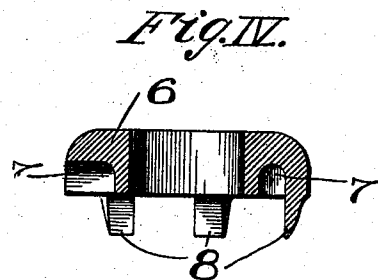
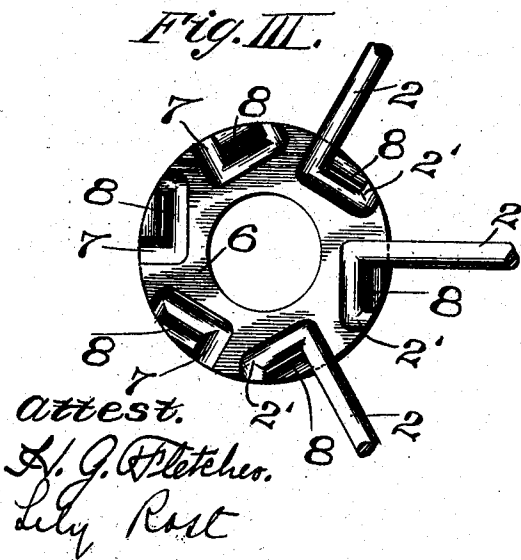
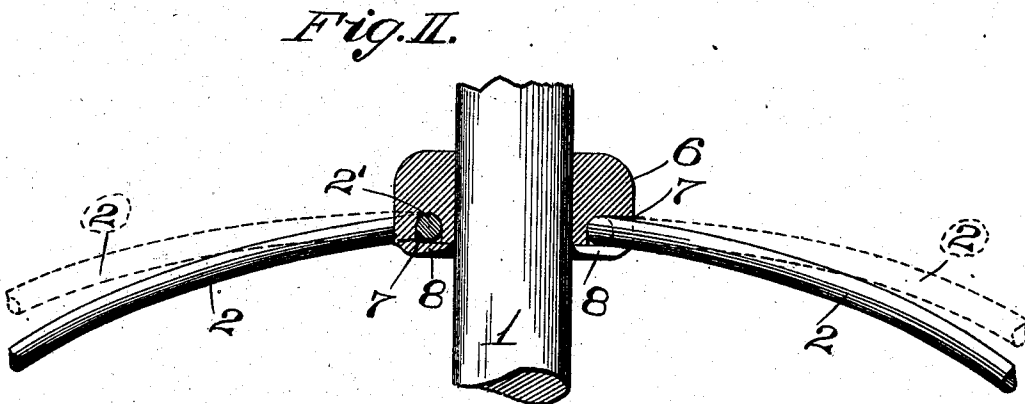
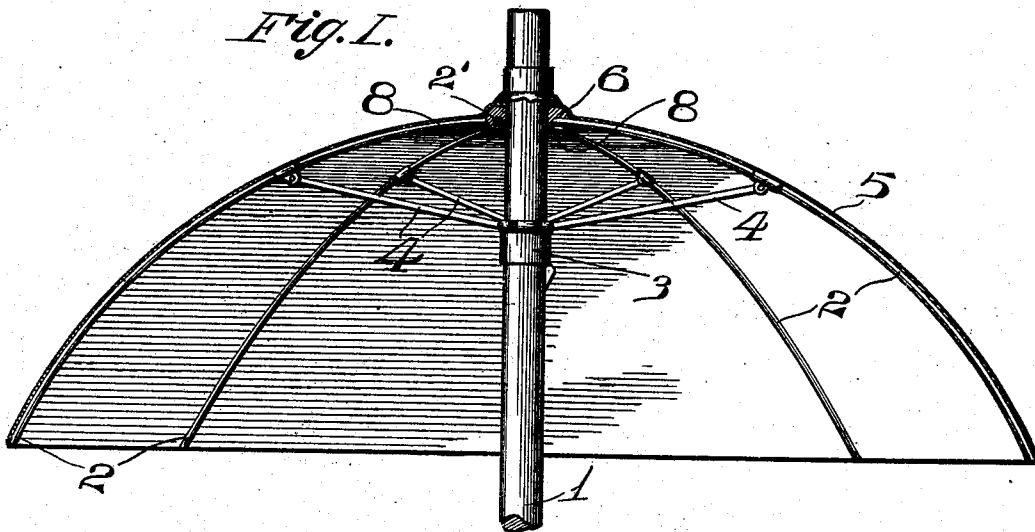


J. A. EBERLE.
UMBRELLA.

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899,718

Patented Sept. 29, 1908.



Inventor.
John A. Eberle.
By [Signature] Att'y.

UNITED STATES PATENT OFFICE.

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UMBRELLA.

No. 899,718.

Specification of Letters Patent.

Patented Sept. 29, 1908.

Application filed September 30, 1907. Serial No. 395,066.

To all whom it may concern:

Be it known that I, JOHN A. EBERLE, a citizen of the United States of America, residing at the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Umbrellas, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification.

My invention relates to an improvement in umbrellas, the improvement being one more particularly intended for incorporation into wagon umbrellas.

The object of the invention is to so construct the notch ring and ribs or cover supporting rods of an umbrella that the ribs will be restrained from moving laterally and also from upward movement in the notch ring after the umbrella frame and cover have been distended, thereby avoiding undue play of the ribs when the frame is opened and closed and preventing the frame and cover from turning inside out.

Figure I is in part an elevation and in part a vertical section taken through my umbrella. Fig. II is an enlarged view showing fragments of the umbrella stick and ribs in elevation and the notch ring in vertical section. Fig. III is an inverted plan view of the notch ring and part of the ribs of the umbrella laid in said ring but unsecured therein. Fig. IV is a cross section taken through the notch ring.

1 designates the stick of the umbrella, 2 the ribs or cover supporting rods, 3 the runner ring, 4 the stretchers or cover stretching rods connecting the ribs to the runner ring and 5 the cover of the umbrella. The parts just mentioned, aside from the ribs, may be of any ordinary construction. Each of the ribs extends radially from the ring and is provided at its inner end with an angular or U-shaped hook 2' that is produced by bending the end portion of the rib at a right angle to the body of the rib.

6 designates a notch ring that is provided with a plurality of angular or U-shaped sockets 7, the number of which corresponds to the number of ribs 2 and which sockets conform in shape to the shape of the angular or U-shaped hooks of said ribs. Each socket 7 extends radially and inwardly from the edge of the ring and then at right angles to the socket 7 in the plane of the ring or in a

plane parallel to the lower face of the ring and then in a direction parallel to the socket 7, outwardly to the edge of the ring. The notch ring is of a pliable material, for instance of malleable iron. Projecting from the lower face of the ring adjacent to the lateral portions of the sockets 7 are spurs 8 which are adapted to be bent across the lateral portions of the sockets and over the angular hooks of the ribs 2, after said ribs have been laid in the sockets, whereby the hooks of the ribs are confined as illustrated in Fig. II.

The construction of the notch ring and the hooks upon the ribs provides for the inner portions of the bodies of the ribs being held from lateral movement in the inwardly extending portions of the sockets 7 so that the ribs are prevented from lateral movement when the umbrella frame is distended and the laterally projecting portions of the hooks at the inner ends of the ribs being closely yet movably retained in the lateral portions of the sockets, serve also to prevent lateral movement of the ribs and confine the ribs in such manner as to prevent the frame of the umbrella from turning inside out.

It is apparent that the stretchers may be connected to the runner ring in the same manner as the ribs are connected to the notch ring.

I claim:

1. An umbrella comprising a ring formed with an annular socket extending radially and inwardly from the edge of the ring and then at right angles thereto in the plane of the ring and with a spur, and a rod extending radially of the ring and having an angular hook extending at right angles to the ring so as to provide a hinge in connection with the spur.

2. An umbrella comprising a ring formed with a U shaped socket extending radially and inwardly from the edge of the ring, then at right angles thereto in the plane of the ring and then in a direction parallel to the socket outwardly to the edge of the ring and with a spur, and a rod extending radially of the ring and having a U shaped hook so as to provide a hinge in connection with the spur.

JOHN A. EBERLE.

In presence of—

BLANCHE HOGAN,
LILY ROST.