

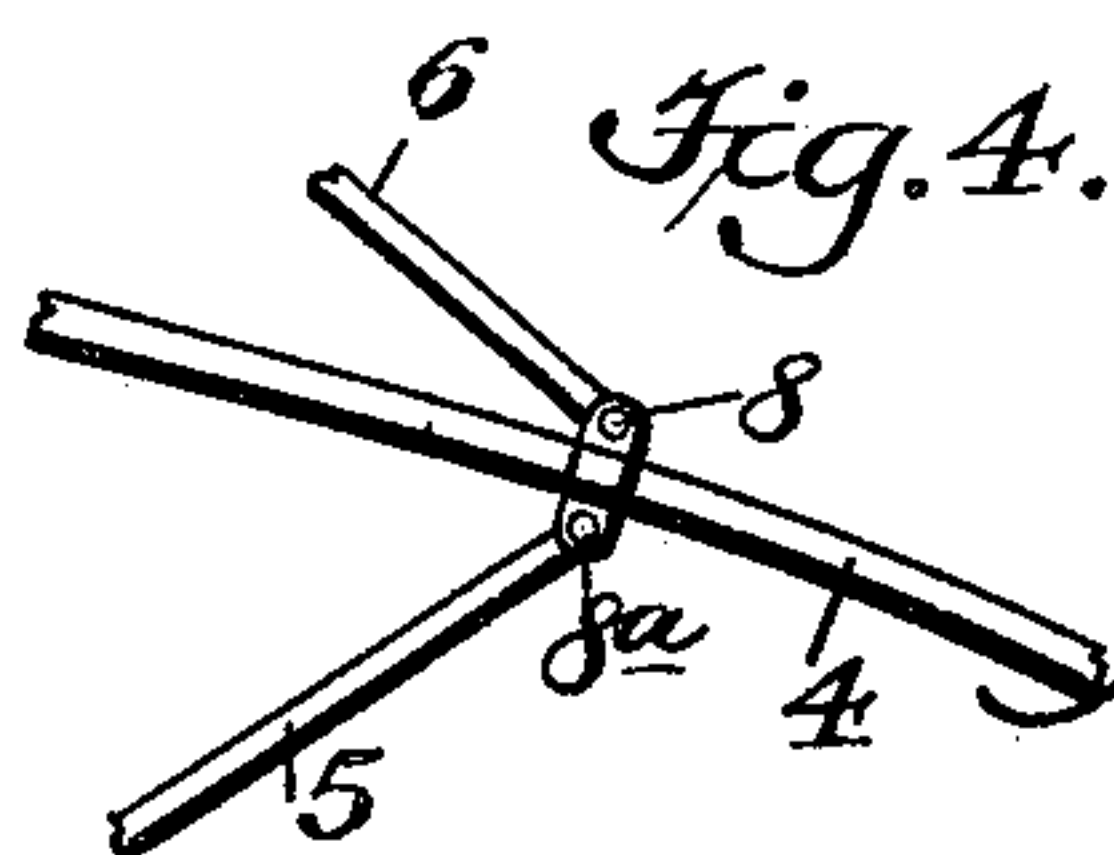
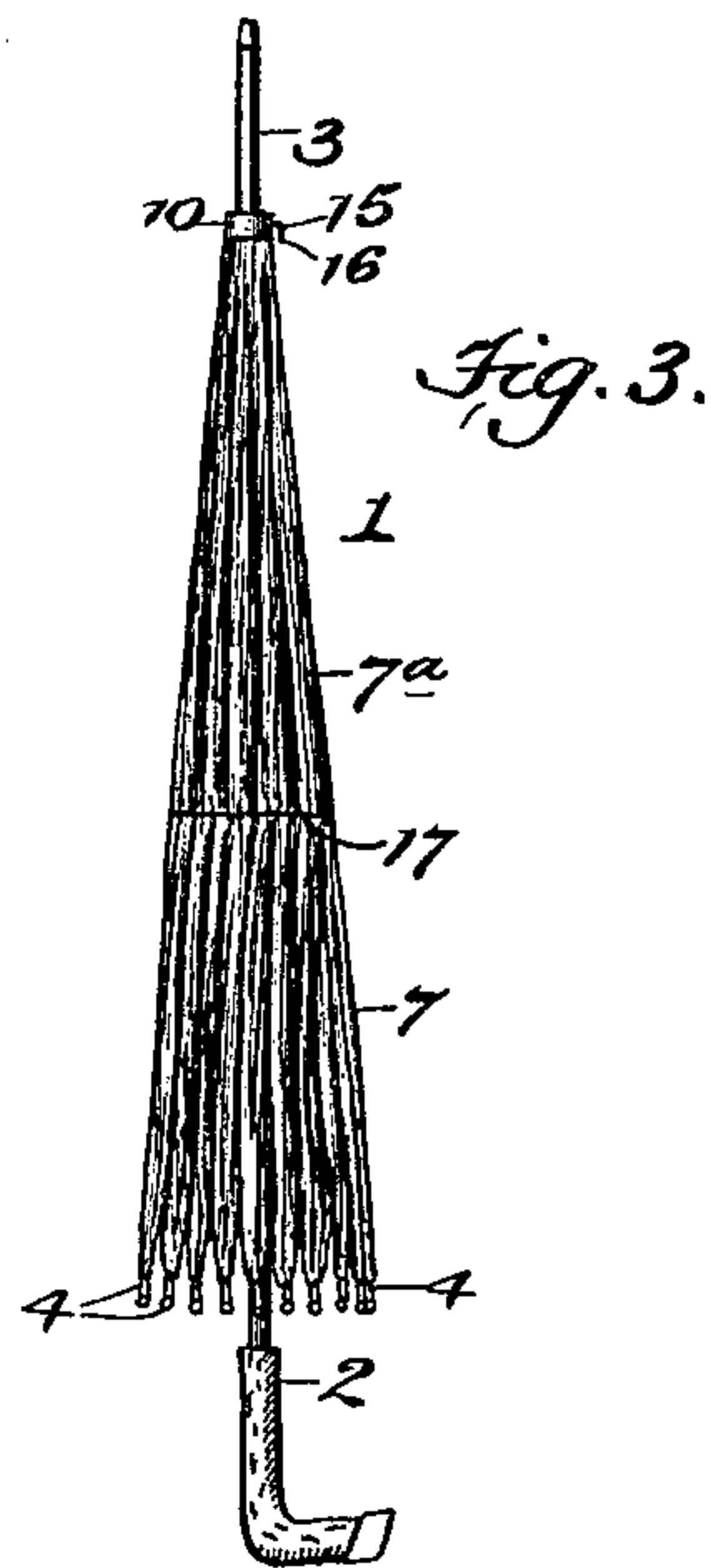
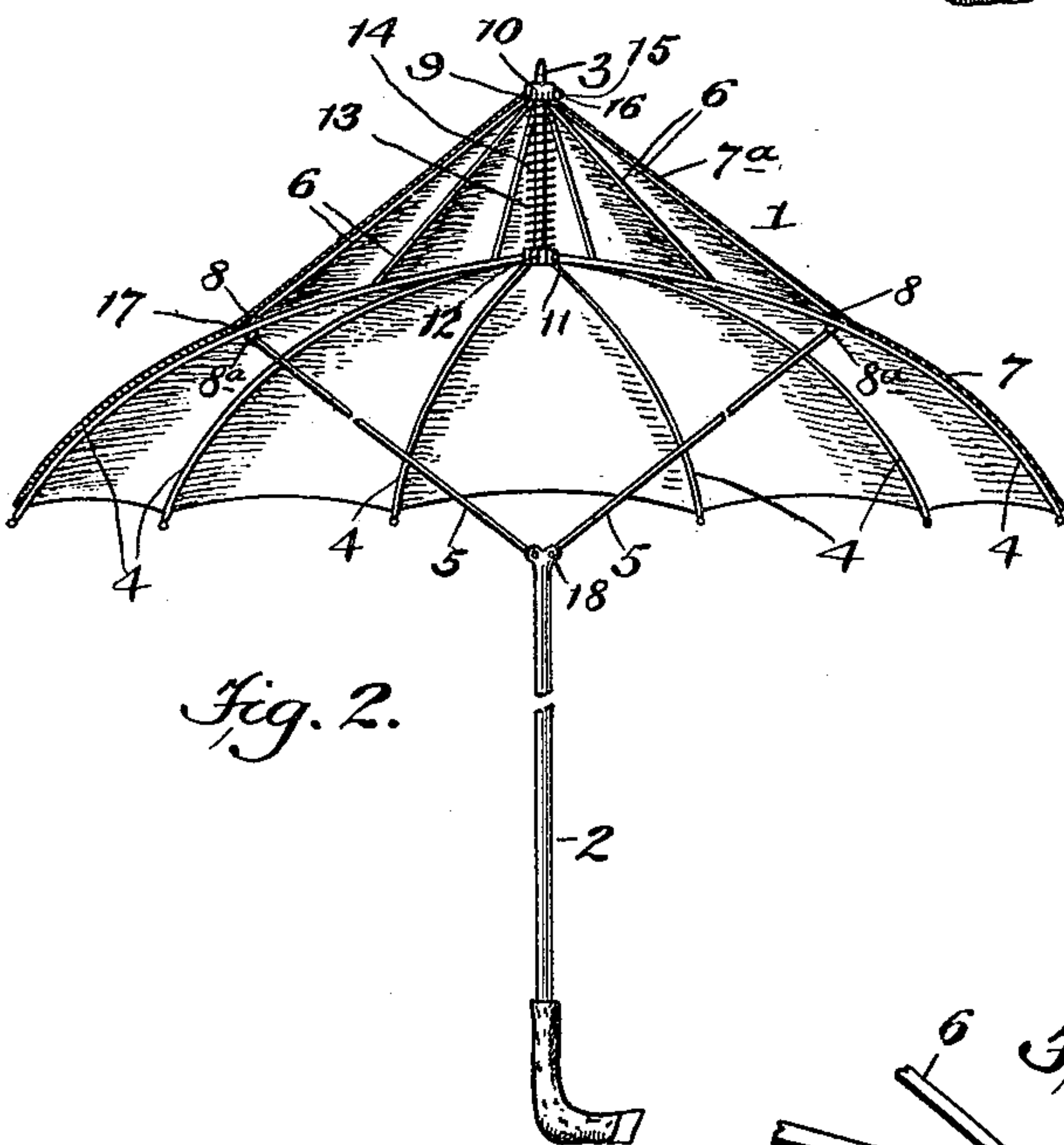
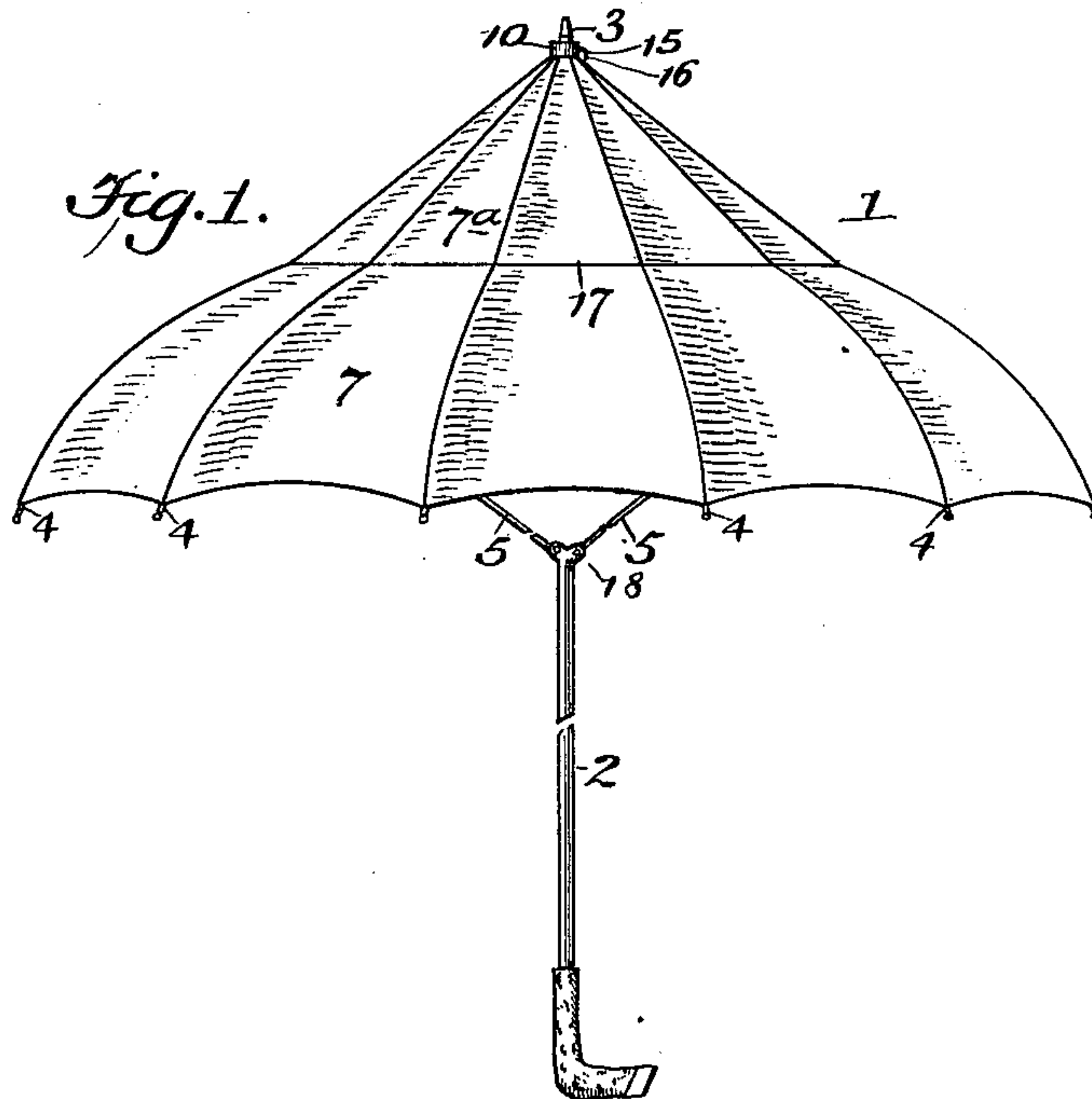
No. 675,148.

Patented May 28, 1901.

M. A. BÖHM.  
UMBRELLA.

(Application filed Dec. 28, 1900.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

MARIA APOLLONIA BÖHM, OF NEW YORK, N. Y.

## UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 675,148, dated May 28, 1901.

Application filed December 28, 1900. Serial No. 41,365. (No model.)

*To all whom it may concern:*

Be it known that I, MARIA APOLLONIA BÖHM, a subject of the Emperor of Germany, residing at New York, in the county and State of New York, have invented certain new and useful Improvements in Umbrellas, of which the following is a specification.

This invention relates to umbrellas; and it has for its object to provide an improved umbrella which shall have a relatively-increased interior head-space, which shall be capable of relatively closer rolling in closed condition, and which shall be generally superior in point of utility and general efficiency.

In carrying out my improvements I provide an umbrella in which the brace-rods are arranged above the ribs and an umbrella-stick consisting of two parts or members, the upper of which projects above the ribs and carries the same and the runner of the brace-rods. The lower member of the umbrella-stick embodies the umbrella-handle and is pivotally connected with the ribs by supplemental brace-rods. A supplemental cover conceals the brace-rods from view. When the umbrella is in closed condition, it may be rolled very closely, because practically no part of the umbrella-stick projects among the folded ribs.

In the drawings, Figure 1 is a side view of an umbrella constructed according to my invention and in open or operative condition. Fig. 2 is a central vertical sectional view of the same. Fig. 3 is a side view of the same in closed or inoperative condition. Fig. 4 is a detail perspective view of the means of connection of the ribs and brace-rods.

Corresponding parts in all the figures are denoted by the same reference characters.

Referring to the drawings, 1 designates my improved umbrella, which embodies two stick members 2 and 3. The ribs 4 are directly connected with the upper and shorter stick member 3, and two of the ribs are connected with the lower stick member 2 by supplemental brace-rods 5. To sustain the ribs 4 in spread or opened condition, I provide a set of brace-rods 6, which are arranged above the ribs 4, and the customary cover 7, which is spread thereon.

Each of the brace-rods 6 in the preferred form of construction is pivotally connected at

one end with one of the ribs 4, as at 8, and at the other end, as at 9, with a runner 10, which operates longitudinally of the stick member 3. The ribs 4 are pivotally connected at their upper ends, as at 11, with a support-ring 12, which is secured to the lower end of the stick member 3.

Suitable tensional means 13 are provided, which tensional means exert a constant tendency to sustain the runner 10 in raised position, and consequently maintain the ribs 4 and brace-rods 6 and cover 7 in extended condition. In the preferred form of construction the tensional means 13 consist of a coiled spring 14, which is coiled about the stick member 3 between the support-ring 12 and the runner 10.

15 designates locking means for retaining the runner in lowered position against the tension of the coiled spring 14 when the umbrella is closed. The locking means 15 may consist, as illustrated, of a catch or thumb lever 16, which is carried by the runner 10 and is arranged for engagement with a notch or recess in the lower portion of the stick member 3. The brace-rods 6 are covered by a supplemental cover 7<sup>a</sup>, which is connected with the runner 10 at its center and with the cover 7 at its edge portion, as at 17, in an annular line of connection which passes through the points 8 of pivotal connection of the brace-rods 6 with the ribs 4. The supplemental cover 7<sup>a</sup>, in combination with the main cover 7, effectively houses the brace-rods 6 and the tensional means 13, which are thus protected from the weather and are also concealed from view.

The supplemental brace-rods 5, of which preferably but two are employed, are each pivotally connected at its upper end with one of the ribs 4, as at 8<sup>a</sup>, preferably at the point 8 of pivotal connection of the respective rib 4 with one of the brace-rods 6. The lower ends of the supplemental brace-rods 5 are pivotally connected, as at 18, with the upper end of the lower stick member 2.

The operation and advantages of my improved umbrella will be readily understood by those skilled in the art to which it appertains. With the parts in "open" position, as illustrated in Figs. 1 and 2, the tensional means 13 effectively sustain the runner 10 in



raised position, and the brace-rods 6 are maintained by the runner 10 in raised and extended position, whereby they operate as a truss to suspend the ribs 4 and cover 7 in extended operative position.

If desired, the locking means 15 may be engaged with the stick member 2 when the runner is in elevated position, and thus supplement the supporting action of the tensional means 13.

The pivotal connection of the supplemental brace-rods 5 with the stick member 2 at 18 and the pivotal connection of the same with the ribs 4 at 8<sup>a</sup> are of such a character that lateral relative movement of the connected parts is prevented and the umbrella may be firmly supported by the stick member 2, which is formed into a handle 2<sup>a</sup> at its lower end. It will be noted that when the parts of the umbrella are in open position an effective braced relation is maintained between the brace-rods 6 and the supplemental brace-rods 5, and this braced relation results in a firm support and suspension of the ribs 4 and umbrella-cover 7 from below and above, respectively. This arrangement of parts operates to prevent the opened umbrella from being "turned inside out," as often results in heavy winds with umbrellas as commonly constructed.

It will be further noted that the head-space within the opened umbrella is free from the obstruction of the brace-rods, which are conveniently arranged above the cover and the ribs, and that the umbrella-stick being composed of two parts, one of which extends below the supplemental brace-rods and the other of which extends above the ribs and cover, does not at any point pass through the head-space within the opened umbrella. The supplemental brace-rods 5 are preferably but two in number and are connected with two diametrically opposite ribs 4, which arrangement is best adapted for obtaining a perfect rigid connection of the ribs with the stick member 2. The employment of but two of the supplemental brace-rods 5 causes the minimum obstruction of the head-space within the opened umbrella, and, as in the preferred arrangement and connection of parts, these supplemental brace-rods diverge widely from their point of connection at 18 with the stick member 2 and are connected with the ribs 4, at points approximately midway of the ends of the latter. The central part of the head-space within the opened umbrella is entirely unobstructed by the supplemental brace-rods.

In closing the umbrella the runner 10 is forced downwardly upon the stick member 3 against the tension of the spring 14, and the pivotal connection of the several parts causes the brace-rods, ribs, and supplemental brace-rods to be folded inwardly into longitudinal

alignment, as illustrated in Fig. 3, into closed position. The cover may then be "rolled" in the customary manner, and the absence of any part of the umbrella-stick within the rolled cover permits of extremely close "rolling."

When opened, the umbrella is not materially different in exterior appearance from an umbrella of ordinary construction, as the supplemental cover 7<sup>a</sup> simulates the central portion of the cover proper, 7, and follows closely the general contour of the latter.

The tensional means 13 assist the runner 10 in rising, and consequently assist in opening the umbrella, which feature is of advantage in heavy winds and various other conditions.

I do not desire to be understood as limiting myself to the details of construction and arrangement as herein described and illustrated, as it is manifest that variations and modifications may be made in the features of construction and arrangement in the adaptation of the device to various conditions of use without departing from the spirit and scope of my invention and improvements. I therefore reserve the right to all such variation and modification as properly falls within the scope of my invention and the terms of the following claims.

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

1. In an improved umbrella, a stick consisting of two separate parts, the ribs connected with the upper part of the stick, supplemental brace-rods connected with the lower part of the stick and with the ribs, and other brace-rods connected with the ribs and extending above the same, said last-named brace-rods being also slidably connected with the upper part of the stick.

2. In an improved umbrella, a stick consisting of two separate parts embodying an upper part and a lower part respectively, the ribs directly connected with the upper part of the stick, main brace-rods connected with the ribs and slidably connected with the upper part of the stick, two supplemental brace-rods pivotally connected with the ribs at opposite points of the same and pivotally connected with the lower part of the stick, means for maintaining the main brace-rods in raised position whereby the ribs are maintained in extended condition, a cover for said ribs, and a cover for said main brace-rods.

In testimony whereof I have signed my name in the presence of the subscribing witnesses.

MARIA APOLLONIA BÖHM.

Witnesses:

GEO. VAIL HUPPERTZ,  
J. R. LITTELL.