

No. 709,624.

Patented Sept. 23, 1902.

E. M. ZEEK.
UMBRELLA.

(Application filed Jan. 11, 1902.)

(No Model.)

2 Sheets—Sheet 1.

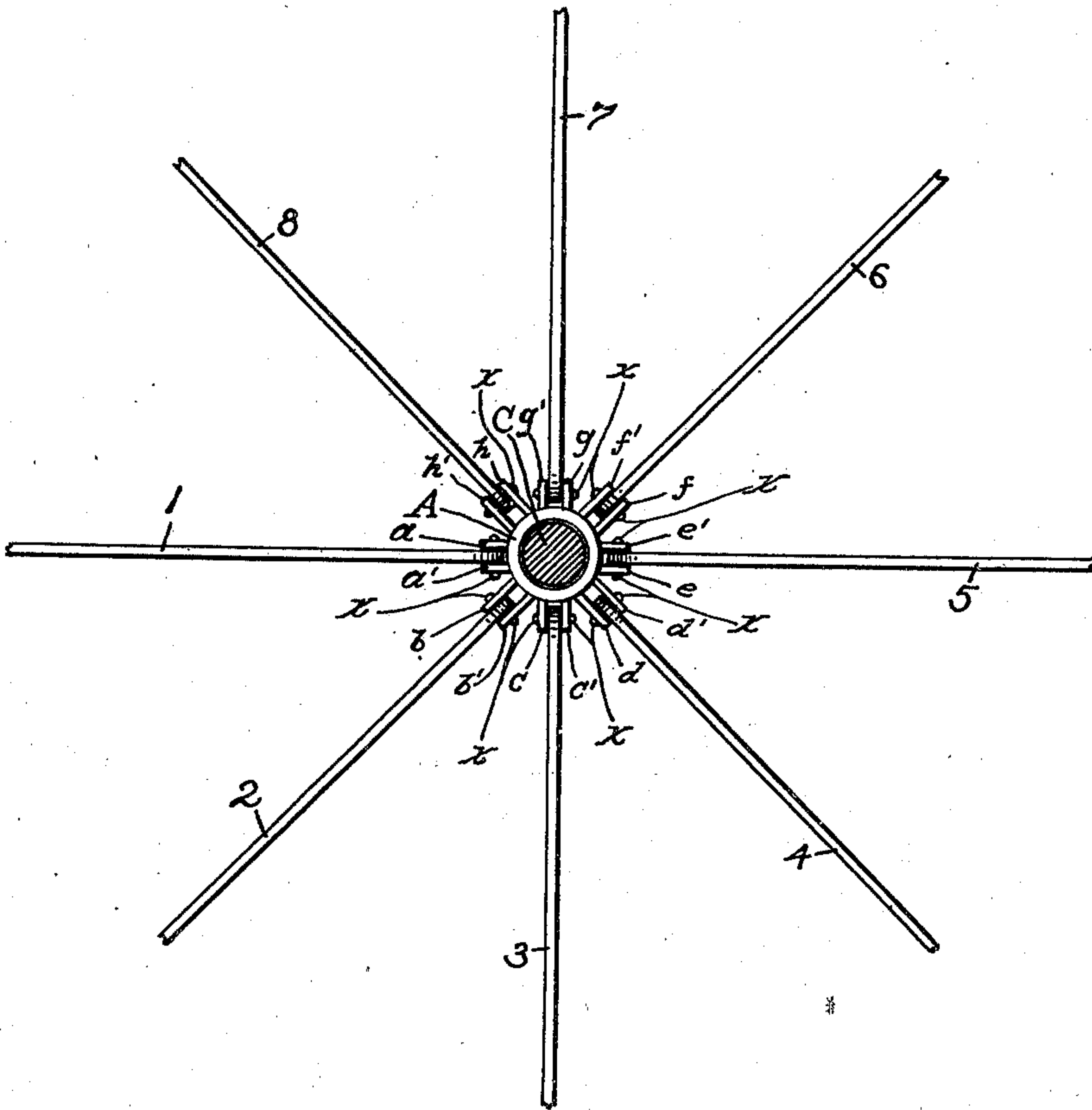


Fig. 1.

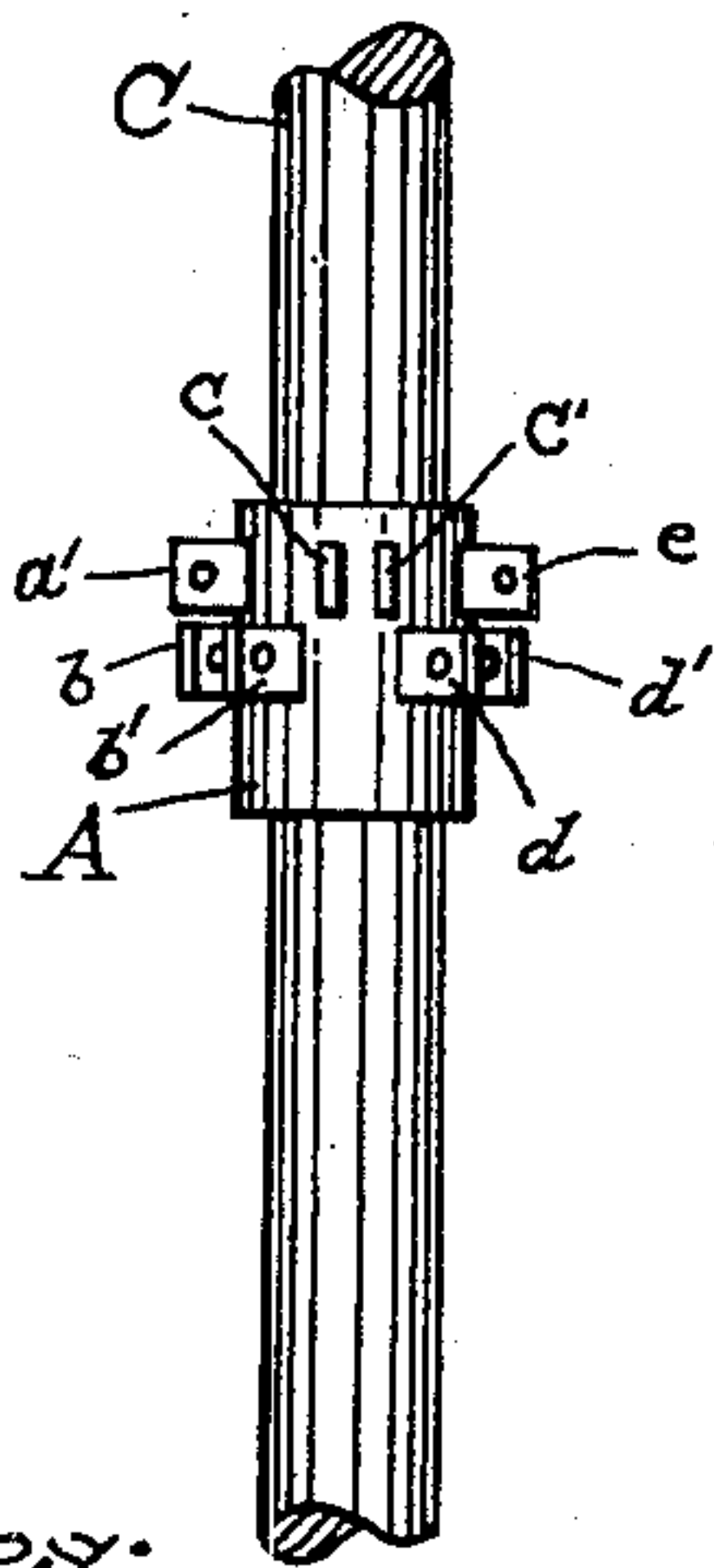


Fig. 3.

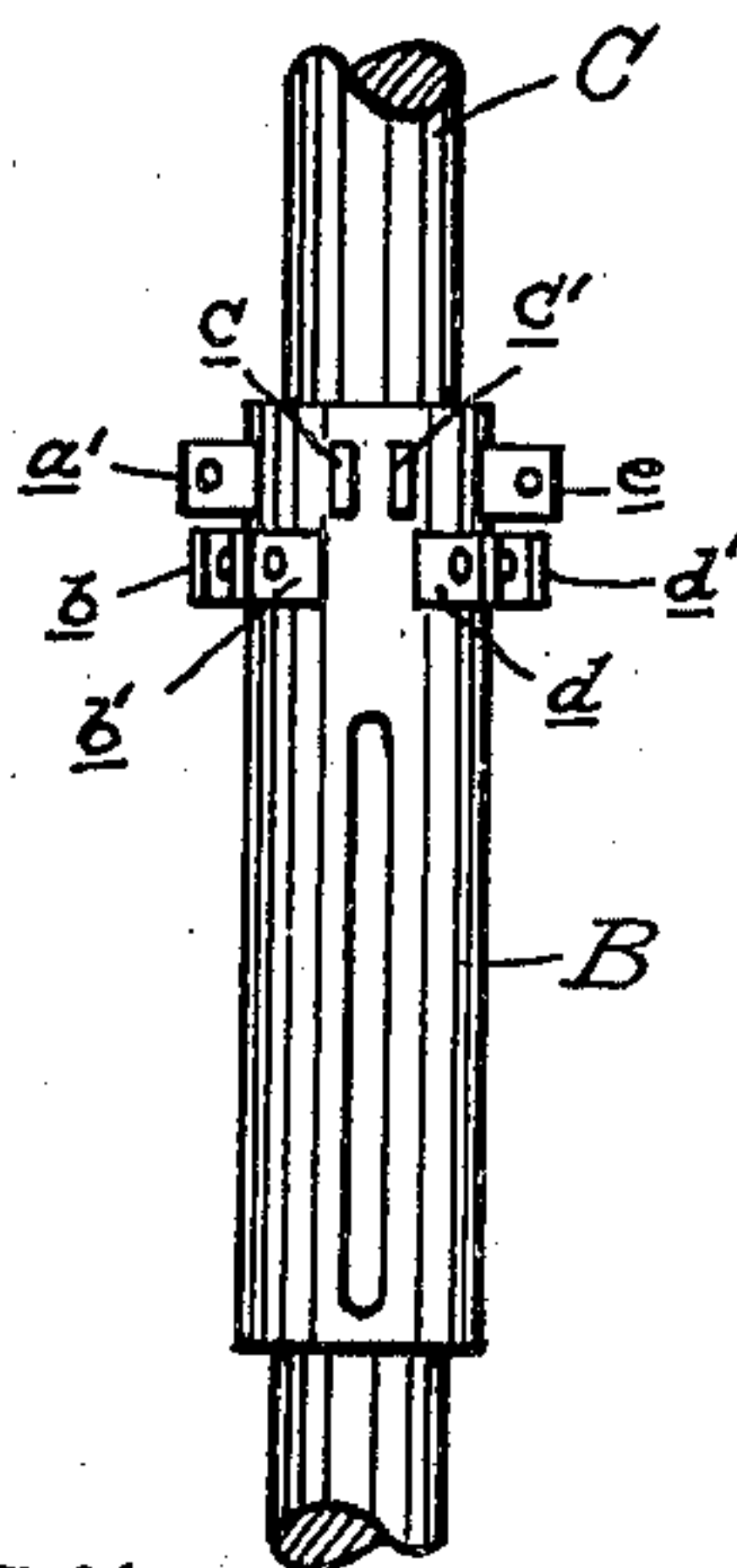


Fig. 4.

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Inventor:
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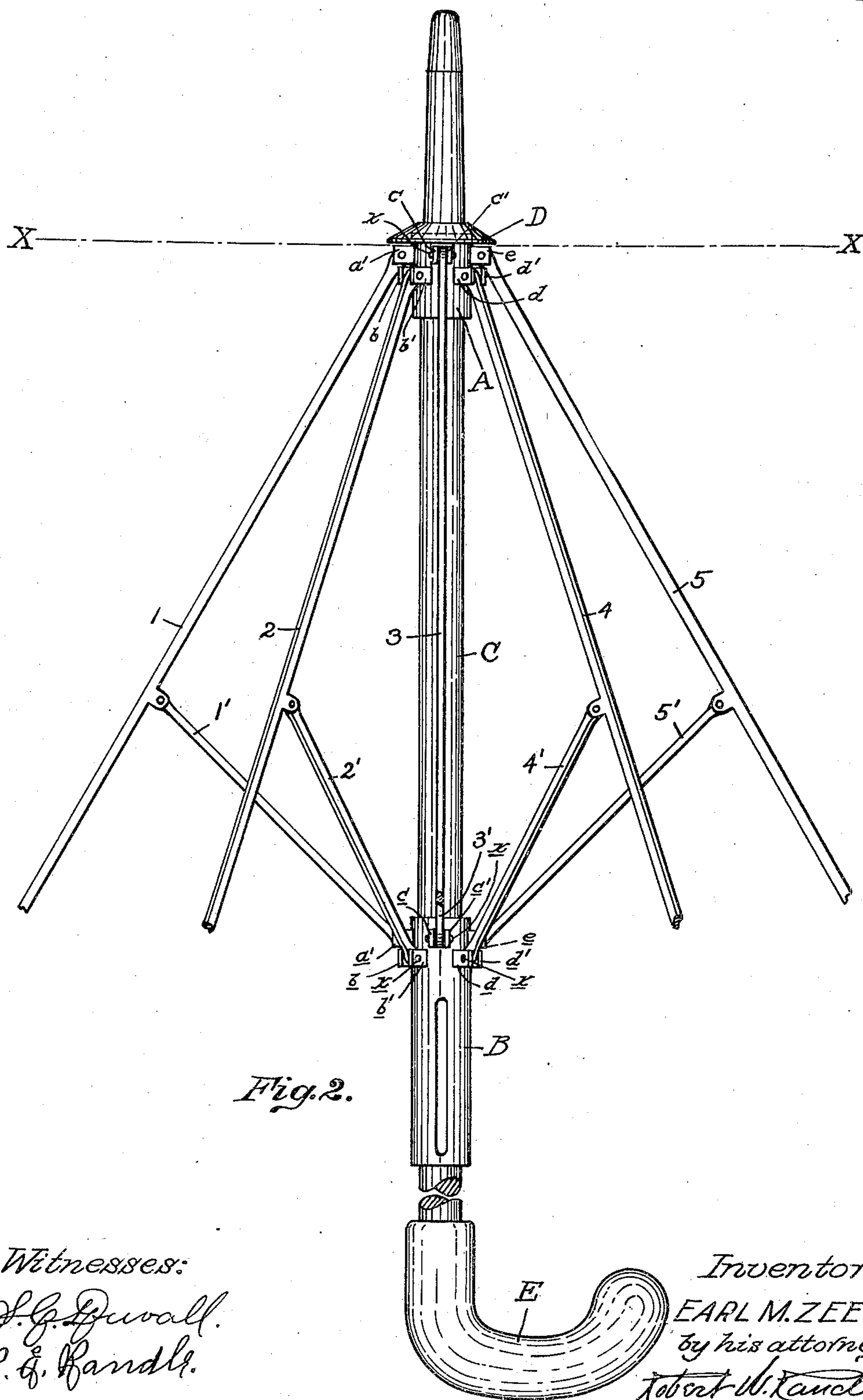
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

EARL M. ZEEK, OF MARION, INDIANA.

UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 709,624, dated September 23, 1902.

Application filed January 11, 1902. Serial No. 89,329. (No model.)

To all whom it may concern:

Be it known that I, EARL M. ZEEK, a citizen of the United States, residing at Marion, in the county of Grant, and in the State of Indiana, (whose post-office address is Marion, Indiana,) have invented and produced new and useful Improvements in Umbrellas, of which the following is a specification, which is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The object of this invention is to provide an umbrella capable of a wide scope of operation and usefulness, neat and attractive in appearance, light and compact in its construction, and composed of the fewest number of mechanical parts without sacrificing its usefulness or efficiency.

Another object is to provide an umbrella which will be simple in construction, positive in its action, and which can be manufactured and sold at a comparatively low price; and still another object is to provide a novel arrangement of the ribs of umbrellas and means whereby each of the ribs can be secured independently or removed separately for repairs without disturbing other ribs or parts.

Other objects and advantages will appear from the following specification and from the drawings forming a part thereof.

The distinctive features of my invention herein shown and described, briefly stated, consist of the two bands or tubes A and B, mounted on the pole C, the former permanently and latter slidably, each of said tubes carrying a number of ears radially extending therefrom and arranged zigzag, in pairs, on the periphery of said tubes for the purpose of providing pivotal bearings for the ribs.

The invention consists of the various devices and parts or their equivalents and the arrangement thereof, as herein shown and set forth.

Referring now to the accompanying drawings, Figure 1 is a vertical view of the frame-work of an umbrella constructed in accordance with my invention and taken on the line X X of Fig. 2. Fig. 2 is a side elevation of

an umbrella-frame constructed in accordance with my invention, showing my improvements and their relative positions. Fig. 3 is a detail view of the permanent band A and a portion of the pole C of the umbrella; and Fig. 4 is a detail view of the slidable band B or runner, also showing a portion of the pole C.

Similar letters and figures of reference refer to and denote like parts throughout the several views.

1, 2, 3, 4, 5, 6, 7, and 8 represent the ribs of the umbrella radiating from and pivotally connected to the band A.

1', 2', 3', 4', 5', 6', 7', and 8' represent arms or braces radiating from the slidable band B and pivotally attached thereto and also pivotally connected to the outer portions of the ribs, respectively.

aa', bb', cc', dd', ee', ff', gg', and hh' represent vertically-disposed radial ears arranged in pairs, as shown, each provided with a lateral hole near its outer edge, each alternate pair of ears being placed above and below an imaginary lateral line passing around the band A. The lower alternate pair of ears extend outward farther than the upper pairs, as shown most plainly in Fig. 1. Each of said pairs of ears is provided with a pivot or pin x, each of which is designed to pass through the holes in a pair of ears and also through a corresponding hole in the inner end of the ribs, so that each of the ribs will be pivoted between a pair of ears, as shown in Fig. 1.

The upper end of the slidable band B is provided with similar and corresponding ears as those just described as attached to the band A and are distinguished therefrom in the drawings by the mark —, placed under each of the letters referring thereto, the only difference being that the inner ends of the arms 1', 2', 3', 4', 5', 6', 7', and 8' are each pivoted in a pair of ears in place of the ribs 1, 2, 3, 4, 5, 6, 7, and 8, as in the case of the band A, above referred to.

D represents a bevel-washer loosely fitting around the pole C and resting in the top of A and is for the purpose of preventing the cloth cover of the umbrella from coming in contact with the ears radiating from the band A.

E represents the handhold of the umbrella-pole.

The ears above referred to can be made an integral part of the bands A and B, or they may be made separate and afterward attached in any well-known manner.

5 My improvements are perfectly adapted to accomplish the results for which they are intended, and it is evident that changes in and modifications of the construction herein shown and described may be made and that
10 analogous parts may be used to accomplish the same results without departing from the spirit of my invention or sacrificing any of its many advantages.

The specific construction of the details of
15 my invention in which the novel features are embodied may be variously changed without altering the essential principles which are claimed as new.

Having now fully shown and described my
20 invention and the best mode for its construction to me known at this time, what I claim as new, and desire to secure by Letters Patent of the United States, is—

In an umbrella, the combination with the
25 pole, of a band rigidly affixed thereto at one

end thereof, a series of ears arranged on the periphery of the band, with a second series of ears arranged below said first-named series and out of vertical alinement therewith, the lower series extending outwardly beyond the
30 upper series, a washer seated on the upper end of said band and having its upper face beveled and its edges extending beyond the said ears, a band slidably mounted on the pole and carrying an upper and a lower series
35 of ears out of vertical alinement, ribs secured in the upper series of ears of the stationary band and carrying braces secured in the upper series of ears of the sliding band, with ribs secured in the lower series of ears of the
40 stationary band and carrying braces secured in the lower series of ears of the sliding band, substantially as described.

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

EARL M. ZEEK.

Witnesses:

JOHN W. DUNCKLER,
J. H. KIRK.