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 UMBRELLA RIB SOCKET.  
 APPLICATION FILED JULY 13, 1908.

938,863.

Patented Nov. 2, 1909.

Fig. 1.

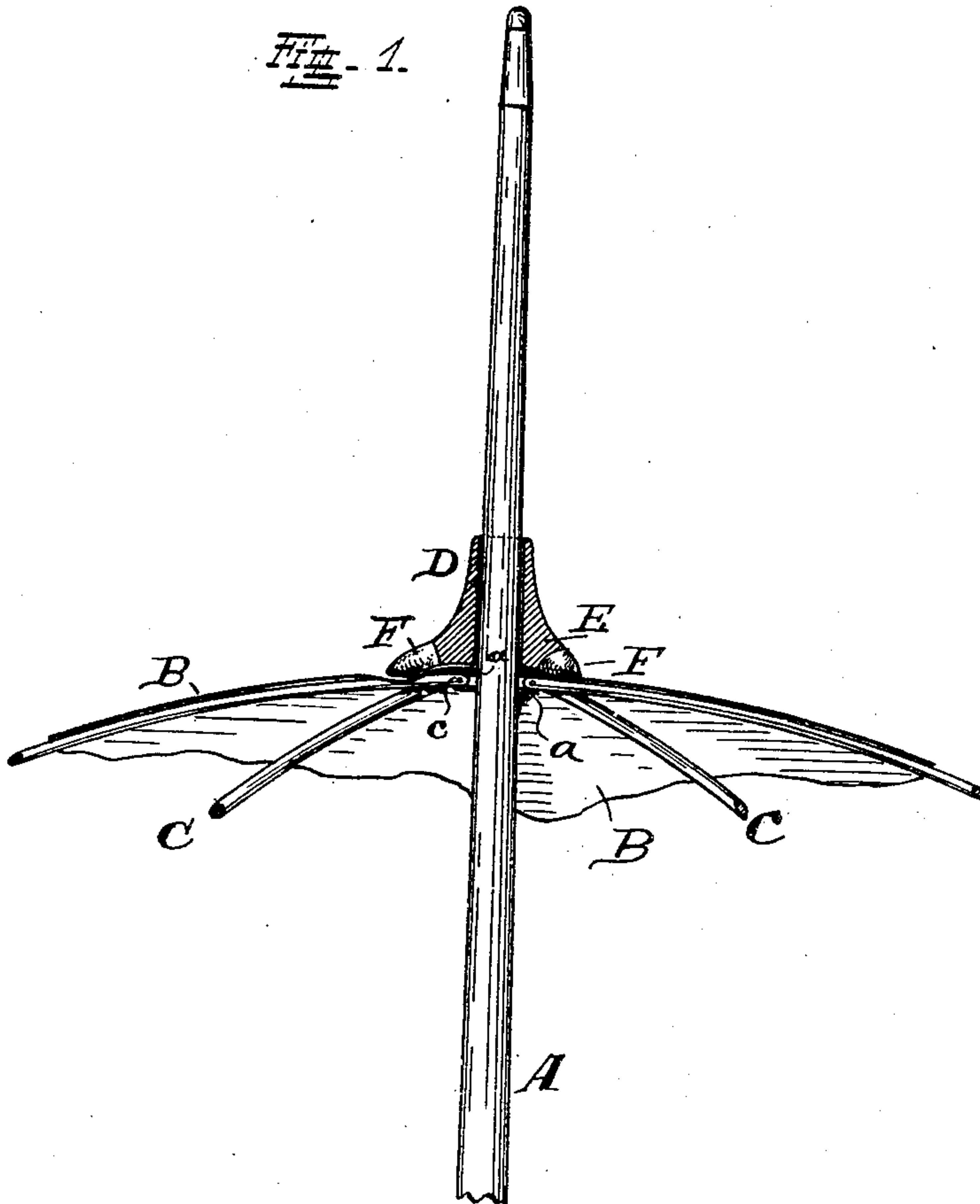


Fig. 2.

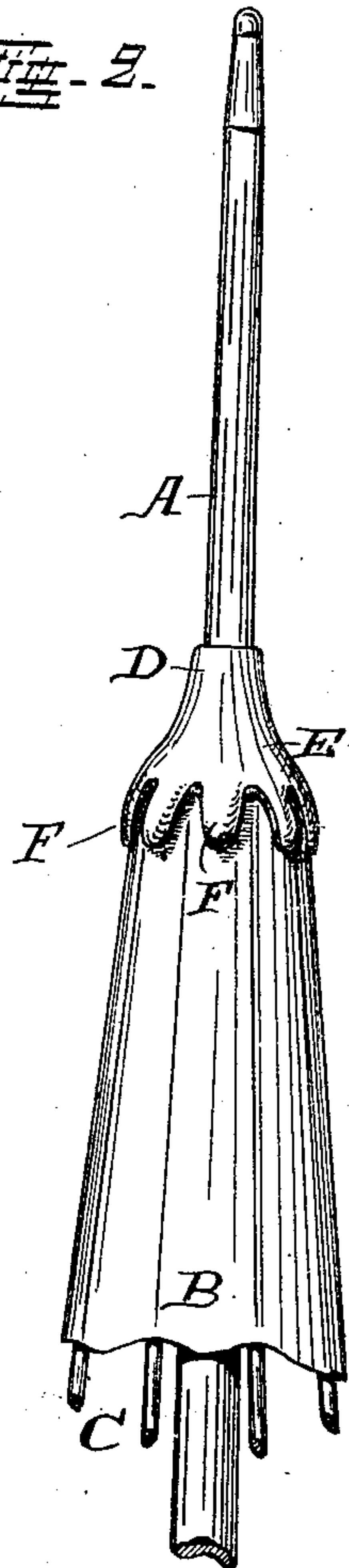


Fig. 3.

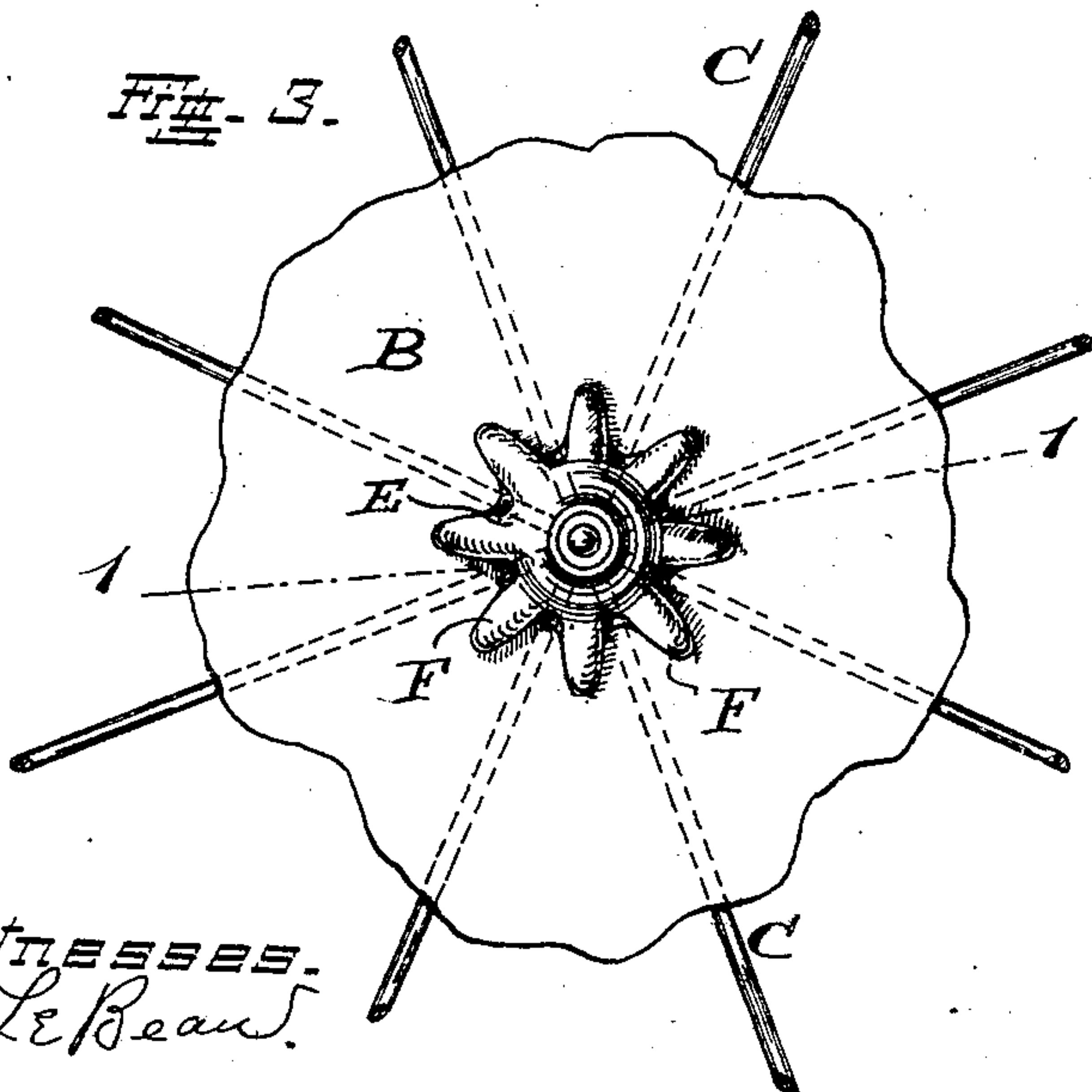
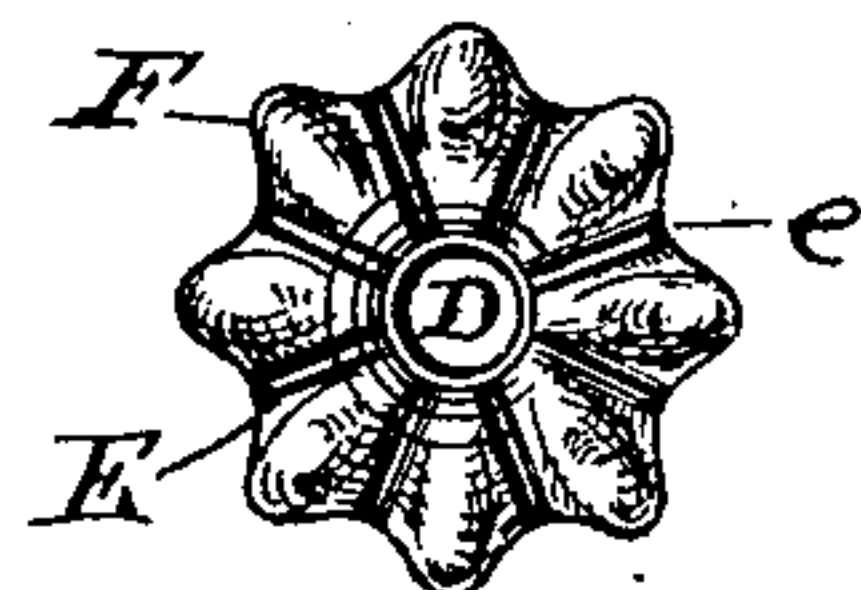


Fig. 4.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

CHARLES HOFF, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-HALF TO BERNARD SICKING,  
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UMBRELLA-RIB SOCKET.

938,863.

Specification of Letters Patent.

Patented Nov. 2, 1909.

Application filed July 13, 1908. Serial No. 443,190.

*To all whom it may concern:*

Be it known that I, CHARLES HOFF, a citizen of the United States, and a resident of Cincinnati, Hamilton county, State of Ohio, have invented a certain new and useful Umbrella-Rib Socket; and I do declare the following to be a clear, full, and exact description of the invention, attention being called to the accompanying drawing, with the reference characters marked thereon, which forms also a part of this specification.

This invention relates to a member intended to form a part in umbrella construction. Its particular function is to hold the upper or inner ends of the ribs, which sustain the covering of the umbrella, in position on the stick or rod. Accordingly this member may appropriately be called rib-socket. It may form a part of the umbrella as originally constructed, or it may be attached later to secure the end of a rib or ribs when broken, or when they become detached at the point of their connection.

In the following specification and particularly pointed out in the claim at the end thereof, will be found a full description of my invention, together with its manner of use, parts and construction, which latter is also illustrated in the accompanying drawing, in which:—

Figure 1, is a sectional view of the upper part of an umbrella which is opened out for use, the section being taken on line 1—1 of Fig. 3. Fig. 2, shows the upper end of an umbrella after the same has been closed up. Fig. 3, is a top-view of Fig. 1. Fig. 4, is an underside view of my attachment.

In the drawing, A indicates the upper part of the umbrella rod, or stick.

B is the covering, and C are the ribs which sustain it. The upper ends of these ribs are connected to the stick in various ways, the connection being a pivotal one to permit them to swing with reference to the stick when the umbrella from the closed condition shown in Fig. 2, is to be "raised", that is expanded for use, as shown in Figs. 1 and 3.

The connected ends of the ribs are usually confined between two angular notched flanges *a a*, which project from the stick. They are held between them by being strung upon a wire *c*, the ends being provided with eyelets for the purpose. It is at this point of con-

nection that ribs frequently break or become detached. One rib so broken or detached is sufficient to prevent proper manipulation of the umbrella and renders it useless, although otherwise it may still be in good condition. For such exigencies I provide my umbrella rib-socket which serves to hold the end of any rib, or ribs which may have become detached or broken in place. This socket is made of rubber, not too soft and consists of a sleeve portion D which serves to hold it on the stick. Below this sleeve the device is enlarged annularly to form a cap E, the lower edge of which extends over all the rib-ends and is adapted to hold the ends of any broken or detached rib. From the edge of this cap there extend a number of fingers F, there being as many as there are spaces between the ribs, one of these fingers extending into each space between adjoining ribs. The function of these fingers, which bear into the space between the ribs to hold any of them, if they become detached, against lateral displacement.

The axial opening through the socket is so limited with reference to the diameter of the stick that it requires some force to slip it onto the same so that, after in place, it is held sufficiently tight for the purpose. The socket is pushed down on stick A, until the edge of cap E comes to a seat against the upper ends of the ribs, so that fingers F, lap over the covering as best shown in Fig. 2. When the umbrella is opened out, these fingers yield and expand as shown in Figs. 1 and 3, bearing however onto the cloth of the covering and into the space between adjoining ribs. It is obvious that these fingers in conjunction with the edge of the cap readily hold in place any ribs which have become broken or detached at their ends. The edge of cap E has radially arranged grooves *e e*, one for each rib, which favor the retention of the end of any loose rib in proper position. The fingers and part of the cap which are in contact with the covering of the umbrella may be turned over to permit the covering to become dry more readily, also to permit the water to drain off after use of the umbrella.

Having described my invention, I claim as new:

A detachable umbrella-rib socket to re-

tain in position the inner ends of umbrella ribs which have become detached, the same consisting of a sleeve closely fitted to the stick of the umbrella adjacent to these  
5 rib-ends and annularly enlarged at its end nearest the umbrella-cover to form a cap and fingers which extend from the edge of this cap into the space between adjoining

ribs to confine a detached rib-end laterally in position. 10

In testimony whereof, I hereunto affix my signature in the presence of two witnesses.

CHARLES HOFF.

Witnesses:

C. SPENGEL,  
T. LE BEAU.