



(12) **United States Patent**
Mai

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(54) **UMBRELLA WITH ALERT DEVICE**

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* cited by examiner

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(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

(57) **ABSTRACT**

An umbrella with alert device includes a circular umbrella cover made of waterproof fabric or plastic material, an umbrella frame for supporting the umbrella cover to form an umbrella body, and an alert device for providing visual warning signal to others on the road. The alert device includes a battery receiver mounted below the umbrella cover, a battery stored within the battery receiver for providing power supply, a plurality of LEDs which are electrically connected with each other and the battery by electrical wires and spacedly disposed around an outer edges of the gores, a transparent strip water-sealedly welded on the outer edges of the panels by ultrasonic welding or sewed on the outer edges of the gores to cover the LEDs and the electrical wires, and a power switch electrically connected to the battery for controlling on and off of the alert device. The umbrella with alert device is specifically designed to enhance the visibility of the user during nighttime raining condition, so that the user can be more easily located by the drivers on the road, so as to avoid accident.

(21) Appl. No.: **09/344,670**

(22) Filed: **Jun. 25, 1999**

Related U.S. Application Data

(62) Division of application No. 09/146,515, filed on Sep. 3,
1998, now Pat. No. 5,954,417.

(51) **Int. Cl.⁷** **A45B 3/02**

(52) **U.S. Cl.** **362/102; 362/800; 135/910**

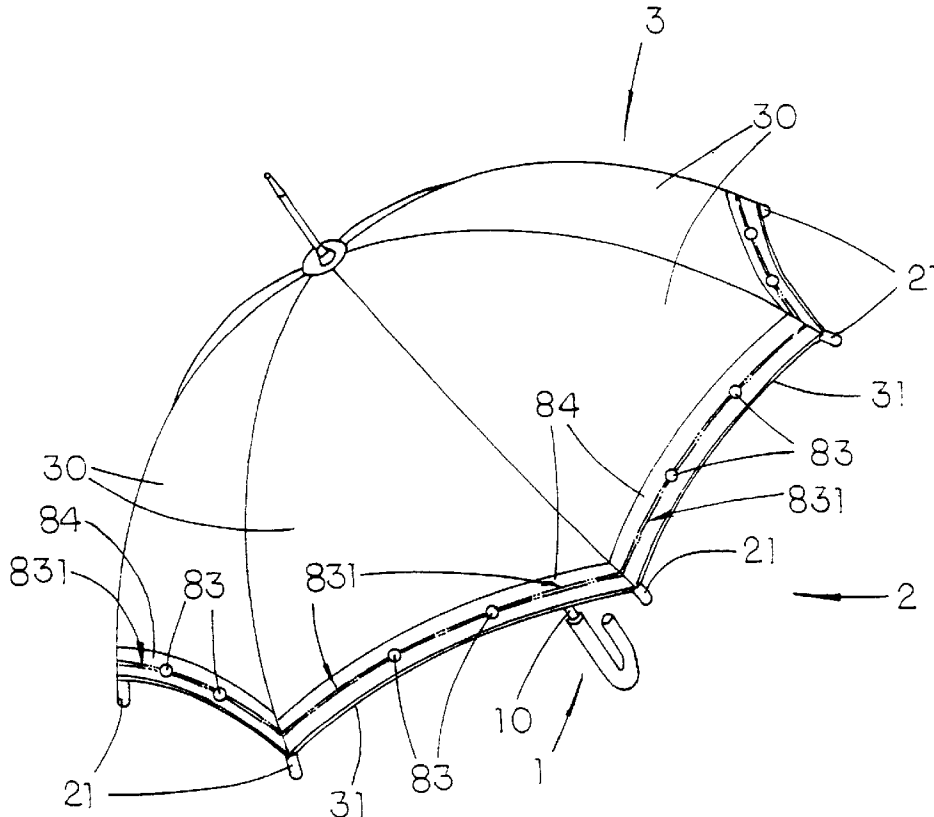
(58) **Field of Search** 362/102, 800,
362/234; 135/910, 16

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10 Claims, 6 Drawing Sheets



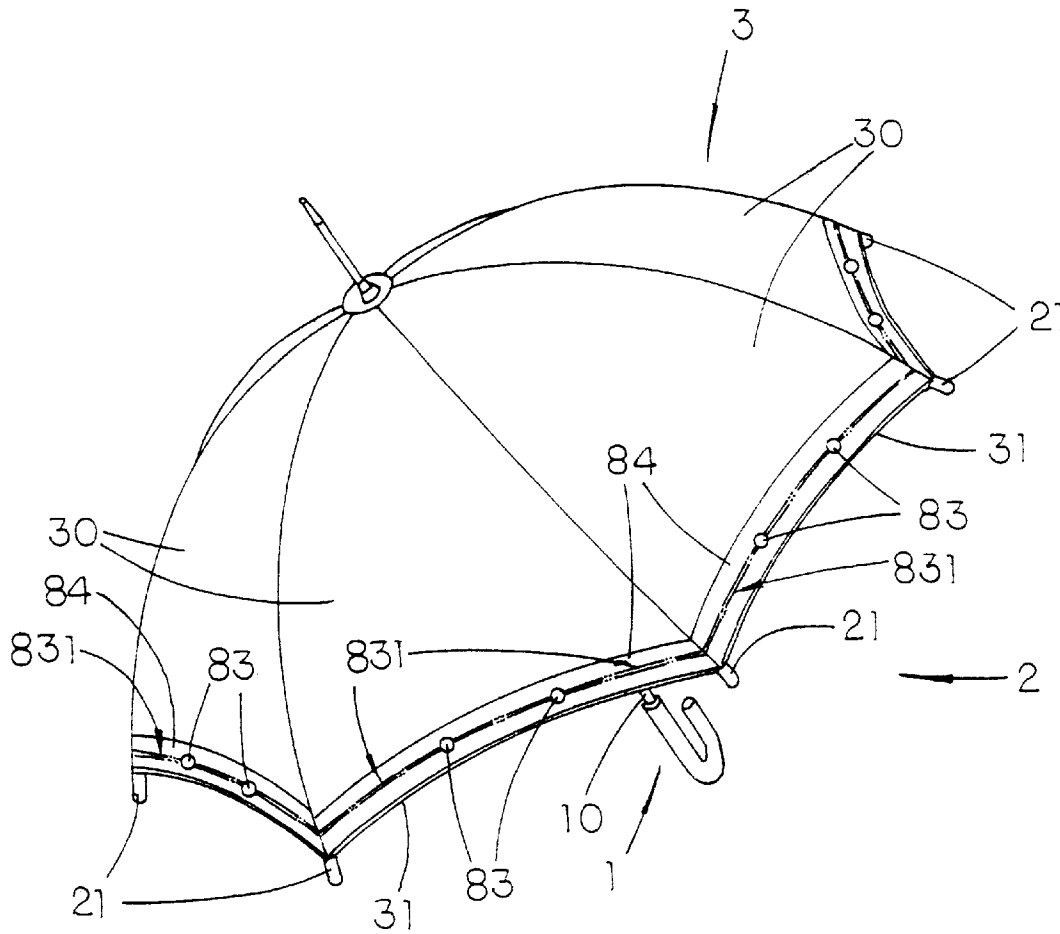


FIG 1

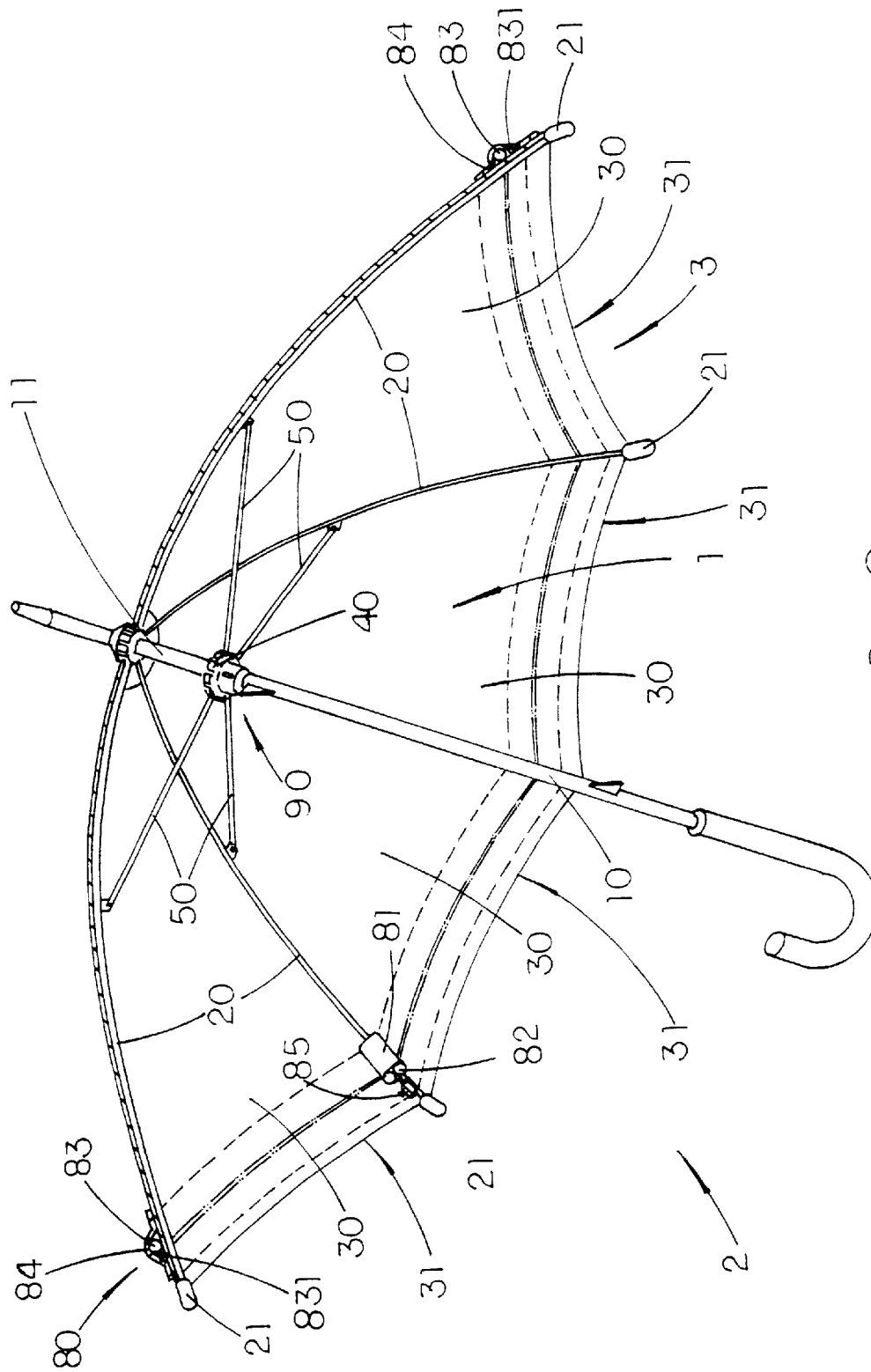


FIG 2

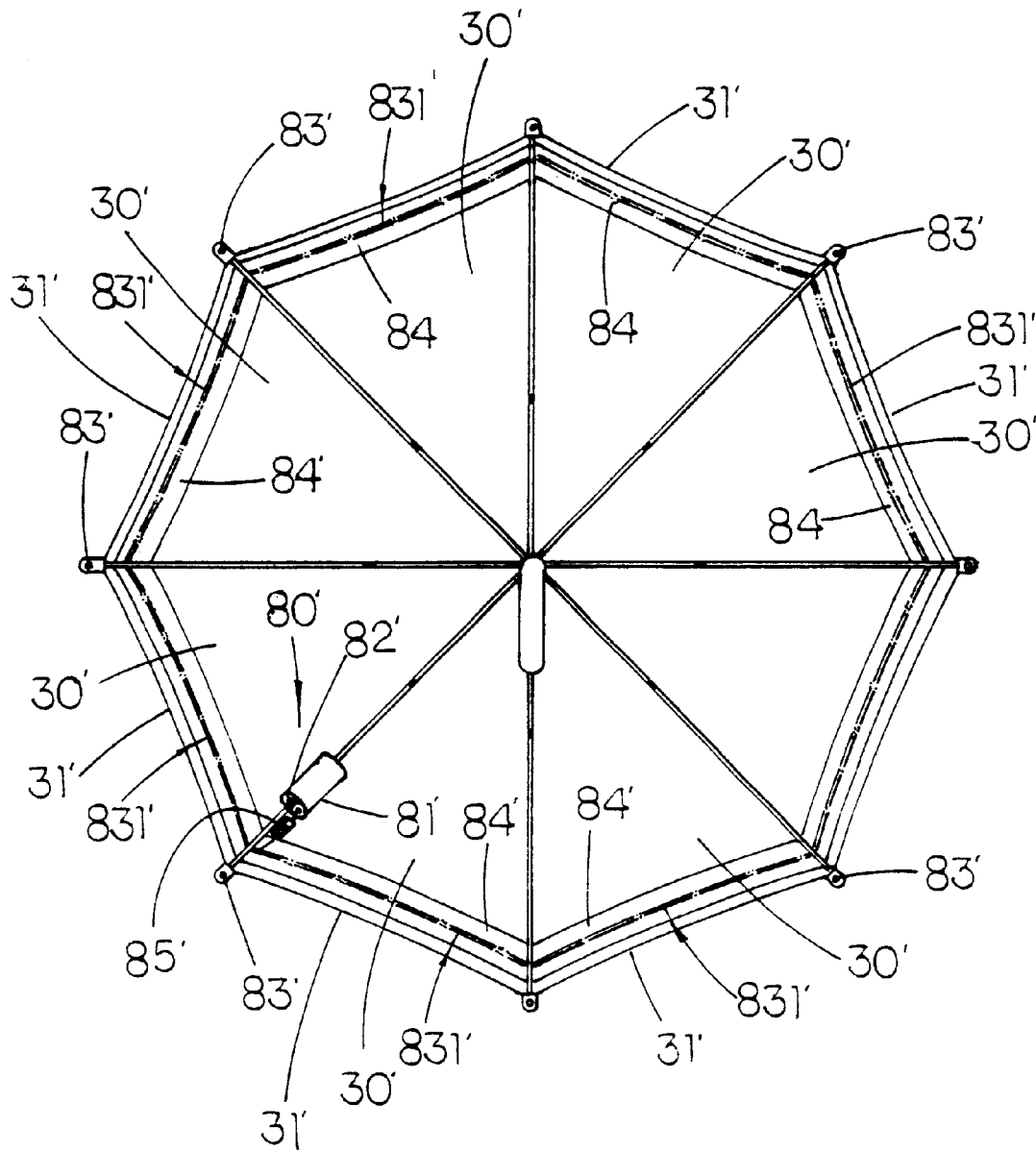


FIG 3

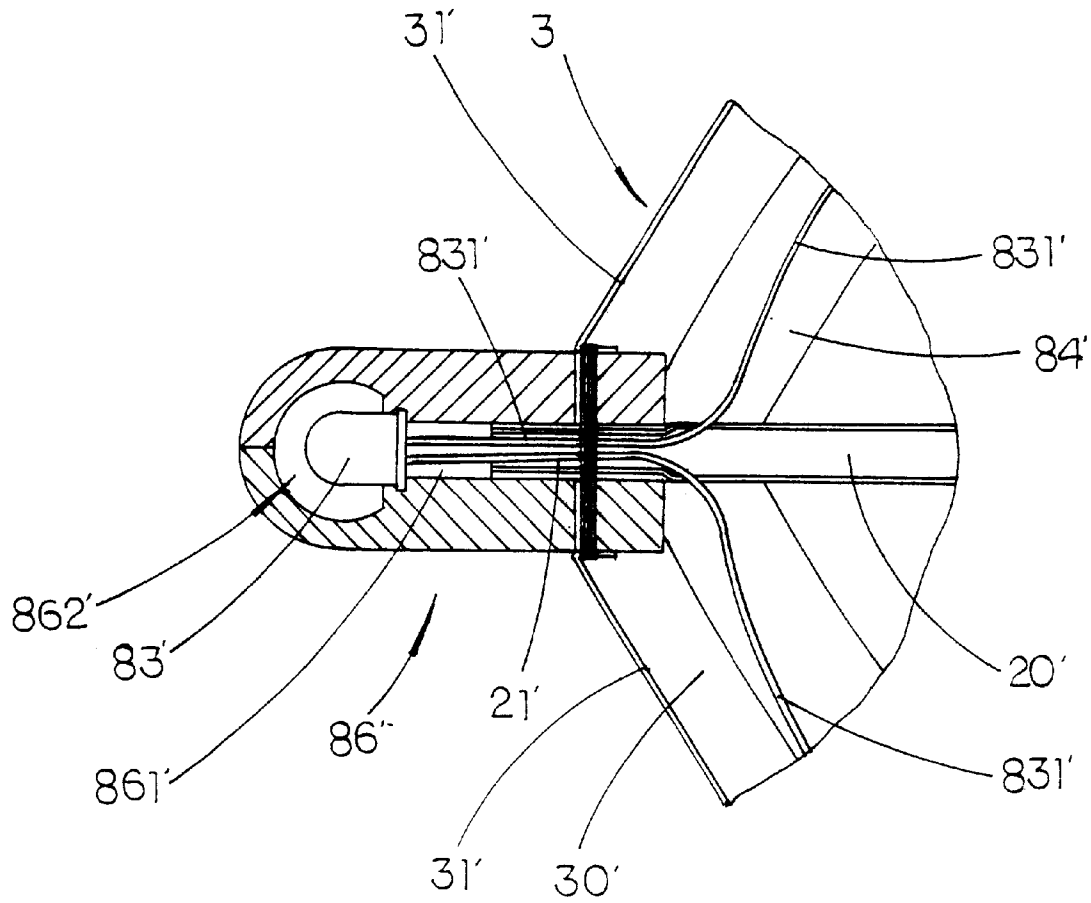


FIG 4

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