

No. 744,476.

PATENTED NOV. 17, 1903.

M. B. BURGESS.
FOLDING UMBRELLA.

APPLICATION FILED APR. 1, 1903.

NO MODEL.

Fig. 1.

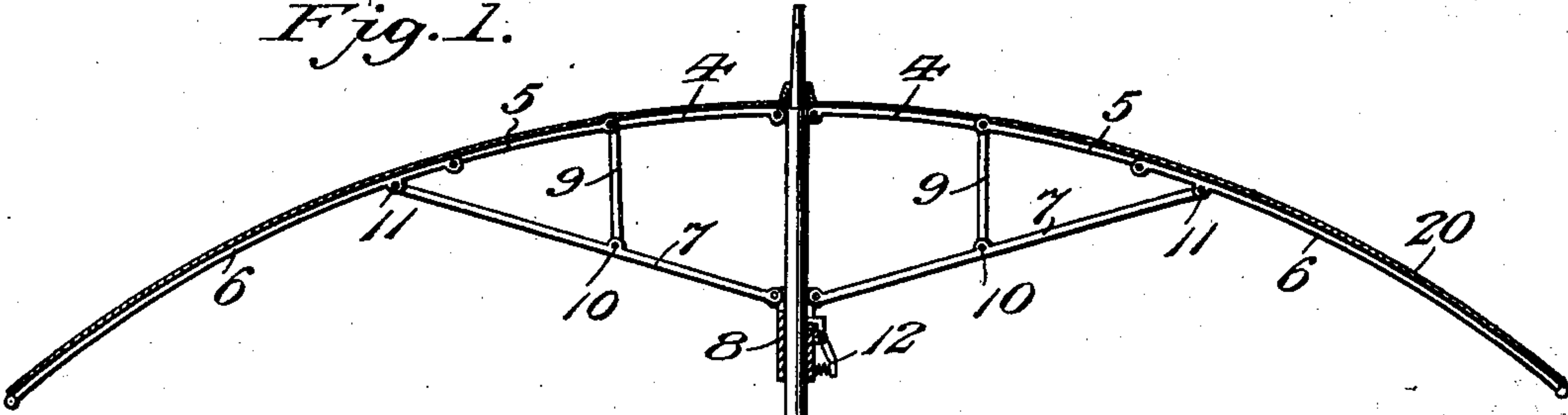


Fig. 2.

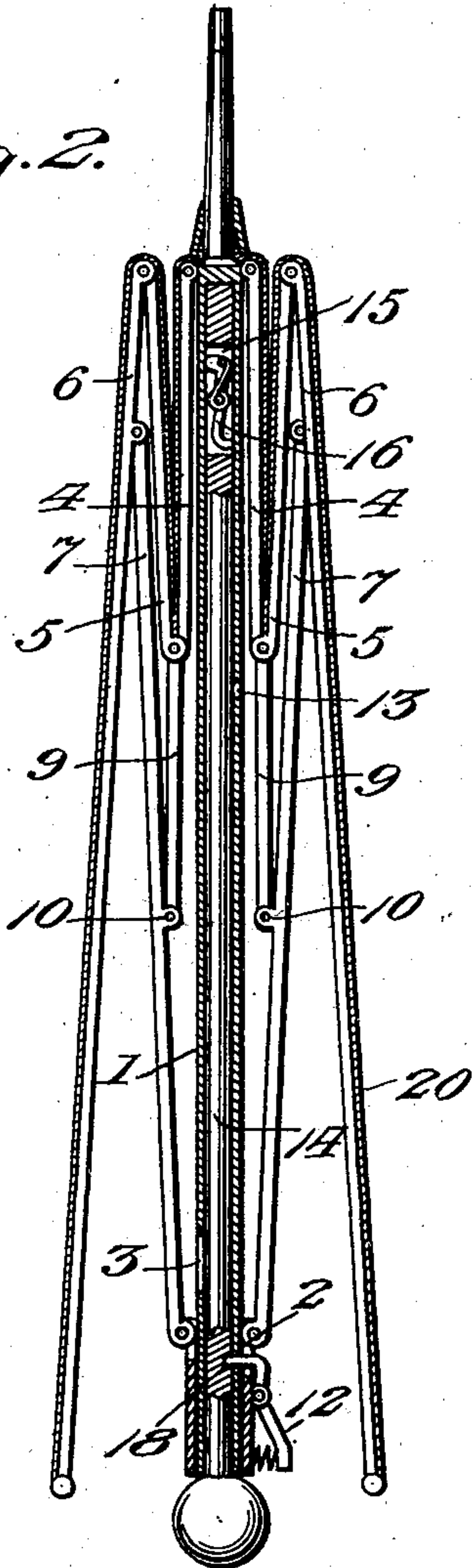
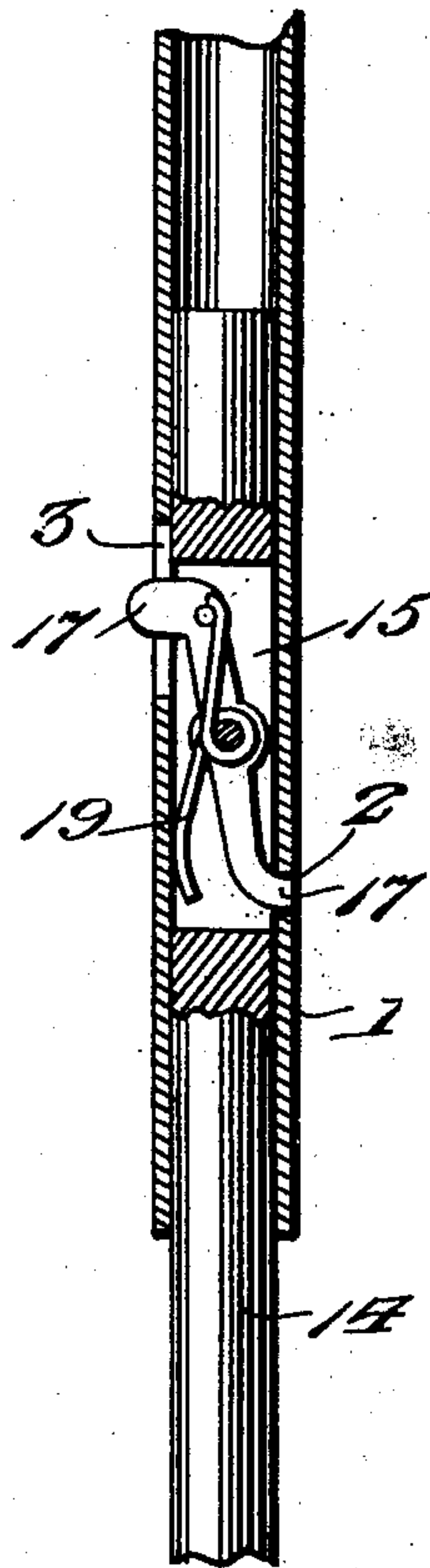


Fig. 3.



Inventor

Mortimer B. Burgess

Witnesses

Edwin F. McKee
Herbert D. Lawson

By

Victor J. Evans

Attorney

UNITED STATES PATENT OFFICE.

MORTIMER B. BURGESS, OF LINCOLN UNIVERSITY, PENNSYLVANIA.

FOLDING UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 744,476, dated November 17, 1903.

Application filed April 1, 1903. Serial No. 150,632. (No model.)

To all whom it may concern:

Be it known that I, MORTIMER B. BURGESS, a citizen of the United States, residing at Lincoln University, in the county of Chester and State of Pennsylvania, have invented new and useful Improvements in Folding Umbrellas, of which the following is a specification.

My invention relates to new and useful improvements in folding umbrellas; and its object is to provide a frame of novel construction by means of which the umbrella can be folded into compact form.

A further object is to provide means whereby the ribs of the frame may be simultaneously folded upon each other.

A further object is to employ an extensible handle having novel means for locking the same in either extended or shortened position.

With the above and other objects in view the invention consists in arranging upon the tubular handle of the umbrella a series of ribs each of which is preferably formed of three sections hinged together. A stretcher is pivoted at opposite ends to a runner upon the handle and to the outer section of its rib at a point between the ends thereof. A link is pivoted at opposite ends to this stretcher and to the adjoining ends of the other two sections of the rib. By arranging the rib-sections, stretcher, and link in this manner when the runner is drawn down upon the handle the rib-sections will be folded upon each other in such a manner as to reduce the length of the rib approximately one-half.

The invention also consists in the further novel construction and combination of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawings, showing the preferred form of my invention, and in which—

Figure 1 is a section through an umbrella constructed in accordance with my invention and showing the parts extended. Fig. 2 is an enlarged section through the umbrella folded, and Fig. 3 is an enlarged section through the handle of the umbrella and showing the movable section thereof locked in extended position.

Referring to the figures by numerals of ref-

erence, 1 is a tubular rod having oppositely-arranged apertures 2 and 3 near one end, and rib-sections 4 are pivoted to the rod 1 near the other end thereof. An intermediate rib-section 5 is pivoted at opposite ends to each section 4 and to an outer rib-section 6, and a stretcher 7 is pivoted at its ends to a runner 8 upon rod 1 and the section 6 at a point between its ends. A link is pivoted at opposite ends to the adjoining ends of sections 4 and 5 and the stretcher 7, respectively, and the combined lengths of link 9 and rib-section 4 are preferably equal to the distance from the pivot 10 of link 9 to pivot 11 of the stretcher and from said pivot to the point of connection between sections 5 and 6. A spring-pressed dog 12 is mounted upon runner 8 and is adapted when the umbrella is extended to project into an aperture 13, formed within rod 1.

When it is desired to fold the umbrella, dog 12 is depressed, so as to release the runner, and said runner is moved longitudinally upon rod 1. This will cause stretcher 7 to draw inward upon the outer rib-section 6, and at the same time link 9 will draw downward upon the adjoining ends of the sections 4 and 5. This will cause rib-sections to fold into the positions shown in Fig. 2. The runner can be locked in lowered position by placing the dog in the aperture 2, before referred to. A rod 14 is slidably mounted in the tubular rod 1 and has a slot 15 near its inner end, within which is pivoted a lever 16, having oppositely-extending projections 17. When the rod 14 is pressed inward and the umbrella is folded, dog 12 will project into a recess 18 formed within said rod and lock the rod within the tubular portion 1. To extend rod 14, dog 12 is depressed and the rod drawn outward. As soon as the extensions 17 of lever 16 arrive opposite the apertures 2 and 3 they will be moved automatically thereinto by means of a spring 19.

Any desired form of umbrella-cover 20 may be secured upon the rib-sections, and as the ends of said sections are rounded the cover will be uninjured during the folding operation.

In the foregoing description I have shown

the preferred form of my invention; but I do not limit myself thereto, as I am aware that modifications may be made therein.

Having thus described the invention, what is claimed as new is—

1. In a folding umbrella, the combination with a rod having a runner thereon; of a stretcher pivoted to the runner, an outer rib-section pivoted at a point between its ends to the stretcher, an inner rib-section pivoted to the rod, an intermediate rib-section pivoted to the outer and inner sections, and a link between the stretcher and the adjoining ends of the inner and intermediate sections.

2. In a folding umbrella, the combination with an extensible rod, and a runner mounted upon the rod; of an inner rib-section pivoted to the rod, a stretcher pivoted to the runner, an outer rib-section pivoted at a point between its ends to the stretcher, an intermediate rib-section pivoted to the outer and inner rib-sections, and a link between the adjoining ends of the inner and intermediate rib-sections and the stretcher.

3. In a folding umbrella, the combination with an extensible rod, and means for locking

said rod in extended or shortened position; of a runner mounted upon the rod, means for locking the runner to the rod, an inner rib-section pivoted to the rod, a stretcher pivoted to the runner, a link pivoted to the stretcher at a point between its ends and to the outer end of the inner rib-section, an outer rib-section pivoted at a point between its ends to the stretcher, and an intermediate rib section pivoted to and connecting the outer and inner rib-sections.

4. In a folding umbrella, the combination with a tubular rod, and folding ribs pivoted thereto; of a runner slidably mounted upon said rod and connected to and adapted to fold the ribs, means for locking the runner to the rod, a slotted rod slidably mounted within the tubular rod, and a spring-pressed catch pivoted within said slotted rod and adapted to engage the tubular rod.

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

MORTIMER B. BURGESS.

Witnesses:

W. T. BAILEY,
C. C. NEILSON.