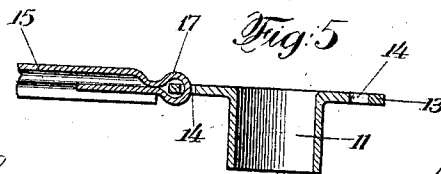
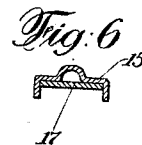
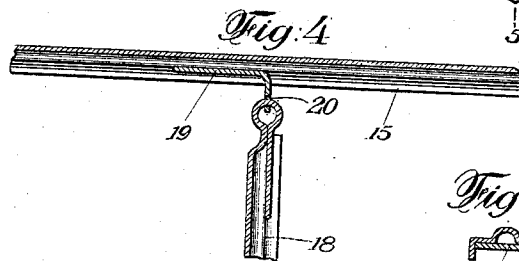
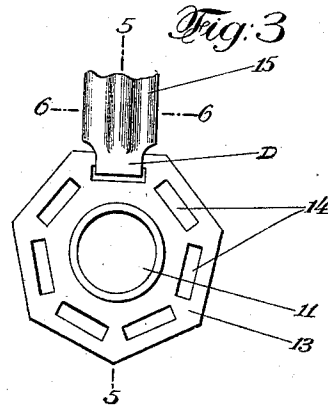
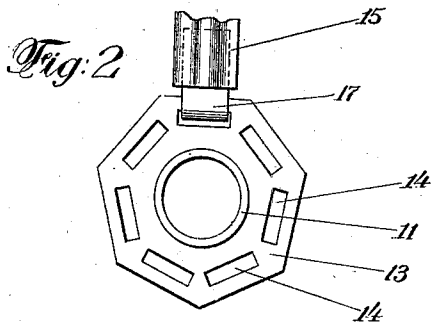
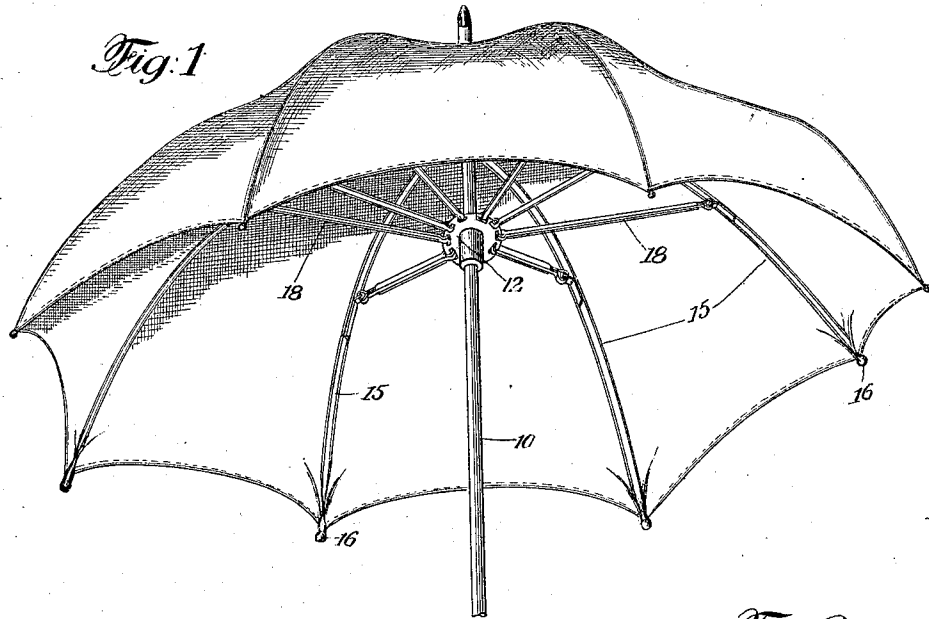


C. SCHONERT.
 UMBRELLA.
 APPLICATION FILED JUNE 9, 1910.

996,369.

Patented June 27, 1911.



Witnesses:
 John C. Prager,
 Jesse H. Swedler.

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UNITED STATES PATENT OFFICE.

CARL SCHONERT, OF NEWARK, NEW JERSEY, ASSIGNOR OF ONE-THIRD TO EDWARD REIFF, OF IRVINGTON, NEW JERSEY, AND ONE-THIRD TO ROBERT SCHWEITZER, OF NEWARK, NEW JERSEY.

UMBRELLA.

996,369.

Specification of Letters Patent. Patented June 27, 1911.

Application filed June 9, 1910. Serial No. 565,936.

To all whom it may concern:

Be it known that I, CARL SCHONERT, a citizen of the United States, and a resident of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Umbrellas, of which the following is a specification.

The invention relates to folding umbrellas or parasols, and it has for its object to provide an improved frame therefor in which all rivets are dispensed with and in which superior flat hinge connections are employed throughout, the frame being perfectly rigid when open and secured against lateral play.

The nature of my invention will be best understood when described in connection with the accompanying drawings, in which—

Figure 1 is a perspective view of the open umbrella. Fig. 2 is an elevation of the fixed member and shows the method of connecting the ribs thereto. Fig. 3 is a similar view illustrating a modification. Fig. 4 is a fragmentary view illustrating the connection between a rib and a stretcher. Fig. 5 is a section taken on the line 5—5, Fig. 3; and Fig. 6 a section taken on the line 6—6, Fig. 3.

Similar characters of reference designate corresponding parts throughout the several views.

Referring now to the drawings, 10 designates the umbrella stick to which is secured, near the top as is usual, a fixed member 11; and below the same is slidably mounted the runner 12. The runner 12 is similar to the member 11, which as shown in Figs. 2 and 3, has a polygonal flange 13 provided near its edge with a plurality of straight slots 14 arranged circularly therein and parallel to the corresponding edges of the flange. The ribs 15 in this embodiment are not of the usual U-shape but are in the form of a channel in which is formed centrally therein a second channel (see sectional view, Fig. 6,) being closed at one end to form the usual ball 16 and at the other end having a portion of the outer channel cut away to leave an extending flattened tongue 17, Fig. 3. Or, the flattened tongue 17 may be made separate from the ribs or the stretchers 18,

as shown in Fig. 2, the said flattened tongue being held within the outer channel as shown. This tongue is adapted to be passed over the flange 13 through a corresponding slot 14 in the same and is then turned back upon itself to fit within the outer channel of the said rib, thus forming a flat hinge connection between the said rib and flange. Lateral movement to any objectionable extent is obviated by designing the said slots to have the proper length. The stretchers 18 are connected in a similar manner to the runner 12, but in connecting them to the corresponding ribs an angle piece 19 is employed. This angle piece is forced within the outer channel of the rib, as shown in Fig. 4, and is provided with a slot 20 through which a flat hinge connection is made with the end of the stretcher similarly to the member 11 or runner connection. The flattened tongues 17 and their turned back portion as well as the angle pieces 19 are securely held in position by simply slightly pinching together the sides of the outer channel.

The frame herein set forth consists of members which may all be readily stamped or formed from sheet metal, are readily assembled, provide a perfect flat hinge connection which is secured against lateral movement, and is perfectly rigid and strong when open.

I claim:—

A stick-rib joint for umbrella frames, comprising: a tubular member having a polygonal flange at the top, said flange being provided with a number of straight slots arranged circularly therein and parallel to the edges of said polygonal flange; and ribs having flattened ends or tongues adapted to pass through the corresponding slots and turned back upon themselves to provide a wide, flat hinge connection between said ribs and tubular member.

Signed at Newark in the county of Essex and State of New Jersey this fourth day of June A. D. 1910.

CARL SCHONERT.

Witnesses:

EMIL GERMANUS,
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