F. W. SIMONS.

UMBRELLA RIB AND SOCKET.

APPLICATION FILED JAN. 13, 1913.

1,078,069. Patented Nov. 11, 1913.

Fig. 1.

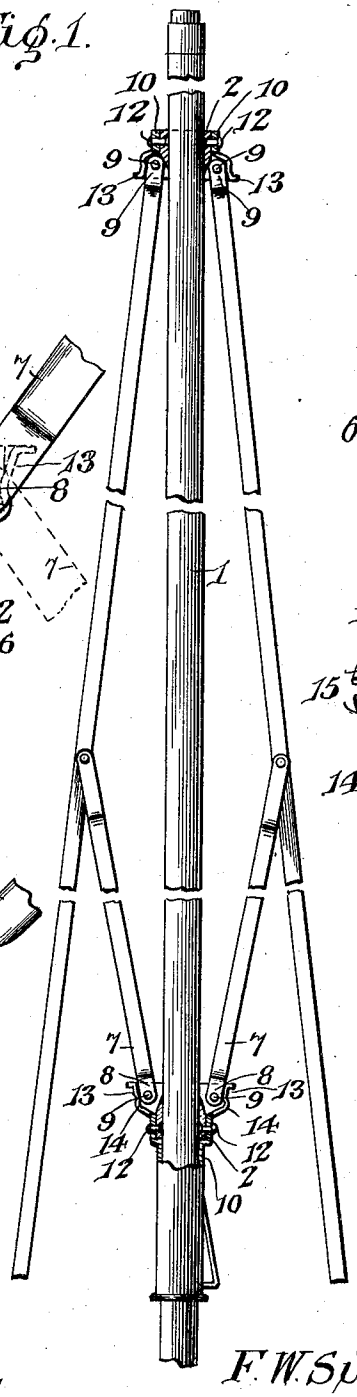


Fig. 2.

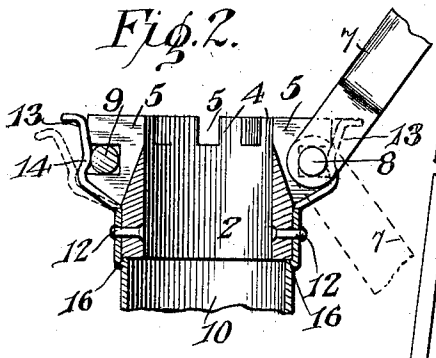


Fig. 3.

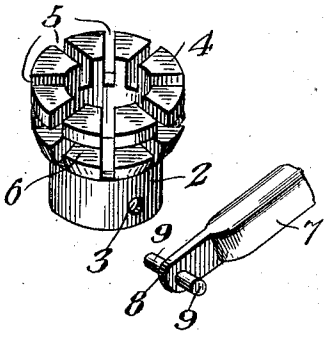
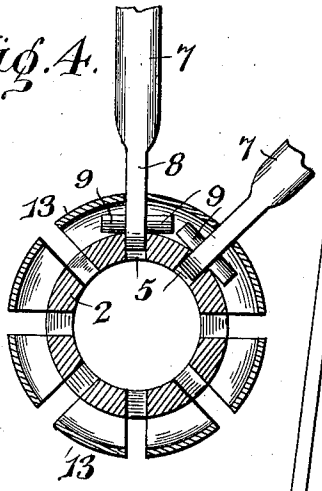


Fig. 4.



WITNESSES

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UMBRELLA RIB AND SOCKET.

1,078,069. Specification of Letters Patent. Patented Nov. 11, 1913.

Application filed January 13, 1913. Serial No. 741,851.

To all whom it may concern:

Be it known that I, FRANK W. SIMONS, a citizen of the United States, residing at Vallejo, in the county of Solano and State of California, have invented certain new and useful Improvements in Umbrella Ribs and Sockets, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to umbrellas and the like and has for its object the production of an efficient means whereby a new rib may be easily placed in its correct position after an old one has been broken or removed.

Another object of this invention is the production of an efficient sleeve member in combination with a casing whereby the ribs will be securely and firmly held in their correct position and at the same time they will be allowed to extend parallel with the staff of the umbrella.

With these and other objects in view this invention consists of certain novel combinations, constructions and arrangements of parts as will be hereinafter fully described and specifically claimed.

In the accompanying drawing: Figure 1 is a side elevation of the device showing the same partly in section. Fig. 2 is a central vertical section of the device. Fig. 3 is a view in perspective of the several parts which constitute the device. Fig. 4 is a transverse section taken through the device, as illustrated in Fig. 2.

Referring to the accompanying drawing by numerals it will be seen that the device consists of the usual staff 1 which is adapted to carry the device constituting the invention. A sleeve 2 is adapted to be carried near each end of the staff 1 and is provided with the aperture 3 through which the attaching means is adapted to pass. The upper portion of the sleeve 2 is provided with the enlarged flange portion 4 in which there is cut a plurality of diverging notches 5 which extend clear through the flange so as to allow the opening to extend to the inner portion of the sleeve. Centrally located upon the flange 4 is a circumferential groove 6 which extends at right angles to the notches 5. The rib which is used in combination with this device is provided with the body 7 which carries the flattened portion 8 through which the transversely extending pin 9 passes. The transversely extending pin 9 is adapted to rest within the circumferential groove 6 while the flattened end 8 is adapted to rest and works within one of the notches 5. The extreme edge of the flattened portion 8 rests within the inner portion of the notches 5 whereby the strain will be eliminated from the outer portion of the sleeve and flange as the inner portion of the flange 4 will hold the ribs in their correct position when they extend at right angles to the sleeve.

In order to hold the ribs upon the sleeve 2 there is provided a casing 10 which is provided with the opening 11 through which the rivet 12 passes for securing the casing upon the sleeve. The upper portion of the casing is provided with a plurality of upwardly extending fingers 13 which are provided with the centrally bowed portion 14. By use of the bowed portions 14 the fingers extend into the circumferential groove 6 and thereby engage the transversely extending pins 9 for holding them in a firm engagement with the flange. Formed adjacent the bowed portions 14 there are provided a plurality of laterally extending lips 15 which are adapted to allow a new rib to be inserted in position when so desired.

By referring to Fig. 2 it will be seen that when a rib is broken and it is desired to substitute a new one all that is necessary to do is to spring two of the fingers 13 outward and remove the old rib. at which time a new rib may be forced down by means of the laterally extending lips 15 which serve as a guide means into the circumferential groove 6 and one of the notches 5 at which time the bowed portion 14 will engage the pin 9 and thereby hold the rib in a firm and pivotal engagement with the sleeve. It will also be seen that since the notches 5 extend clear through the sleeve 2 as illustrated in Figs. 2 and 3 it will be possible to swing the ribs at any angle desired whereby the umbrella may be closed so as to require only a minimum amount of space. The sleeve 2 is also provided with a ledge portion 16 which serves as a positive means for limiting the inward movement of the sleeve 2 relative to the casing 10.

By use of this device it will be seen that a new rib may be easily substituted for an old or broken one after the device has been placed upon the staff of the umbrella

without removing the device. There is, of course, a device such as described carried near each end of the umbrella.

Having thus described the invention what is claimed as new, is:—

A rib connecting member for umbrellas comprising a sleeve, said sleeve provided with an overhanging flange having a circumferential groove, ribs provided with pins fitting in said groove, a casing positioned upon the outer portion of said sleeve, said casing provided with a plurality of fingers, each finger provided with a bowed portion intermediate its ends, said bowed portions resting within said groove and bearing upon said pins of said ribs, whereby different sized pins may be accommodated and held firmly within said groove and said bowed portions also holding said casing upon said sleeve independently of secondary securing means but in such a manner as to allow said casing to be easily detached from said sleeve by drawing downwardly on said casing.

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

FRANK WILLIAM SIMONS.

Witnesses:

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LEONARD K. TALLEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."