

(No Model.)

F. W. T. JEDECK.
UMBRELLA RIB LOCKING DEVICE.

No. 522,017.

Patented June 26, 1894.

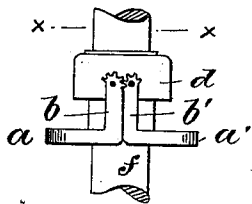


Fig. 1

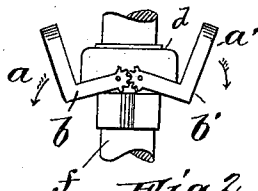


Fig. 2.

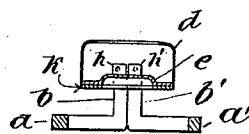


Fig. 3.

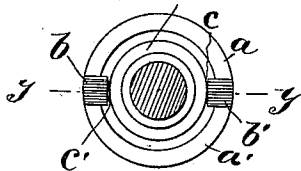


Fig. 4.

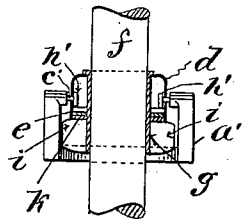


Fig. 5.

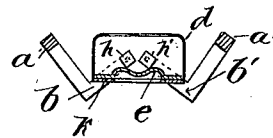


Fig. 6.

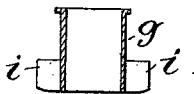


Fig. 7.



Fig. 8.

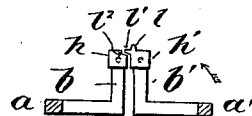


Fig. 9.

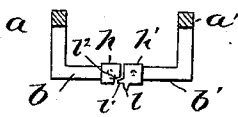


Fig. 10.

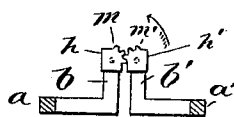


Fig. 11.

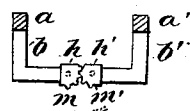


Fig. 12.

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UNITED STATES PATENT OFFICE.

FERDINAND WILHELM THEODOR JEDECK, OF BERLIN, GERMANY.

UMBRELLA-RIB-LOCKING DEVICE.

SPECIFICATION forming part of Letters Patent No. 522,017, dated June 26, 1894.

Original application filed November 23, 1892, Serial No. 453,303. Divided and this application filed June 20, 1893. Serial No. 478,232. (No model.) Patented in England November 15, 1892, No. 20,629.

To all whom it may concern:

Be it known that I, FERDINAND WILHELM THEODOR JEDECK, a subject of the German Emperor, residing at Berlin, German Empire, have invented a certain new and useful Locking Device for the Ends of the Ribs in Umbrellas, of which the following is a description, a patent for said invention having been heretofore granted to me in Great Britain, numbered 20,629, and dated November 15, 1892.

In my improved locking device for the ribs of umbrellas, hereinafter described and claimed, I employ semi-circular bows, provided with angular arms, which preferably form right angles with the bows, and are mounted in a casing which is fixed on the umbrella stick. The pivots of the angular arms are provided with heads which act on a spring as the bows turn, so as to hold or lock the bows both in the open and the closed position.

The special feature of my present application, which is a division of that filed by me in the United States Patent Office November 28, 1892, Serial No. 453,303, consists in the combination with the pivotal portions of the bows of projections or teeth which intermesh so that the turning of one will move the other. Thus the second bow opens or closes merely by the motion of the first bow.

Referring to the drawings to aid the description, Figures 1 to 8 inclusive show the preferred form of the device, wherein the moving of either bow causes the movement of the other bow, and Figs. 9 and 10 that modification wherein moving the bow *a'* causes the movement of the bow *a*. Figs. 10 and 12 show an arrangement of the teeth on the heads of bows which is slightly different from that of Figs. 1 to 8. More particularly, Fig. 1 is a view of an umbrella stick, partly broken, and provided with my locking device. The figure shows the device when closed. Fig. 2 illustrates the same parts, as are shown in Fig. 1, the locking device being quite widely open. Fig. 3 is a horizontal section on the line *x—x* of Fig. 1, and shows the parts as they appear when seen from above. Fig. 4 is a vertical section on the line *y—y* of Fig. 3. Figs. 5 and 6 are detail views, showing the manner in which the angular arms of the bows are

housed in the casing which is fastened to the umbrella stick and the action of the pivots of the angular arms on the spring. Fig. 5 shows the parts in the closed, Fig. 6 in the open position. Figs. 7 and 8 show the inner socket fastened to the stick and carrying the spring casing. Figs. 9 and 10 are details of that modification wherein the bow *a'* is adapted to move the bow *a*. The figures show the bows respectively in the closed and open positions. Figs. 11 and 12 are details of that modification wherein both bows are provided with gear like projections, so as to mutually interact. The figures show the bows respectively closed and open.

a a' are two semi circular bows provided with angular arms *b b', b' b'*, said angular arms preferably being arranged perpendicular to the bows, and being pivoted in the casing *d*, which is fixed on the umbrella stick *f* by means of the socket *g* and ring *k*, as will be hereinafter described. The pivots *c c, c' c'* of the said angular arms *b b', b' b'* are provided with square heads *h h* the faces of which work on the spring *e*, as the bows *a a'* turn. Thus when the said bows *a a'* are either fully closed or open the spring *e* secures them in those positions.

The casing *d* is secured on the stick *f* in the following manner: The socket *g* has lateral projections *i*, which support the spring-plate *k*. Now the casing *d*, being put on over the socket *g* and the plate *k*, (Fig. 4) is supported at the bottom by the projections *i*. Then the top of the socket *g* being flanged over the neck of the casing *d* the whole is secured in position on the stick *f*.

In Figs. 9 and 10, the heads *h'* of the angular arm *b'* of the bow *a'* are shown furnished with projections *l l'* and the head *h* of the angular arms *b* of the bow *a* furnished with a socket *l'*. Then as the bow *a'* is turned the projections *l l'* engaging with the shoulder of the socket *l'* turn the bow *a*.

In Figs. 11 and 12 each of the heads *h h'* is provided with gear like projections *m m'* as shown, and in this case the turning of either the bow *a* or *a'* will cause the other bow to turn.

Now, having described my improvements, I claim as my invention—

1. The combination in automatic locking devices for the ribs of umbrellas of a casing on the stick of the umbrella, bows adapted to lock the ribs of the umbrella, and angular
5 arms on said bows pivoted in said casing and carrying gear like devices on their pivoted portions adapted to act one on the other when one of the bows is turned, and a spring in said
10 casing adapted to be engaged by the pivoted portions of said angular arms, substantially as described.

2. In automatic locking devices for the ribs of umbrellas, and in combination with the umbrella stick, casing and spring as described,
15 bows for locking the ends of the ribs fur-

nished with angular arms substantially at right angles to the bows and said angular arms being pivoted in said casing, furnished with heads that are adapted to work on said springs and are provided with gear like pro- 20 jections, whereby the motion of one bow imparts like motion to the other bow, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

FERDINAND WILHELM THEODOR JEDECK.

Witnesses:

L. A. EDWARDS,
W. HAUPT.