 31, 2005.

FIELD OF THE INVENTION

[0002] The present invention relates to umbrellas, and more particularly, to an umbrella with an offset handle that provides greater coverage and wind resistance while still allowing for full visibility.

BACKGROUND OF THE INVENTION

[0003] The word "umbrella" comes from the Latin root word "umbra," meaning shade or shadow. Umbrellas, also known as parasols, were originally used to provide shade from sunlight. Umbrellas are commonly used by individuals as shelters from rain, snow and other forms of precipitation.

[0004] An umbrella is a device for protection from the weather consisting of a collapsible, usually circular canopy mounted on a central rod. Umbrellas can be made by stretching a fabric or other material over a frame. Early umbrellas were developed in Europe and made of wood or whalebone and covered with alpaca or oiled canvas. Artisans made curved handles for the umbrellas out of hard woods like ebony.

[0005] In about 1850, the steel ribbed umbrella design with a handle in the center was invented. Over time, umbrellas were designed to be compact and collapsible, but the basic design of the umbrella has remained largely unchanged. Modern umbrella designs usually employ a telescoping metal trunk.

[0006] While umbrellas of various shapes and sizes with numerous utilities have been developed over the years, prior art umbrellas have not solved the problems of providing full coverage to the user and not inverting in windy conditions.

[0007] Umbrellas are often challenging to control, difficult to grip and tricky to balance. One of the major limitations of traditional umbrellas is their performance in the wind. Umbrellas often spin out of control in the slightest breeze. When the wind catches them, the typical umbrella design will invert and even break. When an umbrella inverts, the poles often stick through the canopy, which can create a dangerous situation in which the user or a passerby can become injured by the poles extending outside the canvas. Individuals using the umbrella have to stop and reverse the canopy of the umbrella so the umbrella functions properly. In windy conditions, umbrella inversion can happen often and cause the user to become wet from rain and frustrated.

[0008] In addition, rain does not usually fall straight down. While adjusting the umbrella in response to rainfall direction, the user must be aware of wind gusts that threaten to carry off or invert the precariously aligned umbrella. Controlling the umbrella is even more difficult if the user is carrying other items or packages.

[0009] Prior art umbrellas often provide inadequate coverage for the user. While the prior art umbrellas can keep some of the user's hair dry, in real-life conditions the prior art umbrella offers minimal protection for the torso, arms, legs and feet of the user. When there is wind and rain at the

same time, the user has to push the umbrella down in front or back to cover body parts from the oncoming rain being blown. As the user adjusts the position of the umbrella for the oncoming wind and rain, another area of the body is consequently being uncovered. More importantly as the user adjusts the umbrella down to block the oncoming rain because of the direction of the wind the user loses complete visibility and is forced to repeat this action constantly to be able to see where they are walking while attempting to keep dry. The placement of the handle in the middle of the canopy of the umbrella adds to this problem.

[0010] Conventional umbrellas have a handle located in the middle of the canopy, where the most coverage is for the user. The handle's location in the middle of the umbrella interferes with the user standing in the middle of the umbrella canopy. As a result, the user stands off to the side of the handle, and thus does not receive full coverage of the umbrella.

[0011] Previous umbrellas known in the art also fail to withstand windy conditions while providing significant coverage to the user. Therefore, there remains a need in the art for an umbrella with an offset handle that provides greater coverage and wind resistance.

SUMMARY OF THE INVENTION

[0012] The present invention relates to an umbrella that includes a plurality of support members for supporting a canopy, and a pivot assembly coupled with each of the support members allowing the support members to move between an open position and a collapsed position. The plurality of support members define an outer perimeter of the umbrella. A handle engages one of the plurality of support rods at the outer perimeter offset from a center of the umbrella.

[0013] The present invention also relates to an umbrella including first and second pivot assemblies and a plurality of support rods extending from the first and second pivot assembly defining an outer perimeter of the umbrella, and the plurality of support rods are pivotable with respect to the first and second pivot assemblies between open and collapsed positions. A canopy is supported by the plurality of support rods.

[0014] The present invention also relates to an umbrella that includes at least a first pivot assembly, and a plurality of support members extending from the first pivot assembly, the support members being pivotable between open and collapsed positions. A canopy is supported by the plurality of support members, and a shoulder support is coupled to at least one of the plurality of support members.

[0015] The present invention also relates to an umbrella that includes at least a first pivot assembly, and a plurality of support members extending from the pivot assembly. Each support member is pivotable with respect to the first pivot assembly between open and collapsed positions about a first pivot, and pivotable at a second pivot between unfolded and folded positions.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016] The present invention will be further explained with reference to the attached drawings, wherein like structures are referred to by like numerals throughout the several

views. The drawings shown are not necessarily to scale, with emphasis instead generally being placed upon illustrating the principles of the present invention.

[0017] **FIG. 1** is a perspective view of an umbrella according to an embodiment of the present invention, showing the umbrella in an open position;

[0018] **FIG. 2** is a side elevational view of the umbrella illustrated in **FIG. 1**;

[0019] **FIG. 3** is a front elevational view of the umbrella illustrated in **FIG. 1**;

[0020] **FIG. 4** is a top plan view of the umbrella illustrated in **FIG. 1**;

[0021] **FIG. 5** is a side elevational view of the umbrella illustrated in **FIG. 1** as used by a user;

[0022] **FIG. 6** is a perspective view of the umbrella illustrated in **FIG. 1** as used by a user;

[0023] **FIG. 7** is a perspective view of the umbrella in accordance with an embodiment of the present invention, showing the umbrella in a collapsed position and carried by a user;

[0024] **FIG. 8** is a top plan view of the umbrella illustrated in **FIG. 7**;

[0025] **FIG. 9** is a front elevational view of the umbrella illustrated in **FIG. 7**;

[0026] **FIG. 10** is a side elevational view of the umbrella illustrated in **FIG. 7**;

[0027] **FIG. 11** is a perspective view of the umbrella illustrated in **FIG. 7**;

[0028] **FIG. 12** is a perspective view of the umbrella in accordance with an embodiment of the present invention, showing the umbrella moving between a collapsed position and open position with a canopy of the umbrella removed;

[0029] **FIG. 13** is a front elevational view of a handle of the umbrella in accordance with an embodiment of the present invention;

[0030] **FIG. 14** is a side elevational view of the handle illustrated in **FIG. 13**;

[0031] **FIG. 15** is a perspective view of the handle illustrated in **FIG. 13**, showing the handle attached to a support rod;

[0032] **FIG. 16** is a perspective view of a pivot assembly of the umbrella in accordance with an embodiment of the present invention, showing the pivot assembly in the open position;

[0033] **FIG. 17** is a side elevational view of the pivot assembly illustrated in **FIG. 16**;

[0034] **FIG. 18** is a front elevational view of the pivot assembly illustrated in **FIG. 16**;

[0035] **FIG. 19** is a perspective view of the pivot assembly of the umbrella in accordance with an embodiment of the present invention, showing the pivot assembly in an assembled or collapsed position;

[0036] **FIG. 20** is a perspective view of an umbrella in accordance with another embodiment of the present invention, showing a pivot assembly and a handle opposite one another;

[0037] **FIG. 21** is a front elevational view of the umbrella illustrated in **FIG. 20**;

[0038] **FIG. 22** is a side elevational view of the umbrella illustrated in **FIG. 20**;

[0039] **FIG. 23** is a perspective view of an umbrella in accordance with another embodiment of the present invention;

[0040] **FIG. 24** is a perspective view of the umbrella illustrated in **FIG. 23**, showing the umbrella in a collapsed position and a handle in a locked position; and

[0041] **FIG. 25** is a perspective view of the umbrella illustrated in **FIG. 23**, showing the umbrella in a folded position and the handle in an unlocked position.

[0042] While the above-identified drawings set forth preferred embodiments of the present invention, other embodiments of the present invention are also contemplated, as noted in the discussion. This disclosure presents illustrative embodiments of the present invention by way of representation and not limitation. Numerous other modifications and embodiments can be devised by those skilled in the art which fall within the scope and spirit of the principles of the present invention.

DETAILED DESCRIPTION OF THE EXEMPLARY EMBODIMENTS

[0043] Referring to **FIGS. 1-19**, an umbrella **50** in accordance with an embodiment of the present invention generally includes an offset handle **62** and provides greater coverage and wind resistance. The offset handle **62** may be located in the front of the umbrella **50** for stability and control. The shape of the umbrella provides greater coverage and wind resistance by causing the umbrella to remain in the proper position and not invert in windy conditions. The canopy of the umbrella may be transparent to provide visibility for the user. The umbrella **50** may also have a shoulder support **60** for stability and control. The design of the umbrella **50** is durable, wind resistant, and lasts longer than traditional umbrellas.

[0044] **FIGS. 1-4** show various views of the umbrella **50** in an open position as used by a user. As seen in **FIGS. 1-4**, the umbrella **50** may include a canopy **52**, a plurality of support members **54**, a first pivot assembly **56**, a second pivot assembly **58**, a shoulder support **60** and a handle **62**. The support members **54** define an outer perimeter **55** (**FIG. 1**) of the umbrella **50**. The handle **62** is preferably located in the front of the umbrella **50** and attached to one of the support members **54** offset from the center of the umbrella **50**. Alternatively, the handle may be located at the rear of the umbrella **50**. The first pivot assembly **56** and the second pivot assembly **58** may be located on opposite sides of the umbrella **50**.

[0045] As seen in **FIG. 2**, the plurality of support members **54** may be rods that engage and support the canopy **52**. The canopy **52** may engage the plurality of support rods **54** in any known manner, such as by sewing, mechanical fasteners or other forms of mechanical engagement known

to those skilled in the art. Any number of support rods **54** can be used with umbrella **50**. The plurality of support rods **54** extend from the first pivot assembly **56** to the second pivot assembly **58**. The plurality of support rods **54** may be strong and resilient, bending and flexing to absorb wind without breaking or disfiguring. The plurality of support rods **54** may be resistant to rust and corrosion. Various materials can be used to form the plurality of support rods **54** such as, stainless steel, aluminum, titanium, carbon fiber, graphite, fiberglass, plastic, or other metals or plastics known to those skilled in the art. With strength and resiliency provided by the plurality of support rods **54**, the umbrella **50** resists inverting and/or breaking in a wind gust.

[0046] As seen in **FIGS. 3 and 4**, the handle **62** may be located at a forward position of the umbrella **50**. In particular, the handle **62** is located on a front side **66** (**FIG. 2**) of the umbrella **50** to allow the user to stand in the middle of the umbrella **50**, and remain under the umbrella **50** and protected from all angles, front and back and both sides, as seen in **FIG. 5**. With the handle **62** being on the front side **66**, the user reaches forward to hold the umbrella. By locating the handle **62** on the front side **66** of the umbrella, a middle pole of the umbrella is eliminated giving the user more room to stand.

[0047] As best seen in **FIGS. 4, 6, 11 and 12** the shoulder support **60** rests on the users shoulders and extends around the back of the neck of the user. The shoulder support **60** may engage one of the lowest or bottom rod **64** of the plurality of support rods **54**. The shoulder support **60** includes a main portion **61** coupled with one of the rods **54** and preferably rests on the neck area of the user. Extending from the main portion **61** are two straps **63** that engage another one of the rods **54**, as best seen in **FIG. 12**, and preferably rests on the user's shoulders. The shoulder support **60** helps support and stabilize the umbrella **50** under windy conditions making it more wind-resistant and less likely to blow away or invert. For example, when the wind hits the umbrella **50** from the sides, the back, or from the top, the shoulder support **60** stabilizes and supports the umbrella **50** while it continues to cover the user. The shoulder support **60** also acts to relieve some of the weight of the umbrella **50**, as some of the weight rests on the shoulders of the user. Thus, the weight of the umbrella **50** is not entirely supported by the user's hand and arm holding the umbrella **50**, thereby reducing the stress on the user's hand and arm. The shoulder support **60** also allows the user to use the umbrella **50** hands free such that the handle **60** is not required. When the user opens the umbrella **50**, the shoulder support **60** automatically comes into position around the head and neck and on the shoulders of the user with no extra effort required by the user.

[0048] The shoulder support **60** enhances the stability of the umbrella by creating a two or three point base in conjunction with the user's hand on the handle **62**. The multiple point base provided by the combination of the shoulder support **60** and the handle **62** provides leverage to stabilize the umbrella **50** and prevent the umbrella from twisting or bouncing around, particularly in windy conditions. Because the handle **62** is located on the front side **66** and offset from the center the umbrella **50**, the shoulder support **60** may be used to control the canopy in the wind. Although it is preferable to use the shoulder support **60** with the umbrella **50**, the shoulder support **60** can be eliminated.

Without the shoulder support **60**, the user's hand on the handle **62** would resist the moving and twisting of the umbrella **50** in the wind.

[0049] The shoulder support **60** may be adjustable for various body sizes and additional comfort using any conventional adjustment mechanism. For example, the shoulder support **60** may be adjusted using snaps disposed along different locations of the straps of the support **60**. The shoulder support **60** may be comprised of any material that is durable, resilient, strong and flexible. For example, the shoulder support **60** may be composed of nylon, polyester, polypropylene, cotton yarn or other materials known in the art.

[0050] Alternatively, the shoulder support **60** may include a single bar or multiple bars which extend from the first pivot assembly **56** and the second pivot assembly **58** and open and close with the umbrella **50**. The bars of the shoulder support may be composed of stainless steel, aluminum, fiberglass, plastic, wood or other metals or plastic known to those skilled in the art.

[0051] **FIG. 5** shows a side view of the umbrella **50** in an open position as used by a user. The user holds the handle **62** to the front of the user, and because the handle is offset the user may be located in the center of the umbrella **50** providing full coverage by the canopy **52**. The canopy **52** of the umbrella **50** may be aerodynamic and wind resistant. The design of the umbrella **50** extends the umbrella **50** on the front side **66** such that there is extra space in front of the user, giving the user plenty of room under the canopy **52**. If the umbrella **50** is bumped from the front side **66**, the canopy **52** should not impact the user because of the extra space. The design in the back can be closer to the body of the user because the user is less likely to feel enclosed or trapped, and visibility is not required behind the user's head. A back extension **70** of the canopy **52** of the umbrella **50** may extend below the head toward the user's shoulders to prevent the wind gusts from inverting the umbrella **50**. The bottom support rod **64** goes past horizontal and gives the user additional coverage in back. The back extension **70** of the canopy **52** helps stabilize the umbrella **50** and provides greater coverage for the user. A front extension **72** of the canopy **52** extends below the neck toward the chest of the user on the front side **66** of the umbrella **50**. The front extension **72** may extend lower than the back extension **70** of the canopy **52**. The front extension **72** and the back extension **70** of the canopy **52** may extend lower than horizontal to extend the coverage of the canopy **52**.

[0052] The panels of the canopy **52** may be transparent to provide the feeling that the user is not in an enclosed space. A clear, see-through canopy **52** would allow the user to view their surroundings. For example, as seen in **FIG. 6**, the panels **76** in front side **66** and on the sides of the umbrella **50** are clear to provide visibility to the user. The clear front and side panels **76** allow the user to have clear field of vision and see where the user is going when the user is under the canopy **52**. With the clear panels, the user can use their full field of vision including peripheral vision. As seen in **FIG. 6**, the back panels **74** of the canopy **52** may be made of an opaque material. The opaque material of the back panels **74** of the canopy **52** may contain indicia, such as an advertisement or company logo. The material of the back panels **74** of the canopy **52** may resist color fading. The panels of the

canopy 52 may be made of a plastic, nylon or vinyl material. Those skilled in the art will recognize the umbrella 50 of the present invention can have panels made from several different materials and be within the spirit and scope of the present invention.

[0053] FIG. 6 shows a perspective view of the umbrella 50 in an open position as used by a user. As shown in FIG. 6, the canopy 52 completely encloses the user which allows full coverage of the user by the umbrella 50. The support rods 54 extend from the first pivot assembly 56 to the second pivot assembly 58. As shown in FIG. 6, the support rods 54 extend in an arc to provide coverage for the front, back and past the shoulders of the user. The canopy 52 forms a protective barrier that covers the head and shoulders of the user. Those skilled in the art will recognize the size of canopy can be varied to provide smaller or larger coverage areas and be within the spirit and scope of the present invention.

[0054] FIG. 7 shows a perspective view of the umbrella 50 in a closed position as carried by a user. The umbrella 50 collapses to form a small and sleek profile that is portable. The user may carry the umbrella in the closed position by a carrying strap 80 extending from the handle 62. Alternatively, for hands-free carrying, the user may also put the umbrella 50 in the closed position over the user's shoulder to carry the umbrella by the shoulder support 60. A carrying case (not shown) may also cover the umbrella. The carrying case may have a drawstring strap for hands-free carrying.

[0055] FIGS. 8-11 show various views of the umbrella 50 in a closed position for storage when not in use. In the closed position, the umbrella 50 collapses upon itself so it can be carried when not in use. As seen in FIGS. 8 and 9, the support rods 54 collapse upon each other to form a semi-arc. In the closed position, the support rods 54 fold at the pivots 56, 58 and the handle 62 may pivot to act as a closure device. As seen in FIGS. 10 and 11, when in the closed position, the umbrella 50 has a low profile for easy carrying with the handle 62 pivoted to maintain the umbrella 50 in a closed position.

[0056] The umbrella 50 preferably moves from the collapsed position shown in FIG. 11 to the open position shown in FIG. 1 with speed and ease. The umbrella 50 moves from the closed position to the open position, and vice versa, via the first pivot assembly 56 and the second pivot assembly 58. FIG. 12 shows the umbrella 50 in an intermediate position between the closed position and the open position. The umbrella 50 has a plurality of support rods 54 that spread apart as the umbrella moves from the closed position to the open position. The first pivot assembly 56 and the second pivot assembly 58 allow the canopy 52 to open and close automatically.

[0057] As seen in FIGS. 13-15 the shape and angle of the handle 62 are designed to be comfortable for the user to hold. The handle may be rigid and strong enough to withstand a bumping effect from gusty winds providing some control of the canopy 52 through the handle 62. The handle 62 is preferably ergonomically designed. The handle 62 may include a thumb rest (not shown). The handle 62 may be grooved providing a grip for the user, and may be coated with a soft touch material for the user's comfort. The handle 62 is preferably composed of rubber, but may be composed of plastic, fiberglass, wood or other materials known to those skilled in the art.

[0058] The handle may have a button (not shown) enabling automatic opening and/or closing of the umbrella. The button allows for quick, one-handed canopy opening and/or closing.

[0059] In a closed position, the handle 62 retains the plurality of support rods 54 so the umbrella 50 does not inadvertently open. As seen in FIGS. 10 and 11, the handle 62 may act as a clamp to maintain the umbrella 50 in the collapsed position. The handle 62 locks in an open position and a closed position. As shown in FIG. 14 and FIG. 15, the handle 62 pivots with respect to a handle support 84 via a pivot point 82 to move from the open position to the collapsed position where the handle flips over the plurality of support rods 54 to keep the umbrella 50 closed. The handle support 84 mounts to one of the support rods 54, thereby securing the handle 62 to the umbrella 50.

[0060] FIGS. 16-18 show various views of the first pivot assembly 56 of an umbrella 50 in the open position. The second pivot assembly 58 is similar to the first pivot assembly 56 but located on an opposite side of the umbrella 50, and FIGS. 16-19 are applicable to the first pivot assembly 56 and the second pivot assembly 58. The plurality of support rods 54 extend from the first pivot assembly 56 to the second pivot assembly 58.

[0061] FIG. 19 shows an assembly or collapsed view of each pivot assembly 56 and 58 of the umbrella 50 (FIG. 19 showing one pivot assembly). Each pivot assembly 56 and 58 comprises a bearing tube 90, a spring 92, a plurality of washers 94, a plurality of tube connectors 96, and a cover plate 98 on each end of the pivot assembly 56 and 58. The spring 92 is located inside the bearing tube 90. The plurality of washers 94 engage and rotate around the bearing tube 90. The plurality of washers 94 may be lubricated to smoothly rotate around the bearing tube 90. The plurality of washers 94 have a tube support 99 that extends from the cover plates 98. Springs 92 bias the pivot assemblies 56 and 58 in the open position such that when the support rods 54 are released from the collapsed position they spring open.

[0062] Referring to FIGS. 20-22, in an alternative embodiment of the present invention, a plurality of spacers (not shown) may be positioned between the plurality of washers 99. The plurality of washers 94 may be separated by the plurality of spacers which are preferably comprised of a low friction material. The plurality of spacers provide lubrication so the plurality of washers 99 smoothly rotate around the bearing tube 90. The plurality of spacers can be made of plastic, nylon, Teflon or other materials known to those skilled in the art.

[0063] The plurality of tube connectors 96 may extend from the plurality of tube supports 99 to connect the plurality of support rods 54 to the tube supports 99, as best seen in FIG. 16. The tube connectors 96 can engage the plurality of support rods 54 to the tube supports 99 by force fitting, crimping, welding, gluing or other forms of mechanical engagement known to those skilled in the art. The tube supports 99 can be made of metal, plastic, or other materials known to those skilled in the art.

[0064] In an alternative embodiment of the present invention, the plurality of support rods 54 may be hollow and the tube support 99 may be inserted into the hollow rod. The plurality of support rods 54 would engage the tube supports 99 as the support rods 54 are formed.

[0065] In a second embodiment of the present invention shown in FIGS. 20-22, an umbrella 150 is substantially similar to the umbrella 50 of the first embodiment, except umbrella 150 includes first pivot assembly 156 and second pivot assembly 158 that may be located on the front side 166 and the back side 168, respectively of the umbrella 150. The plurality of support rods 154 extend from the first pivot assembly 156 to the second pivot assembly 158. The umbrella 150 opens and closes along an axis extending from the first pivot assembly 156 to the second pivot assembly 158 as shown in FIG. 22. As seen in FIGS. 20 and 21, the handle 162 may be attached at the first pivot assembly 156 on the front side 166 of the umbrella 150 so that the handle 162 is opposite second pivot assembly 158. In this embodiment, the user holds the handle 162 in the front of the user and the user is located in the center of the umbrella 150 providing full coverage by the canopy 152.

[0066] A shoulder support (not shown) may extend from one of the plurality of support rods 154 by an attachment bracket 200 (FIG. 20). As shown in FIG. 22, the canopy 152 has an aerodynamic shape so the wind will flow over and around the canopy 152 with smooth flow lines.

[0067] Referring to FIGS. 23-25, an umbrella 250 according to a third embodiment of the present invention includes a plurality of support members 254 that support a canopy and are coupled with first and second pivot assemblies 256 and 258, and a handle 260 mounted to one of the support members 254. Umbrella 250 is similar to umbrella 50, except that it may also be folded after being collapsed so that the umbrella is more compact when being carried by the user. Like umbrella 50, the umbrella 250 of the third embodiment can include a shoulder support similar to shoulder support 60. The umbrella 250 can be collapsed, as seen in FIG. 24, and then subsequently folded, as seen in FIG. 25.

[0068] Pivot assemblies 256 and 258 are substantially similar to pivot assemblies 56 and 58 of the first embodiment, except that they include a releasable attachment for locking the pivot assemblies 256 and 258 together after the umbrella 250 has been collapsed and folded, as seen in FIG. 25. The releasable attachment may be any known attachment mechanism such as a ball 310 and socket 312.

[0069] Similar to the support members 54 of the first embodiment, the support members 254 pivot with respect to assemblies 256 and 258 between an open position, as seen in FIG. 23, and a collapsed position, as seen in FIG. 24. Unlike the support members 54 of the first embodiment, the support members 254 do not stack one on top of the other when the umbrella is collapsed. Instead, the support members 254 are sized and arranged to lay generally flat when the umbrella 250 is collapsed, as seen in FIG. 24. Each support member 254 may be folded at a pivot 314 to allow the umbrella 250 to be folded. The pivot 314 may be centrally located with respect to the support member 254 and include a hinge 316 allowing each half of the support members 254 to rotate about 90° away from the handle 260 (e.g. upwardly in FIG. 24).

[0070] As seen in FIG. 23, the handle 260 is mounted to one of the lower members 318 of the plurality of support members 254 along the outer perimeter 255 of the umbrella 250 and offset from the center of the umbrella, similar to umbrella 50 of the first embodiment. The handle 260 differs

from the handle 60 of the first embodiment is that it pivots between a locked position, as seen in FIG. 24, and an unlocked position, as seen in FIG. 25. Handle 260 includes a pivot body 320 that has first and second pivoting halves 322 and 324. Extending from the pivot body 320 is a handle support 326 on which a handle portion 328 is rotatably mounted, as best seen in FIG. 25. The handle portion 328 includes a latch extension 330 (FIG. 25) that cooperates with a key opening 332 to lock the pivot body 320 and handle 260 in the locked position. Key opening 332 is formed by cutouts 334 and 336 (FIG. 25) located at the ends of first and second pivoting halves 322 and 324, respectively, when the pivoting halves 322 and 324 are in their flat and locked position, as seen in FIG. 24.

[0071] Once the umbrella 250 has been collapsed, as seen in FIG. 24, the handle 260 may be locked to prevent folding of the umbrella 250. By rotating the handle portion 328 about handle support 326 until latch extension 330 engages the key opening 332 of the pivot body 320, the handle 260 is locked to support member 318, thereby locking the umbrella 250 in the collapsed position. To fold the umbrella 250 after being collapsed, a button 338 is depressed and the handle portion 328 is rotated to release the latch extension 330 from the key opening 332. The pivoting halves 322 and 324 of the handle 260 along with the two halves of the support members 254 with respect to hinges 316 may then be rotated away from the handle portion 328, as seen in FIG. 25. First and second pivot assemblies 256 and 258 meet when the umbrella 250 is folded such that ball 320 engages socket 312 to releasably lock the umbrella 250 in the folded position.

[0072] All patents, patent applications, and published references cited herein are hereby incorporated herein by reference in their entirety. While this invention has been particularly shown and described with references to preferred embodiments thereof, it will be understood by those skilled in the art that various changes in form and details may be made therein without departing from the scope of the invention encompassed by the appended claims.

What is claimed is:

1. An umbrella, comprising of:

a plurality of support members for supporting a canopy;

at least a first pivot assembly coupled with each of said support members allowing said support members to move between an open position and a collapsed position, and said plurality of support members defining an outer perimeter of the umbrella; and

a handle engaging one of said plurality of support rods at said outer perimeter offset from a center of the umbrella.

2. An umbrella according to claim 1 wherein

a canopy is supported by said plurality of support members; and

at least a portion of said canopy is transparent.

3. An umbrella according to claim 1 wherein

said handle extends from a front side of said outer perimeter of the umbrella.

4. An umbrella according to claim 1, further comprising a shoulder support extending from one of said plurality of support members.

5. An umbrella according to claim 4, wherein

said shoulder support includes a main portion coupled to one of said plurality of support members and first and second straps coupled to another one of said plurality of support members.

6. An umbrella according to claim 1 wherein

said handle pivots with respect to said one of said plurality of support members about a pivot point.

7. An umbrella according to claim 1, further comprising a second pivot assembly located opposite said first pivot assembly, and coupled to each of said support members.

8. An umbrella according to claim 1 wherein

a canopy is supported by said plurality of support members; and

a front extension of said canopy extends lower than a horizontal, extending coverage of said canopy.

9. An umbrella according to claim 1 wherein

a canopy is supported by said plurality of support members; and

a back extension of said canopy extends lower than a horizontal extending coverage of said canopy.

10. An umbrella according to claim 1 wherein

said handle is disposed opposite said first pivot assembly, and axially aligned with said first pivot assembly.

11. An umbrella according to claim 1 wherein

said handle is mounted to said first pivot assembly.

12. An umbrella, comprising of:

first and second pivot assemblies;

a plurality of support rods extending from said first and second pivot assemblies and defining an outer perimeter of the umbrella, and said plurality of support rods being pivotable with respect to said first and second pivot assemblies between open and collapsed positions;

a canopy supported by said plurality of support rods.

13. An umbrella according to claim 12 further comprising a handle that extends from one of said plurality of support rods along said outer perimeter and offset from a center of the umbrella.

14. An umbrella according to claim 13 wherein

said handle pivots with respect to said one of said plurality of support rods about a pivot point.

15. An umbrella according to claim 13 wherein

said handle is disposed opposite said first pivot assembly, and aligned with said first pivot assembly.

16. An umbrella according to claim 12, further comprising each of said first and second pivot assemblies being spring loaded.

17. An umbrella according to claim 12 further comprising a shoulder support extending from one of said plurality of support rods.

18. An umbrella according to claim 17 wherein

said shoulder support includes a main portion connected to one of said support rods and at least one strap connected to another one of said support rods.

19. An umbrella according to claim 12 wherein

a back extension of said canopy extends beyond a horizontal, extending coverage of said canopy.

20. An umbrella, comprising of:

at least a first pivot assembly;

a plurality of support members extending from said first pivot assembly, said support members being pivotable between open and collapsed positions;

a canopy supported by said plurality of support members; and

a shoulder support coupled to at least one of said plurality of support members.

21. An umbrella according to claim 20 further comprising a handle means located remote from a center of said canopy.

22. An umbrella according to claim 20, further comprising a second pivot assembly coupled to said support members and located opposite said first pivot assembly.

23. An umbrella according to claim 22, wherein

said handle means is disposed opposite one of said first and second pivot assemblies.

24. An umbrella according to claim 23, wherein

said handle means is mounted to one of said first and second pivot assemblies.

25. An umbrella, comprising of:

at least a first pivot assembly; and

a plurality of support members extending from said pivot assembly, each support member being pivotable with respect to said first pivot assembly between open and collapsed positions about a first pivot, and pivotable at a second pivot between unfolded and folded positions.

26. An umbrella according to claim 25, further comprising a handle means coupled to one of said plurality of support members.

27. An umbrella according to claim 26, wherein

said handle means includes a pivoting body that moves between locked and unlocked positions.

28. An umbrella according to claim 25, wherein

each of said plurality of support members includes a hinge at said second pivot.

29. An umbrella according to claim 25, wherein

a shoulder support is coupled to at least one of said support members.

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