G. F. HALL.

UMBRELLA RUNNER.

APPLICATION FILED MAR. 16, 1908.

960,169. Patented May 31, 1910.

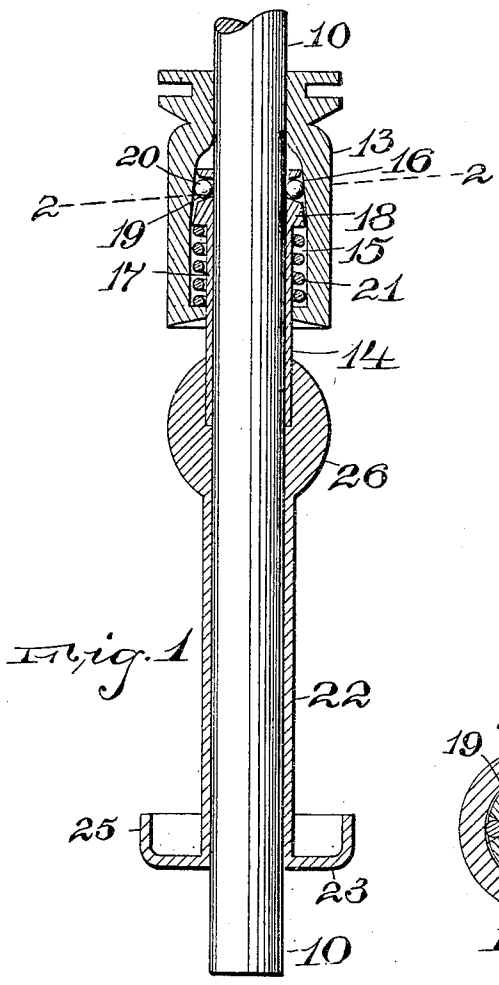

Fig. 1

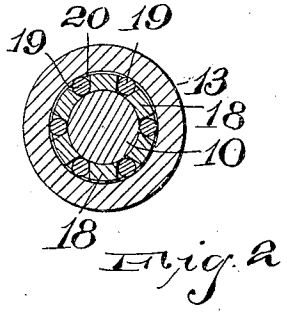

Fig. 2

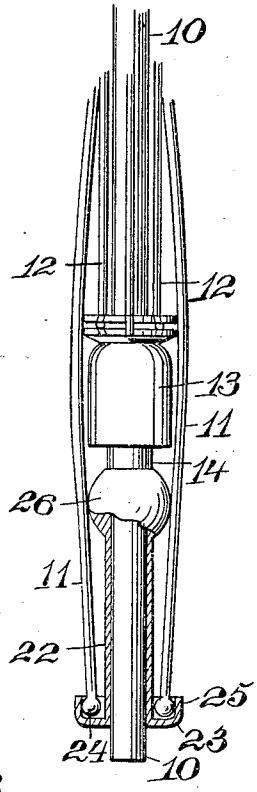

Fig. 3

WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE F. HALL, OF SUMMIT, NEW JERSEY, ASSIGNOR OF ONE-HALF TO GEORGE RUBSAMEN, OF JERSEY CITY, NEW JERSEY.

UMBRELLA-RUNNER.

960,169. Specification of Letters Patent. Patented May 31, 1910.

Application filed March 16, 1908. Serial No. 421,442.

To all whom it may concern:

Be it known that I, GEORGE F. HALL, a citizen of the United States, residing at Summit, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Umbrella-Runners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

This invention relates to an umbrella runner, and is designed to provide a runner that will automatically clasp itself tightly to the rod of an umbrella to prevent any movement of the runner in one direction, unless released. This provides a means for holding the umbrella open without the insertion of any catch in the rod itself, and the umbrella is also provided with a cup on the end thereof, this cup being designed to receive and hold the ends of the umbrella ribs and at the same time keep them from spreading. The stretchers or braces of the umbrella are fastened to the inner end of the runner in the usual way.

The umbrella runner consists of two members which are telescopically arranged and bind themselves on the rod when they are pushed toward each other, this pushing usually being done by a spring concealed in the members.

Another object of the invention is to provide a head on the inner member, but on its projecting portion, this head being adapted to bear on the inside of the ribs when they are arranged with their ends in the cup of the runner, and when the cup of the runner is operated to release the ends of the ribs, the head is designed to pass between the ribs and exert a wedging action on them so that when they are released from the cup they will spring outward to prevent the necessity of the operator shaking the umbrella to disentangle the ribs and stretchers and thus facilitate the opening of the umbrella.

The invention is illustrated in the accompanying drawing, in which—

Figure 1 is a section of the runner shown on an umbrella rod. Fig. 2 is a section on line 2, 2, in Fig. 1, and Fig. 3 is a view showing the ribs and stretchers of an umbrella with their ends attached to the runner, the cup of the runner being shown in section.

This runner is adapted to be used on an umbrella having the usual rigid rod 10 and comprising the ribs 11 which support the cover and which are held in their open position by the stretchers or braces 12, the runner consisting of two members 13 and 14, the member 13 having the braces pivotally attached thereto as is usual in umbrellas, and having the chamber 15 therein which has the inclined wall 16 at one end. Within the chamber 15 is arranged a sleeve 17 of the member 14, this sleeve having a head 18 with recesses 19 therein, and in these recesses are arranged the balls 20 which bear normally on the rod and on the inclined wall 16 by reason of the pressure of a spring 21 bearing on the two members and tending to force them toward each other. The member 14 has an extension sleeve 22 on the end of which is arranged a cup 23. This cup is designed to receive the ends 24 of the ribs 11 when the umbrella is shut. When the two members are forced toward each other by the spring the runner is locked against any movement in the direction of the member 14, since the strain downward on the stretchers 12 will cause the inclined walls 16 to bind the balls 20 tightly against the periphery of the rod 10.

When the umbrella is open and it is desired to move it by moving the runner down the rod, the members 14 and 13 are slightly moved from each other by the thumb and forefinger of the hand and the umbrella can be shut, because the pressure is taken from the balls 20.

When the umbrella is entirely shut the ends 24 of the ribs 11 are assembled and the cup 23 is pulled out, and when released it embraces the gathered ends of the ribs 11 and holds them securely by reason of the flanges 25 of the cup inclosing the ends 24, being held in close engagement by reason of the pressure of the spring 21 pulling on the sleeve and its cup.

When it is desired to open the umbrella, the cup 23 is grasped and pulled against the pressure of the spring 21 so as to release the ends 24 of the ribs 11. To cause these ribs to spring apart with a snap so as to disentangle the ribs and stretchers from each other, I provide a head 26 on the member

14, this head being preferably round and adapted to fit against the inside of the ribs when they are locked in the cup 23. While the cup 23 is being withdrawn to release the ribs before the ends of the ribs clear the ends of the flanges 25, the head 26 has traveled between the converging ribs to give them a tendency to spring outward, and when they are released from the cup they spring well out and make the umbrella ready for opening, making it unnecessary to shake the umbrella vigorously, which is usual at present with an umbrella that has been tightly rolled.

Having thus described my invention, what I claim is:—

1. The combination of the rod the stretchers and the ribs of an umbrella, with an umbrella runner comprising two members movable toward and from each other, the end of one member being attached to the stretcher, a spring to move the members of the runner toward each other, co-acting means on the two members to cause them to be locked on the umbrella rod, a cup on the end of the second member of the runner and adapted to embrace the ends of the ribs, and a head on the second member adapted to bear on the inside of the ribs to exert a pressure on them to bind on the inner sides of the cup and adapted to place an increased pressure on them to cause a wedging action on the ribs when the cup is operated to release them so that the ribs are caused to spring apart when the cup releases them.

2. The combination of the rod the stretchers and the ribs of an umbrella, with a runner consisting of two members, the stretchers of the umbrella being attached to one member, a cup on the second member adapted to receive the ends of the ribs when the umbrella is shut and forming a means for simultaneously releasing the ends of the ribs and releasing the runner from the rod, a head on the second member to bear on the inner edges of the ribs when the umbrella is shut to exert a pressure on the ribs, gripping means in the members adapted to lock the members on the rod when the members are forced toward each other, and a spring to force the members toward each other, said spring also acting to force the cup longitudinally in engagement with the ends of the ribs when the umbrella is shut, the head, when the cup is operated, exerting an increased pressure on the ribs to force them apart when the cup releases them.

In testimony, that I claim the foregoing, I have hereunto set my hand this 13th day of March 1908.

GEORGE F. HALL.

Witnesses:
WM. H. CAMFIELD,
E. A. PELL.