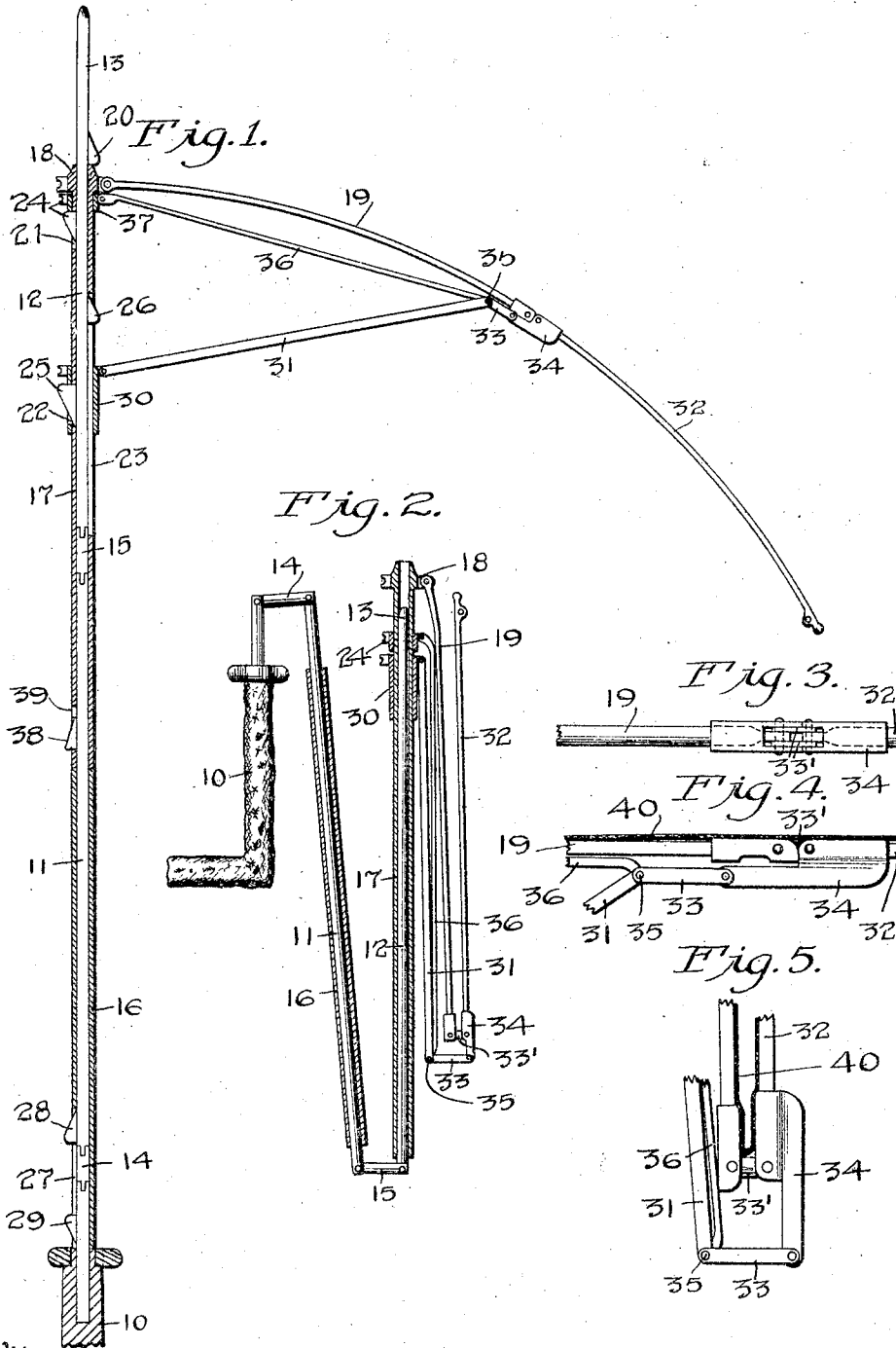


W. H. R. UMSTEAD.
FOLDING UMBRELLA.
APPLICATION FILED JUNE 17, 1911.

1,058,928.

Patented Apr. 15, 1913.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM H. R. UMSTEAD, OF HARRISON, NEW JERSEY.

FOLDING UMBRELLA.

1,058,928.

Specification of Letters Patent.

Patented Apr. 15, 1913.

Application filed June 17, 1911. Serial No. 633,732.

To all whom it may concern:

Be it known that I, WILLIAM H. R. UMSTEAD, a citizen of the United States, residing at Harrison, in the county of Hudson and State of New Jersey, have invented new and useful Improvements in Folding Umbrellas, of which the following is a specification.

This invention relates to umbrellas and more especially to folding umbrellas which may be reduced to a limited length for packing away in trunks or hand bags as will be more fully described in the following specification, set forth in the claim and illustrated in the drawings, wherein,—

Figure 1 is a sectional view showing the umbrella open and extended. Fig. 2 shows the same folded. Figs. 3, 4 and 5 show the means for breaking and folding the ribs.

The rod is made in three sections, the lower section 10 constituting the handle, an intermediate section 11 which constitutes that portion between the ribs and the handle, and an upper section having at its outer end the tip 13. These three sections are united by means of links 14 and 15 having suitable pivots to allow the rod to be folded when the joints are unsupported. The joints are, however, supported when the umbrella is extended by means of sleeves 16 and 17, the latter having a head 18 with a notched ring to carry the upper ends of ribs 19. The head 18 is restricted from upward movement by the spring nose 20 and the ribs are thereby held in extension and the sleeve 17 is provided with slots 21, 22 and 23 for additional noses 24, 25 and 26, also carried by section 12 of the rod for purposes that will be hereafter explained. The lower part of the sleeve 16 is also provided with a slot 27 for the noses 28 and 29, the former nose being to retain the runner 30 when the umbrella is closed. The runner 30 has the usual notches for the braces 31 which are adapted to support the rib 19 when the umbrella is extended.

In order to fold the ribs they are made in two sections, the outer section 32 being linked to the upper portion by means of the member 33 pivoted to the arm 34 and to the brace 31. The pivot 35 besides con-

necting the link 33 and the brace 31 also connects the outer end of a stay rod 36 with the section 32, the inner end of the stay rod being pivoted to a notched ring 37 which slides on the section 17 and is held in its operative position by means of the spring nose 24.

When it is necessary to break the umbrella for packing same, the ring 37 is released as is the runner 30, the latter being moved downward on the sleeve, and the sections 32 may then be folded backward on the ribs 19 as shown in Fig. 2, the length of the ribs being reduced to about one half. The runner 31 is now slid upward into the position shown in Fig. 2 forming the ribs, braces, stays and fabric into a compact mass. The sleeve 17 is now forced upward after releasing it by forcing the spring nose 20 inward so as to relieve the joint 15 of support and protection when the rod may be folded as shown, a portion of the section 11 being bared so that the sleeve 16 may be slid upward past the joint 14, permitting it to be swung backward as shown. The umbrella is now reduced to about one-third of its original length and is of sufficient size to be readily packed in a small satchel.

In order to give the rib 19 and its outer section more solidity, a link 33' is employed to connect them as shown in Fig. 5, and the whole umbrella may be covered by means of the usual fabric 40 attached thereto in any desirable manner.

For sake of convenience the nose 20 may be dispensed with and the spring nose 38 pivoted in the section 11 and adapted to play through the slot 39 in the tube 16 which would accomplish the same result and could be more easily operated.

What I claim as new and desire to secure by Letter Patent is—

A folding umbrella comprising a stick, a runner arranged on the stick, a plurality of notched rings arranged on the stick beyond the runner, ribs comprising inner and outer sections, the inner sections of which are connected to one of the notched rings, stay rods connected at their inner ends to the other of the notched rings, brace rods connected at

their inner ends to the runner, and an element consisting of an arm connected to the outer sections of the ribs, a link pivotally mounted on the arm and connected to the inner sections of the ribs, and a second link pivotally connected on the arm for connecting the outer ends of the brace rods and the stay rods, substantially as described.

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

WILLIAM H. R. UMSTEAD.

Witnesses:

CHARLES LA RUE,
JAMES F. DUHAMEL,
K. ALLEN.