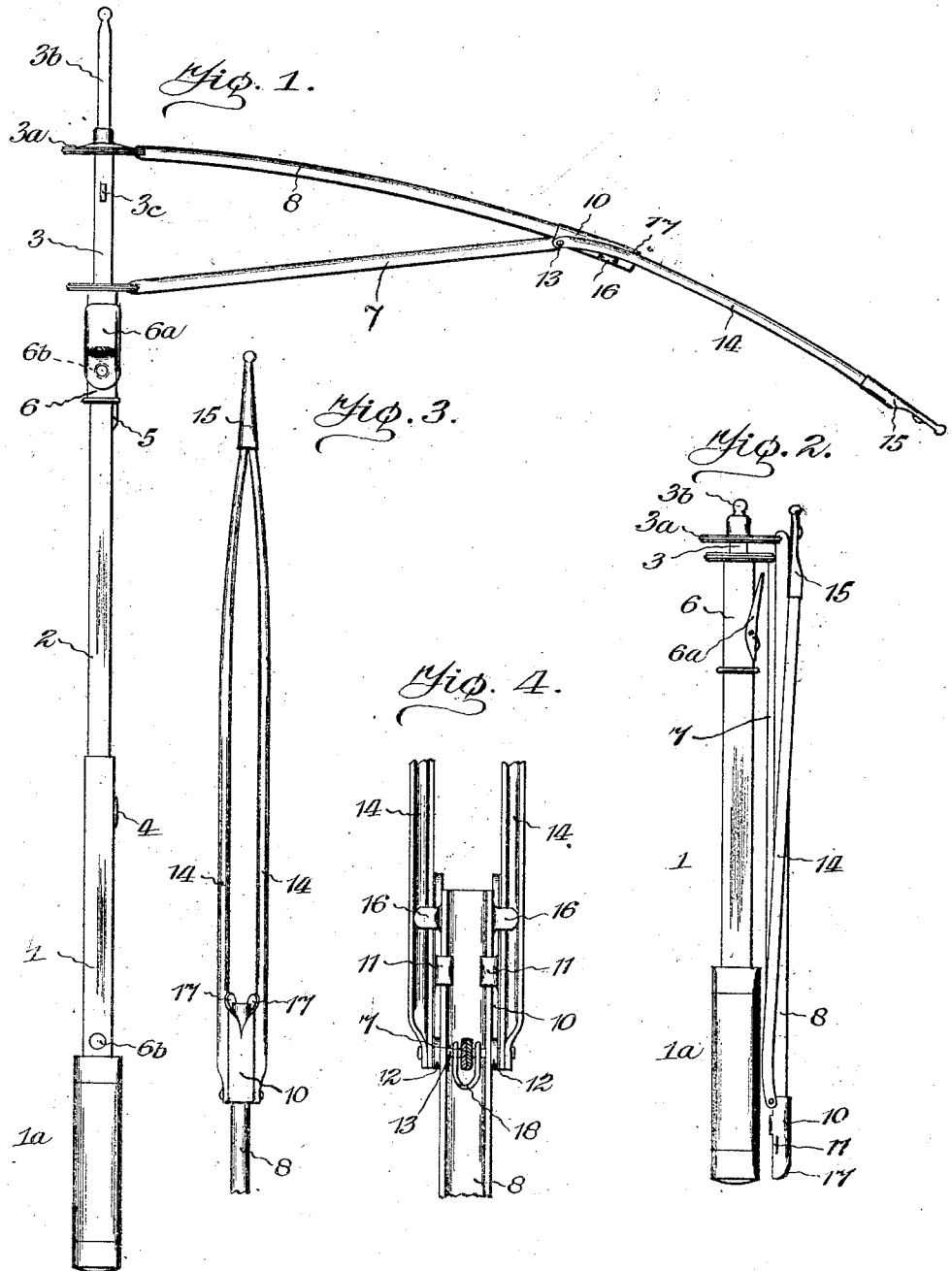


G. MROCKOWSKI.
 FOLDING UMBRELLA.
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1,002,736.

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GABRYEL MROCZKOWSKI, OF CHICAGO, ILLINOIS.

FOLDING UMBRELLA.

1,002,736.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GABRYEL MROCZKOWSKI, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Folding Umbrellas, of which the following is a specification.

My present invention relates to folding umbrellas of that character embodying ribs in foldable inner and outer sections having means to lock said sections in longitudinal alinement when the umbrella is unfolded, whereby the same may be opened and closed (raised and lowered) in use, similar to the ordinary non-foldable umbrella.

My present invention relates more particularly to an improvement over the umbrella described and claimed in my application No. 591,812, filed November 11, 1910, and allowed November 28, 1910, the object of my present improvement being the provision of a simplified rib construction which will reduce the bulk of the structure when folded.

In my application just referred to was shown a rib constructed of inner and outer sections, the inner section of which consisted of two parallel rods, while the outer section consisted of but a single rod. In the present case I form the ribs of inner and outer sections, the inner sections of which comprise a single rod while the outer sections comprise parallel rods. By this I am enabled to employ a very simple and inexpensive connection between the rib sections and also to provide means for securing the cover to said connection in such manner as to prevent it from being caught when the rib sections are straightened and locked in longitudinal alinement.

In the accompanying drawings, which illustrate my invention, and form a part of this specification, Figure 1 is an elevation of a stick and one rib and stretcher in the open position. Fig. 2 is a similar view of the same parts in the closed position. Fig. 3 is a plan view of a portion of one of the ribs, looking from the outside, and on an enlarged scale, and Fig. 4 is a fragmentary plan view of the connected ends of the rib sections, looking from the inside, and on an enlarged scale.

Referring now to these figures, my improved umbrella comprises a stick in three sections, an inner or handle section 1, which carries the handle 1^a, an intermediate sec-

tion 2 which telescopes into the handle section, and an outer section 3 which telescopes into the intermediate section, the latter carrying the crown piece 3^a to which the inner ends of the inner rib sections 8 are pivoted, and also carrying a tip section 3^b adapted to telescope therein and controlled by a catch 3^c. The stick sections 1 and 2 carry catches 4 and 5 respectively, which operate to hold the stick sections extended, it being necessary to depress these catches before the stick sections 2 and 3 can be telescoped into section 1. The runner 6, to which the inner ends of the stretchers 7 are pivoted, carries a pivoted latch 6^a adapted to engage openings 6^b in the stick sections 1 and 2, to hold the umbrella in the raised and lowered positions in use.

Each of the inner rib sections 8 comprises a single rod, upon the outer end of which is securely fastened a connecting member 10, by means of in-turned clips 11 upon its under-side, this connecting member 10 having ears 12 at its inner end, which depend below the plane of the inner rib section 8 and receive a transverse pin 13 therethrough, the outer ends of which pin extend through the inner ends of the spaced parallel rods 14 forming the outer rib section and extending upon opposite sides of said member 10. The outer ends of the rods 14 are brought together and secured by a tubular tip 15, which causes said rods 14 to closely hug the sides of the connecting member 10 when in the open position.

The connecting member 10, as shown particularly in Fig. 4, is provided with intermediate side ears 16, extending from its lower edge, to receive the rods 14 downwardly thereagainst. The outer end of this connecting member 10 is, as particularly shown in Fig. 3, slit longitudinally, and has its portions at the sides of said slit bent to flare outwardly as at 17 beyond the sides of said connecting member, at the upper edge thereof, in such a degree that the rods 14 may be sprung past the same when open, and may be thus locked in longitudinal alinement with the inner rib section 8, between said flared side portions 17 and the lower side ears 16.

The outer end of the stretcher 7 is pivotally mounted upon the pin 13, intermediate the sides of the inner rib section 8. Also secured upon said pivot pin 13 is a small wire connection 18, to which, in use, the

cover is fastened, by stitching, or otherwise, and by thus fastening the cover, it is prevented from being caught between the rods 14 and the connecting member 10, when said rods 14 are forced into their locked open position. Thus to fold the rib, the rods 14 of the outer section are swung upwardly, being forced past the flared portions 17 of connecting member 10, and moved back upon the inner section 8 until they straddle the same in the position shown in Fig. 2, this manner of construction and folding, enabling the use of a very small crown piece 3^a, and the formation of a compact folded structure.

I claim:

1. In a folding umbrella, the combination of a stick, a runner mounted to slide upon said stick, stretchers having their inner ends pivoted to said runner, ribs having their inner ends pivoted to the outer portion of the stick and comprising inner and outer sections, the outer sections of which comprise parallel rods connected at their outer ends, and connecting members secured upon the outer ends of the inner sections and to which the stretchers and the outer section rods are pivoted, said members having portions bent to outstand from the sides thereof and adjacent to their upper and lower edges between which the outer section rods may be locked when in the open position.

2. In a folding umbrella, the combination of a stick, a runner mounted to slide upon said stick, stretchers having their inner ends pivoted to said runner, ribs having their inner ends pivoted to the outer portion of the stick and comprising inner and outer sections, the outer sections of which comprise parallel rods and tubular tips connecting the outer ends of said rods, connecting

members secured upon the outer ends of the inner sections, and to the inner ends of which said outer section rods and the outer ends of the stretchers are pivoted, said connecting members having intermediate side ears at their lower edges and having their outer ends longitudinally slit and having their portions, at the sides of said slit, flared outwardly beyond the sides, at the upper edge, of said connecting member so as to lock the outer section rods, between said flared portions and said ears, when in the open position.

3. In a folding umbrella, the combination of a stick, a runner mounted to slide upon said stick, stretchers having their inner ends pivoted to said runner, ribs having their inner ends pivoted to the outer portion of the stick and comprising inner and outer sections, the outer sections of which comprise parallel rods and tubular tips connecting the outer ends of said rods, connecting members secured upon the outer ends of the inner sections, pivot pins carried by the inner portions of said connecting members and upon which the outer ends of the stretchers and the inner ends of the section rods are pivotally mounted, means carried by the outer portion of said connecting members to lock said outer section rods in longitudinal alinement with the inner rib sections, and a cover attaching member mounted upon the pivot pin to prevent the cover from being caught between the outer section rods and the connecting member.

In testimony whereof I affix my signature in presence of two witnesses.

GABRYEL MROCZKOWSKI.

Witnesses:

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