

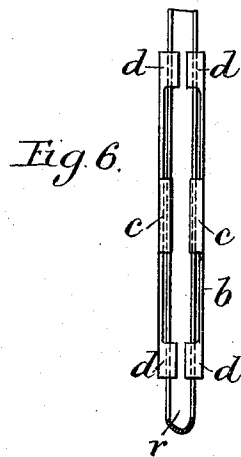
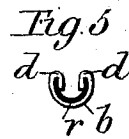
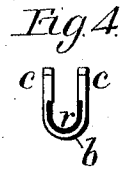
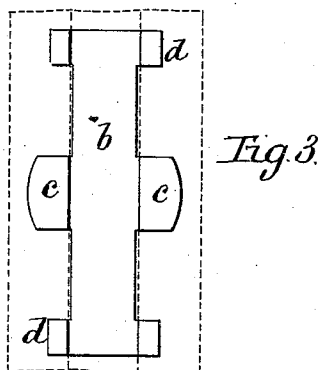
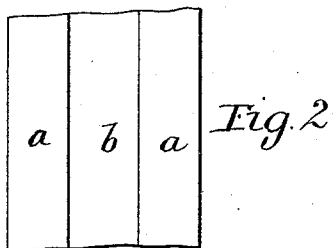
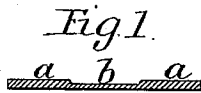
(No Model.)

J. WILLIS.

GEAT FOR UMBRELLAS OR PARASOLS.

No. 479,691.

Patented July 26, 1892.



Witnesses:

J. L. Hebert.
T. Zernich

Inventor:

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UNITED STATES PATENT OFFICE.

JAMES WILLIS, OF ROSENDALE, BOURNEMOUTH, ENGLAND.

GEAT FOR UMBRELLAS OR PARASOLS.

SPECIFICATION forming part of Letters Patent No. 479,691, dated July 26, 1892.

Application filed December 11, 1891. Serial No. 414,731. (No model.)

To all whom it may concern:

Be it known that I, JAMES WILLIS, a citizen of England, residing at Rosendale, Bournemouth, in the county of Hampshire, England, have invented a new and useful Improvement in Geats for Umbrellas and Parasols, of which the following is a specification.

The geat, which is fixed onto the rib of an umbrella or parasol to form one member of the joint for the stretcher, is usually a narrow piece of metal bent to U shape embracing the back of the rib and having the end of the stretcher pinned to its projecting limbs, which sometimes are folded over to double thickness. This geat is liable to be twisted and the fixing of the geat often tends to weaken the rib, which is thus rendered liable to become broken close to the geat.

My invention relates to the construction and fixing of a geat in such a manner as to insure its firm hold to the rib and to relieve the rib of the strain which tends to break it at the geat. For this purpose I make and fix the geat as I shall describe, referring to the accompanying drawings, which show a geat according to my invention, for the sake of clearness, to a greatly-enlarged scale.

Figure 1 is a transverse section, and Fig. 2 is a part plan of the strip of steel or other suitable metal for making the blanks of geats according to my invention. Fig. 3 is a plan of the blank. Fig. 4 is a section of the rib and geat at the middle of its length. Fig. 5 is a section near one end of the geat. Fig. 6 is a plan of part of the rib with the geat fixed thereon.

The strip of metal from which the blanks are made has, as shown in Figs. 1 and 2, a thickened part *a* on each side of the middle *b*, which is thinner. From this strip I punch a blank, as shown in Fig. 3, having a rounded ear on each side in the middle of its length, and smaller ears *d* at each corner, which are reduced in thickness after being punched into

shape. This blank is bent to U form, so as to embrace the back of the rib *r*, with the two ears *c* projecting beyond the edges of the rib, as shown in Fig. 4, the shoulders of the thicker parts *c* lying closely on these edges. The ears *d* are bent over and inward, as shown in Fig. 5, with such force as to take a firm grip of the rib *r*. The stretcher is then jointed to the middle ears *c c* of the geat in the usual way. In this manner the geat is fixed to the rib without in any way affecting the form or substance of the rib itself, which receives support at the ends of the elongated geat, relieving it from all tendency to break near the joint of the stretcher.

Although I have described the ears *c* as being in the middle of the geat, obviously they might, if desired, be nearer to the one end.

Having thus described the nature of this invention and the best means I know of carrying the same into practical effect, I claim—

A geat for an umbrella or parasol, consisting of a piece of metal having near the middle thereof upturned ears for attachment of the stretcher and made of greater thickness than the intermediate metal to form shoulders beneath which the rib may lie and having at opposite ends ears to embrace the back of the rib and adapted to be bent down into said rib, substantially as and for the purposes described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 25th day of November, A. D. 1891.

JAMES WILLIS.

Witnesses:

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