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United States Patent [19]

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[11]

[54] ILLUMINATING UMBRELLA HAVING RELIABLE CONNECTING WIRES [76] Inventor: Tzun-Zong Wu, 8F, No. 76, Lane 103, Nei-Hu Road, Sec. 2, Taipei, Taiwan Appl. No.: 09/157,464 [21] Filed: Sep. 18, 1998 [22] [51] **U.S. Cl.** **362/102**; 362/800; 135/910 362/184; 135/16, 910 [56] **References Cited** U.S. PATENT DOCUMENTS 5,323,798

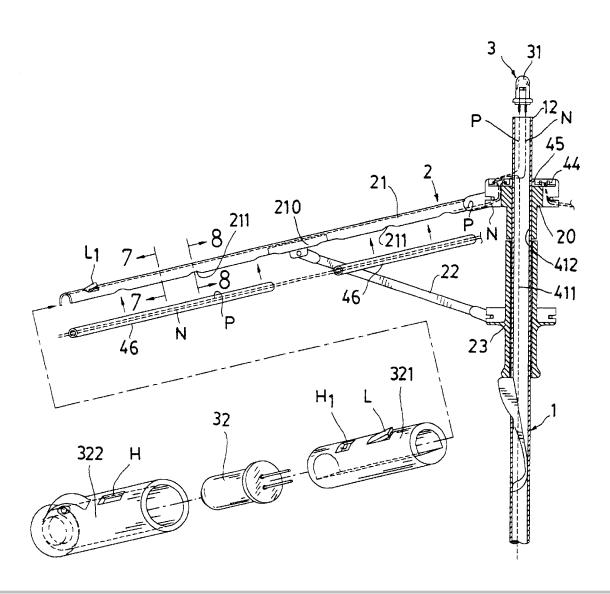
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Primary Examiner—Thomas M. Sember

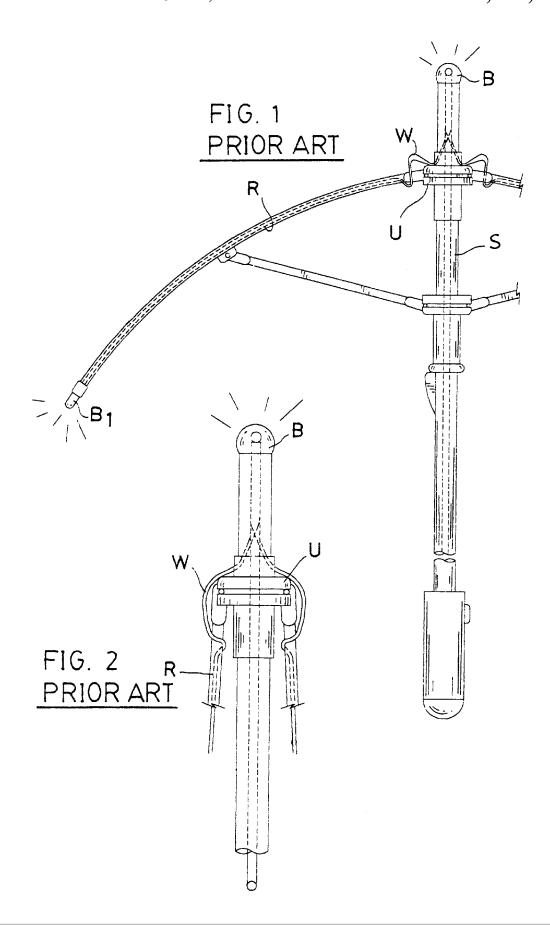
[57] **ABSTRACT**

An illuminating umbrella includes a top illuminator fixed on a top end of an umbrella central shaft, and a plurality of tip illuminators respectively fixed on a plurality of tips of the top ribs of the umbrella. Each illuminator has a positive wire electrically connected to a positive conducting ring secured on an outer peripheral portion of an umbrella notch or ferrule formed on an upper end of the central shaft, and a negative wire electrically connected to a negative conducting ring embedded on the central shaft which serves as a negative conductor. The positive conducting ring is electrically connected to a positive pole of a power source, of which the negative pole is electrically connected to the central shaft through an on-off switch slidably held on a grip of the shaft thereby forming a reliable stable power connection circuit among the illuminators and the power source. A flasher is connected between the power source and the illuminators for flashing the illuminators when turned on.

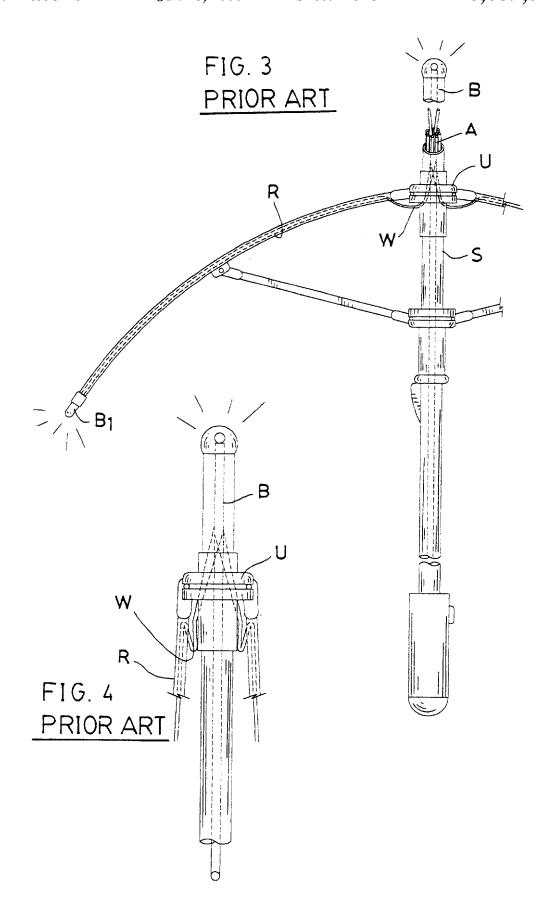
8 Claims, 8 Drawing Sheets



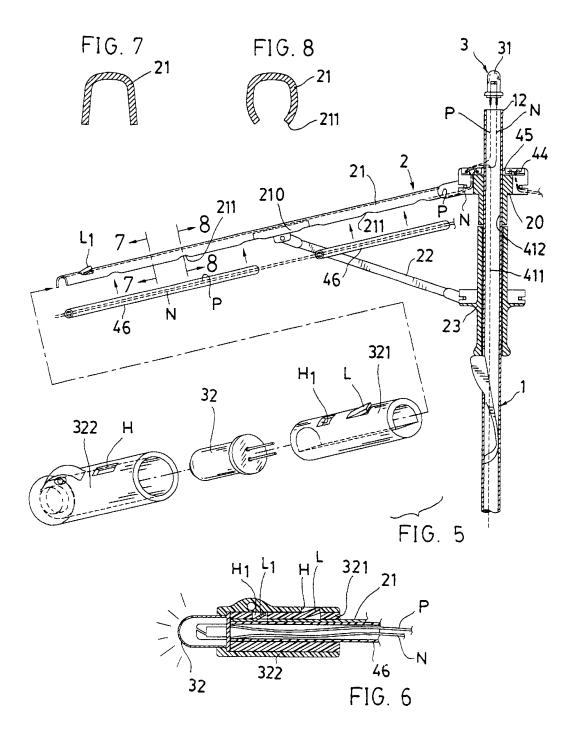




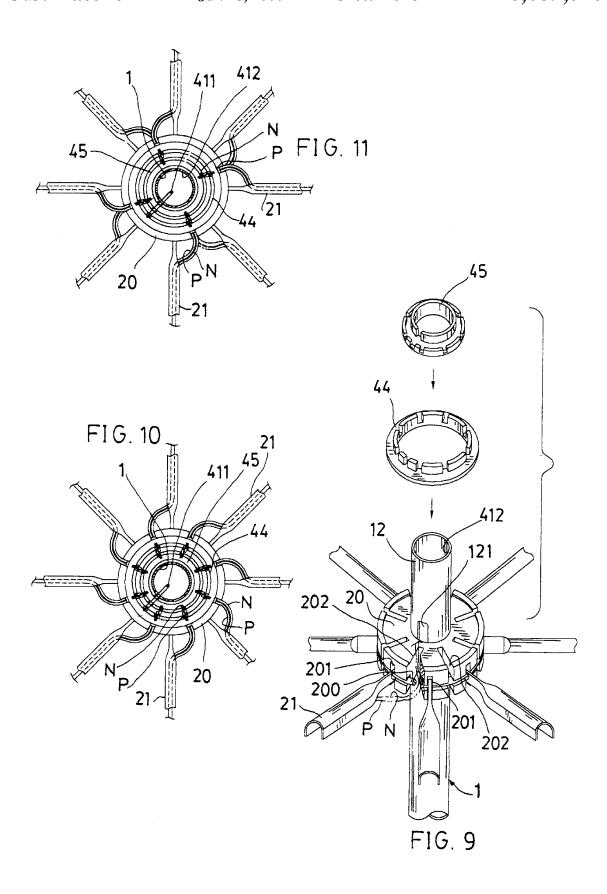












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