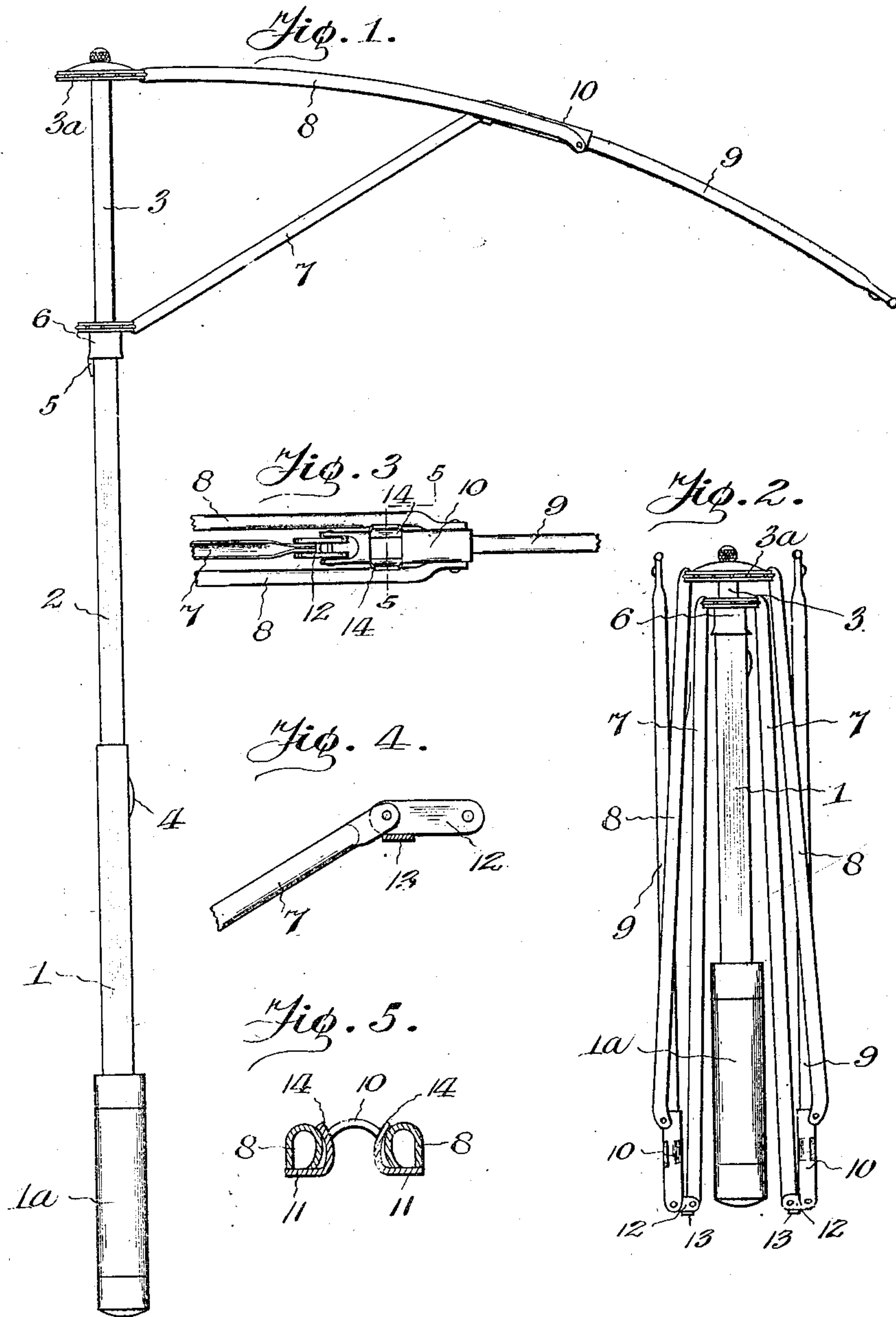


G. MROCZKOWSKI.
FOLDING UMBRELLA.
APPLICATION FILED NOV. 11, 1910.

991,632

Patented May 9, 1911



WITNESSES:

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UNITED STATES PATENT OFFICE.

GABRYEL MROCZKOWSKI, OF CHICAGO, ILLINOIS

FOLDING UMBRELLA.

991,632.

Specification of Letters Patent.

Patented May 9, 1911.

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To all whom it may concern:

Be it known that I, GABRYEL MROCZKOWSKI, a subject of the Czar of Russia, 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, and particularly to that character of folding umbrella embodying ribs in foldable inner and outer sections having means to lock said rib parts in longitudinal alinement when the umbrella is unfolded, whereby the umbrella may be opened and closed (raised and lowered) in use, similar to the ordinary non-foldable umbrella.

The principal object of my invention is to provide simple and inexpensive means to accomplish the foregoing, which will be adapted to a particular form of connection between the rib parts or sections, and which will prevent, to a great extent, possibility of the cover being caught in the said connection.

With these and other objects in mind, my invention resides in the details of construction, shown in the accompanying drawing, in which,

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 stick and two ribs and stretchers in the folded position. Fig. 3, is a fragmentary plan view of the connection between the rib connections, showing the same provided with my improvements. Fig. 4, is a detail section, on an enlarged scale, through one of the supplemental connecting parts or members, and Fig. 5, is a detail cross-section, on an enlarged scale, taken on line 5—5 of Fig. 3.

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 section 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. The stick sections 1 and 2 carry inner and outer runner catches 4 and 5 respectively, which control the runner 6, to which the inner ends of the stretchers 7 are

pivoted, and also operate to hold the stick section extended, it being necessary to depress these catches before the stick sections 2 and 3 can be telescoped into section 1.

Each of the inner rib sections 8 comprises a pair of parallel rods, the outer ends of which are pivotally secured to the outer end, and at the sides, of a connecting member 10, securely fastened upon the inner end of the outer rib section 9. Thus to fold the ribs the outer sections 9 may be swung outwardly and back upon the inner sections 8 until they lie between the rods of said inner sections, as shown in Fig. 2. The connecting members 10 are provided with intermediate side ears 11 which, in the open position, bear outwardly against the rods of the inner sections 8, these ears being located at the inner edges of said connecting members. Said connecting members 10 are further provided with slotted inner ends forming side extensions, between, and through, which are pivoted one end of the supplemental connecting members 12, these latter members 12 being constructed of a single piece of material bent to form parallel side pieces between, and through, the opposite ends of which are pivoted the outer ends of the stretchers 7. These side pieces of the supplemental members 12 just mentioned are connected at their lower edges, and adjacent their inner ends to which the stretchers are pivoted, by integral webs 13, which not only serve to form a more rigid structure, but to engage the stretchers 7 in the open position and prevent the outer end of said stretchers from extending through the rods of the inner rib sections 8 and puncturing the cover (not shown.) The outer surface of each connecting member 10 is longitudinally and transversely slit to provide a pair of tongues 14, these tongues being located opposite the ears 11, and bent upwardly and curved outwardly so that when the umbrella is unfolded and opened, these tongues which are forced to pass between the rods of the rib section 8, will spring outwardly and engage said rods as shown clearly in Fig. 5, and at the same time will push the adjacent portions of the cover (not shown) away from the connecting member, and to a great extent prevent catching and tearing of the cloth. From this it will be seen that I provide

extremely simple and inexpensive means which accomplish a two-fold result in an effective manner.

I claim:

5 1. In a folding umbrella, the combination of a sectional 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
10 of the stick and comprising inner and outer sections, the inner sections of which are composed of spaced parallel rods, connecting members secured upon the inner ends of the outer sections, and upon portions of which
15 the outer ends of said inner rods are pivoted, said connecting members having outstanding side ears, and extensions at one end, supplemental connecting members, formed of a single piece of material, and comprising
20 side pieces pivoted at one end between said extensions, the outer ends of the stretchers being pivoted between the opposite ends of said side pieces, and said side pieces being connected at their lower edges and adjacent
25 their last named ends by integral webs forming guards against which the ends of the stretchers impinge in the open position.

2. In a folding umbrella, the combination of a sectional 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 inner sections of which are composed of spaced parallel rods, connecting
35 members secured upon the inner ends of the outer sections, and upon portions of which the outer ends of said inner section ribs are pivoted, supplemental connecting members pivoted at one end to the inner ends of the
40 first named members, and to the opposite ends of which are pivoted the outer ends of the stretchers, said first named connecting members being provided with intermediate
45 outstanding side ears at their inner edges, and having their outer surfaces longitudinally and transversely slit, to provide tongues bent upwardly and curved outwardly, opposite the said ears, to engage the
50 rods of the inner stick sections in the open position.

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

GABRYEL MROCZKOWSKI.

Witnesses:

FRANK J. RIZYBYLSKI,
MYRON G. CLEAR.