

(No Model.)

B. M. SHAINÉ.
UMBRELLA.

No. 579,185.

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Fig. 1.

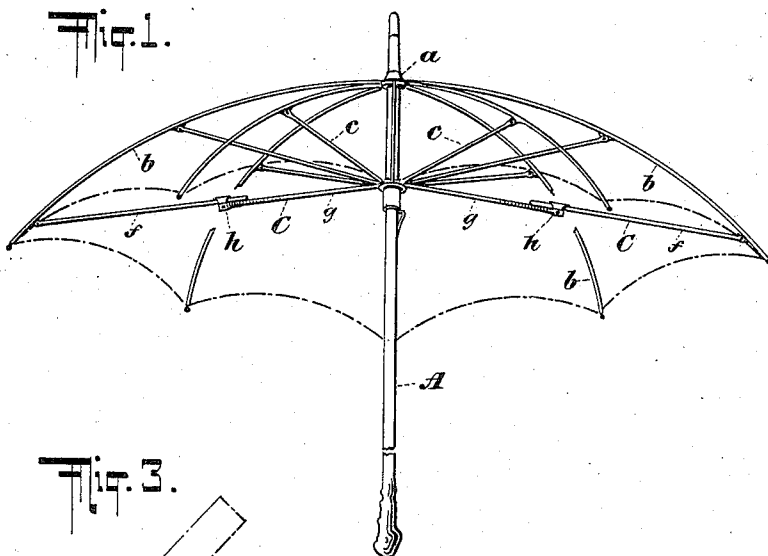


Fig. 3.

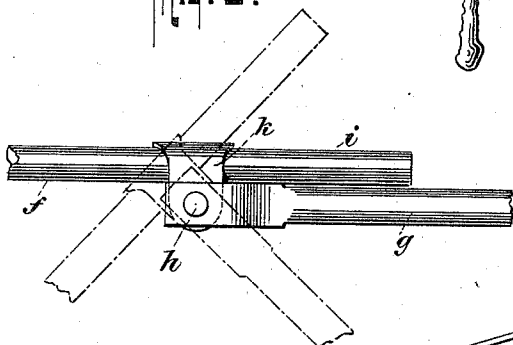
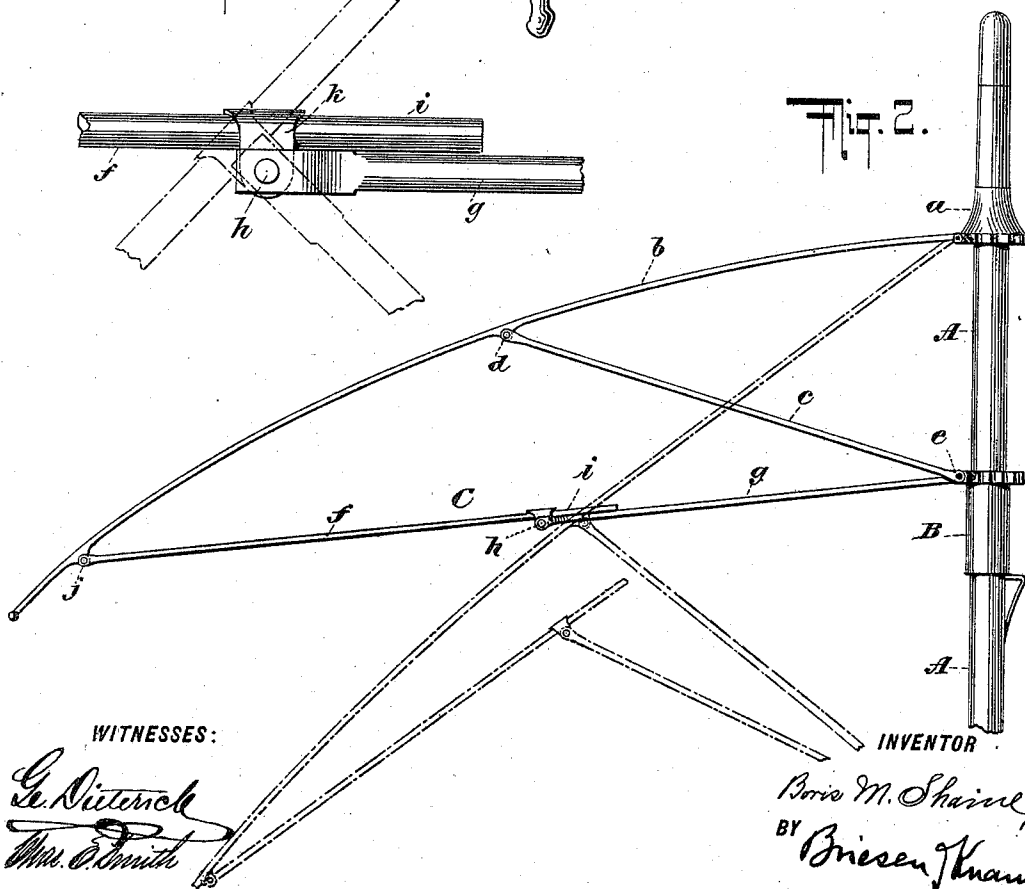


Fig. 2.



WITNESSES:

G. Dietrich
Wm. E. Smith

INVENTOR

Boris M. Shainé
BY *Briesen Knaut*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

BORIS M. SHAINÉ, OF NEW YORK, N. Y.

UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 579,185, dated March 23, 1897.

Application filed May 22, 1896. Serial No. 592,563. (No model.)

To all whom it may concern:

Be it known that I, BORIS M. SHAINÉ, a resident of the city, county, 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 umbrellas; and the object of the said invention is to provide simple, cheap, and effective means in addition to the usual stays or ribs of an umbrella for preventing the same from being blown inside out, which means are set and retained in operative position by the act of raising the umbrella and are displaced by the act of lowering or collapsing the umbrella.

Heretofore various means have been devised for the purpose of preventing an umbrella from turning inside out, but all such devices have either been so complicated in construction, so ineffective in operation, or expensive to make that their use has been prohibitive.

By my invention I seek to overcome the disadvantages heretofore found in devices of this character and to provide means for preventing an umbrella from turning inside out without changing the existing structure of umbrellas.

To these ends my invention consists in the novel arrangement and combination of parts hereinafter described and claimed, reference being had to the accompanying drawings, wherein like letters indicate corresponding parts in the various views.

Figure 1 represents a perspective view, with parts broken away, of an umbrella embodying my invention, the cloth being shown in dotted lines. Fig. 2 is an enlarged detail fragmental portion of the same. Fig. 3 is an enlarged detail of the knuckle-joint which unites the members of a stay-rib.

The stick of the umbrella is represented at A, which is provided at the upper end thereof with a stationary thimble *a*, provided with the usual means for pivoting the main ribs *b* thereto. The main stays *c* of the umbrella are pivotally connected to the main ribs *b*, as indicated at *d*, and to the runner B, as indicated at *e*. So much of the umbrella as I have described is of the ordinary construction.

From the same runner to which the stays

c are pivoted I pivot auxiliary stays C, each of which stays consists of two members *f g*, united at or near the center thereof by a butt-hinge joint *h*, the pivot of which is parallel with the other pivots of the auxiliary stay. One member of the auxiliary stay is preferably provided with an extension, as indicated at *i*, which overlaps to a considerable extent the other member and is supported thereby when the umbrella is in the open position. The outer end of each of the auxiliary stays is pivoted to the outer end to one of the main ribs *b*, as indicated at *j*. It is obvious that any suitable number of these stays C may be provided, but I have found that two of such stays projecting to opposite sides of the umbrella are sufficient. It will be observed that by forming the knuckle or butt-hinge joint at the place and in the manner indicated on each of the auxiliary stays C a rigid stay is presented against the tendency of the umbrella to move in an outward direction, but that when it is desired to lower the umbrella the mere act of releasing the runner B to close the umbrella causes the members of the stay-rib to be bent on themselves at the joint in the manner indicated in dotted lines in Fig. 2, so that no preliminary fixing or setting of the parts is necessary to either open or close the umbrella, the stay-ribs being operated automatically, so to speak, by the opening and closing of the umbrella.

The advantages of an umbrella of this character are thought to be obvious.

The device is simple in operation and adds but little to the weight of an ordinary umbrella. It may be found desirable in certain cases to provide an attaching means, such as indicated at *k* in Fig. 3, to connect the outer end of each of the auxiliary stays to the outer end of a main rib *b* and to pivot the inner end of each of the stays to an auxiliary piece or yoke adapted to be connected to and move with the runner B. This is found desirable where the stay-ribs are to be manufactured independent of the umbrella and applied to existing forms of umbrellas. It will be observed that by this means no change whatever is required in the existing form of umbrellas in order to adapt the auxiliary stays thereto.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

5 In an umbrella, the combination of the main ribs pivoted to a thimble at the outer end of the umbrella-stick, main stays each of which is pivoted at the outer end to a main rib and at the inner end to the runner, auxiliary stays each comprising two members which
10 are united by a butt-hinge joint, the axis of which is parallel to the other pivots of said auxiliary stays, each of said auxiliary stays being pivoted at one end to the runner to

which the main stays are pivoted and at the opposite end to a main rib and being disconnected one from the other, whereby a movement of the runner will cause a corresponding movement of the auxiliary stays as well as the main stays and the closing of the umbrella will effect the doubling of members of each auxiliary stay upon themselves, substantially as described. 20

BORIS M. SHAINÉ.

Witnesses:

CHARLES E. SMITH,
GEORGE H. ENGELHARD.