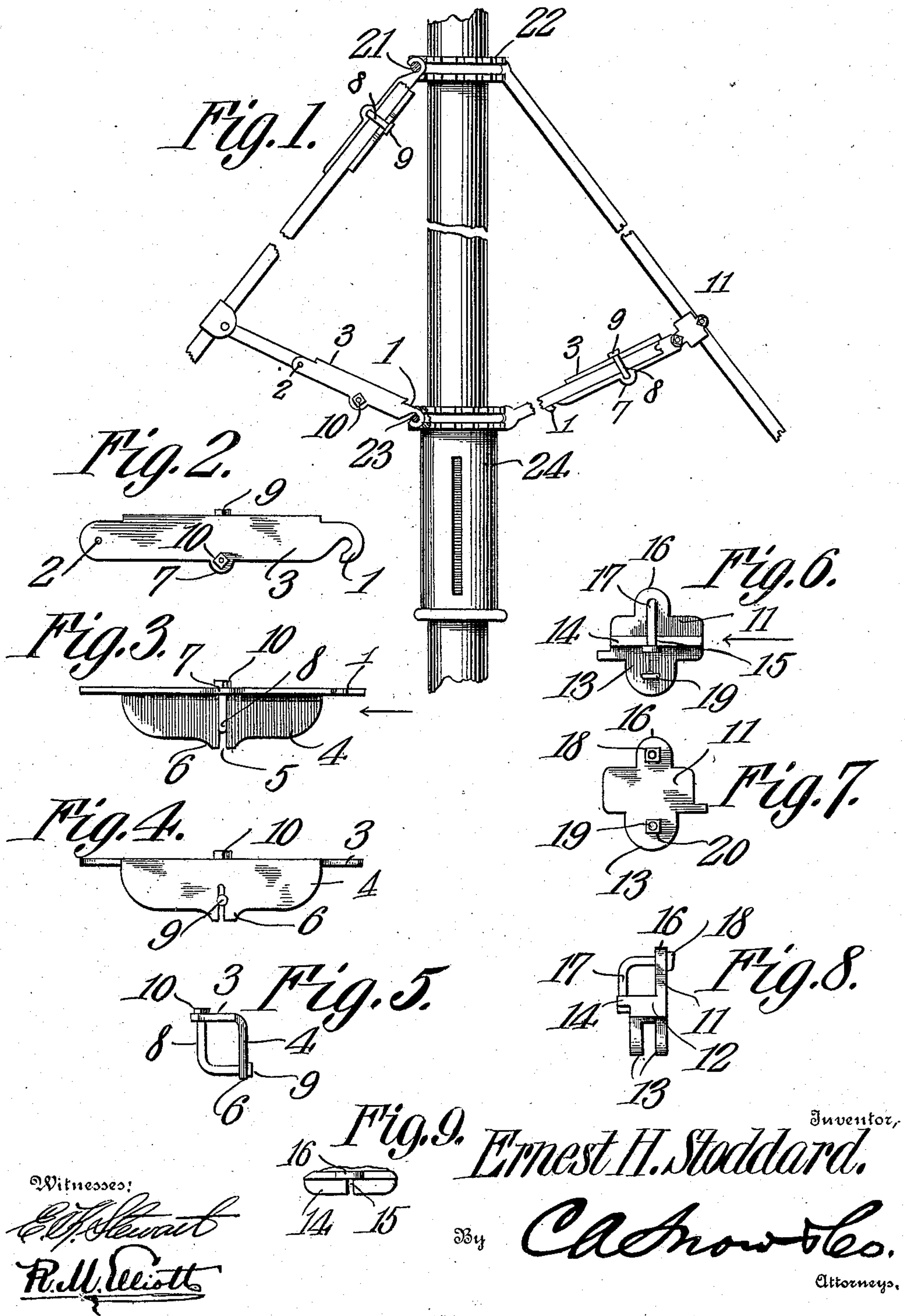


E. H. STODDARD.
 UMBRELLA REPAIRING DEVICE.
 APPLICATION FILED JAN. 28, 1908.

905,016.

Patented Nov. 24, 1908.



UNITED STATES PATENT OFFICE.

ERNEST H. STODDARD, OF ORANGE, MASSACHUSETTS.

UMBRELLA-REPAIRING DEVICE.

No. 905,016.

Specification of Letters Patent.

Patented Nov. 24, 1908.

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To all whom it may concern:

Be it known that I, ERNEST H. STODDARD, a citizen of the United States, residing at Orange, in the county of Franklin and State of Massachusetts, have invented a new and useful Umbrella-Repairing Device, of which the following is a specification.

This invention relates to an umbrella repairing device.

As is well known, where the eye of an umbrella rib or spreader breaks, the former at the notch wire and the latter at the geat or at the runner wire, both the rib and the spreader have to be removed, and replaced by new ones, and this necessitates the detachment of the cover from all of the ribs and the removal of both the notch and the runner wires before the broken part or parts will be accessible for repair. Such a procedure is troublesome and expensive, as it frequently happens that a rib of the right size can not readily be secured, thereby entailing a delay to the owner of the umbrella. Furthermore, in rural localities, umbrella repairers are not always within convenient reach, so that an umbrella which might otherwise be easily rendered temporarily useful has to be laid aside.

The object of the present invention is, in a thoroughly practical and feasible manner, to render it possible to repair a rib or spreader without removing the cover of an umbrella or disturbing either the notch or the runner wires, and, further, to enable persons of ordinary mechanical ability to effect such repairs.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of an umbrella repairing device, as will be hereinafter fully described and claimed.

In the accompanying drawings forming a part of this specification, and in which like characters of reference indicate corresponding parts, Figure 1 is a view in side elevation of a portion of an umbrella stick, the notch, the runner, and two ribs and spreaders, and exhibiting temporary repairs between the rib and notch, the runner and one of the spreaders, and between a spreader and the other rib at the geat. Fig. 2 is a view in side elevation of the hinge member. Fig. 3 is a similar view of the member shown in Fig. 2, viewed from a face at right angles

to that shown in Fig. 1. Fig. 4 is a similar view viewed from the face opposite that shown in Fig. 3. Fig. 5 is an end view of the hinge. Fig. 6 is a side elevation of the geat. Fig. 7 is a similar view, taken from the opposite side to that shown in Fig. 6. Fig. 8 is an end view of the geat. Fig. 9 is a fragmentary detail view, in plan, of a portion of the geat.

The hinge shown in detail in Figs. 2 to 5 is constructed from a length of sheet steel, and is approximately L-shaped in cross section, as shown in Fig. 5, and is provided at one end with a hook 1 and at its other end with an orifice 2, the latter to be engaged by the geat, as will hereinafter appear.

The body of the hinge constitutes a clamping device, and consists of the member 3 that carries the hook and is provided with the orifice, and the member 4 which is disposed at right angles to the member 3. The member 4 is provided intermediate its ends with a notch 5, which is formed in an extension or ear 6, and the member 3 is provided with an ear 7. The notch 5 is engaged by an L-shaped gripping member or bolt 8 having a head 9 that bears against the outer face of the ear 6. The other end of the bolt projects through an orifice in the ear 7 and carries a nut 10. As nearly all umbrellas are now manufactured with the so-called gutter rib, the hinge and gripping member are both, as shown in Fig. 5, practically L-shaped in cross section, as this form will be best adapted for gripping the present forms of ribs and spreaders; but, as will be obvious, the parts may be of other contours in cross section to adapt them for coaction with ribs and spreaders that will be circular in cross section.

The geat, shown in detail in Figs. 6, 7 and 8, comprises two members 11 and 12, that are disposed at right angles to each other, or approximately so, the member 12 having projecting therefrom a pair of transversely orificed spaced ears 13, and a flange 14 disposed at right angles to the ears and provided with a notch 15. The member 11 is provided with an ear 16, and the notch 15 of the flange 14 is engaged by an approximately L-shaped gripping member or bolt 17, the head of which bears against the flange, the other end of the bolt being projected through an orifice in the ear 16 and having threaded thereon a bolt 18. The orifices in the ears 13 are engaged by a bolt 19 carrying a nut 20.

In the use of the device, say for repairing a rib, the eye of which is broken at the notch, and a spreader, the eye of which is broken at the runner, it will only be necessary to secure the hinge member to these parts, previously having engaged the hooks 1 with the wire 21 of the notch 22, and with the wire 23 of the runner 24, as shown at the left hand of Fig. 1.

Where a spreader is broken from the rib at the geat, as shown at the right hand of Fig. 1, then the geat can be connected with the hinge by means of the bolt 19 which engages with the orifice 2 of the hinge. The hinge member can then be securely clamped around the spreader, and the geat attached to the rib.

When the parts are properly positioned upon the rib and spreader, as shown, the umbrella will be made entirely effective for temporary use, and, in fact, may be used indefinitely.

The improvements above set forth, while simple in character, will be found thoroughly efficient for the purposes designed, and will, in use, fill a long felt want.

I claim:—

1. A temporary geat for umbrellas comprising a clamping member approximately L-shaped in cross section, a pair of perforated ears carried thereby, and an approximately L-shaped gripping member assembled with the clamping member.

2. A temporary geat for umbrellas comprising a clamping member approximately L-shaped in cross section, one part of the member being provided with a notch and the other with a perforated ear, a bolt or gripping member engaging the notch and the ear, and a pair of perforated ears carried by a part of the member.

3. A temporary hinge for connecting an

umbrella rib or spreader with a notch or runner wire, comprising a clamping member provided at one end with a hook, and a transversely disposed gripping member assembled with the clamping member intermediate of its ends.

4. A temporary hinge for connecting an umbrella rib or spreader with a notch or runner wire, comprising a clamping member provided at one end with a hook, and at its other end with an orifice, and a transversely disposed gripping member assembled with the clamping member intermediate of its ends.

5. A temporary hinge for connecting an umbrella rib or spreader with a notch or runner wire, comprising a clamping member provided at one end with a hook, at its other end with an orifice and intermediate of its ends with a notch and with a perforated ear, and a gripping member to engage the ears.

6. An umbrella repairing device comprising a geat embodying a clamping member, a pair of perforated ears carried thereby, a bolt carried by the ears, and a gripping member assembled with the clamping member, and a hinge for connecting a rib or spreader with a notch or runner comprising a clamping member provided at one end with a hook and at its other end with an eye or orifice to be engaged by the bolt of the geat, and a gripping member assembled with the clamping member.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ERNEST H. STODDARD.

Witnesses:

CHAS. H. ADAMS,
THOMAS F. HALEY.