(No Model.) 2 Sheets—Sheet 1.

G. H. SEYMOUR.

FOLDING UMBRELLA.

No. 479,310. Patented July 19, 1892.

Fig 1

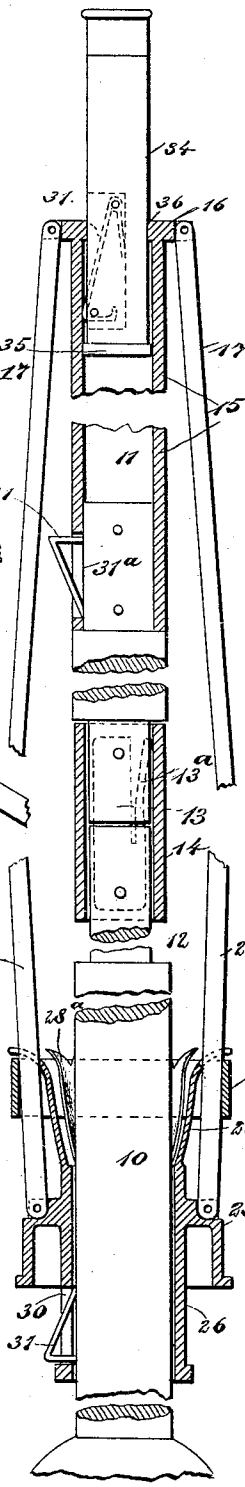


Fig 4

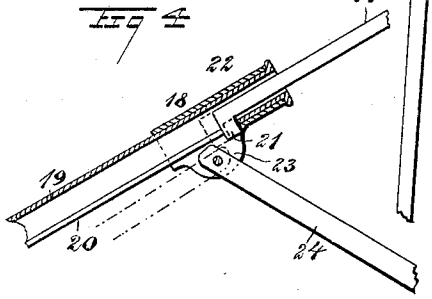
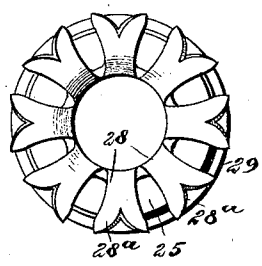


Fig 5



WITNESSES:

H. Walker

C. Sedgwick

INVENTOR:

G. H. Seymour

BY Munn & Co

ATTORNEYS

(No Model.) 2 Sheets—Sheet 2.

G. H. SEYMOUR.

FOLDING UMBRELLA.

No. 479,310. Patented July 19, 1892.

Fig 2

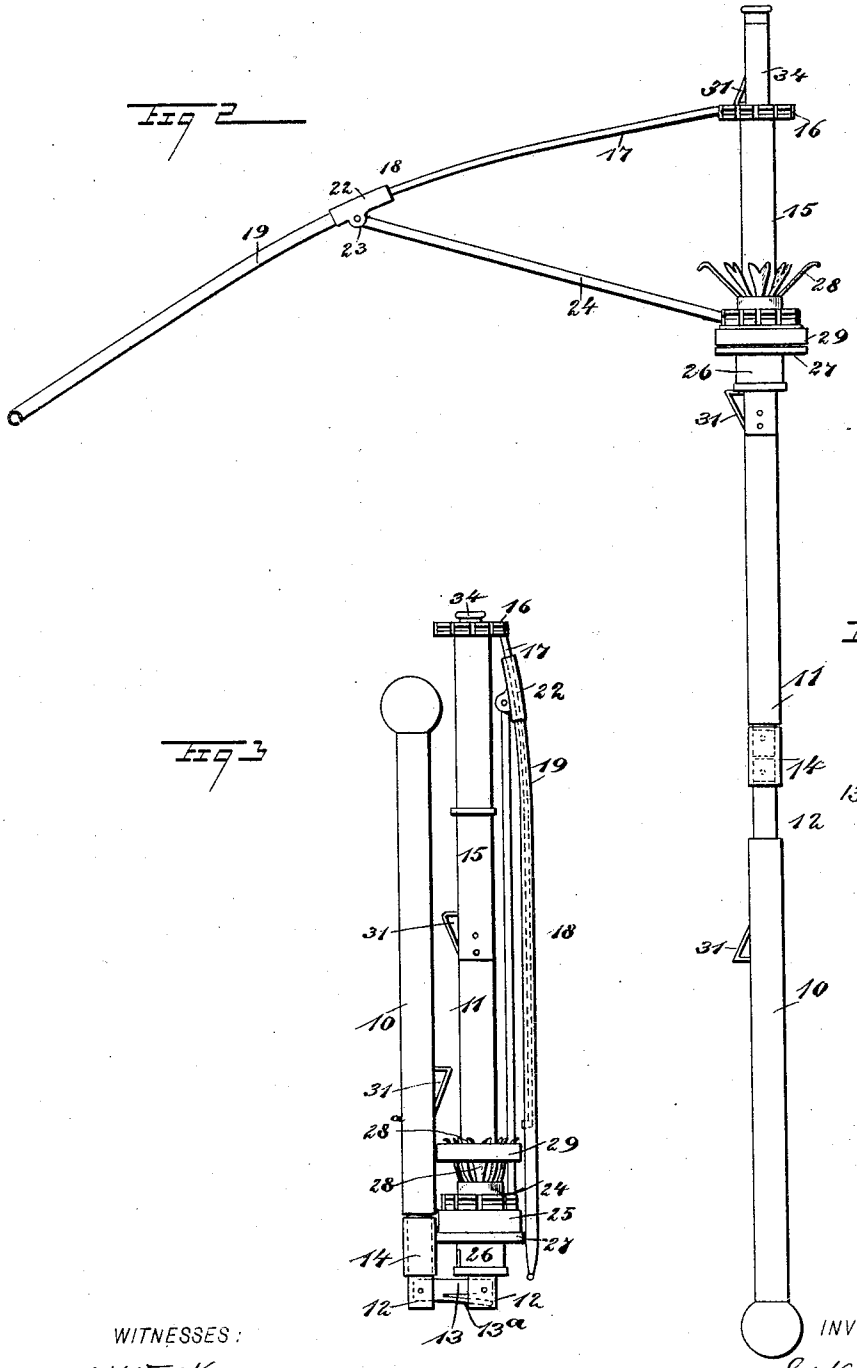
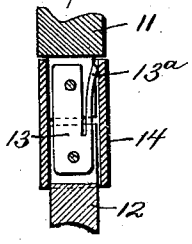


Fig 3

Fig. 6.



WITNESSES:

H. Walker

C. Sedgwick

INVENTOR:

G. H. Seymour

BY Munn & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

GEORGE H. SEYMOUR, OF STANTON, TEXAS, ASSIGNOR TO HIMSELF AND WILLIAM H. TERSCH, OF SAME PLACE.

FOLDING UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 479,310, dated July 19, 1892.

Application filed November 18, 1891. Serial No. 412,265. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. SEYMOUR, of Stanton, in the county of Martin and State of Texas, have invented a new and Improved Folding Umbrella, of which the following is a full, clear, and exact description.

My invention relates to improvements in folding umbrellas; and the object of my invention is to produce a folding umbrella which may be quickly reduced in size, so that it may be conveniently inserted in a valise, satchel, or other receptacle, and also to construct the umbrella in such a manner that it may be held rigidly in either an open or closed position.

To this end my invention consists in a folding umbrella the construction of which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a broken longitudinal section of the umbrella-stick and with the ribs and braces connected therewith. Fig. 2 is a broken detail view of the umbrella-stick with one of the ribs in a raised position thereon. Fig. 3 is a detail view showing the position of the stick and various parts of the umbrella when the latter is folded. Fig. 4 is an enlarged detail sectional view of one of the rib-joints. Fig 5 is a plan view of the runner and brace-holder, and Fig. 6 is a detail sectional view of the stick-sections.

The umbrella-stick consists chiefly of the two parts 10 and 11, the lower part 10 forming the handle, and these parts are reduced near their connected ends, as shown at 12 in Figs. 1 and 2, and the reduced ends are pivotally connected by a plate or link 13. The connected ends of the two parts 10 and 11 are cut away, as best shown in Fig. 1, so as to permit the parts to fold readily. A sleeve 14 embraces the stick and is held to slide on the reduced portion 12, and when the sleeve incloses the joint, as in Fig. 1, the two parts of the stick will be held in an extended position and will be prevented from accidental displacement. The sleeve 14 is of such a thickness that its outer surface is flush with the outer surfaces of the parts 10 and 11 of the stick, so that the runner may slide easily over it.

To hold the sleeve 14 in place over and around the joint and prevent it dropping down, a spring is formed in one edge of the steel plate or link 13 by a slit 13^a being cut lengthwise of the plate 13 near its edge. This spring presses against the inside of the sleeve 14, holding it in place. The upper portion 11 of the stick has a tube 15 at its upper end, which tube is secured firmly to the stick and is inlaid thereon, so that its outer surface will be flush with the outer surface of the stick. The upper end of the tube 15 terminates in a flanged crown-piece 16, which is recessed in the usual way to receive the upper ends of the inner rib-sections 17, which sections are pivoted to the crown-piece in the usual manner.

The ribs 18 of the umbrella are made of sections 17 and 19, so that the umbrella may be easily folded, and the upper section 17 is held to slide in the lower section 19, which section consists of a tube slotted longitudinally on the under or inner side, as shown at 20, and the lower end of the section 17 is provided with a lug 21, which slides in the slot 20 and which prevents the detachment of the parts 17 and 19. It will be noticed by reference to Fig. 4 that the slot 20 of the section 19 terminates near the upper end of the latter and the movement of the part 19 in reference to the section 17 is limited by the lug 21 striking the upper terminal wall of the slot. A sleeve 22 is fastened firmly on the lower section 19 of the rib 18, and the sleeve is provided on its inner side and near its lower end with a pair of ears 23, between which one of the braces 24 is pivoted. The brace 24 is long enough so that when the umbrella-rib is raised, as in Fig. 2, the extreme outer end of the brace will extend into the path of the lug 21, and thus hold the rib 18 in an extended position, and as the end of the brace projects into the path of the lug any movement of the sections 17 and 19 in relation to each other will be prevented. The lower or inner ends of the ribs 24 are pivoted to an enlarged portion 25 of the runner 26, which runs on the stick in the usual way. The part

25 is of the same diameter as the crown-piece 16 and has a flange 27 at its lower end.

At the upper end of the runner are secured springs 28, there being a spring for each brace 24, and the springs are bent outward and terminate in notched upper ends 28^a, adapted to fit the braces. The springs will normally throw out the braces 24 and expand their upper ends and hold the braces parallel or nearly parallel with the stick. A ring 29 is employed, which fits around the braces and is adapted to slide down on the part 25 of the runner and rest on the flange 27 when the braces are to be expanded. The runner 26 has a slot 30, through which the usual form of bent spring 31 extends to hold it down, and a similar spring works in a slot 31^a in the part 15, so as to hold the runner up and the umbrella open.

The top of the umbrella-stick is provided with a sliding section 34, which adds to the finish of the umbrella, this section 34 having at its lower end a rib 35, which engages an inner rib 36 at the end of the tube 15 and which thus prevents the removal of the section 34. The section 34 is also provided with the common form of bent spring 31, which spring when the section is extended, as in Fig. 1, engages the crown-piece 16 and prevents the section 34 from dropping into the tube 15; but when the umbrella is to be folded the spring 31 may be pushed in and the section 34 pushed downward into the tube, as shown in Fig. 3.

The umbrella-frame may be covered in the usual way and it is operated as follows: We will suppose that the stick of the umbrella is straightened out in a position to permit the opening of the umbrella, and then to spread it the ring 29 is slipped downward upon the part 25 of the runner, and the latter is pushed upward until the upper bent spring 31 projects through the slot 30, and the spring will thus hold the parts in this position. The upward movement of the runner will cause the ribs 18 to spread in the usual manner by means of the braces connecting the ribs with the runner, and when the ribs are raised the sections 19 will be pushed out to their utmost limit, with the lugs 21 of the sections 17 resting against the terminal walls of the slots 20 of the sections 19, and the outer ends of the braces 24 will swing in front of the lugs 21 on the upper sections 17 of the ribs, so that the ribs will be prevented from telescoping when the frame is open.

When the umbrella is to be folded, the part 34 is shoved downward into the tube 15 and the runner 26 is pulled downward to its utmost extent. When the runner is pulled down in this way, the spring 31 catches in the slot 30 of the runner, the ring 29 is slipped up over the braces 24, as in Fig. 1, thus holding them close to the stick, and the umbrella is held thereby so that it cannot spread. The runner 26 is then pushed upward on the stick, which will cause the sections 17 of the ribs to slide in the sections 19, after which the sleeve 14 is pushed from off the joint of the umbrella-stick and the umbrella-stick is folded up into the position shown in Fig. 3. It will then occupy but very little space and may be inserted in any ordinary traveling-bag, satchel, or other small receptacle.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. In a folding umbrella, the combination, with a folding stick, of ribs formed of two sections, the upper sections being pivoted to the upper portion of the stick and sliding in the lower sections, and braces pivoted to the runner of the stick and to the lower rib-sections with their ends projecting into the paths of the upper sections, substantially as and for the purpose set forth.

2. The combination, with the folding stick and the runner held to slide thereon, of ribs pivoted to the upper portion of the stick, each rib comprising a tubular outer section having a longitudinal slot therein and a solid upper section having at its lower end a lug to slide in the slot, sleeves fixed on the upper end of the lower or outer section of the rib, and braces pivoted on the sleeves with their ends projecting into the paths of the lugs on the upper rib-sections and extending to the runner, substantially as shown and described.

3. In a folding umbrella, the combination, with the folding stick and the ribs pivoted thereon, of a runner held to slide on the stick and provided with notched springs at its upper end, a ring held to slide on the runner, and braces pivoted on the runner and to the telescoping ribs, substantially as described.

4. In a folding umbrella, the combination, with the upper and lower stick-sections, of a link pivoted to each section and provided with a slit forming a spring, and a sleeve sliding on the sections, substantially as described.

5. A folding umbrella comprising a stick formed of three sections, the two lower sections being hinged together and the uppermost section sliding in the upper hinged section, ribs formed of two sections, one sliding in the other, a runner provided with springs, braces hinged to the runner and to the outer rib-sections and projecting into the paths of the upper rib-sections, and a ring sliding on the runner over the braces, substantially as described.

GEORGE H. SEYMOUR.

Witnesses:
W. H. TERSCH,
J. H. PUCKETT.