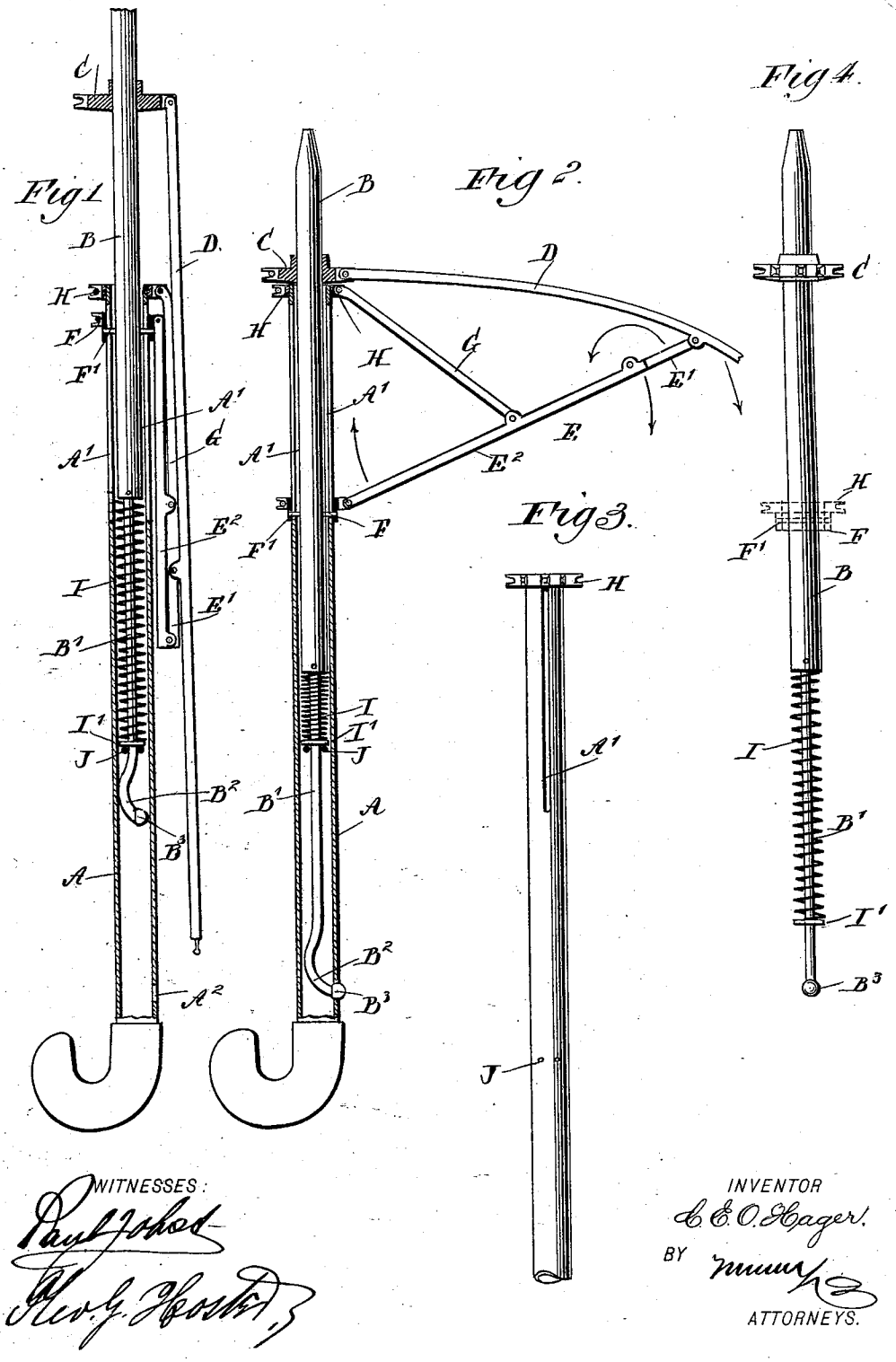
(No Model.)

C. E. O. HAGER.

UMBRELLA.

No. 601,096. Patented Mar. 22, 1898.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES E. O. HAGER, OF NORTH BALTIMORE, OHIO, ASSIGNOR OF ONE-HALF TO WILLIAM P. WHITZEL, OF SAME PLACE.

UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 601,096, dated March 22, 1898.

Application filed October 7, 1897. Serial No. 654,364. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. O. HAGER, of North Baltimore, in the county of Wood and State of Ohio, have invented a new and Improved Umbrella, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved umbrella which is simple and durable in construction and arranged for convenient opening and automatic closing.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

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

Figure 1 is a sectional side elevation of the improvement as folded. Fig. 2 is a similar view of the same as extended. Fig. 3 is a side elevation of the upper end of the stick, and Fig. 4 is a like view of the slidable rod carrying the crown.

The improved umbrella is provided with a hollow stick A, in the outer end of which is fitted to slide a rod B, carrying near its outer end a crown C, on which are fulcrumed the several ribs D, supporting a cover made of fabric material. Each of the ribs D is connected by a sectional brace E with a runner F, fitted to slide on the stick A and rigidly connected by a pin F′ with the rod B, so that the crown C and the runner F move in unison. The pin F′ extends through slots A′ in the outer end of the stick A, so that the rod B and runner F are guided in their outward or inward movement.

The brace E has a short section E′, pivotally connecting the rib D with the outer end of the other section E^2, fulcrumed at its inner end on the runner F, and the middle of this section E^2 is pivotally connected with a link G, fulcrumed on a crown H, rigid on the outer end of the stick A.

The inner end of the rod B is formed with a reduced part B′, on which is coiled a spring I, resting with its outer end on a shoulder on the rod B and with its inner end on a washer I′, held on pins J, secured to the stick A.

The extreme inner end B^2 of the reduced part B′ is formed with a knob B^3, adapted to pass into an aperture A^2, formed in the stick A near the handle, so that when the umbrella is open, as plainly shown in Fig. 2, and the said knob engages the aperture, then the umbrella has its several parts locked in an open position.

When the umbrella is closed or folded, as shown in Fig. 2, the spring I is extended to hold the several parts in a closed position, as shown, and when it is desired to open the umbrella the operator pushes the rod B inward, so as to move the crown C and the runner F in unison in a like direction, the said runner sliding inward on the stick A to cause the ribs D to be opened owing to the pull of the links G on the sections E^2 of the braces E. When the crown C moves close to the fixed crown H, then the umbrella is opened, and at this time the knob or button B^3 on the reduced end B′ of the rod B snaps into the aperture A^2 to lock the several parts in place. Now when the rod B is moved inward as described the spring I is compressed, and when it is desired to close the umbrella the operator simply presses the knob or button B^3 inward to release the rod B and to allow the spring I to force the said rod outward and with it the runner F and the crown C. The several parts will then readily close and assume the position shown in Fig. 1. Now it is evident that by having the short section E′ in each brace E the ribs D will readily open when the rod B is pressed inward, as the said section can readily give until it opens out into a straight line with the other section E^2.

The device is very simple and durable in construction and is not liable to get out of order.

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

1. An umbrella, comprising a hollow stick, a rod fitted to slide in said stick, a crown connected with said rod and carrying the ribs, a

runner fitted to slide on said stick and rigidly connected with the said rod by a pin extending through slots in the outer end of the stick, braces for connecting the runner with the ribs, and links one for each brace and fulcrumed on a crown carried by the stick, substantially as shown and described.

2. An umbrella, comprising a stick, a spring-pressed rod fitted to slide thereon, a crown carried by the said rod, a runner carried by the said rod, for moving in unison with the crown, sectional braces for connecting the runner with the ribs pivoted on the crown, and a link for each brace, and pivoted on the stick and connected with the innermost section of the brace, substantially as shown and described.

3. An umbrella, comprising a stick, a spring-pressed rod fitted to slide thereon, a crown carried by the said rod, a runner carried by the said rod, for moving in unison with the crown, sectional braces for connecting the runner with the ribs pivoted on the crown, a link for each brace, and pivoted on the stick and connected with the innermost section of the brace, and means, substantially as described, for locking the said rod in place, as set forth.

4. An umbrella, comprising a hollow stick, a spring-pressed rod fitted to slide therein, a crown carried by the said rod near its outer end, a runner carried by the said rod and moving in unison with the crown, ribs pivotally connected with the crown, braces connecting the runner with the ribs, the said braces being each formed in sections, a link for each brace fulcrumed at one end on a crown rigid on the outer end of the hollow stick, the other end of said link being pivotally connected with the innermost section of the brace, and a knob on the inner end of the spring-pressed rod and adapted to pass into an aperture formed in the hollow stick near the handle to lock the umbrella in an open position, substantially as specified.

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Witnesses:
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