

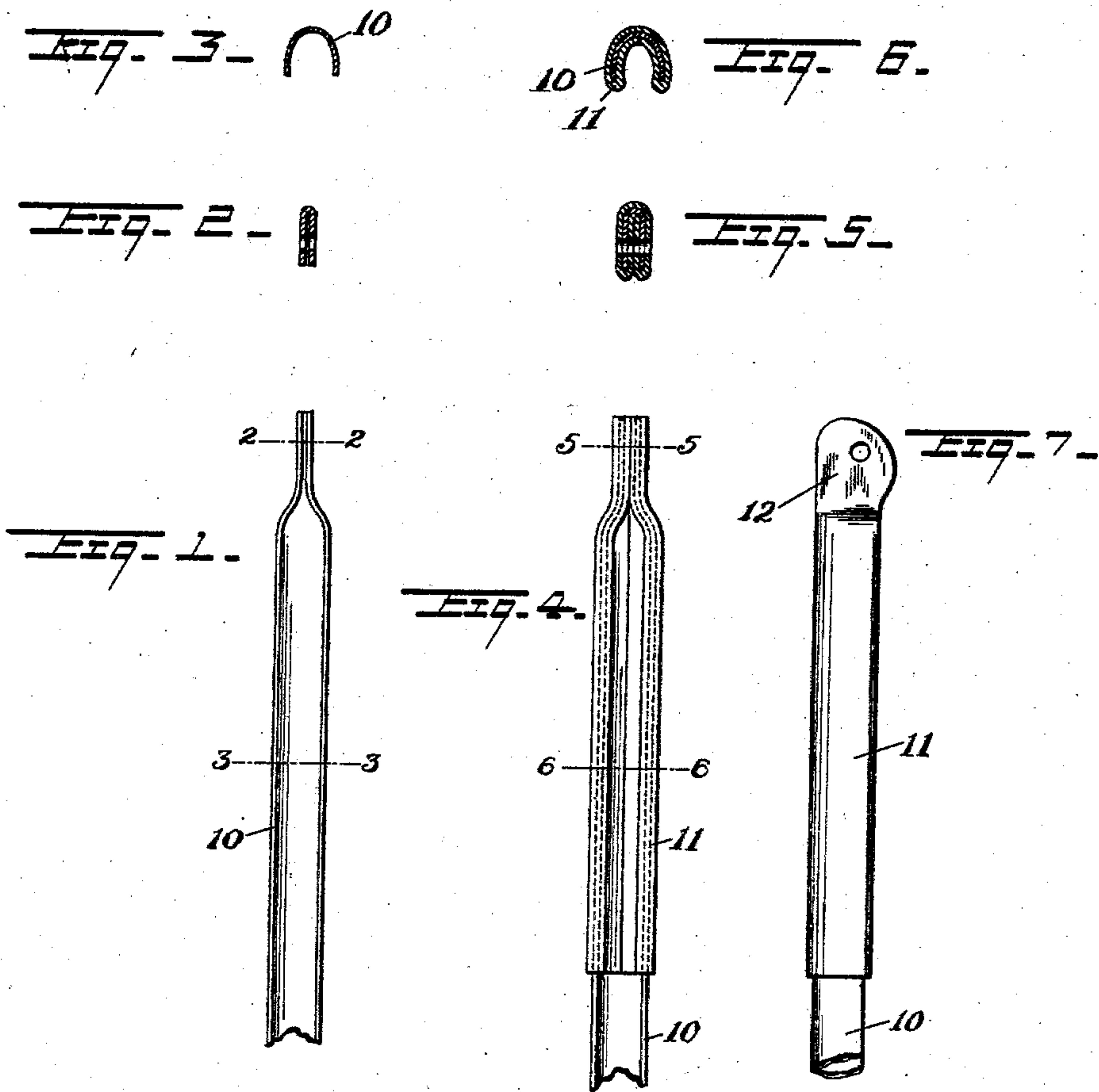
No. 740,989.

PATENTED OCT. 6, 1903.

T. PACHALI.
UMBRELLA.

APPLICATION FILED JUNE 26, 1903.

NO MODEL.



Witnesses
Cal. J. P. P.
D. M. Stewart

Theodor Pachali
Inventor
by *J. M. Stewart*
Attorney

UNITED STATES PATENT OFFICE.

THEODORE PACHALI, OF READING, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO CHARLES L. ROLLAND, OF READING, PENNSYLVANIA.

UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 740,989, dated October 6, 1903.

Application filed June 26, 1903. Serial No. 163,185. (No model.)

To all whom it may concern:

Be it known that I, THEODORE PACHALI, a citizen of the United States, residing in the city of Reading, county of Berks, State of Pennsylvania, have invented certain new and useful Improvements in Umbrellas, of which the following is a specification.

My present invention relates particularly to the ribs or stretchers of umbrellas; and it consists in the improved composite structure thereof hereinafter fully described in connection with the accompanying drawings and specifically pointed out in the claim.

Figures 1, 2, and 3 indicate the form of steel rib commonly employed heretofore and which it is my purpose to improve upon. Figs. 4, 5, and 6 are corresponding views of my improved composite rib structure, and Fig. 7 is a side view of the same.

In the ordinary hollow rib or stretcher made from rolled steel of U-shaped cross-section, as indicated in Figs. 1, 2, and 3, the eye is commonly formed by flattening the end of each U-shaped bar and providing the same with a pivoting perforation. This very simple construction is obviously objectionable, first, because of the very limited bearing-surface thus provided for the pivoting-wire, which passes through said perforation, and, secondly, because of the inherent weakness at the connecting-point and the deterioration and damage apt to occur because of the rusting of the rib metal resulting from the frequent dampness to which it is subjected. My object is to avoid these difficulties; and to this end my invention consists in providing the end portion of each rib or stretcher with a reinforcing-covering 11, of non-corrodible sheet metal, which is firmly united with the U-shaped steel bar, so as to convert

said end portion thereof into a composite structure, said sheet-metal covering 11 being closely wrapped upon said steel bar and fastened thereto, preferably by pressure exerted in suitable dies, and being flattened with the rib material at the extremity of the latter to form the eye portion 12. The effect of this construction is, first, to effectively prevent corrosion of the protected steel at and adjacent to the eye; second, to provide additional and non-corrosive bearing-surface in the eye for the pivoting-wire, and, third, to greatly strengthen the end portion of the rib or stretcher and prevent rusting of the same. The U-shaped steel bar provides great strength and elasticity with a minimum weight of material, and I retain these advantages by utilizing the full length of the bar, including the usual flattened end, while combining therewith the non-corrosive end covering, so as to meet the special requirements of strength, wearing-surface, and non-corrodibility at and adjacent to the point of pivotal connection.

What I claim is—

An umbrella-rib formed of a steel bar of normally U-shaped cross-section extending the full length of the finished rib, and a reinforcing-strip of non-corrosive sheet metal closely inclosing the end portion of said U-shaped steel bar and flattened with the latter at the extremity thereof to form a pivoting-eye of composite structure substantially as and for the purpose set forth.

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

THEODORE PACHALI.

Witnesses:

D. M. STEWART,
W. G. STEWART.