

(No Model.)

2 Sheets—Sheet 1.

M. G. McGUIRE.
UMBRELLA.

No. 555,729.

Patented Mar. 3, 1896.

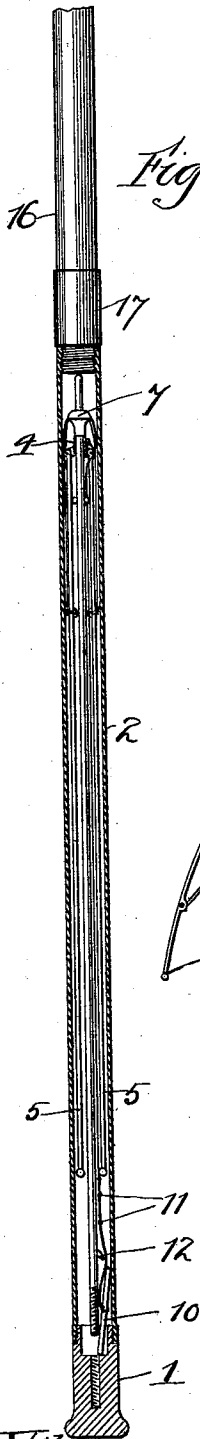


Fig. 5.

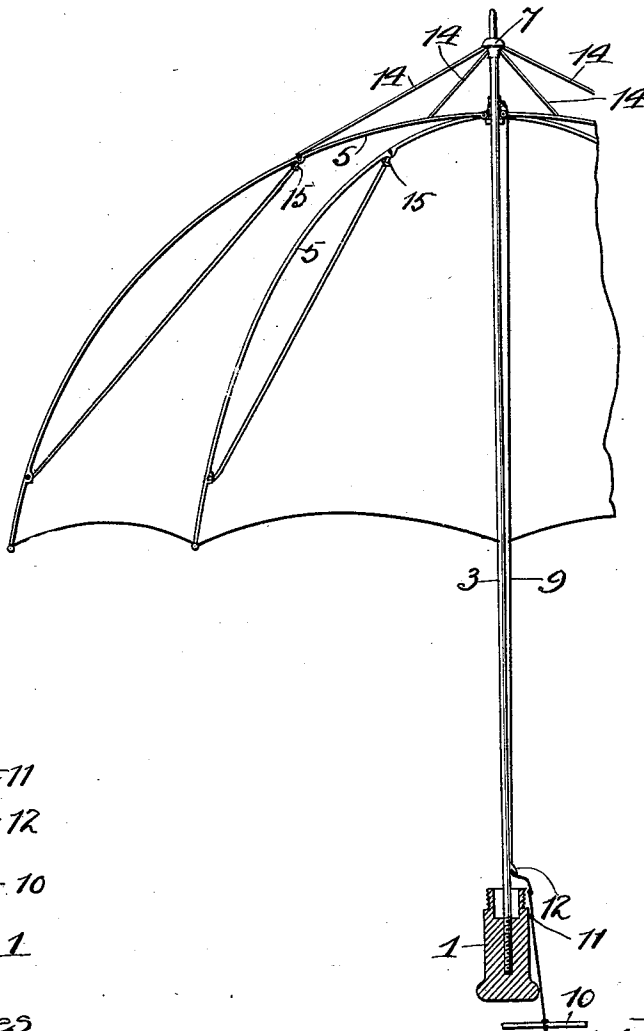


Fig. 1.

Fig. 7.



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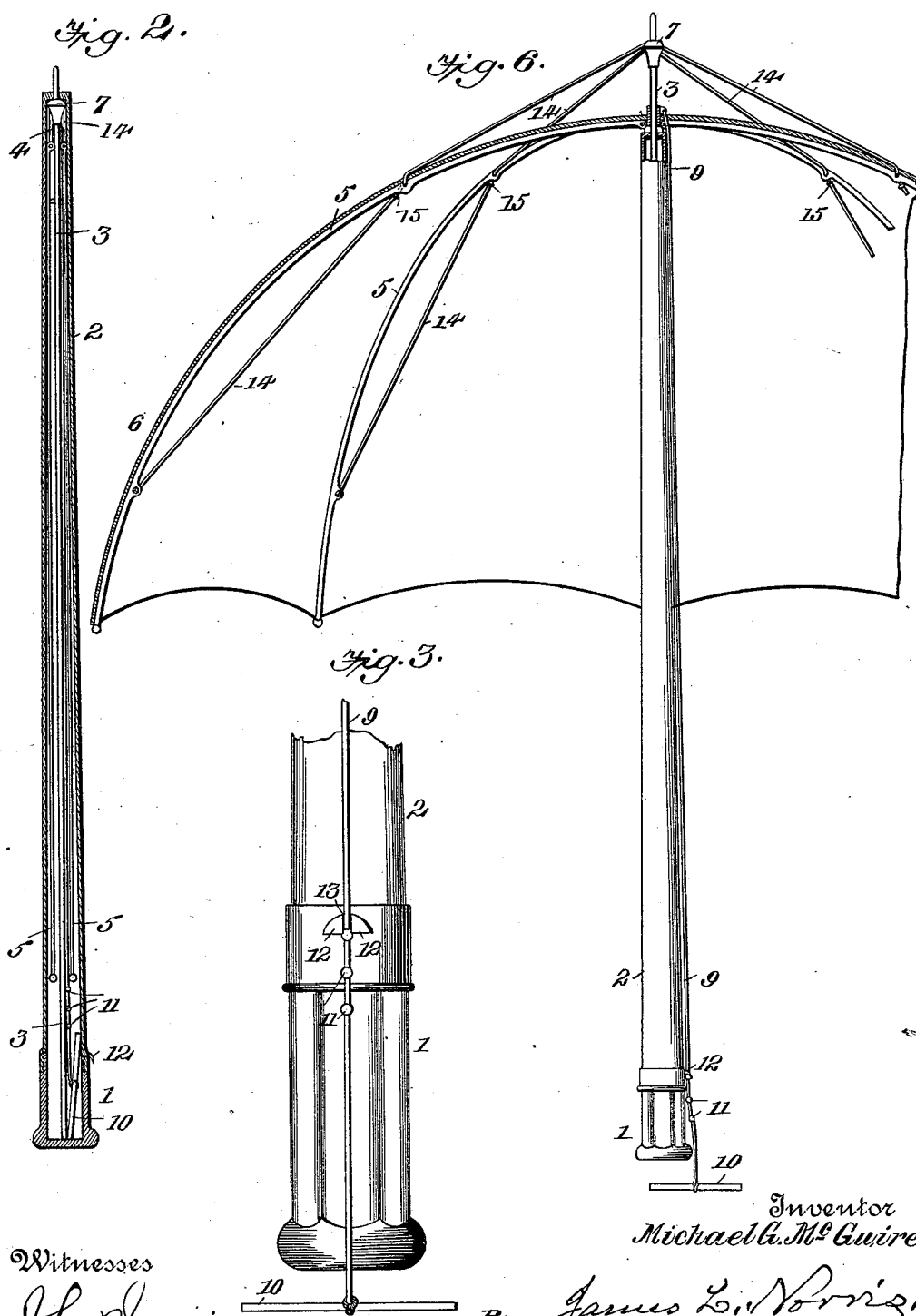
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2 Sheets—Sheet 2

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UNITED STATES PATENT OFFICE.

MICHAEL G. MCGUIRE, OF CHICAGO, ILLINOIS.

UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 555,729, dated March 3, 1896.

Application filed March 4, 1895. Serial No. 540,447. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL G. MCGUIRE, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Umbrellas, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in umbrellas, and its object is to provide an umbrella in which the use of an interior sliding ferrule may be done away with and the umbrella braced when open by means of exterior braces, thus enabling the umbrella to be folded in a more compact form, so as to occupy less space, which enables it to be readily inclosed within a case which may serve, when desired, as a cane or, as shown in Figures 4 and 5 of the drawings, as a whip-stock.

The invention also relates to certain details of construction hereinafter set forth and claimed, reference being made to the accompanying drawings, in which—

Fig. 1 is a view of the umbrella raised, partially in vertical section. Fig. 2 is a vertical cross-section showing the umbrella closed and placed within the cane which may be used as a case. Fig. 3 is an enlarged detail, being a view of the lower end of the handle, showing the method by which the operating-cord is attached. Fig. 4 is a modification of another form of case which may be used to inclose the umbrella. Fig. 5 is an enlarged detail in vertical cross-section of the lower portion of case illustrated in Fig. 4. Fig. 6 is a view of the umbrella in raised position for use, similar to Fig. 1, but with the shaft incased in the tubular staff.

In the said drawings the reference-numeral 1 indicates a handle or knob, and 2 the staff, of a hollow cane. The handle 1 is preferably secured upon the lower end of the cane, as illustrated in Figs. 2 and 5, but may be secured thereto in any suitable manner.

The numeral 3 indicates a shaft of an umbrella, which is preferably formed of a steel rod or tube, but may be formed of any other suitable material.

4 indicates a ferrule which is slidably mounted upon the shaft 3.

5 indicates ribs of the usual form and construction except as herein otherwise stated,

which are pivotally connected at their inner ends to the ferrule 4 and are covered with a covering 6 of any suitable material in the usual manner.

The numeral 7 indicates a support which is rigidly secured to the shaft 3 near the upper end of the latter.

9 indicates a cord, the upper end of which is secured to the ferrule 4 and the lower end of which is provided with a handle 10 and a series of knots or knobs 11, which are tied in or secured to the cord 9 at a suitable distance above the handle 10.

12 indicates a catch which is secured to the lower portion of the cane or the lower portion of the shaft 3 of the umbrella, as illustrated in Figs. 1 and 5. This catch 12 is provided with a slot 13 (see Fig. 3) through which the cord passes, and is of such a form as to engage the knots or knobs 11 and hold the cord, when so engaged, against upward pull.

The numeral 14 indicates braces of wire cord or other flexible material, the upper ends of which are secured to the support 7. Said braces pass downward through apertures provided in the ribs 5, the lower ends of said braces being secured to said ribs at a point near the lower end of the latter.

The braces 14 are provided with knots or knobs 15 arranged just below the aperture in the ribs 5, said knots or knobs being adapted to bear upon said ribs and prevent the latter from slipping downward upon the braces when the umbrella is raised, thus affording a fulcrum for said ribs to turn on when cord 9 is pulled downward and causing the umbrella to be opened and spread. At the same time, as said umbrella spreads, the portion of said braces between said knots 15 and their point of attachment near the lower ends of said ribs 5 affords an inner brace for such ribs, as shown in Fig. 1, thereby preventing the umbrella from being turned inside out by sudden gusts of wind.

When it is desired to use the umbrella which is incased as in Fig. 2, said umbrella is removed from the hollow cane 2 as follows: The handle 1 is unscrewed or otherwise unfastened from the staff 2. The umbrella is then removed from its position in said staff and opened. The lower end of the shaft 3 is then inserted through a suitable opening in

the top of the staff, as shown in Fig. 2, and the shaft is pulled up until the end reaches and bears upon the ferrule 4. The handle 1 is then screwed or secured in place upon the shaft 3, the cord is pushed home and engaged with the catch 12, as above described. The open position of the umbrella is illustrated in Fig. 6.

If it is desired to lower the umbrella and reclose it in its case, the knots 11 are freed from engagement with the catch 12, the staff 2 removed, the handle unscrewed or released from the end of the shaft 3 and the umbrella inserted in its staff as a case.

In Figs. 4 and 5 of the drawings a modified form of the umbrella-case is shown. In this form the case may be used as a whip-stock or similar article. It is formed in two parts, the upper portion, 16, and the lower portion, 2, being connected by the collar or ferrule 17. The handle-section 2 is hollow, so as to form a casing within which the umbrella may be placed, and is screwed to the upper portion, 16, as shown in Fig. 5. The ferrule 4 and supports 7 are of course made of such a size as to pass freely within the hollow staff of the cane 2 or the hollow portion of the rod 2 16.

As shown in Fig. 4, the section 2 is more particularly designed for use as the lower or handle section of a fish-pole, in which the umbrella is retained and from which it may be withdrawn for use by opening it, as shown in Fig. 1.

The tendency of the umbrella to rotate on

the shaft may be counteracted by inserting a pin in the collar 4, which will pass into a groove or slot in that part of the staff over which the collar slides.

It will be obvious that by avoiding the use of a sliding brace-collar or ferrule I am able to fold the umbrella more compactly.

What I claim is—

1. In an umbrella, the combination with a shaft, a ferrule sliding upon said shaft, and ribs pivoted at their inner ends to said ferrule, of flexible braces secured at one end to said shaft at a point exterior to said ferrule, passing through said ribs, and adapted to bear upon said ribs by being permanently secured at their other ends to strain said ribs, and means for locking said ferrule when said umbrella is opened, substantially as described.

2. In an umbrella, the combination with a shaft, a ferrule sliding upon said shaft, and ribs pivotally secured at their inner ends to said ferrule, of flexible braces secured at one end to said shaft at a point exterior to said ferrule, passing through said ribs, and provided with knots adapted to bear upon said ribs, and secured at their other ends at a point near the outer ends of said ribs, means for sliding said ferrule on said shaft and for locking said ferrule in place when the umbrella is opened, substantially as described.

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Witnesses:

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