

(No Model.)

D. H. REDMOND & C. B. BALDWIN.
UMBRELLA RIB AND STRETCHER.

No. 571,623.

Patented Nov. 17, 1896.

Fig. 1.

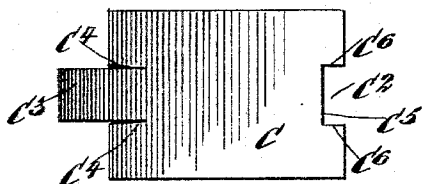


Fig. 2.

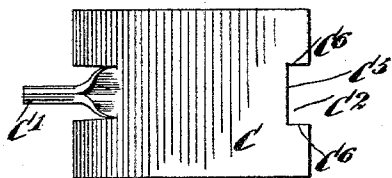


Fig. 3.

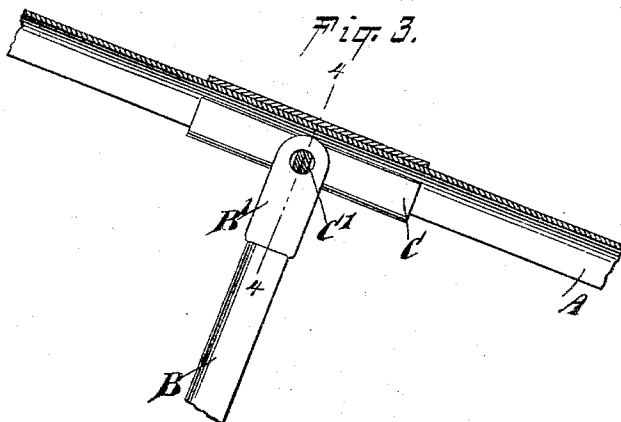
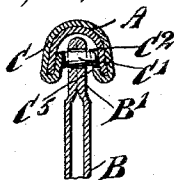


Fig. 4.



WITNESSES:

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DANIEL H. REDMOND AND CHALKLEY B. BALDWIN, OF PHILADELPHIA,
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UMBRELLA RIB AND STRETCHER.

SPECIFICATION forming part of Letters Patent No. 571,623, dated November 17, 1896.

Application filed March 9, 1896. Serial No. 582,358. (No model.)

To all whom it may concern:

Be it known that we, DANIEL H. REDMOND and CHALKLEY B. BALDWIN, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Umbrella Ribs and Stretchers, of which the following is a full, clear, and exact description.

Our invention relates to an improved construction of an umbrella rib and stretcher, and refers particularly to that class of connections between ribs and stretchers which is described in our United States Patent No. 540,191, dated May 28, 1895. In said patent we have shown a recessed rib in combination with an interior head and a clip of peculiar construction, whereby it becomes possible to locate the pivot connecting the stretcher to the rib within the recess of the latter and without weakening the rib by letting the pivot into it.

Our present invention has for its object to simplify the construction described in said patent, and particularly to reduce the space required for the insertion of the stretcher, and to dispense with the interior head and the necessity of a separate pivot, since in our improved construction the pivot is formed integral with the clip.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the blank from which the clip and pivot are formed. Fig. 2 is a plan view showing said blank with the pivot formed thereon. Fig. 3 is a longitudinal section through a portion of the rib, showing the connection with the stretcher; and Fig. 4 is a transverse section on the line 4-4 of Fig. 3.

The rib A is of the well-known grooved shape, that is, U-shaped in cross-section, and into said rib projects the reduced pivot end B' of the stretcher B, which is held in place by means of the pivot C', forming an integral part of the clip C, applied to the outside of the rib A and having its edges turned inward over the edges of the rib. The clip is pro-

duced from a blank such as shown in Fig. 1, consisting of an approximately rectangular piece of sheet metal having at one end a notch C² and at the opposite edge a projecting tongue C³, separated from the body of the material by cuts C⁴. The free end of the tongue is then bent or twisted to a substantially round shape, (see Fig. 2,) so that said tongue will form the pivot C'.

In bending the clip into position the pivot C' with its free end is brought under the edge C⁵ of the notch C², so that the said edge prevents any upward movement of the pivot-pin. Lateral movement of said pin is prevented by its engagement with the side walls C⁶ of the notch C².

It will be seen that the construction is exceedingly simple and strong, that there are no small parts liable to get lost, and that the assembling of the rib and stretcher is materially facilitated.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination of a grooved or recessed rib, the stretcher projecting into the recess of the rib, and the clip surrounding the rib and having its marginal or edge portions return bent along the inner surface of the rib so as to embrace the edges of the same, said clip being formed with an integral pivot bent from one edge of the clip and projecting transversely through the recess of the rib and through the stretcher, the free end of the pivot engaging the edge of the opposite returned marginal portion of the clip, and the pivot being to the inside of the plane of the rib's edges, substantially as described.

2. The combination of a grooved or recessed rib, the stretcher projecting into the recess of the rib, and the clip surrounding the rib and formed at one edge with a notch and at the other edge with a pivot projecting transversely through the recess of the rib, and engaging the notch at the other edge of the clip, said pivot passing through the stretcher, substantially as described.

3. The herein-described blank for forming clips having integral pivots and adapted to

connect umbrella-ribs with stretchers, said
blank consisting of an approximately rectan-
gular piece of sheet metal having a notch at
one edge and a projecting tongue at the op-
5 posite edge, the said blank being formed with
slits or cuts extending a predetermined dis-
tance into the body of the material and in

line with the side edges of the projecting
tongue, as and for the purpose set forth.

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Witnesses:

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