Dec. 8, 1953 F. KAMPF ET AL 2,661,752

GARDEN UMBRELLA

Filed Oct. 15, 1952

FIG. 1

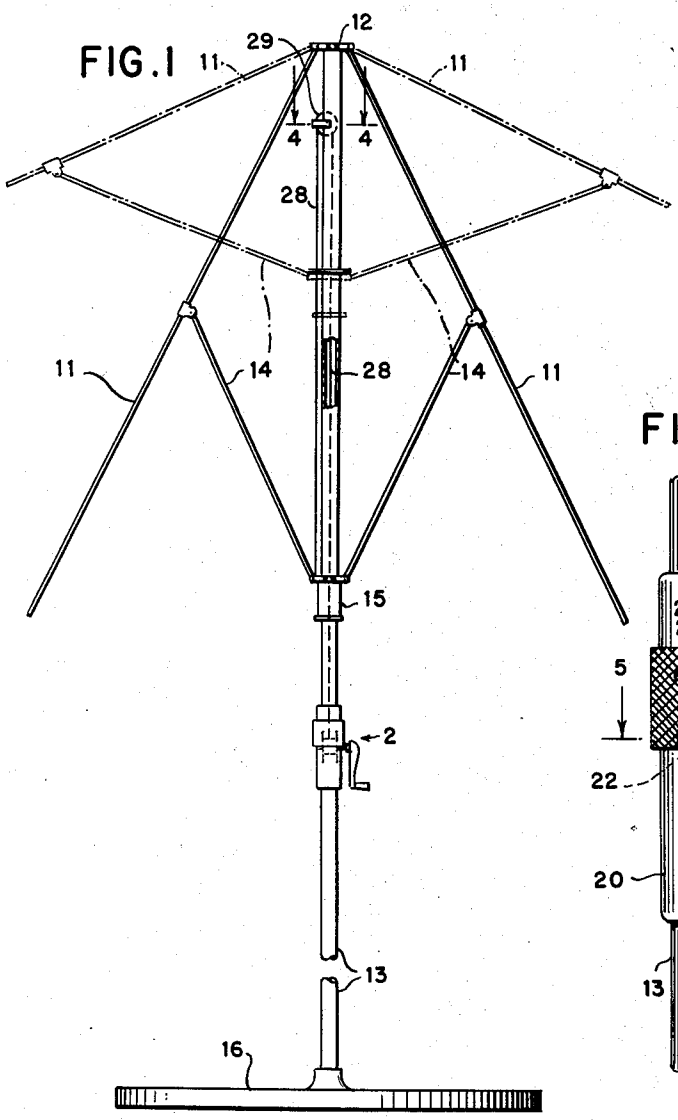


FIG. 4

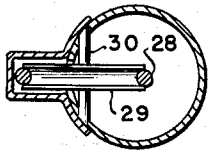


FIG. 2

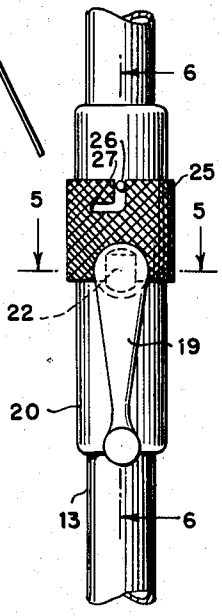


FIG. 3

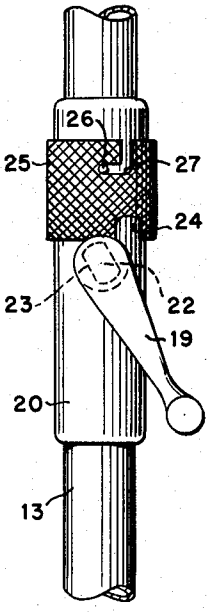


FIG. 5

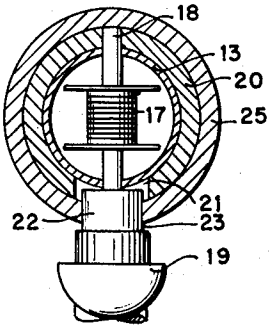
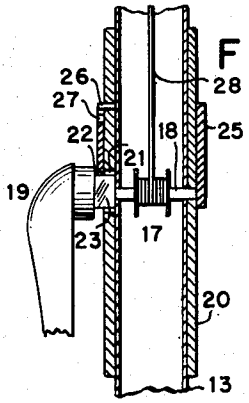


FIG. 6



INVENTORS

Friedrich Kampf and

BY Wolfgang Uhlemann

ATTORNEY

Patented Dec. 8, 1953

2,661,752

UNITED STATES PATENT OFFICE

2,661,752

GARDEN UMBRELLA

Friedrich Kampf and Wolfgang Uthemann, Leichlingen, Germany, assignors of one-third to International Umbrella Supply Co., Inc., New York, N. Y., a corporation of New York, one-third to Sun Products Company, Little Ferry, N. J., a partnership, and one-third to Rosenkaimer & Cie., Leichlingen, Germany, a firm of Germany

Application October 15, 1952, Serial No. 314,869

1 Claim. (Cl. 135—20)

1

Our invention relates to garden umbrellas and more particularly to garden umbrellas having a hollow mast and being opened and closed by a rope, cable or the like, which with one end is attached to a runner slidably mounted on said mast and with its other end to a manually operated reel. In known garden umbrellas of that type the said reel with its shaft is supported by a special frame attached to and extending from the umbrella mast and the said reel extends partially through a slot in said mast to receive the said rope, cable or the like running within said mast. The said frame increased considerably the weight of the umbrella, and resulted in a quite complicated and expensive structure.

It is the main object of our invention to avoid the said disadvantages and to provide a garden umbrella which is simple and sturdy in construction though light in weight and which is easy to operate.

The said and other objects of our invention will be more fully understood from the following specification when read with the accompanying drawing in which one embodiment is illustrated.

In the drawing

Fig. 1 is a diagrammatic front view, partly in section, of a garden umbrella according to our invention, the umbrella being shown in half-closed position, its open position being indicated by dotted lines,

Figs. 2 and 3 are front views on a larger scale in the direction of arrow 2 in Fig. 1 showing the mechanism for lifting, lowering and locking the umbrella in two different positions,

Fig. 4 is a sectional view of the guide roller mounted in the upper part of the umbrella mast taken along line 4—4 of Fig. 1,

Fig. 5 is a sectional top view taken along line 5—5 of Fig. 2, and

Fig. 6 is a longitudinal sectional view taken along line 6—6 of Fig. 2.

The same reference characters indicate the same parts in all figures.

As shown in Fig. 1 the umbrella frame includes a plurality of conventional ribs 11 to support any convenient covering. Said ribs are articulately connected to a crown 12 which rests on top of a metallic tubular pole or mast 13. Each rib 11 is supported by a stretcher or brace 14 one end thereof being jointed to one rib and the other end to a runner 15 which is slidably mounted upon said mast 13. This mast rests with its lower end in a base 16, for example a heavy metallic disc, and may be composed if required of several rigidly connected tubes.

2

The means for raising and lowering that is for opening and closing the umbrella frame comprise a reel 17 which is completely housed within the tubular mast 13 and which is mounted upon the shaft 18 rotatably mounted in the wall of the mast 13. Said shaft 18 is provided with a crank 19 to rotate the same and the reel 17 keyed thereupon. The portion of the tubular mast 13 which surrounds the reel 17 and supports its shaft 18 may be reinforced by an outer tube 20 which is provided with an opening 21 through which the reel shaft 18 passes and into which reaches the hub 22 of said crank 19. The outer end of said hub 22 is provided with flattened surface portions 23 which are engageable by a slit 24 of a locking collar 25. This collar is slidably and rotatably mounted upon said outer tube 20 and is guided and held in raised, that is in unlocking position by a pin 26 mounted on said outer tube 20 and engaging an L-shaped slit 27 in said collar 25. It will be well understood that said collar 25 will lock the crank 19 and the reel operated thereby whenever the hub 22 of the crank 19 is engaged by the slit 24 of the lowered collar 25 as shown in Fig. 2. The crank 19 will be unlocked and kept unlocked by raising the collar 25 into the position shown in Fig. 3 and by securing the collar upon the pin 26 after a slight turn in anticlockwise direction.

The said reel 17 serves for winding and unwinding a rope or cable 28 or the like which extends upwardly within said tubular mast 13. The other end of said rope or cable 28 is attached to the runner 15 as shown in Fig. 1. Said rope or cable is guided by a roller 29 which is rotatable on the shaft 30 mounted in the upper part of the tubular mast 13 and which partially extends through a slot thereof as shown in Fig. 4.

While one specific embodiment of our invention has been shown and described to illustrate the application of the principles thereof, it will be well understood that the same may be otherwise embodied without departing from such principles.

What we claim as our invention is:

In a garden umbrella including a tubular hollow mast, a plurality of radially extending ribs jointedly connected thereto at least near the top thereof, a runner slidably mounted upon said mast, a plurality of stretchers each jointed with one end to a middle portion of one rib and with its other end to said runner, a rope or cable attached to said runner, said cable extending therefrom upwardly outside said mast and returning downwardly within said mast, a guide

roller for said rope or cable rotatably mounted in the upper portion of said mast, said guide roller partially projecting through a slot in said mast, a reel attached to the other end of said cable to wind and to rewind the same in order to raise and to lower said runner and thereby to open and to close the umbrella, the improvement comprising a shaft traversing said hollow mast and rotatably mounted therein, said reel secured to said shaft and housed completely within said hollow mast, a manually operable crank attached to said shaft outside said mast, a hub integral with said crank, two flattened side surfaces upon said hub in opposing position, a collar slidably

mounted on said mast, an axially extending slit in said collar fitting the said flattened side surfaces on said hub, and means to hold said collar in raised position disengaged from said hub.

FRIEDRICH KAMPF.
WOLFGANG UTHEMANN.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
41,946	Stewart	Mar. 15, 1864
465,084	Kaufert	Dec. 15, 1891
892,698	Whinnery	July 7, 1908