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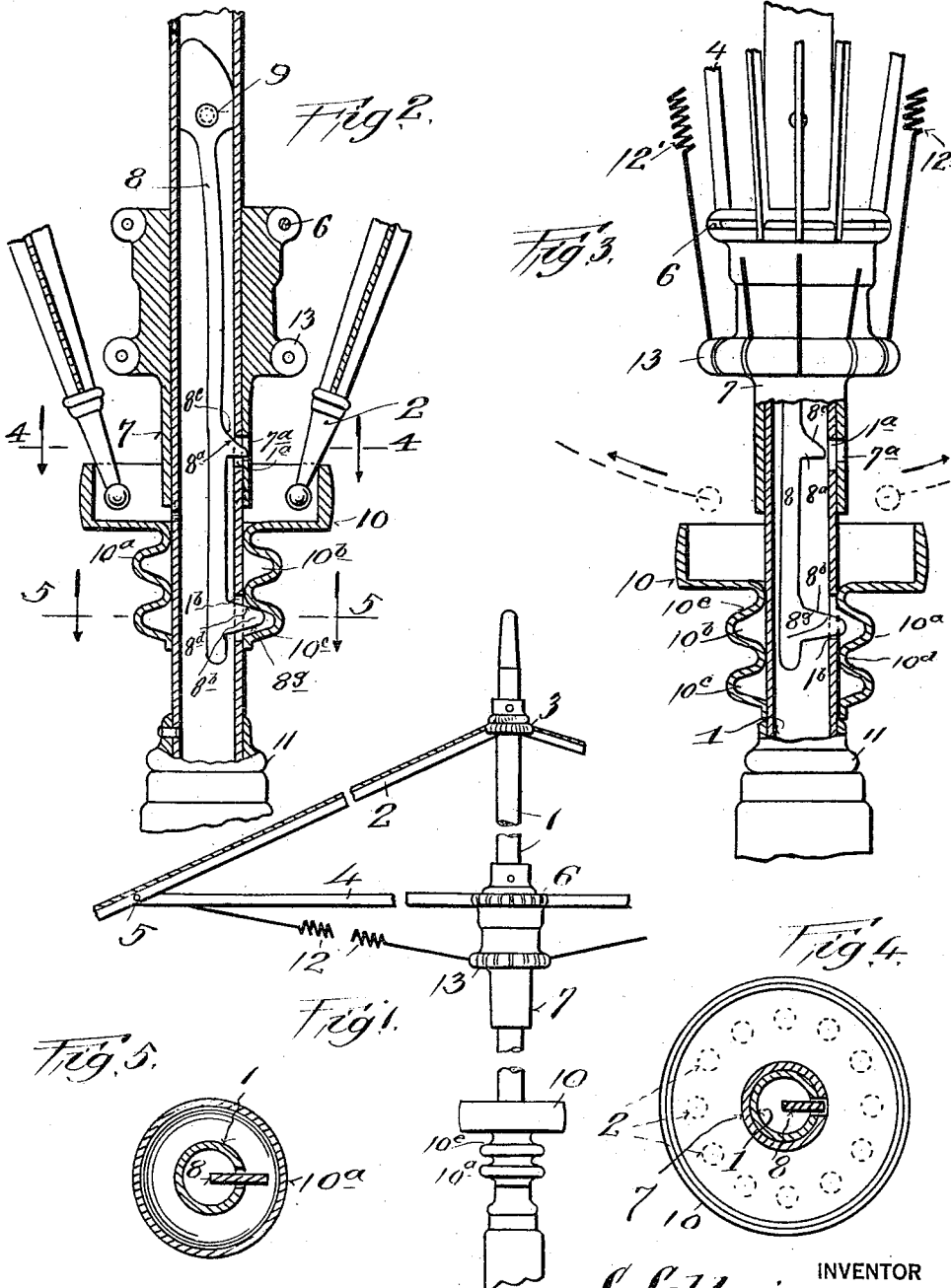
S. SCHLESINGER

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UMBRELLA

Filed Dec. 2, 1921

2 Sheets-Sheet 1



INVENTOR
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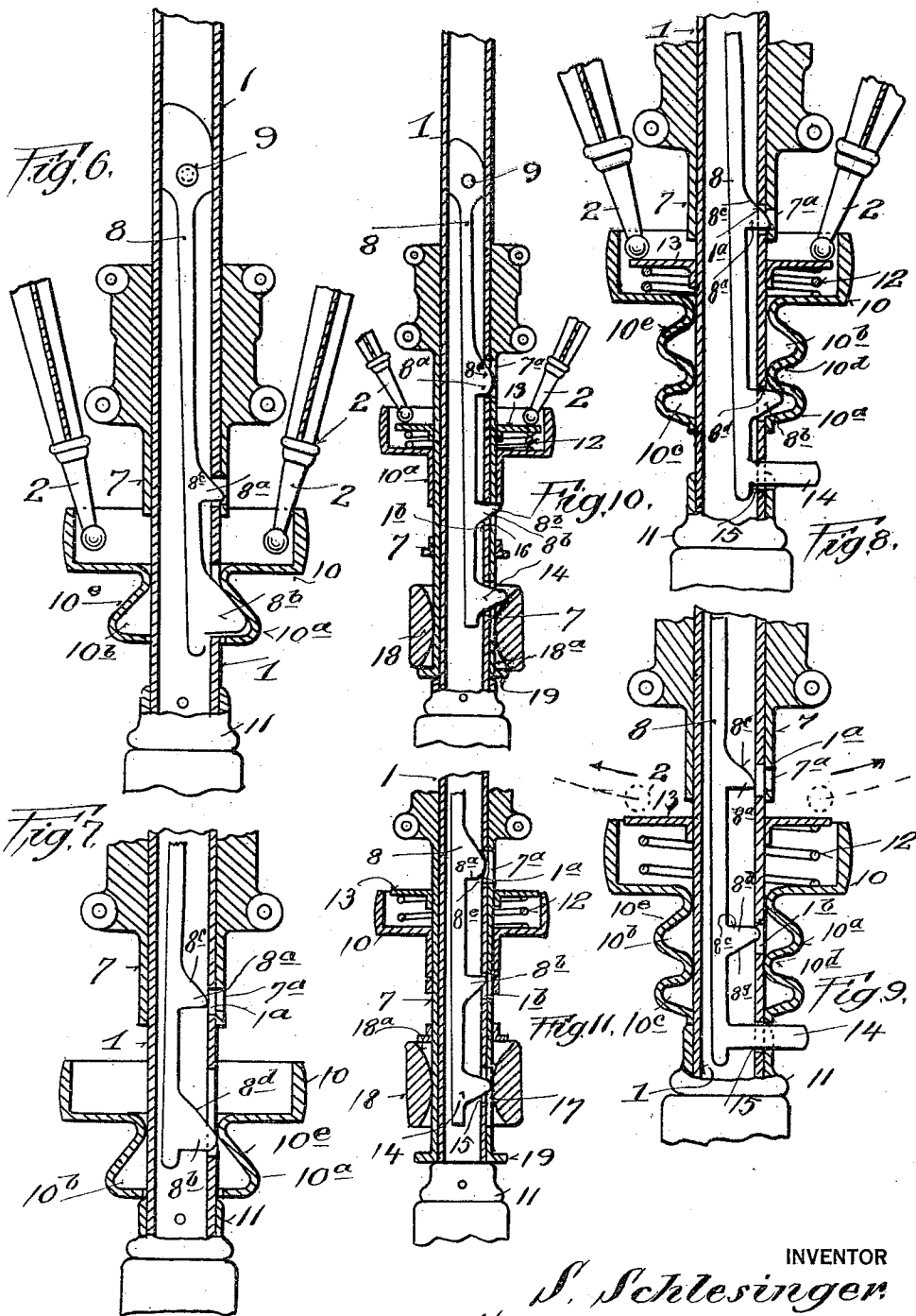
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UNITED STATES PATENT OFFICE.

SIGMUND SCHLESINGER, OF NEW YORK, N. Y.

UMBRELLA.

Application filed December 2, 1921. Serial No. 519,315.

To all whom it may concern:

Be it known that I, SIGMUND SCHLESINGER, a citizen of the United States, and resident of New York city, borough of Manhattan, in the county of New York and State of New York, have invented certain new and useful Improvements in Umbrellas, of which the following is a specification.

My invention relates to improvements in means for retaining an umbrella closed with the tips of the ribs retained, and to permit ready operation of the retaining means to release the rib tips and the runner to enable opening of the umbrella, one of the features of my invention being that upon operation of the tip cup to release the rib tips the runner will also be released to permit opening of the umbrella.

My invention comprises novel details of improvement that will be more fully hereinafter set forth and pointed out in the claims.

Reference is to be had to the accompanying drawings forming part hereof, wherein—

Fig. 1 is a fragmentary view illustrating a portion of an open umbrella embodying my invention;

Fig. 2 is an enlarged detail sectional view, illustrating the runner and rib tips in the closed position;

Fig. 3 is a view similar to Fig. 2, illustrating the parts in the position of release to permit the umbrella to open;

Figs. 4 and 5 are respectively sections on lines 4, 4, and 5, 5, in Fig. 2;

Figs. 6 and 7 are sectional details illustrating a modification, showing the parts in different positions;

Figs. 8 and 9 are sectional views illustrating another modification in different positions;

Figs. 10 and 11 are sectional views illustrating a further modification.

Similar numerals of reference indicate corresponding parts in the several views.

The main parts of the umbrella may be of any suitable or usual construction, being illustrated as comprising the tubular rod 1 to which the ribs 2 are pivoted at 3, the braces 4 being pivoted to the ribs at 5 and at 6 to the runner 7, in any suitable manner. A retainer member is illustrated at 8, which may be in the form of a spring secured within rod 1 at 9 in any usual way. The retainer member 8 is provided with a projec-

tion 8^a to cooperate with runner 7 to retain the umbrella closed, the rod 1 being shown provided with a hole 1^a and the runner provided with a hole 7^a through which the projection 8^a may extend to retain the umbrella closed, as shown in the Figs. 2, 6 and 10. A tip cup is illustrated at 10 adapted to retain the tips of the ribs when the umbrella is closed. The tip cup is slidable relatively to rod 1 and shown mounted concentrically therewith. In Figs. 1 to 9 the tip cup is shown slidable upon rod 1 independently of the runner, whereas in Figs. 10 and 11 the tip cup is shown slidable upon the runner and travels therewith along the rod.

In Figs. 1 to 5 the tip cup is provided with a tubular extension 10^a having spaced interior recesses 10^b and 10^c and an interposed wall 10^d which is curved in opposite directions from a central position to cooperate with a projection 8^b extending from retainer member 8 through a hole 1^b in rod 1. The projection 8^b has opposite sides or edges inclined or beveled to cooperate with the curved wall 10^b. When the umbrella is to be opened the tip cup will be pulled along rod 1 toward stop 11 thereon, which will release the rib tips, and during the movement of the tip cup from the position shown in Fig. 2 to the position shown in Fig. 3 the wall 10^d will operate against the projection 8^b to push the same inwardly within rod 1 and correspondingly move projection 8^a inwardly to release the runner, said projection entering recess 10^b, so that the umbrella may be pushed open by hand or may be opened automatically by springs, such as by springs 12 attached to the runner, as at 13, and to the ribs, as at 5. When the umbrella is to be closed the runner is pulled down, the rib tips may be gathered together, and the tip cup may be pushed along rod 1 to engage the rib tips, whereupon the projection 8^b will pass into recess 10^c and the projection 8^a will pass through holes 1^a and 7^a to retain the runner in the closed position, (Fig. 2).

When the tip cup is in the rib retaining position in Fig. 2, the projection 8^b within the recess 10^c against wall 10^d retains the tip cup, and when the tip cup is away from the rib retaining position as in Fig. 3, the projection 8^b within recess 10^b will retain the cup, the walls of the recess keeping the tip cup in adjusted position. It is merely necessary to manually move the tip cup along rod 1 from one such position to the

other. In either of such positions the entrance of projection 8^b in either recess 10^b or 10^c permits projection 8^a to pass through hole 1^a into runner engaging position.

5 When the runner is pulled to the closed position it will slide along the inclined edge 8^c of projection 8^a to cause the latter to enter hole 7^a of the runner to retain the umbrella closed.

10 In the form shown in Figs. 6 and 7 the inclined wall 10^c engages projection 8^b of retainer 8 to keep the tip cup in tip retaining position. When the rib tips are to be retained the umbrella is closed, the tip cup
15 is pulled back (Fig. 7), the tips are gathered together and the tip cup is slid along rod 1 to receive the tips, the projection 8^b entering recess 10^b of the tip cup to retain it around the rib tips. When the umbrella
20 is to be opened the tip cup is pulled to release the rib tips, whereupon the wall 10^c will slide on the inclined edge 8^d of projection 8^b to push back member 8 to withdraw projection 8^a from stop hole 7^a of the
25 runner to release the latter, (Fig. 7). When the tip cup is released the outward tension of spring member 8 will force projection 8^b against wall 10^c to cause the tip cup to automatically slide to normal position, (Fig. 6), enabling projection 8^a to return to runner engaging position.

In the forms of my invention described the movement of the tip cup along rod 1 actuates the keeper member 8. Said member
35 may be operated manually without sliding the tip cup along the rod 1. In Figs. 8 and 9 the tip cup has the general form shown in Figs. 1 to 5 and the edge 8^d of projection 8^b is sufficiently straight to engage wall 10^d or 10^e to retain the tip cup
40 against the tension of a spring 12. Said spring is shown within the tip cup and coiled around rod 1, the spring bearing at one end against the tip cup and at the other
45 end against a stop 13 secured to rod 1 below the runner. The stop 13 is shown in the form of a disk adapted to enter the tip cup. The retainer 8 is provided with a projection 14, serving as a finger piece, projecting through a hole 15 in rod 1. When
50 the parts are in the position of Fig. 8 the runner and rib tips will be retained, spring 12 being under compression, the projection 8^b being in recess 10^c to retain the tip cup by engagement of said projection with wall 10^d. When the umbrella is to be opened
55 the finger piece 14 will be pushed, whereupon projection 8^b will release the tip cup, spring 12 will force the cup from the rib tips, and projection 8^a will release the runner, and the umbrella may open. When the umbrella is to be closed the rib tips are gathered, and the tip cup will be pushed
60 against the tension of spring 12 and will be retained by projection 8^b, the wall 10^d op-

erating against the inclined edge 8^c of projection 8^b to push back the latter, although projection 14 may be pushed if desired.

In Figs. 10 and 11 the tip cup is shown mounted to slide upon the runner, the latter
70 carrying stop 13 and receiving spring 12, so that said parts travel with the runner. The projection 8^b is adapted to pass through a slot 16 in the runner to oppose the tubular portion of the tip cup to retain the latter
75 in engagement with the rib tips against the tension of spring 12. Projection 14 is adapted to pass through a slot 17 in the runner opposed to slot 15. A slidable member 18 is mounted on runner 7 at its lower
80 portion and adapted to engage projection 14 to actuate retainer member 8. The inner wall 18^a of member 18 is shown curved or inclined in opposite directions from the middle. When the umbrella is closed and
85 the rib tips are retained by the tip cup the member 18 will be below the projection 14, (Fig. 10). To open the umbrella member 18 may be pushed along the runner and the adjacent wall 18^a will engage projection
90 14 to push it inwardly, whereupon projections 8^b will release the tip cup and the runner, and spring 12 will push the tip cup from the rib tips, and projection 8^a will release the runner, so that the umbrella may
95 open. The under edge 8^c of projection 8^a is preferably round or curved so that the runner may glide over said projection when opening the umbrella. The opposite edges of projection 14 are shown inclined or beveled to accommodate wall 18^a. When the
100 umbrella is to be closed the member 18 may be pulled to slide against stop 19 on the runner. Said member will slide over the projections of retainer member 8 and will
105 pass below projection 14, (Fig. 10), ready to be pushed for opening the umbrella.

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

1. An umbrella comprising a rod, ribs
110 pivotally connected therewith, a runner connected with the ribs, a tip cup slidable relatively to the rod, a keeper member having a projection to retain the runner and a projection to retain the tip cup in engagement
115 with the rib tips, and means to operate the keeper member to release the tip cup from the ribs and to release the runner.

2. An umbrella comprising a rod, ribs
120 pivotally connected therewith, a runner connected with the ribs, a tip cup slidable relatively to the rod, a keeper member having a projection to retain the runner and a projection to retain the tip cup in engagement with the rib tips, the tip cup having means
125 to operate the keeper member to release the runner.

3. An umbrella comprising a rod, ribs
130 pivotally connected therewith, a runner connected with the ribs, a tip cup slidable rela-

tively to the rod, a keeper member having a projection to retain the runner and a projection to retain the tip cup in engagement with the rib tips, the tip cup having a recess to receive the second named projection and a wall to cooperate with said projection.

4. An umbrella comprising a rod, ribs pivotally connected therewith, a runner connected with the ribs, a tip cup slidable relatively to the rod, a keeper member having a projection to retain the runner and a projection to retain the tip cup in engagement with the rib tips, the tip cup having a recess to receive the second named projection and a wall to cooperate with said projection, said projection and wall having cooperative inclined portions to operate the keeper upon movement of the tip cup relatively thereto.

5. An umbrella comprising a rod, ribs pivotally connected therewith, a runner connected with the ribs, a tip cup slidable relatively to the rod, a keeper member having a projection to retain the runner and a projection to retain the tip cup in engagement with the rib tips, the tip cup having spaced recesses to receive the second named projection and a wall between said recesses to cooperate with said projection.

6. An umbrella comprising a rod, ribs pivotally connected therewith, a runner connected with the ribs, a tip cup slidable relatively to the rod, a keeper member having a projection to retain the runner and a projection to retain the tip cup in engagement with the rib tips, the tip cup having spaced recesses to receive the second named projection and a wall between said recesses to cooperate with said projection to retain the tip cup around the rib tips, said tip cup having another wall to cooperate with said projection to retain the tip cup away from the rib tip retaining position.

7. An umbrella comprising a rod, ribs pivotally connected therewith, a runner connected with the ribs, a tip cup slidable rela-

tively to the rod, a keeper member having a projection to retain the runner and a projection to retain the tip cup in engagement with the rib tips, the tip cup having spaced recesses to receive the second named projection and a wall between said recesses to cooperate with said projection, and a spring operative with the tip cup to move it from the tip retaining position.

8. An umbrella comprising a rod, ribs pivotally connected therewith, a runner connected with the ribs, a tip cup slidable relatively to the rod, a keeper member having a projection to retain the runner and a projection to retain the tip cup in engagement with the rib tips, a spring to actuate the tip cup, the keeper member having a third projection, and a slidable member to actuate the last named projection to operate the keeper to release the tip cup and the runner.

9. An umbrella comprising a rod, ribs pivotally connected therewith, a runner connected with the ribs, a tip cup slidable on the runner, a spring operative between the runner and the tip cup to actuate the latter, a keeper member having means to retain the runner and the tip cup, and a member slidable on the runner and cooperative with the keeper member to operate the latter.

10. An umbrella comprising a rod, ribs pivotally connected therewith, a runner connected with the ribs, a tip cup slidable on the runner, a spring operative between the runner and the tip cup to actuate the latter, a keeper member having means to retain the runner and the tip cup, and having a projection, and a member slidable on the runner and provided with an inner wall having enclosed portions to cooperate with said projection to operate the keeper member to release the tip cup and the runner.

Signed at New York city, in the county of New York and State of New York, this 25th day of November, A. D. 1921.

SIGMUND SCHLESINGER.