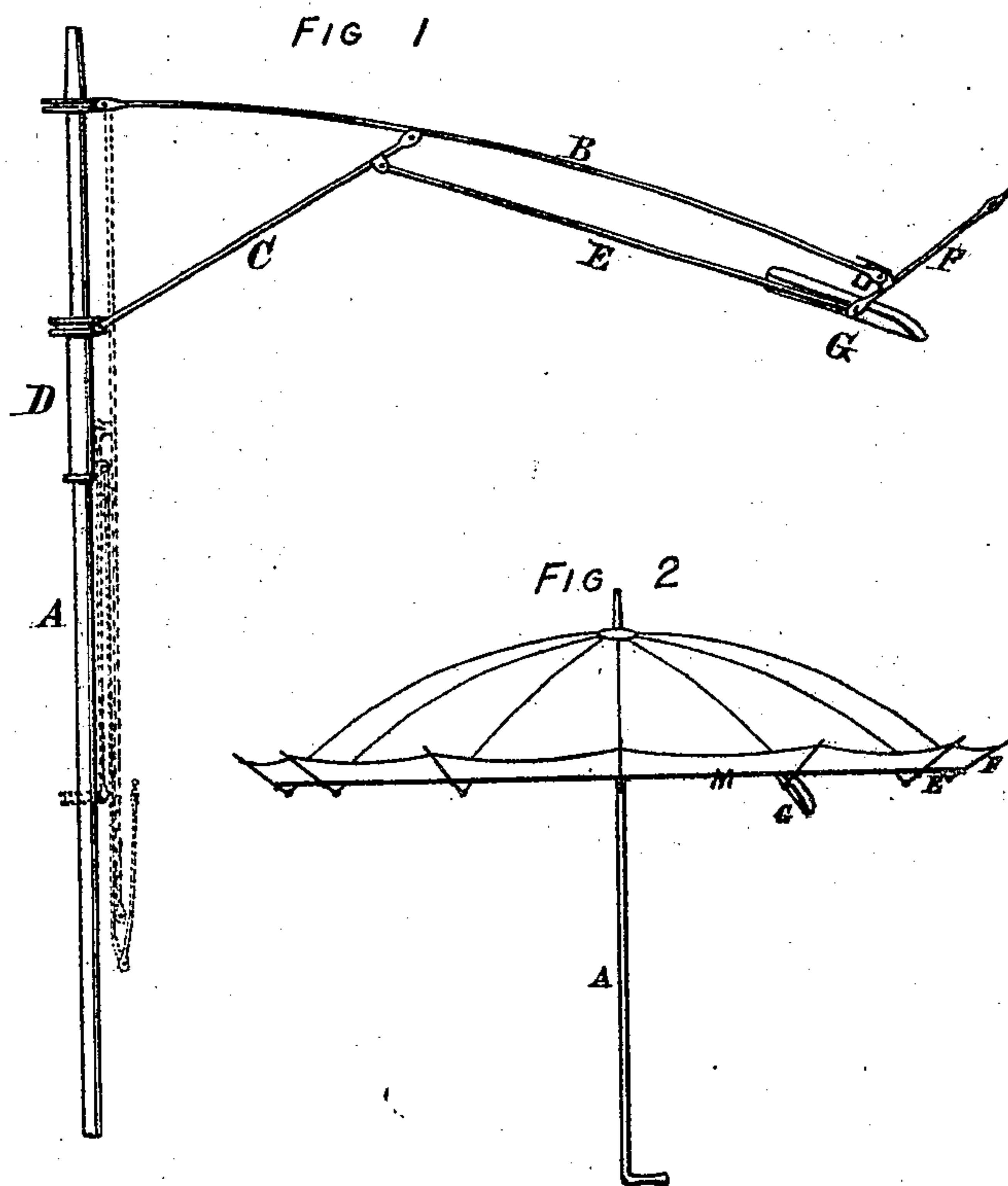


*A. B. Caldwell,*  
*Umbrella.*

*No 100,012.*

*Patented Feb 22 1870.*



Witnesses.

*N. B. Smith*  
*W. H. Markham*

Inventor.

*A. B. Caldwell*

# United States Patent Office.

ALONZO B. CALDWELL, OF SYRACUSE, NEW YORK.

*Letters Patent No. 100,012, dated February 22, 1870.*

## IMPROVEMENT IN UMBRELLAS.

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, ALONZO B. CALDWELL, of the city of Syracuse, in the county of Onondaga, and State of New York, have invented a new and improved "Umbrella-Frame;" and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and to the letters of reference marked thereon.

I use any materials commonly used in the construction of umbrella-frames.

A is the stock in the usual form.

B is one of the outer bows to receive the covering.

C is one of the braces attached at the inner end to the ordinary sliding head D, and at the outer end to the outer bow B.

Near the outer end of the brace C is pivoted the inner bow E, which, at its outer end, is jointed upon a cross end bow, F, which is pivoted upon the end of the outer bow B, the whole forming a lever arrangement by which, when the umbrella-frame is opened or spread out, the cross end bow F will stand at an angle with the end of the outer bow B, and the covering being extended to the top of the end bow F, a gutter is formed around the whole umbrella; and when the frame is closed the cross end bows F will fold up

the gutter close to the outer bow B, and the inner bow E will also lie close to the outer bow B, and all the parts snug to the stock A.

Attached to one of the inner bows, in such ordinary way that it will slide up and down thereon, is the spout G, which, through a hole in the covering directly over it, will receive the water from the gutter of the whole umbrella and carry it off in one place, and being in the form of a spout, will naturally throw the water off from the person.

The use of this lever arrangement also operates to stiffen and firmly keep in place the outer bow B.

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

1. The combination with the main stretchers and braces of an umbrella, of the auxiliary stretchers F and braces E, hinged together and to the main stretchers and braces, substantially as described and for the purposes set forth.

2. In combination therewith, the conductor M and spout G, substantially as shown and described.

A. B. CALDWELL.

Witnesses:

N. B. SMITH,

D. C. MARKHAM.