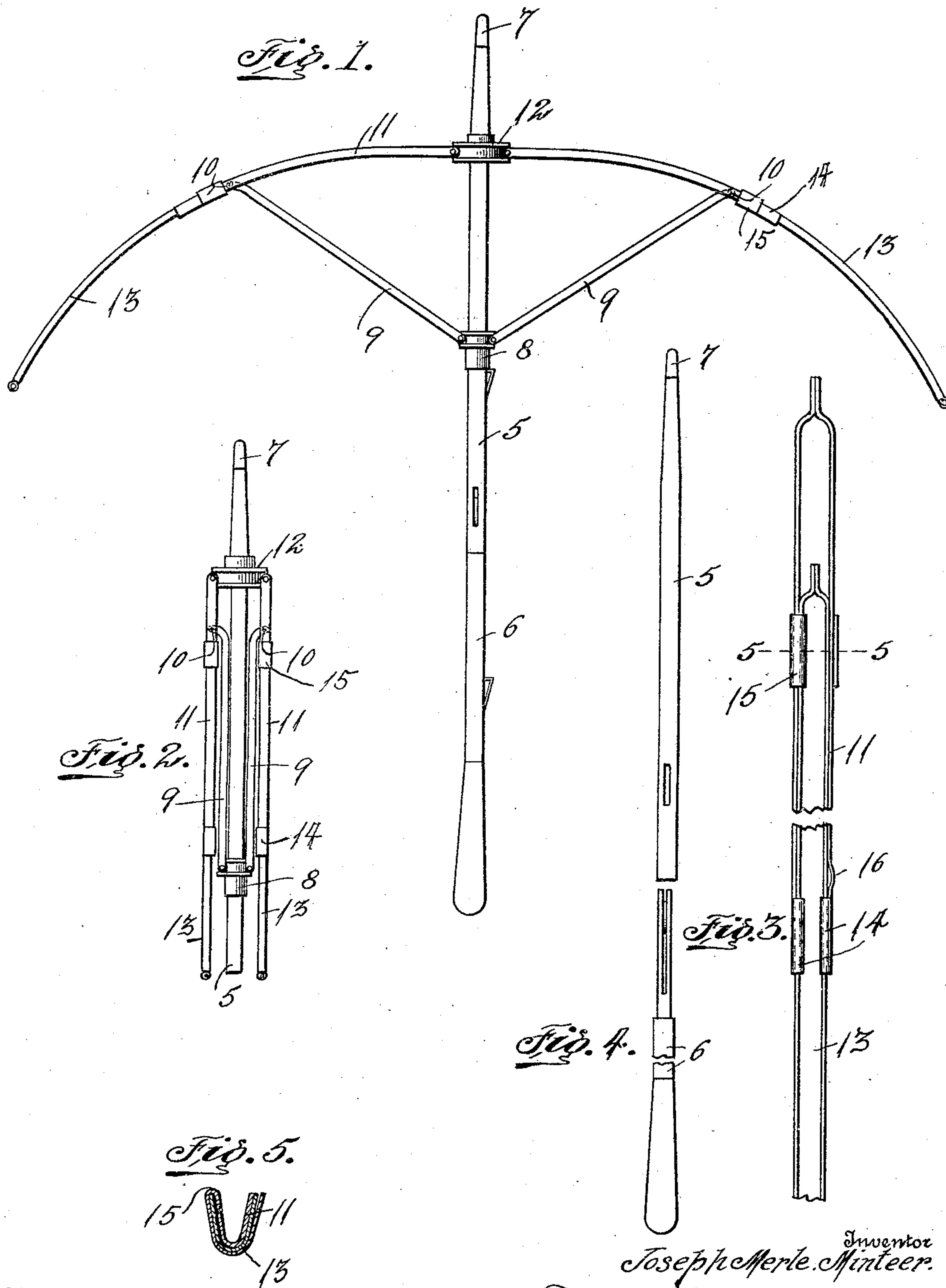


J. M. MINTEER.
FOLDING UMBRELLA.
APPLICATION FILED DEC. 28, 1908.

945,042.

Patented Jan. 4, 1910.



Witnesses
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W. J. Miller.

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UNITED STATES PATENT OFFICE.

JOSEPH MERLE MINTEER, OF NEW WILMINGTON, PENNSYLVANIA.

FOLDING UMBRELLA.

945,042.

Specification of Letters Patent.

Patented Jan. 4, 1910.

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To all whom it may concern:

Be it known that I, JOSEPH MERLE MINTEER, a citizen of the United States, residing at New Wilmington, in the county of Lawrence, State of Pennsylvania, have invented certain new and useful Improvements in Folding Umbrellas; 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.

The invention relates to umbrellas and more particularly to the class of folding umbrellas.

The primary object of the invention is the provision of an umbrella which may be readily folded into small compass whereby the same can be conveniently carried or readily packed in an ordinary dress suit case or grip.

Another object of the invention is the provision of a folding umbrella comprising a staff formed of separable sections, and ribs carried thereby, each of which ribs comprises inner and outer sections, the latter slidably connected to the inner section and having formed thereon a tongue bent about the inner section and adapted to frictionally engage a bulge or swell formed on the inner section so as to lock the outer section of the rib in an extended position.

A further object of the invention is the provision of a folding umbrella which is simple in construction, durable, thoroughly efficient and inexpensive in the manufacture.

With these and other objects in view the invention consists in the construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawings which disclose the preferred form of embodiment of the invention and brought out in the appended claim. However, it is to be understood that changes, variations and modifications may be made such as come properly within the scope of the claim hereunto appended without departing from the spirit of the invention.

In the drawings: Figure 1 is a side elevation of a portion of the umbrella frame, the same being in an open position. Fig. 2 is a similar view showing the umbrella frame in a folded position. Fig. 3 is a detail fragmentary view on an enlarged scale of one rib showing the manner of slidably connect-

ing the sections of the rib. Fig. 4 is a side elevation of the staff with the ferrule and handle shown detached therefrom. Fig. 5 is a sectional view on the line 5—5 of Fig. 3.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

In the drawings, the numeral 5 designates the main section of the staff or stick of the umbrella and 6 the handle section which latter is adapted to be detachably mounted or connected to the main section 5 and upon the said main section is detachably mounted a ferrule section 7. The staff or stick of the umbrella may be hollow or solid as may be found desirable. Upon the main section 5 is slidably mounted a runner 8 to which are pivotally connected stretchers 9 the latter having their outer ends pivotally connected as at 10 to the inner ends of extensible outer rib sections 13 slidably in the inner sections 11 which latter are pivotally connected to a collar 12 secured to the main section of the staff or stick of the umbrella.

Each of the sections 11 are of substantially U-shape in cross section to form a guide way for the outer extensible section 13 the latter being of corresponding shape in cross section with respect to the said sections 11. The sections 11 and 13 form the umbrella ribs. The sections 11 at their ends are formed with ears 14 bent inwardly toward each other to engage and guide the outer sections 13 when the latter telescope or slide in the sections 11 to permit the folding of the umbrella.

The outer sections are formed with extensions or tongues 15 which latter are bent about the sections 11 to slidably secure the outer sections to the inner sections. The said tongues 15 have slight yielding qualities and are adapted to engage a swell or bulge 16 formed on the inner section 11 adjacent the ears 14 so that when the outer sections 13 are extended the same will be held in this position by the frictional engagement of the tongues 15 with the bulges or swells formed on the upper sections of the ribs of the umbrella.

It is obvious the umbrella is capable of having its parts reduced so that the frame of the umbrella can be folded to a compact form and is also capable of being readily extended and adjusted for use.

What is claimed is—

In a folding umbrella, inner and outer

rib sections, each of substantially inverted U-shape in cross section, the outer rib section being adapted to slidably telescope within the inner rib section, ears formed on the outer end of the inner rib section and being bent inwardly and upwardly to engage the edges of the outer rib section to hold the same connected together, a bulge formed on the inner rib section adjacent one ear, and yieldable tongues at the inner end of the outer rib section and being bent about

the exterior face of the inner rib section to hold said outer rib section against separation from the latter and also to frictionally engage the bulge for maintaining the outer rib section distended. 15

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

JOSEPH MERLE MINTEER.

Witnesses:

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