

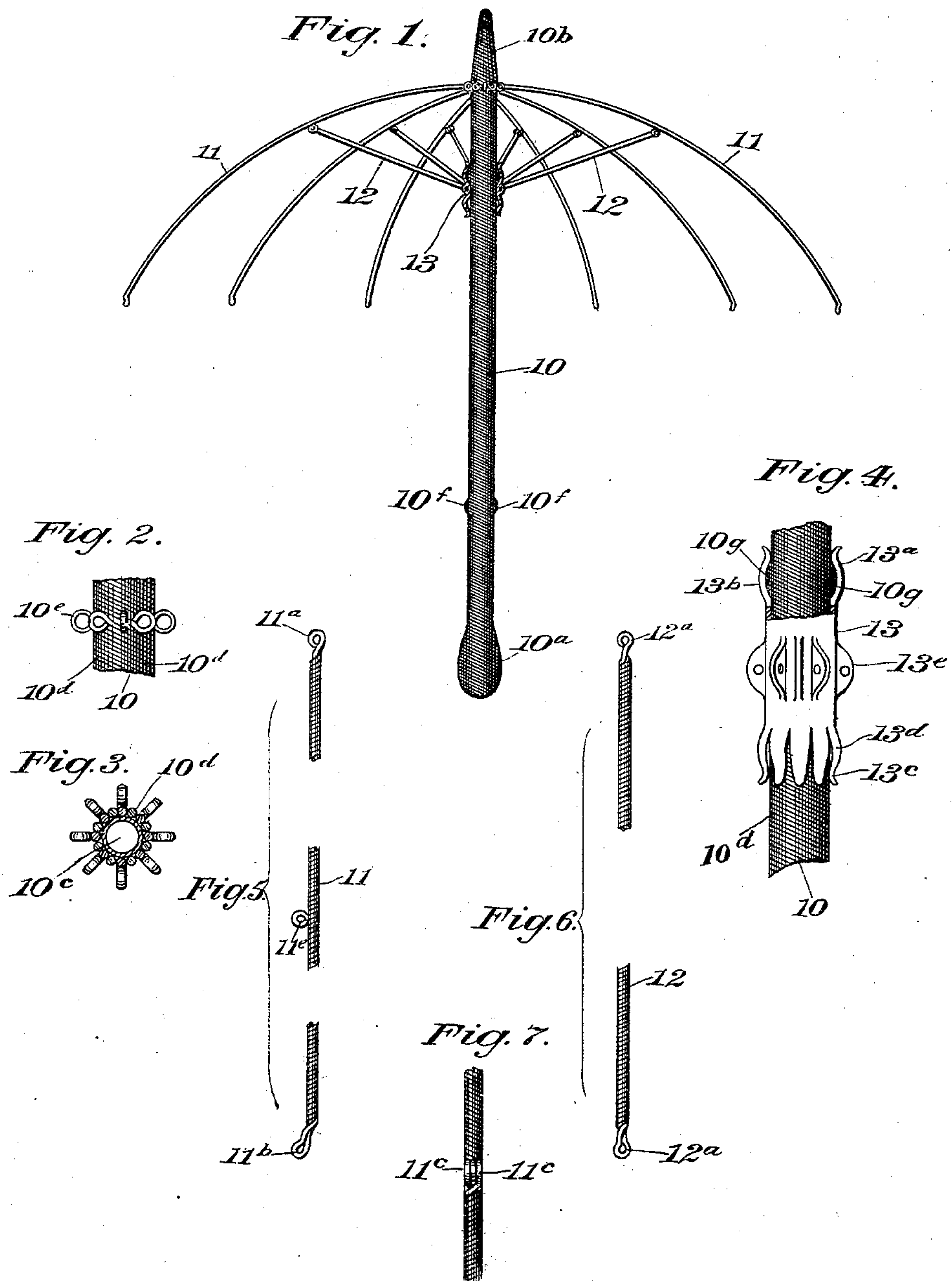
No. 671,463.

Patented Apr. 9, 1901.

J. J. WHITTLESEY.
UMBRELLA NOTCH AND RIB JOINT.

(Application filed Sept. 20, 1900.)

(No Model.)



WITNESSES:
F. A. Stenmark
C. Elwood Bell

INVENTOR
John J. Whittlesey
BY
Edgar Tate
ATTORNEYS

UNITED STATES PATENT OFFICE.

JOHN JACOB WHITTLESEY, OF PITTSFIELD, MASSACHUSETTS.

UMBRELLA NOTCH AND RIB-JOINT.

SPECIFICATION forming part of Letters Patent No. 671,463, dated April 9, 1901.

Application filed September 20, 1900. Serial No. 30,550. (No model.)

To all whom it may concern:

Be it known that I, JOHN JACOB WHITTLESEY, a citizen of the United States, residing at Pittsfield, in the county of Berkshire and State of Massachusetts, have invented certain new and useful Improvements in Umbrellas, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to umbrellas; and one object thereof is to provide an umbrella-frame which is composed wholly or partially of twisted wire, a further object being to provide an umbrella-frame which is strong and durable and which possesses great elasticity and is also comparatively inexpensive; and with these and other objects in view the invention consists in an umbrella-frame constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by the same reference characters in each of the views, and in which—

Figure 1 is a side view of an umbrella-frame made according to my invention; Fig. 2, a side view of a portion of the stock on an enlarged scale; Fig. 3, a plan view thereof; Fig. 4, a view similar to Fig. 2, showing another portion of the stock; Fig. 5, a side view of one of the ribs of the umbrella broken at two points; Fig. 6, a similar view of one of the braces broken away centrally; and Fig. 7, an inside view of a central portion of one of the ribs, Figs. 5, 6, and 7 being also on an enlarged scale.

In the practice of my invention I provide an umbrella-frame comprising a stock 10, ribs 11, and braces 12, the stock being provided at its lower end with a handle 10^a, and the opposite end thereof being projected beyond the point of the connection of the ribs 11, as shown at 10^b.

The stock 10 is preferably composed of a central steel tube 10^c, as shown in Fig. 3, around which are wound a plurality of wires 10^d, as shown in Figs. 1, 2, 3, and 4. These wires are preferably sixteen in number, and at the point where the ribs 11 are connected with the stock each alternate wire is formed

into a projecting loop or eye 10^e, and said stock is also provided at a predetermined distance from the handle 10^a with projecting knobs 10^f, which are formed in the tube 10^c and over which the wires 10^d are twisted in the formation of the stock.

The ribs 11 are preferably composed of two wires twisted together or of a single wire bent centrally and twisted together, and these ribs are provided at one end, as shown in Fig. 5, with a loop or eye 11^a, and at the opposite end with a projecting loop 11^b, which corresponds with the tip at the end of the umbrella-ribs as usually made, and at the point where the braces 12 are connected therewith with two loops or eyes 11^c, as shown in Figs. 5 and 7, and the loops or eyes 11^a and 11^c are preferably formed integrally with the wires from which the ribs are formed, as is also the projecting loop 11^b.

The braces 12 are provided at each end with a loop or eye 12^a, and said braces are also preferably composed of two wires twisted together or of a single wire doubled and twisted together, and the loops or eyes 12^a are formed integrally therewith.

In connecting the ribs 11 with the loops or eyes 10^e one end of each of the ribs, which are preferably eight in number, is placed between the one pair of the loops or eyes 10^e and a wire is passed through the loops or eyes 11^a at one end of the ribs and also through the loops or eyes 10^e, and this forms a secure connection between the ribs and the stock, while forming also a perfect hinge, as will be readily understood.

Mounted on the stock 10, as shown in Figs. 1 and 4, is a sliding sleeve 13, provided at its upper end with spring-tongues 13^a, the central portions of which are curved outwardly to form clamps, as shown at 13^b, and the lower end of the sleeve 13 is provided with corresponding spring-tongues 13^c, the central portions of which are also curved outwardly, as shown at 13^d, so as to form clamps, and the central portion of said sleeve is provided with eight sets of projecting jaws 13^e, between which the inner ends of the braces 12 are pivoted or secured by means of a wire passed through the eyes or loops 12^a and at one end of said braces through the corresponding jaws 13^e on the sleeve 13. The op-

posite ends of the braces 12 are connected with the loops or eyes 11^c, with which the ribs 11 are provided, in the same manner or by means of a rivet, and while I have shown and described the ribs 11 and braces 12 as being eight in number it will be apparent that said ribs and braces may be of any desired number. The stock 10 is also provided at the limit of the upward movement of the sleeve 13 with knobs or projections 10^g, similar to those at 10^f, which is the lower limit of the movement of the sleeve 13, and in Fig. 4 the sleeve 13 is shown at the limit of its upward movement. The clamps 13^b engage with the knobs or projections 10^g and hold the sleeve 13 in the position shown in Fig. 1, and the knobs or projections 10^f operate in a similar manner in connection with the spring-clamps 13^d to hold said sleeve in its lowermost position, and all that is necessary to move said sleeve in either direction or to disengage it from or connect it with the knobs or projections 10^f and 10^g is to grasp the same between the thumb and fingers and pull or move it in either direction. It will be observed that the spring-tongues 13^a and 13^c are curved outwardly at their ends, so as to enable them to pass over the corresponding knobs or projections 10^f and 10^g.

My improved umbrella-frame is simple in construction and operation and is also com-

paratively inexpensive, and it will be apparent that the same may be made as strong as desired, and the said frame also possesses great elasticity, and it will be apparent that changes in and modifications of the construction described may be made without departing from the spirit of my invention or sacrificing its advantages.

Although I have shown and described two rings or eyes 11^c on the ribs 11, it will be apparent that only one of said eyes or rings is necessary, and instead of forming two of said eyes or rings on the ribs the stays themselves may be provided at one end with two eyes or rings and the ribs with but one.

Having fully described my invention, I claim as new and desire to secure by Letters Patent—

An umbrella-frame the stock of which, or outer surface thereof, is composed of twisted wire formed into eyelets which serve as connections for the ribs of the frame, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 18th day of September, 1900.

JOHN JACOB WHITTLESEY.

Witnesses:

HERBERT A. HUMPHREY,
S. JOHN O'HERRON.