

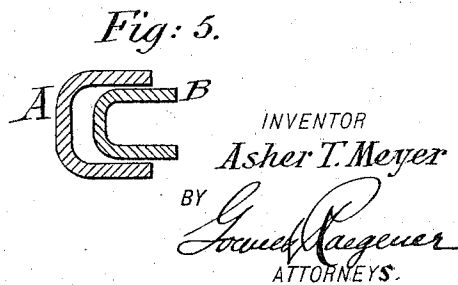
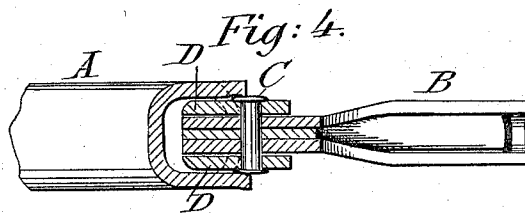
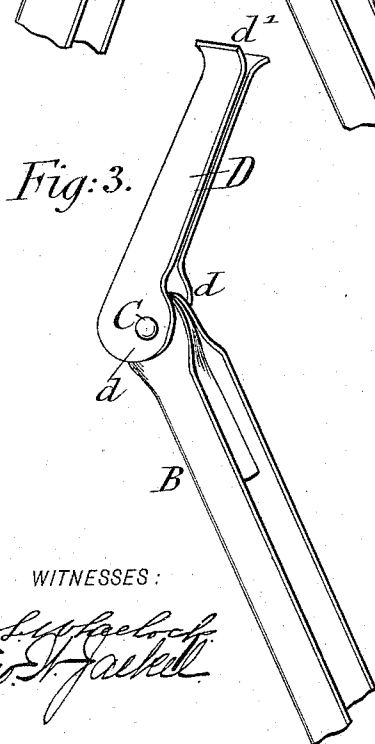
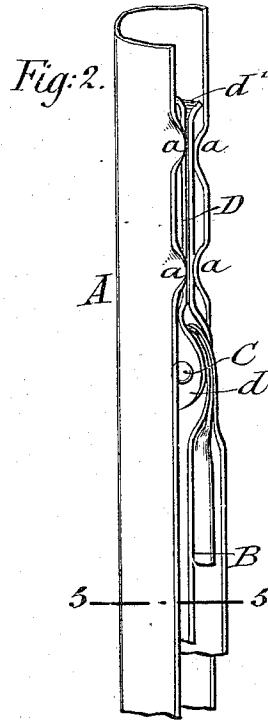
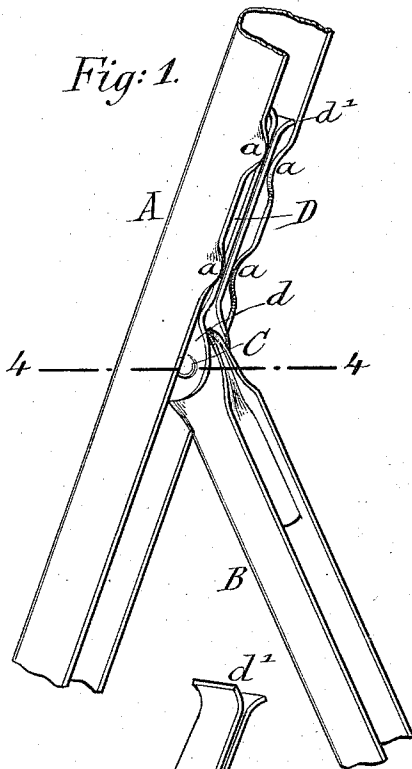
(No Model.)

A. T. MEYER.

HINGE CONNECTION FOR RIBS AND STRETCHERS OF UMBRELLAS.

No. 579,403.

Patented Mar. 23, 1897.



WITNESSES:

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HINGE CONNECTION FOR RIBS AND STRETCHERS OF UMBRELLAS.

SPECIFICATION forming part of Letters Patent No. 579,403, dated March 23, 1897.

Application filed November 12, 1896. Serial No. 611,808. (No model.)

To all whom it may concern:

Be it known that I, ASHER T. MEYER, a citizen of the United States, residing in the city of New York, county and State of New York, have invented certain new and useful improvements in Hinge Connections for the Ribs and Stretchers of Umbrellas, of which the following is a specification.

This invention relates to a hinge connection for the ribs and stretchers of umbrellas; and the object of the same is to enable those umbrellas with paragon frames to be compactly folded together or closed, so that a very neatly folded or closed umbrella is obtained, with that small and cane-like appearance which is now so much sought after. This is accomplished without impairing the strength of the frame and is done as cheaply as heretofore.

In the accompanying drawings, Figure 1 is a detail perspective view of my improved hinge-joint for ribs and stretchers of umbrellas, showing the same in unfolded position. Fig. 2 is a similar view showing the parts in closed or folded position. Fig. 3 is a detail perspective view of a part of a stretcher, showing the anchor to which it is hinged. Fig. 4 is a transverse section on line 4 4, Fig. 1. Fig. 5 is a transverse section on line 5 5, Fig. 2.

Referring to the drawings, A represents one of the ribs, and B one of the stretchers, of the paragon frame of an umbrella, said rib, as is well known, being of U shape in cross-section. As shown clearly in Fig. 3, the inner end of the stretcher B is pivoted by a pin C between and to the ears *d* of a pair of plates D, which constitute the anchor or anchors for securing the stretcher to the rib. The outer ends of the plates or anchors D are turned outwardly, so as to furnish toes *d'*.

To connect the stretcher with the rib, the edges of the U-shaped rib are crimped or turned inwardly to provide crimps or lips *a*, preferably two pairs, and the anchor *d* of the stretcher is then slipped into the groove of the rib and pressed inwardly along the said groove under the crimps until the toes *d'* of the anchor or anchors spring past the crimps or lips *a*, so that in connection with the toes *d'* and the friction between the anchor and the rib said anchor is firmly secured to the rib and the stretcher to the rib. When the ribs and stretchers are jappeded, the connection is further maintained. It will be seen that the ears *d* are at the end of the anchor, so that the crimps or indentations of the rib will extend

over the anchor entirely beyond and to one side of the ears, whereby the crimps or indentations are prevented from interfering with the proper and neat or compact folding of the stretcher.

The advantages of the described construction are: that the stretcher can be folded neatly within the rib when the umbrella is folded or closed; that by the placing of the anchor within and crimping it to the rib a firm connection of the stretcher with the rib is obtained, and, further, that by reason of the described connection all the protuberances at the back of the rib are avoided, whereby the silk or other cover of the umbrella is preserved and prevented from wearing out or being torn. The extra thickness imparted to the ribs by the heretofore-employed means of connecting being entirely done away with in my construction, the difference in size between the rolled-up or folded umbrella of the old form and that of my construction is equal to the sum of the thickness of the extra protuberances or bulges at the backs of the ribs.

Having thus described my invention, what I claim is—

1. A U-shaped rib provided with crimps or indentations at its edges, in combination with an anchor provided with ears at one end and being arranged in the groove of the rib, said crimps or indentations extending over the anchor and said ears lying beyond and entirely at one side of all of said crimps or indentations, and the stretcher pivoted to said anchor and being of less size than the rib, whereby when the umbrella is closed the stretcher is adapted to lie within that part of the groove of the rib which is at the other side of said ears, substantially as set forth.

2. A rib U-shaped in cross-section and provided with crimps or indentations at the edges, in combination with an anchor consisting of two plates provided at one end with outturned toes, said anchor being arranged within the groove of the rib and retained therein by co-operation of the crimps and toes, and a stretcher pivoted to said anchor, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

ASHER T. MEYER.

Witnesses:

GEO. L. WHEELOCK,
GEO. W. JAEKEL.