The present invention relates to a strengthened structure of a wind-proof umbrella, which includes a frame being consisted of elastic main ribs and stretched ribs being connected with related joint on the main rib. An extended rod is formed under the joint to contact the stretched rib, when the umbrella is opened, for providing a downward force to offset an upward force on the main rib and obtaining strengthened wind-proof effect to prevent the main rib from being outward folded or broken.
STRENGTHENED STRUCTURE OF A WIND-PROOF UMBRELLA

BACKGROUND OF THE INVENTION

[0001] A conventional wind-proof umbrella, as shown in FIG. 1, includes a single main rib (1) and a stretched rib (2), which connects outer end with a joint (3) on a middle position of the main rib (1). It obtains effect of wind-proof by use of elasticity of the main rib (1) and the stretched rib (2) that is not enough. If a sudden upward heavy wind occurs, the main rib (1) will be possibly folded, as imaged lines in FIG. 1, and even broken. The umbrella is then out of use anymore.

[0002] Accordingly, the primary object of the invention is to provide a strengthened structure of a wind-proof umbrella, which provides an extended rod under the joint to stop the stretched rib and to increase strength of wind proof for the umbrella. Now the features and advantages of the present invention will be described in detail with reference to the accompanying drawings.

BRIEF DESCRIPTION OF ACCOMPANYING DRAWINGS

[0003] FIG. 1 is a plan view showing a conventional frame of a known wind-proof umbrella.

[0004] FIG. 2 is a perspective view showing a part of a frame of a wind-proof umbrella according to the present invention.

[0005] FIG. 3 is a plan view showing the wind-proof umbrella in opening according to the present invention.

[0006] FIG. 4 is a perspective view showing another embodiment of a part of a frame of a wind-proof umbrella according to the present invention.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

[0007] Referring to FIGS. 2 and 3, the present invention relates to an improvement of a wind-proof umbrella, which includes an elastic main rib (1) connecting with a related stretched rib (2) to become an umbrella frame. The stretched rib (2) connects its outer end with a joint (3) being placed on a middle position of the main rib (1). An extended rod (31) is formed under the joint (3) to contact the stretched rib (2) when the umbrella is opened. When an upward wind occurs, the main rib (1) is lifted while the extended rod (31) will press the stretched rib (2) as well as the main rib (1) downward at the same time. This downward force can offset the upward force on the main rib (1) to prevent the main rib (1) from being folded outward and broken.

[0008] As shown in FIG. 4, it is another embodiment of the present invention, which includes a connector (4) having an upper engaging hook (41) and a lower rod (42). The engaging hook (41) can directly connect with a conventional joint (3) of a conventional umbrella while the lower rod (42) will be capable of contacting with the stretched rib (2) in opening of the umbrella for obtaining a same effect of wind proof.

[0009] Accordingly, the present invention provides an invented structure with improved utility. It obviously gains the utility and novelty for patent and is thus applied.

What is claimed is:

1. A strengthened structure of a wind-proof umbrella including a frame being consisted of elastic main ribs and stretched ribs being connected with related joint on the main rib, and the characteristic is that an extended rod being provided under the joint to contact the stretched rib, when the umbrella is opened, for providing a downward force and obtaining strengthened wind-proof effect.

2. The strengthened structure of a wind-proof umbrella as claimed in claim 1, wherein a connector being provided has an upper engaging hook and a lower rod, and the engaging hook can directly connect with a conventional joint of a conventional umbrella while the lower rod will be capable of contacting with the stretched rib in opening of the umbrella.