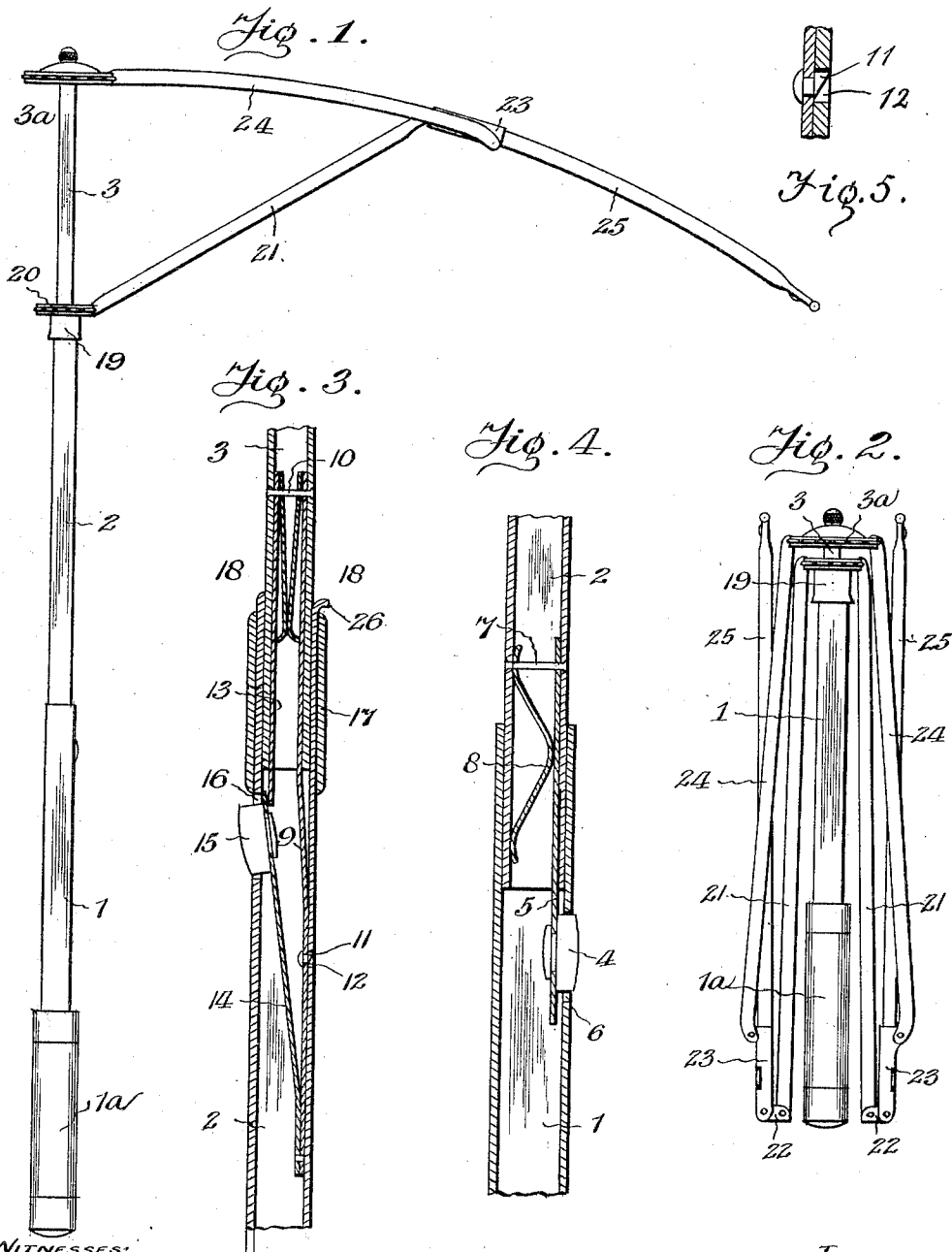


Z. MROCZKOWSKI.
FOLDING UMBRELLA.
APPLICATION FILED NOV. 8, 1910.

1,009,680.

Patented Nov. 21, 1911.



WITNESSES:

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FOLDING UMBRELLA.

1,009,680.

Specification of Letters Patent. Patented Nov. 21, 1911.

Original application filed September 9, 1910, Serial No. 581,181. Divided and this application filed November 8, 1910. Serial No. 591,275.

To all whom it may concern:

Be it known that I, ZYGMUNT 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, and is a division of my application filed September 9, 1910, serially numbered 581,181.

The object of my invention is to provide improved catches for the stick sections, one of these catches being adapted to hold the outer and intermediate stick sections and effectively prevent the former from being pulled from the latter when the outer runner catch is depressed, and to take away from the said runner catch all the strain of the outer stick section, whereby to permit of free and easy movement of said catch.

With the foregoing in mind my invention resides specifically in the following features of structure, arrangement and operation, reference being had to the accompanying drawing, in which,

Figure 1 is an elevation of the stick with 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 detail section, on an enlarged scale showing the arrangement for locking the outer stick section against accidental removal, and Fig. 4 is a similar view showing the arrangement for the catch of the intermediate stick section. Fig. 5 is an enlarged sectional detail of the catch shown in Fig. 3.

Referring now to these figures, my umbrella comprises 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 ribs are pivoted.

To hold the intermediate section 2 in extended position and prevent its removal from the handle section 1, I provide the means shown in detail in Fig. 4 and which comprises a double-ended catch member 4 secured to the end of a spring strip 5, and adapted to enter a slot 6 in the handle section 1. The inner end of the spring strip

5 is locked within the intermediate section 55 by means of a rivet 7 passing transversely therethrough and is forced against one wall thereof, as shown, by means of an acutely bowed spring 8, having its rounded ends bearing against the opposite wall of said intermediate, and held by means of the aforesaid rivet 7 passing through its inner end.

The outer section 3 is held within the intermediate section 2 by the means shown in Fig. 3, and which embody an elongated spring trip 9, one end of which is secured in section 3 by means of a transverse rivet 10, and the opposite free end of which extends within the section 2. Adjacent to the free end of this strip 9, which is intermediately bent so as to extend in close contact with inner wall of the section 2, is riveted a catch member 11, having a beveled engaging head, and adapted to enter a slot 12 in the said wall of section 2. Extending along the opposite wall of section 3, to spring strip 9, is a second strip 13, the free end of which projects only slightly beyond the end of said section 3 and serves as a spring support for the adjacent free end of the spring strip 14 to which is riveted the outer runner catch 15. The opposite end of said strip 14 is riveted to the free end of strip 9, and the catch 15 extends outwardly through a slot 16 in section 2 adjacent the inner end of a sleeve 17 disposed thereon for a purpose to be hereinafter described. The inner end of the spring strip 13 is locked by the rivet 10 passing therethrough, and said strip and strip 9 are forced against their respective walls of section 3 by means of the bent free ends of interposed springs 18, the opposite ends of which are also locked by the rivet 10 passing therethrough.

The usual runner 19 is slidably mounted upon the stick thus formed, and is provided with a nut 20 to which the inner ends of the stretchers 21 are pivotally secured, the outer ends of said stretchers being similarly connected to members 22 and 23 forming connections between the inner and outer rib sections 24 and 25, in such manner that the latter may be folded previous to the telescoping of the stick sections, in order to form a compact folded structure, as will be plainly seen by comparison of Figs. 1 and 2. In its inner position, the runner 19 is

upon the handle section 1, and inasmuch as the bore of this runner must be large enough to accommodate said handle section 1, the sleeve 17 upon the outer end of the intermediate stick section 2 is provided in order to prevent wobbling of the runner when in the outer position, this sleeve being of similar cross-section to the handle section 1. This runner is held in the outer position by the outer catch 15 and the outwardly bent end of one wall of section 2 beyond the sleeve, this bent end forming a flange 26.

From the foregoing it will be seen that it is necessary to press catch 15 inwardly within the intermediate stick section 2 before the outer stick section 3 can be telescoped within said intermediate section. The catch 11, being beveled inwardly toward the handle, as shown, does not interfere with the telescoping inward movement of the outer stick section 3, but operates to prevent the outward movement of said stick section 3, from the intermediate section during the time catch 15 is pressed inwardly.

I claim:

In a folding umbrella, the combination with a stick formed in telescoping sections, of a runner mounted to slide thereon, one of said sections having a pair of slots therein, a pair of spring strips extending from the end of the section telescoping in said first-named section, a catch member secured to one of said spring strips and adapted to engage within one of said slots, a catch member extending through the other of said slots to engage and hold the runner in the outer position, and a spring strip to which said last-named catch is fastened, said last-named strip being secured at one end to the free end of said first-named catch strip and having its free end extending against and supported by the free end of the other of said first-named strips.

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

ZYGMUNT MROCZKOWSKI.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."