

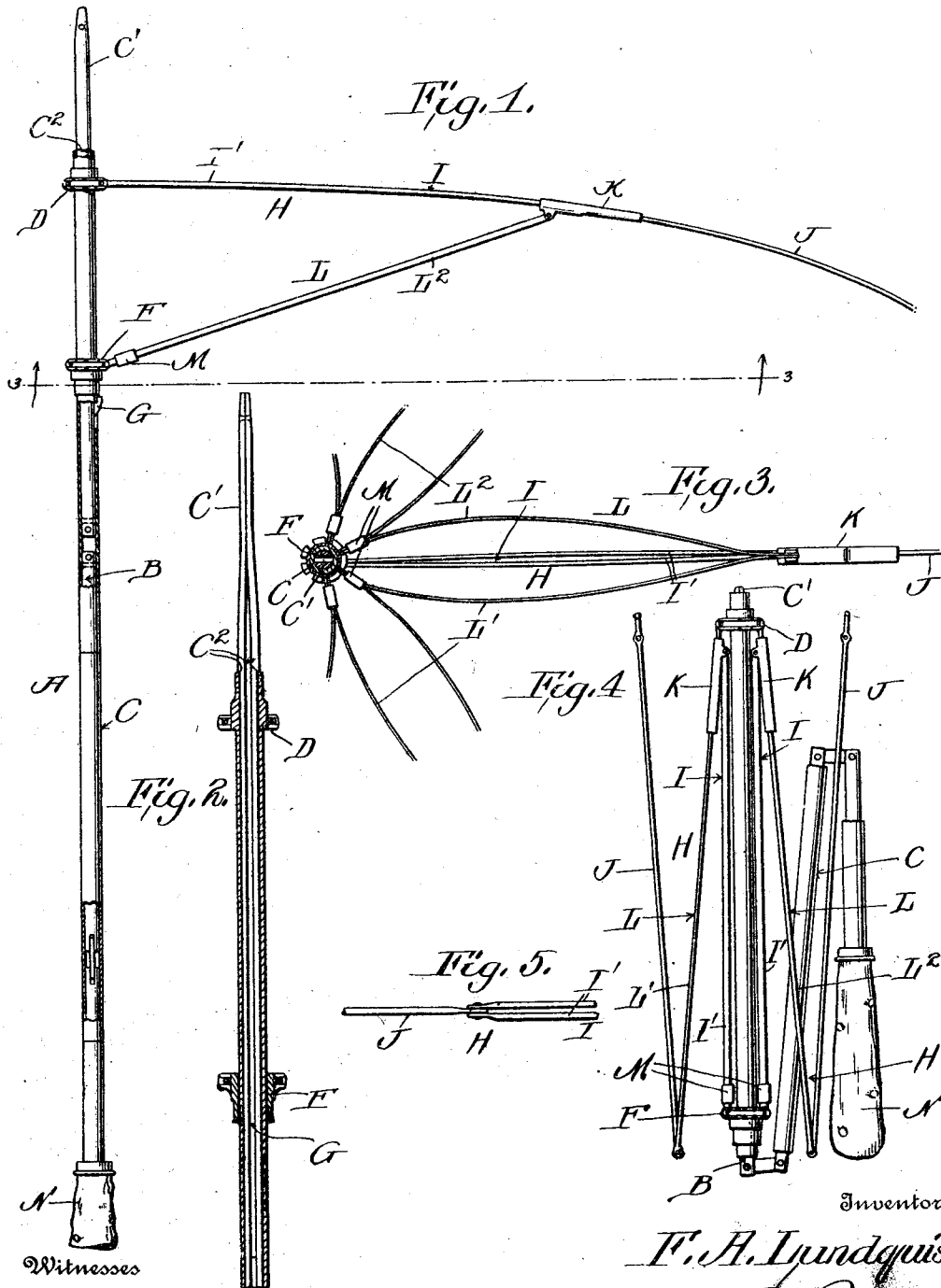
F. A. LUNDQUIST.

FOLDING UMBRELLA.

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Patented Jan. 7, 1913.

1,049,743.



Witnesses

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANK A. LUNDQUIST, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Folding Umbrellas, of which the following is a specification.

This invention relates to certain new and useful improvements in folding umbrellas, the object being to improve the general construction in such a manner that a very compact, strong, and durable umbrella is formed.

Another object of my invention is to provide novel means for holding the top notch in its proper position when the umbrella is being used, whereby all danger of the same moving in any way so as to allow the umbrella to collapse is prevented.

Another object of my invention is to provide an umbrella, which is so constructed that the handle catch for holding the runner is dispensed with, the stretcher bars being so constructed that they will hold the ribs parallel with the stick.

Another object of my invention is to provide a novel form of rib, which is formed of an inner and outer section pivotally connected together, the inner section being formed of a pair of bars between which the outer section is pivoted in such a manner that the same can be folded in either direction, so that all danger of the rib being broken by a person not familiar with the operation of the umbrella is prevented.

With these objects in view, my invention consists in the features of construction, combination and arrangement of parts, hereinafter fully described and pointed out in the claims.

In the drawings forming a part of this specification Figure 1 is an elevation partly in section. Fig. 2 is a detail longitudinal section through the upper portion of the stick. Fig. 3 is a section taken on line 3—3 of Fig. 1. Fig. 4 is an elevation partly in section. Fig. 5 is a detail plan view of one of the ribs.

In carrying out my improved invention, I employ a stick A which is formed of an inner section B, and outer section C, the inner section being formed of a plurality of rods pivotally connected together and the outer section of a plurality of sleeves

which are slidably mounted upon the rod sections, and fit the same snugly, so as to allow the outer section to slide freely thereon. The ferrule section C' of the inner section C, is split longitudinally, and spread apart, and the outer faces of the same are provided with reduced portions forming shoulders C² adapted to co-act with the top notch D, which is carried by one of the sleeve sections in such a manner that when the sleeve sections are moved into engagement with each other the top notch carried by the other section will be in engagement with the shoulders so as to hold the sleeve sections over the joints of inner section, whereby an exceedingly strong and durable stick is formed. When it is desired to fold the stick by pressing on the ferrule section so as to throw the shoulders out of engagement with the top notch, the sleeve sections can be moved longitudinally upon the inner sections of the stick so as to uncover the joints, so as to allow the same to be folded.

Slidably mounted on the outer sleeve section of the stick is a runner F, which is locked by a catch G carried by the sleeve section carrying the top notch, in order to hold the same in its proper position when the umbrella is opened, as will be hereinafter fully described.

Pivotally mounted in the top notch are ribs H formed of inner section I, and an outer section J, the inner section being formed of a pair of rods I' between the outer ends of which are pivotally mounted the inner ends of the outer sections J, in such a manner that the same can swing in either direction in order to prevent the ribs from becoming broken when being folded. Slidably mounted on each of the ribs, is a sleeve K adapted to be moved over the joints of the rib section, so as to hold the ribs firmly. Pivotaly connected to each of the sleeves is a stretcher bar L formed of two strips L', L², which are connected to the runner at the lower ends, in such a manner that one of said strips of each stretcher bar is connected to the adjacent strip of the next stretcher bar as clearly shown at M, whereby the stretcher bars will be bowed when the runner is forced upwardly, and when drawn downwardly will be drawn together so as to lie folded with the stick, in order to hold the ribs against the stick without use of the ordinary catch.

A handle N, is connected to the end of the stick in the ordinary manner, and it will be seen that by this construction an umbrella is formed which is very light in construction, and one which is exceedingly strong.

When it is desired to fold the umbrella, the ferrule member of the stick is compressed, and the top notch drawn upwardly so as to allow the sleeve section to be moved from over the hinge joints of the inner section in order to fold the sections one upon another, and by shifting the sleeves on the rib sections, the ribs and stretcher bars can be folded along the side of the sleeve section carrying the top notch and runner.

What I claim is:—

1. A folding umbrella comprising a stick formed of an inner and outer section, each of said sections comprising a plurality of sections, a top notch carried by one of the outer sections, a catch formed integral with the ferrule section of the inner section, and

co-acting with the top notch, a runner slidably mounted on the outer section, sectional ribs carried by the top notch, and sectional stretcher bars connecting said ribs and runner.

2. A folding umbrella comprising a stick formed of an inner and outer section, the inner section being formed of a plurality of pivotally connected sections, and the outer section of a plurality of sleeve sections, a top notch carried by one of said sleeve sections slidably mounted upon the inner sections, the ferrule sections of the inner section being split longitudinally to form spring members having reduced portions forming shoulders, adapted to co-act with the top notch carried by one of the sleeve sections.

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