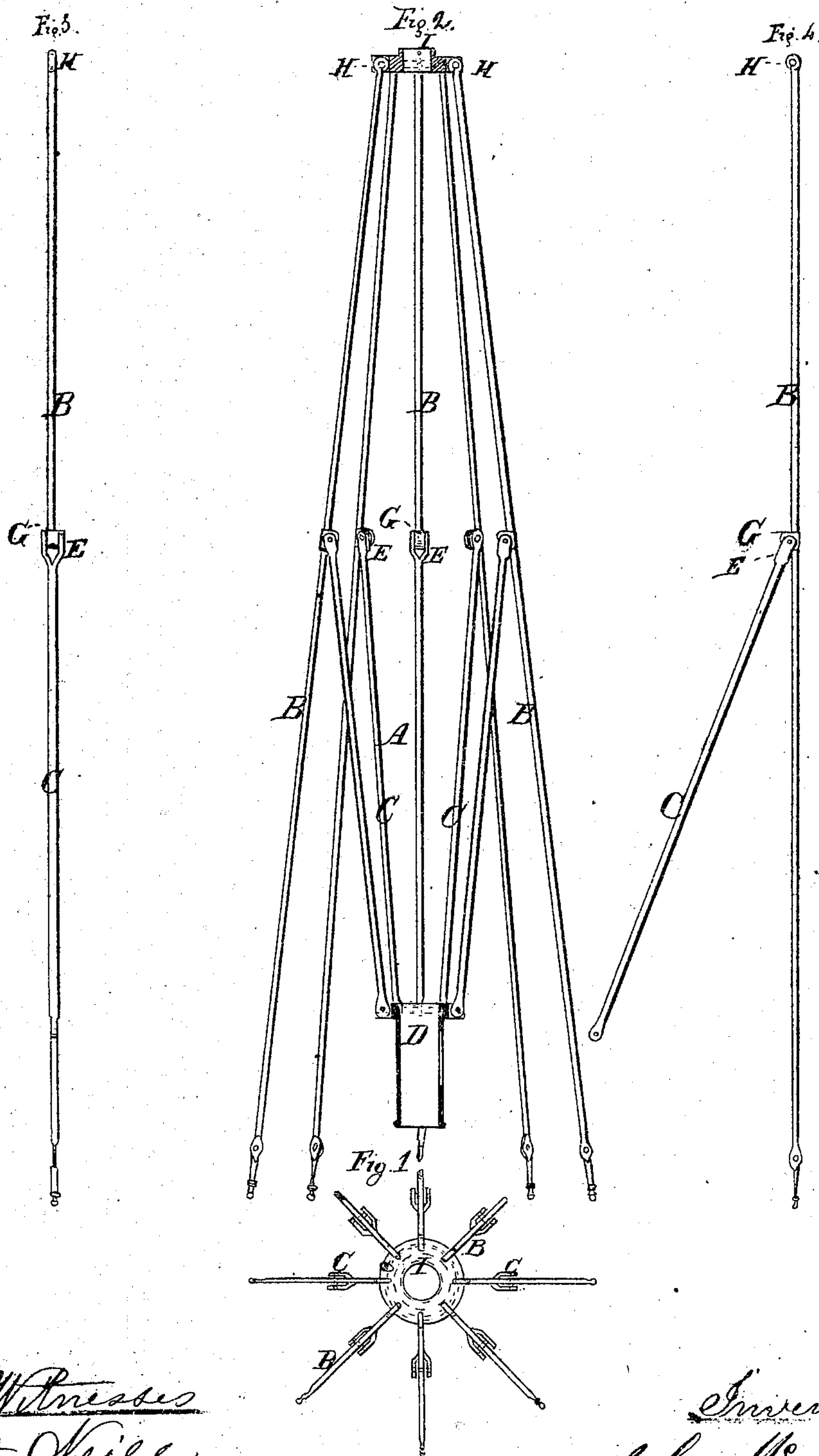


J. M^c Auliffe, Umbrella.

No. 89874.

Patented May 11, 1869.



Witnesses
 A. O'Neill
 L. L. Copeland

Inventor
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 Atty. at Law

United States Patent Office.

JOHN MCAULIFFE, OF NEW YORK, N. Y.

Letters Patent No. 89,874, dated May 11, 1869.

IMPROVED UMBRELLA

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOHN MCAULIFFE, of the city, county, and State of New York, have invented a new and useful Improvement in Umbrellas; and do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification, of which—

Figure 1 is a plan, or top view;

Figure 2, a sectional elevation;

Figure 3, a front view of one of the ribs removed from the frame; and

Figure 4, a side elevation of said rib.

This invention, relating to an improvement in metallic-framed umbrellas, consists in such construction and arrangement of parts thereof as will secure the desired qualities of lightness, elasticity, and durability; and to this end, I turn over the upper end of the rib, so as to form an eye, or loop, for the purpose of uniting the upper ends of the ribs with the retaining-ferrule, or top notch, by passing a wire through the loops so made, in the ordinary manner. By this means the rib is less liable to break at its connection with the top notch than when made in any other way, by the use of the same weight of material; and it further consists in attaching to said rib, near its centre, a lap for the reception of the bifurcated end of the stretcher, which lap operates measurably in the manner of a bell-crank, reducing the friction in the usual joints at this place, permitting a curving movement, and thus removing the strain from the joints in the crown-plate, the derangement of which is so frequent, and so difficult to repair.

It will be observed also that by the use of the lap, or intermediate connection between the spreader and the rib, strength is imparted to the rib, that is to say, at the point of greatest strain, and where the ribs of umbrellas are usually weakened by perforations, and the spreaders by flattening.

In the said drawings—

A indicates the metallic frame of the umbrella.

B B, &c., the ribs.

C C, the stretchers, or braces, which are fastened at one end to the runner D, in the ordinary manner, and to the ribs by their bifurcated ends E, embracing the laps G, said laps being pressed on the ribs, as aforesaid; and

H H are the loop-ends of the ribs, connected with the upper notch I, as already explained and shown in the drawings.

I am aware that in umbrellas heretofore made, the upper ends of the ribs form hooks, which are held in place in the top notch by a crown-piece; and I am aware that umbrellas have been made with the connections of all the parts formed of loops in the wire; but those I lay no claim to, the former being inoperative, and the latter forming a knuckle-joint at the points of connection of the ribs and stretchers, the ribs swung round the stretcher, destroying the uniformity of the expansion or contraction of the ribs in furling and unfurling the umbrella; nor do I claim any particular device or devices in the umbrella I herein describe; but

What I claim, and desire to secure by Letters Patent, is—

An umbrella-frame, in which a loop at the upper end of each rib works in a notch in the grooved crown-plate, and is embraced by a ring in said groove passing through the loops of all the ribs, and in which umbrella, the divided or bifurcated upper end of the stretcher operates by means of an intermediate lap between it and the ribs, all substantially as described.

In testimony whereof, I have hereunto set my signature, this 16th day of September, A. D. 1868.

JOHN MCAULIFFE.

Witnesses:

A. NEILL,

S. L. COPELAND.