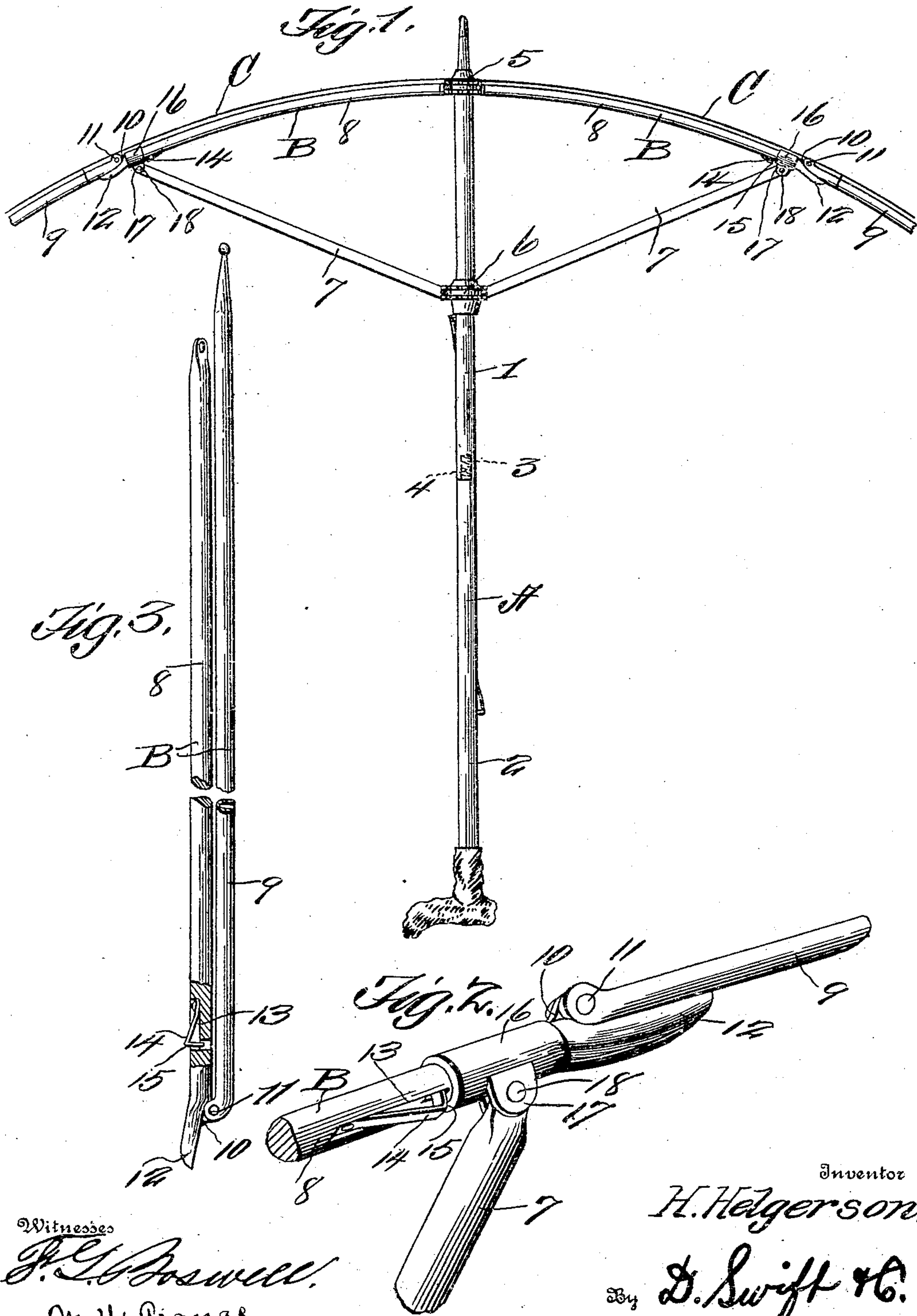


H. HELGERSON.
FOLDING UMBRELLA.

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963,003.

Patented June 28, 1910.



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UNITED STATES PATENT OFFICE.

HELGE HELGERSON, OF SOLDIERS GROVE, WISCONSIN.

FOLDING UMBRELLA.

963,003.

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To all whom it may concern:

Be it known that I, HELGE HELGERSON, a citizen of the United States, residing at Soldiers Grove, in the county of Crawford and State of Wisconsin, have invented a new and useful Folding Umbrella; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to umbrellas, and it has particular reference to that class of umbrellas which may be folded or collapsed for convenience in storing or packing in a trunk, suitcase or traveling bag.

The present invention has for its objects to provide a folding umbrella of the class referred to which shall possess superior advantages in point of simplicity, durability and general efficiency; and with these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts, which will be hereinafter fully described and particularly pointed out in the claim.

In the accompanying drawings has been illustrated a simple and preferred form of invention; it being, however, understood that no limitation is necessarily made to the process structural details therein exhibited, but that changes, alterations and modifications within the scope of the invention may be resorted to when desired.

In the drawings:—Figure 1 is a sectional elevation of an umbrella constructed in accordance with the invention, the frame being shown nearly open or extended. Fig. 2 is a detail view of one of the stretchers and the rib-engaging sleeve connected therewith. Fig. 3 is a detail side view partly in section on a larger scale showing one of the ribs and stretchers, the rib being shown folded.

Corresponding parts in the several figures are denoted by like characters of reference.

The stick A of the improved umbrella is composed of two parts or sections 1 and 2, one of which has an internally threaded socket 3, for the reception of a screw-threaded extension 4 upon the other section, thus enabling said parts or sections to be connected together or separated at a moment's notice, as may be desired.

The stick is equipped with a top-notch 5,

of ordinary construction, with which the ribs B, B, are hingedly connected in the usual manner; the stick is also provided with the customary runner 6, which is connected with the ribs by means of the braces or stretchers 7. Each of the ribs B is composed or made up of two parts or members 8, 9, the former of which is hingedly connected at one end with the top notch and is provided near its opposite end with an ear or lug 10, formed upon the outer edge thereof. The rib section 8 has been shown as consisting of a round rod or wire, and the rib section 9, which has been shown as being of the usual U-shape in cross-section is pivotally connected with the lug 10, by means of a pin or rivet 11 so that, when the rib section 9 is extended in longitudinal alinement with the rib section 8, it will be supported by the terminal 12, of said rib section 8, which lies beyond the lug 10. The inner edge of the rib section 8, is provided with a notch or recess 13, which is formed at only a short distance from the lug 10 in order to leave a space intervening the recess and the lug 10; suitably mounted in said recess is a spring catch 14, the angular stop portion or shoulder of which 15 faces in the direction of the lug 10.

Slidably mounted upon the rib section 10 is a sleeve 16, having an ear or lug 17 with which one end of the stretcher 7 is pivotally connected by means of a pin 18, the opposite end of said stretcher being connected with the runner 6 as herein previously described. The sleeve 16, is of such length that it may be accommodated between the spring-catch 14, and the lug 10; the latter constituting a stop whereby the sleeve is retained upon the rib section.

It will be understood that the ribs B, B, of which any desired number may be employed, are of similar construction, and that the umbrella cover C, is to be attached to the ribs in the usual manner, by stitching or otherwise. It will also be understood that the stick A, is to be provided with the customary spring catches adapted to engage the runner for the purpose of retaining the umbrella frame in an open or closed condition as may be desired.

The operation of this invention will be readily understood from the foregoing description taken in connection with the drawings hereto annexed. The construction is simple and inexpensive, and of such a nature

that it is not liable to get out of order. When the ribs are extended, that is to say, when the rib sections 8 and 9, are in an approximate longitudinal alinement, the tension exerted by the cover C will tend to maintain the ribs in this condition, the outer rib sections 9 being supported upon the terminal portion 12 of the rib sections 8. When the ribs are thus extended, the sleeves 16 are to be disposed between the spring catches 14 and the lugs 10, thus maintaining the stretchers in the proper relation to the ribs and the runner so that, by manipulating the runner in the usual manner the umbrella may be raised or lowered precisely in the manner of an ordinary umbrella. When it is desired to fold or collapse the umbrella for packing, the spring catches 14, are dispensed to permit the passage of the sleeves 16, which latter are moved upon the rib-sections 8 in the direction of the top notch, the runner 6, being simultaneously moved upon the stick in the direction of said top-notch; after bringing the stretchers to a position contiguous to the rib sections 8, the rib sections 9 are folded upon said rib sections 8, in the direction of the top-notch, as will be readily understood by reference to the drawings, the umbrella cover C, intervening between the

rib sections 8 and 9; the sections 1 and 2 of the stick are then unscrewed and separated, and the umbrella may now be readily packed in the space available in an ordinary suitcase or traveling bag.

The construction of this umbrella is not only simple and durable, but it is free from bulkiness and uncouthness of appearance, and is not liable to become disarranged or get out of order.

Having thus described the invention, what is claimed is—

In an umbrella of the character described, a rib comprising an upper member having a lug near its outer end, and provided with a recess spaced from said lug, and a spring catch fitted in said recess; a lower rib section pivoted upon the lug; a sleeve sliding upon the upper rib section and adapted to be confined between the spring catch and the lug, and a stretcher pivoted upon the sleeve.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HELGE HELGERSON.

Witnesses:

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