

(No Model.)

R. FOLGER.
UMBRELLA.

No. 331,231.

Patented Nov. 24, 1885.

Fig. 1.

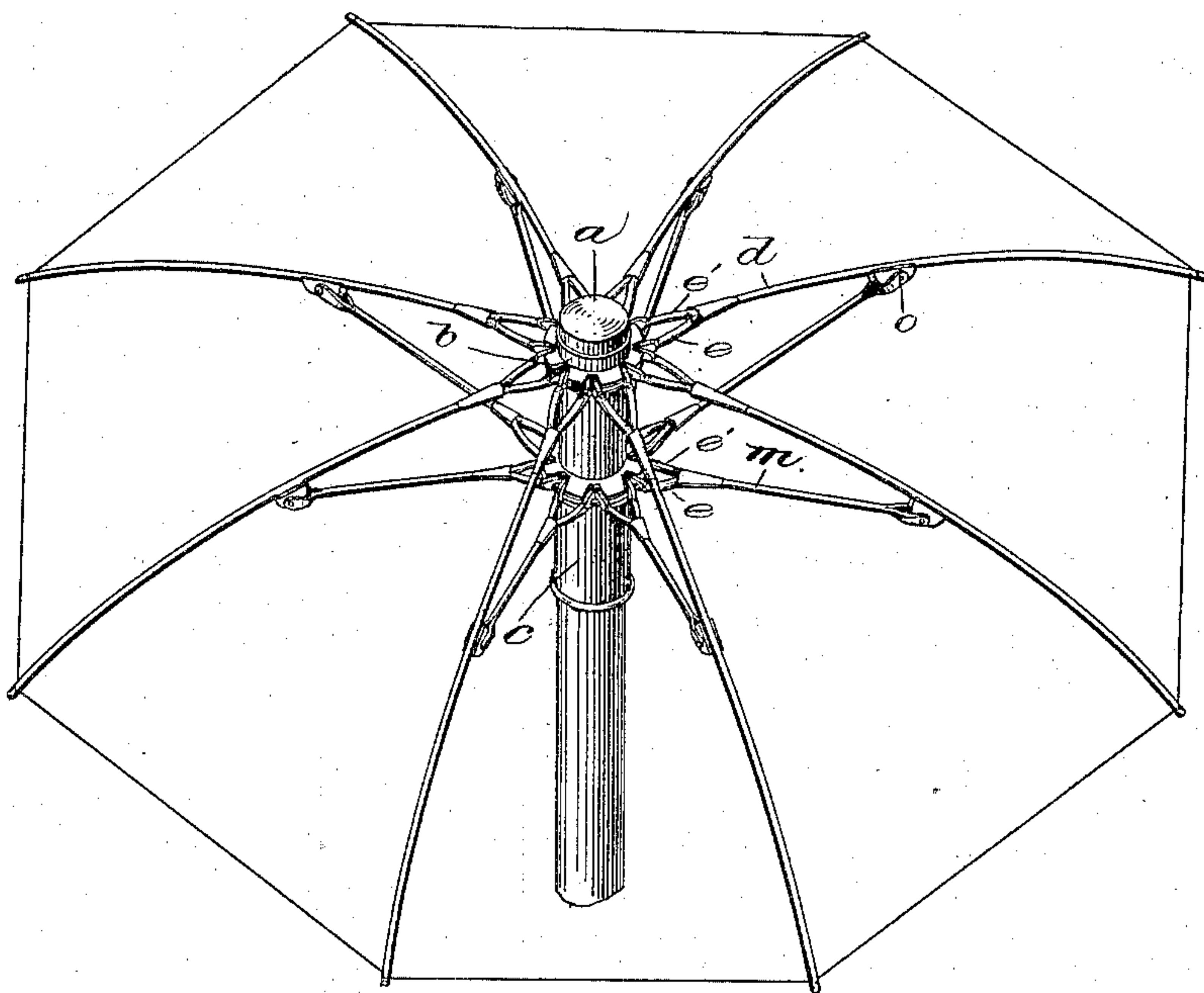


Fig. 2.

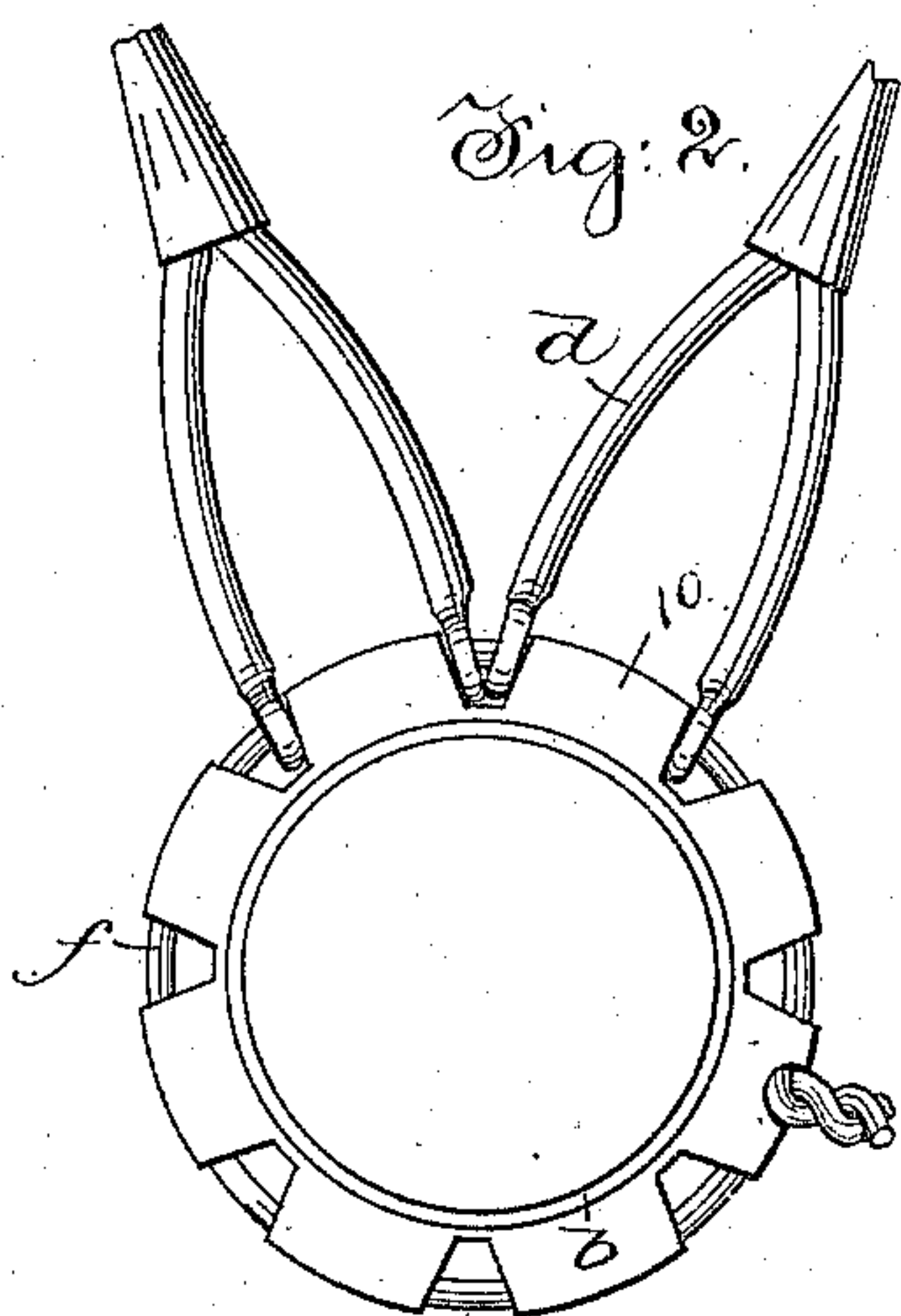
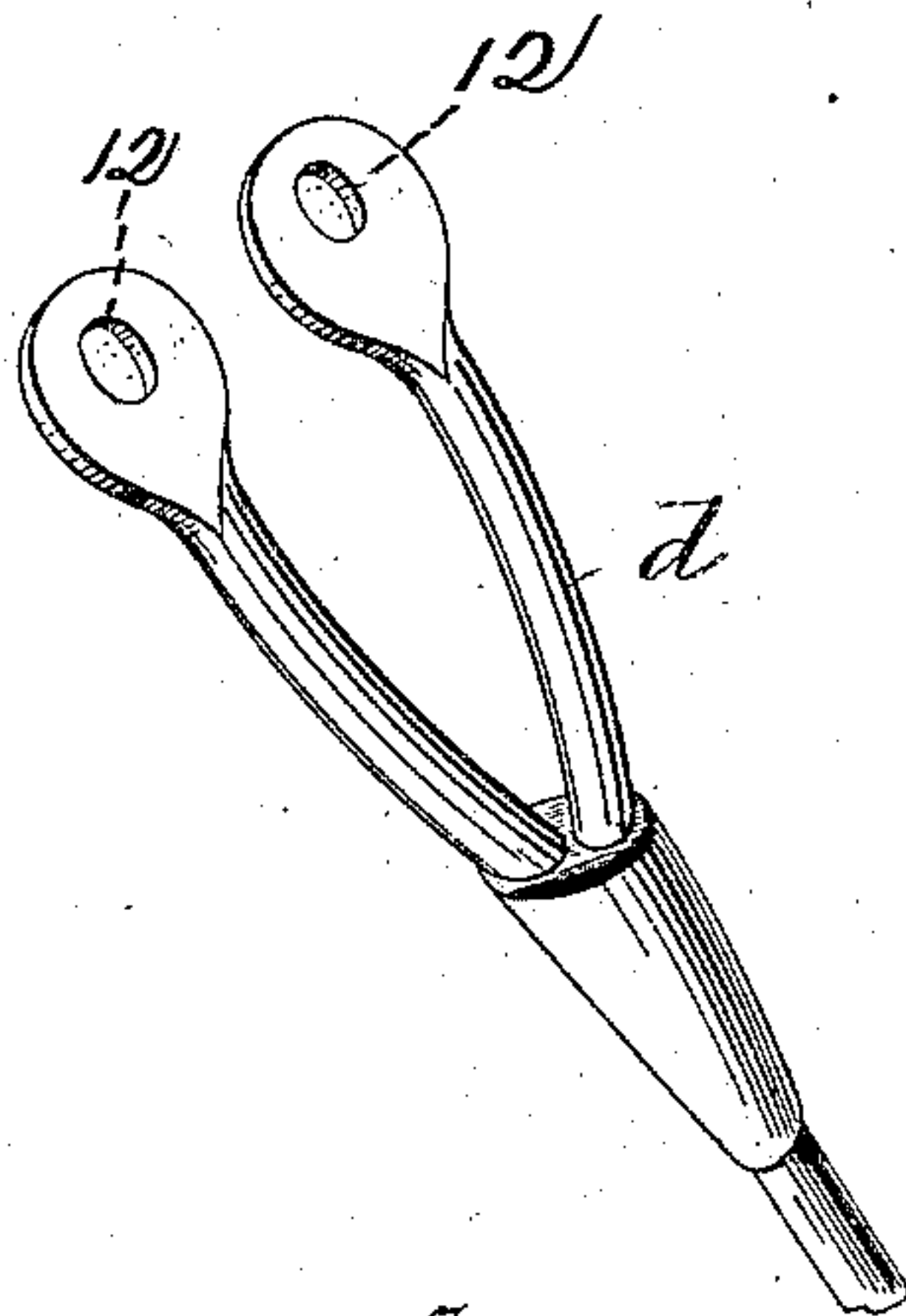


Fig. 3.



Witnesses:
Fred L. Emery.
John F. C. Porenschke

Inventor:
Rowland Folger
by Crosby & Gregory attys

UNITED STATES PATENT OFFICE.

ROWLAND FOLGER, OF MILFORD, MASSACHUSETTS, ASSIGNOR OF ONE-HALF
TO WILLIAM H. GILE, OF SAME PLACE.

UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 331,231, dated November 24, 1885.

Application filed July 20, 1885. Serial No. 172,029. (No model.)

To all whom it may concern:

Be it known that I, ROWLAND FOLGER, of Milford, county of Worcester, State of Massachusetts, have invented an Improvement in Umbrellas, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

In umbrella-frames as most commonly constructed the ribs and braces, flattened at their ends and provided with pivot-holes, are placed in radial notches in the fixed and running sleeves, a wire extended through the said holes in the ribs and held in annular grooves of the sleeves holding the ribs and braces in connection with the said sleeves. In such plans for connecting the ribs and braces to the sleeves the ends of the said ribs and braces are permitted so much lateral play in the notches of the sleeves as to leave the frame so loose as to permit it to rotate sometimes about the handle or stick as the latter is suddenly turned in one or the other direction.

This loose connection is objectionable, and it is the object of my invention to so construct the ribs and braces that all looseness or rotation independent of the stick will be obviated.

My invention consists in the combination, with the stick and the fixed sleeve mounted thereon, of a series of ribs radiating from the said sleeve and having bifurcated ends in pivotal connection therewith, the different prongs of each rib entering different notches and straddling a projection of the sleeve.

Figure 1 in perspective shows an umbrella constructed in accordance with my invention, the braces being also bifurcated, and are connected with the running sleeve. Fig. 2 is a detail showing on a larger scale a portion of one of the sleeves detached and a rib, and Fig. 3 shows one end of one rib.

The sleeve *b*, fixed to the stick *a*, and the running sleeve *c*, are both notched radially, as shown in Fig. 2.

The ribs *d*, next the fixed sleeve *b*, and the braces *m*, next the running sleeve *c*, are each bifurcated or forked at their ends next to the said sleeve to embrace the shoulders of the said sleeves, the two members or forks of each bifurcated end entering different notches in the sleeve, one arm of one rib bearing at its outer side against another arm

of the adjacent rib. In this instance the said forked ends are provided with eyes *12*, through which are inserted the usual wires, *f*, one for each sleeve, said wires *f* passing around the sleeves in annular grooves therein, and being securely fastened, thus pivoting the ribs and braces to the sleeves. The braces and ribs are pivoted together at *o*.

By joining the ribs and braces with the sleeves, as described, the said ribs and braces can have but one movement—viz., in the arc of a circle about the pivot-wire *f* and in line parallel with the stick; and should the umbrella be rotated quickly and stopped the frame would immediately stop, owing to the forked ends of the ribs and braces, one of which pulls while the other pushes upon the pivot-wire or fastening at opposite sides.

In the common form of umbrella, should it be once rotated and stopped, the frame by the inertia communicated to it would continue for a partial rotation, or, in other words, the ribs and braces would have two movements upon their pivots—viz., one in the arc of a circle parallel with the stick, and also about the stick.

It is obvious that any other usual means instead of the wire *f* may be employed to pivotally connect the ribs and braces with the sleeves; but I prefer to use the wire.

I claim—

1. In an umbrella, the stick and the fixed notched sleeve mounted thereon, combined with a series of ribs having bifurcated or forked ends and pivotally connected with the sleeves, the two arms of each bifurcated end entering different notches, the arms of one rib meeting the arm of an adjacent rib and straddling a projection of the sleeve, substantially as described.

2. In an umbrella, the stick and the notched fixed and running sleeves mounted thereon, combined with a series of ribs and braces pivoted to each other, and having bifurcated or forked ends pivotally connected with the sleeves, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ROWLAND FOLGER.

Witnesses:

G. W. GREGORY,
B. J. NOYES.