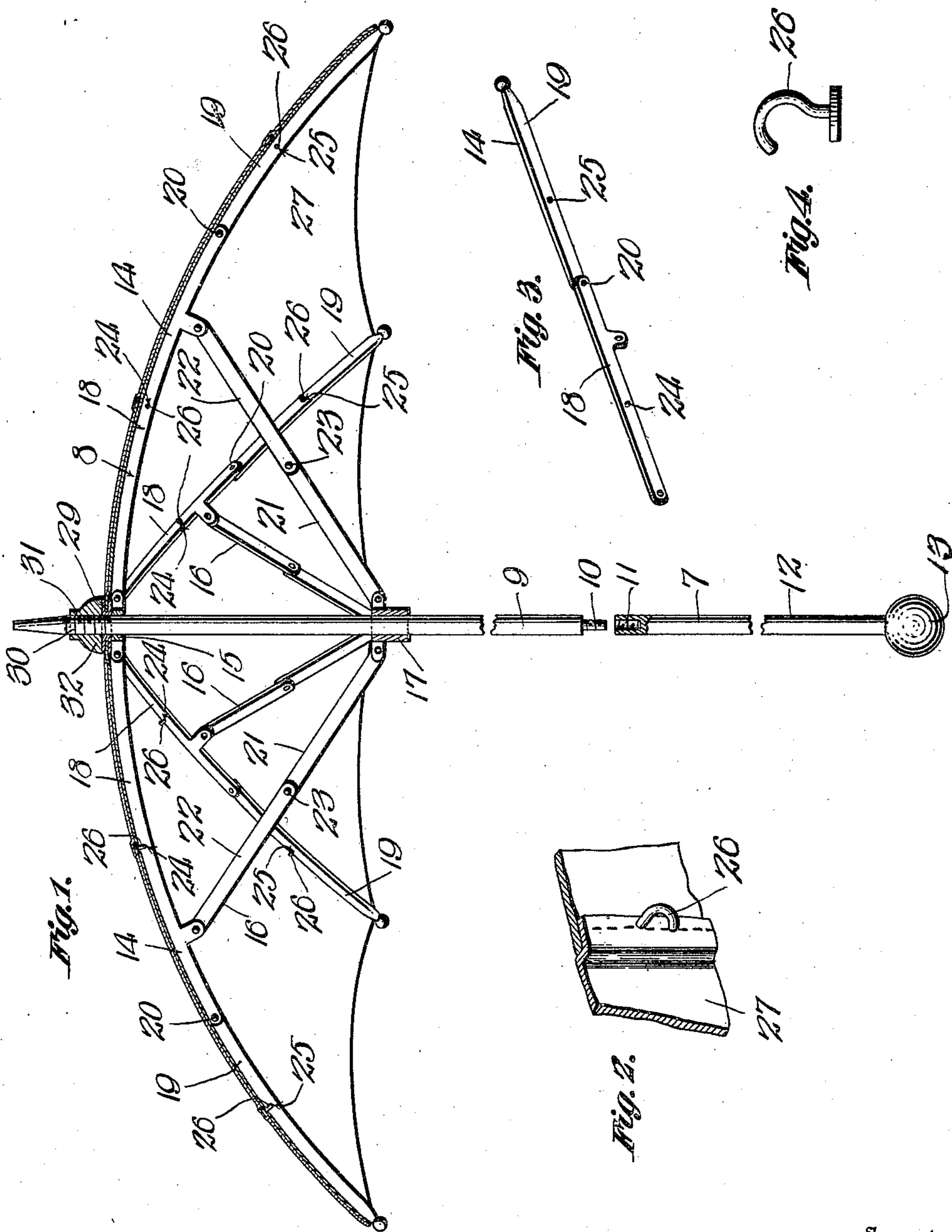


K. S. HUMMER.  
FOLDING UMBRELLA.  
APPLICATION FILED JAN. 29, 1907.

934,177.

Patented Sept. 14, 1909.



Witnesses

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By *[Signature]* *[Signature]*

Attorneys.



# UNITED STATES PATENT OFFICE.

KATIE S. HUMMER, OF PHILLIPSBURG, NEW JERSEY.

## FOLDING UMBRELLA.

934,177.

Specification of Letters Patent. Patented Sept. 14, 1909.

Application filed January 29, 1907. Serial No. 354,688.

*To all whom it may concern:*

Be it known that I, KATIE S. HUMMER, a citizen of the United States, residing at Phillipsburg, in the county of Warren, State of New Jersey, have invented certain new and useful Improvements in Folding Umbrellas; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to improvements in folding umbrellas, and it aims to provide a device of that class, in which the ribs and braces are foldable upon themselves to reduce their length for convenience in packing.

A further object of the invention resides in the provision of an umbrella which in addition to its foldable characteristic, above referred to, is provided with a cover entirely removable from the umbrella frame, so that a single frame may be used with a number of different covers, any one of which may be readily attached thereto and removed therefrom.

The invention will be readily understood from the following detailed description, and its preferred embodiment is illustrated in the accompanying drawings, in which like parts are designated by corresponding reference numerals in the several views.

Of the said drawings—Figure 1 is a vertical section through an umbrella constructed in accordance with the present invention. Fig. 2 is a fragmental view of a portion of the removable cover, showing the hooks carried thereby. Fig. 3 is an enlarged detail view of one of the frame ribs. Fig. 4 is a similar view of one of the cover hooks. In Fig. 1, the umbrella handle is shown as partly disjointed.

Referring more particularly to the drawings, the umbrella is shown as comprising a handle or stick 7 and a frame 8 carried thereby. The handle, in the present instance, is jointed and comprises an upper section 9 having a reduced threaded end 10 and a lower section 12 having a socket 11, in which the threaded end 10 is engaged, the lower section likewise carrying a grip or handle proper 13.

The frame 8, above referred to, comprises the usual ribs 14, which are connected together at their upper ends by a ring 15, and the braces 16, which are connected at their

outer ends with the corresponding ribs and at their lower ends by the runner 17, through which the upper section of the handle extends, the connection between the ribs and the ring, and braces and runner being such as to permit a swinging movement of the ribs and braces, as is customary. In the present instance each rib and its brace are jointed, the former comprising the sections 18 and 19 connected by a hinged joint 20, and the latter the sections 21 and 22 hinged together as at 23. The lower section 21 of each brace is connected to the runner 17, while the upper section 22 is connected with the upper section of the corresponding rib, at a point slightly above the hinge between the joints or sections of the rib. When, therefore, the umbrella frame is opened the ribs will be bowed in the usual manner, as shown in Fig. 1, being held in such position through the action of the braces which are themselves retained in position by means of the engagement of the runner with the usual spring (not shown) carried by the umbrella handle. When, however, the frame is closed the sections both of the ribs and the braces fold upon themselves and permit the umbrella to be stowed away in a small space, the lower section of the handle being first removed as is obvious.

The upper and lower sections or joints of each rib are provided with the sockets 24 and 25, respectively, in which the bill portions of the flat headed hooks 26 the bases of which latter are secured to the under face of the cover 27, are engaged, to secure the cover to the ribs. The cover which is of the usual construction and comprises a plurality of mutually adjacent sections is provided at its center with an opening in which a metal ring 29 fits, the ring being secured to the cover sections in any preferred manner. When, therefore, the cover is disposed over the ribs the ferrule end of the section 9 of the handle will extend through the ring carried by the cover, the inner diameter of the ring being approximately equal to the diameter of such section to cause a binding engagement between the ring and section. To further retain the cover in place such section end is threaded, as at 30, to fit in an internally threaded opening 31 formed in a metal cap 32, which may thus be moved into engagement with the cover ring.

As above stated, the cover consists of a series of sector-shaped sections, which are



sewed or otherwise connected together at their mutually adjacent edges, the cover hooks 26 being secured likewise at the meeting edges of the sections, so that when the  
 5 cover is in place upon the frame with its hooks in engagement with the rib sockets, tension will be applied equally to both side edges of each section when the umbrella is opened, thus disposing the seams between  
 10 the sections directly over the ribs of the frame.

As shown in Fig. 5, the upper socket 24 of each rib joint is disposed adjacent the point at which the section 18 and brace are connected, while the lower socket 25 is formed  
 15 adjacent the free end of the opposite section 19 of each rib.

It will thus be understood from the foregoing that the present invention comprises  
 20 merely two parts, *i. e.*, the frame and the cover removably attached thereto, and it will be likewise apparent that a single frame may be used with any number of covers of different shades and materials and that any  
 25 one of the covers may be readily attached to and removed from the frame. The frame itself, owing to the jointed construction of its ribs and braces and to the sectional formation of its handle, may be folded into  
 30 very small compass and in such condition may be readily carried in a suit-case or satchel.

It will be noted that the hinge joint between the sections 18 and 19 of each rib is  
 35 such as will permit the outer section 19 to

have a free swinging movement upon the hinge pin. Owing to this construction, it will be possible to attach a cover to the frame very readily and quickly, as it is only  
 40 necessary to partly open the frame and then swing the rib sections 19 a slight distance inward when the cover hooks may be fitted in the rib sockets and the frame then completely opened, thus tensioning the cover. It will thus be apparent that there is a posi-  
 45 tive coöperation between the jointed ribs and the cover, since it would be extremely difficult to attach a cover to the frame where the latter comprised rigid instead of jointed  
 50 ribs.

What is claimed, is—

The combination with an umbrella frame having foldable perforated ribs, of a cover formed of a plurality of sector-shaped sections, the mutually adjacent edges thereof  
 55 being overlapped and united, and hook members having flat heads the latter mounted between the overlapped edges of said sections and concealed by the same, the hooks of the members projecting inwardly from  
 60 the sections of the cover to engage the openings in the ribs for detachably connecting the said cover thereto.

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

KATIE S. HUMMER.

Witnesses:

STOGDUE STOKES,  
 MARY A. HUMMER.