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United States Patent [19]

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Tuttle et al.

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[54] **BUTTON-TYPE BATTERY HAVING BENDABLE CONSTRUCTION, AND ANGLED BUTTON-TYPE BATTERY**

| | | | |
|-----------|---------|-----------------------|---------|
| 3,935,026 | 1/1976 | Howard | 136/20 |
| 4,048,405 | 9/1977 | Megahed | 429/206 |
| 4,121,020 | 10/1978 | Epstein et al. | 429/174 |
| 4,122,241 | 10/1978 | Ciliberti, Jr. et al. | 429/133 |
| 4,263,380 | 4/1981 | Riedl | 429/162 |
| 4,374,909 | 2/1983 | Tucholski | 429/174 |
| 4,501,805 | 2/1985 | Yasuda et al. | 429/174 |
| 4,632,887 | 12/1986 | Jung | 429/181 |
| 5,326,652 | 7/1994 | Lake | 429/127 |

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[73] Assignee: **Micron Communications, Inc.,** Boise, Id.

[21] Appl. No.: **205,957**

FOREIGN PATENT DOCUMENTS

[22] Filed: **Mar. 2, 1994**

| | | | |
|---------|---------|---------|-------|
| 1099018 | 11/1959 | Germany | 10/1 |
| 2201811 | 1/1972 | Germany | 21/84 |

[51] Int. Cl.⁶ **H01M 2/02**

[52] U.S. Cl. **429/127; 429/174**

[58] Field of Search **429/127, 174, 175, 176**

Primary Examiner—Stephen Kalafut
Attorney, Agent, or Firm—Wells, St. John, Roberts, Gregory & Matkin

[56] References Cited

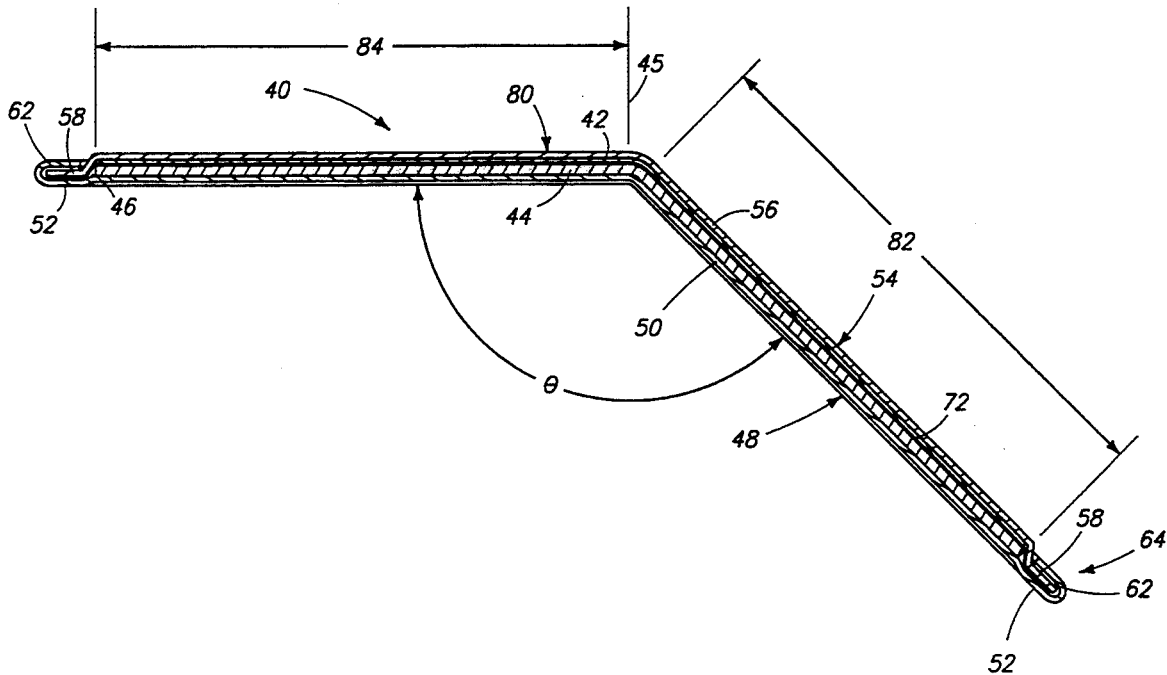
U.S. PATENT DOCUMENTS

| | | | |
|-----------|--------|---------------|---------|
| 2,422,045 | 6/1947 | Ruben | 136/167 |
| 2,712,565 | 7/1955 | Williams, Jr. | 136/107 |
| 2,951,891 | 9/1960 | Kempf | 136/169 |
| 3,023,259 | 2/1962 | Color et al. | 429/127 |
| 3,096,217 | 7/1963 | Clune | 136/107 |
| 3,185,595 | 5/1965 | Schenk, Jr. | 136/133 |
| 3,440,110 | 4/1969 | Arbter | 136/166 |
| 3,457,117 | 7/1969 | Angelovich | 136/133 |
| 3,663,000 | 6/1972 | Ruetschi | 136/107 |
| 3,708,343 | 1/1973 | Walsh | 136/133 |
| 3,713,896 | 1/1973 | Feldhake | 136/133 |
| 3,799,959 | 3/1974 | Epstein | 260/429 |
| 3,891,462 | 6/1975 | Langkau | 136/111 |

[57] ABSTRACT

A button-type battery has an anode, a cathode, a separator, and an electrolyte encased within a housing and surrounding by a fluid-tight peripheral seal. The battery is capable of being deflected such that a first portion of the battery is angled relative to a second portion through an internal angle between the first and second portions in a range from 175° to at least 90° without destroying operation of the button-type battery or rupturing the fluid-tight peripheral seal.

21 Claims, 5 Drawing Sheets



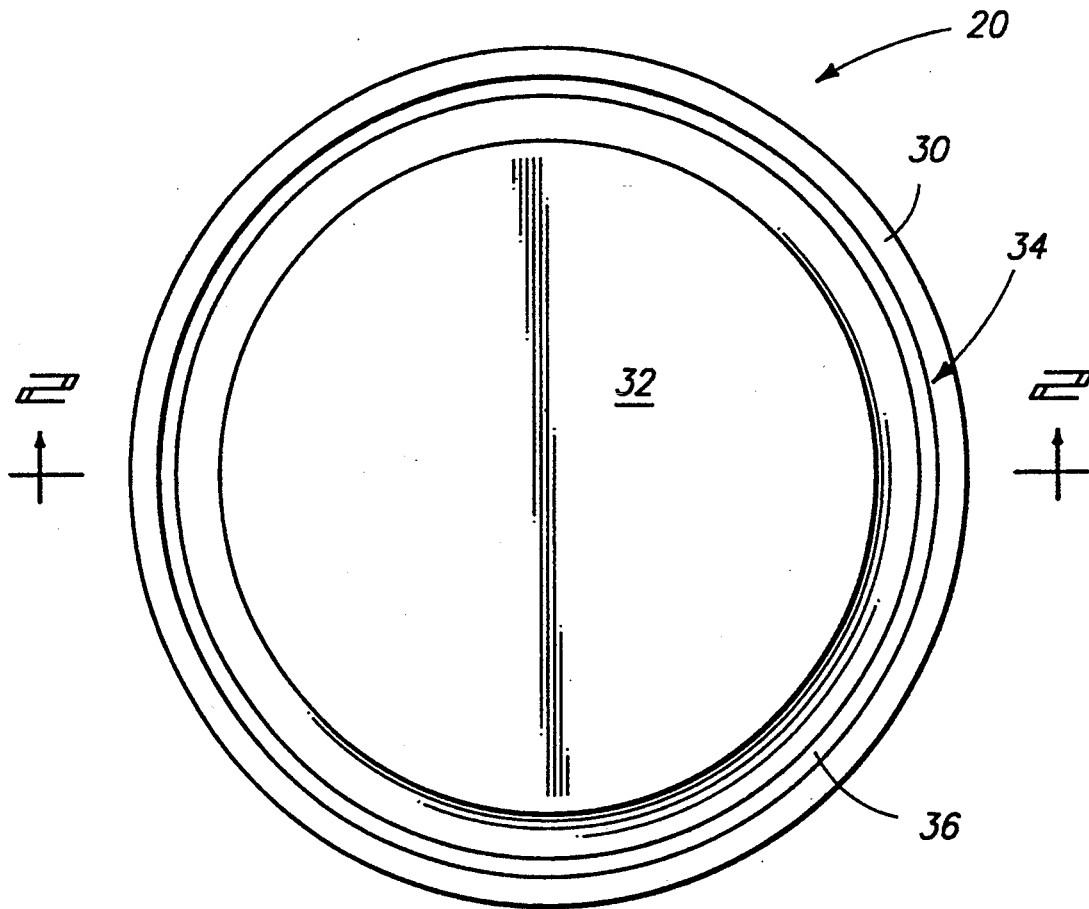
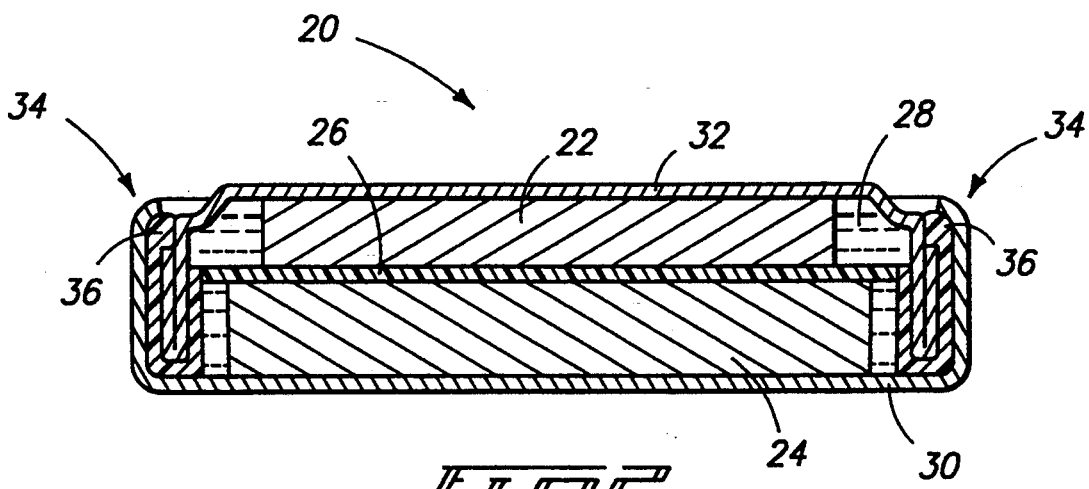
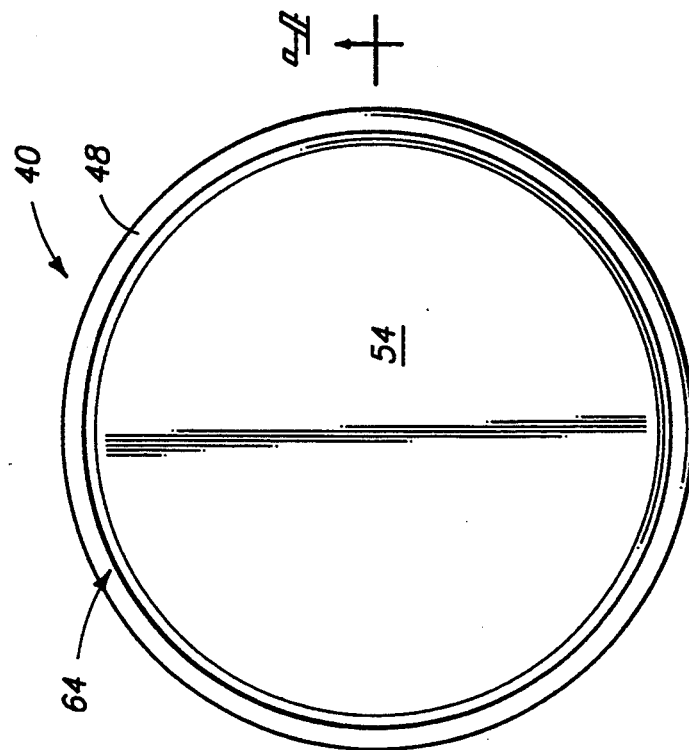
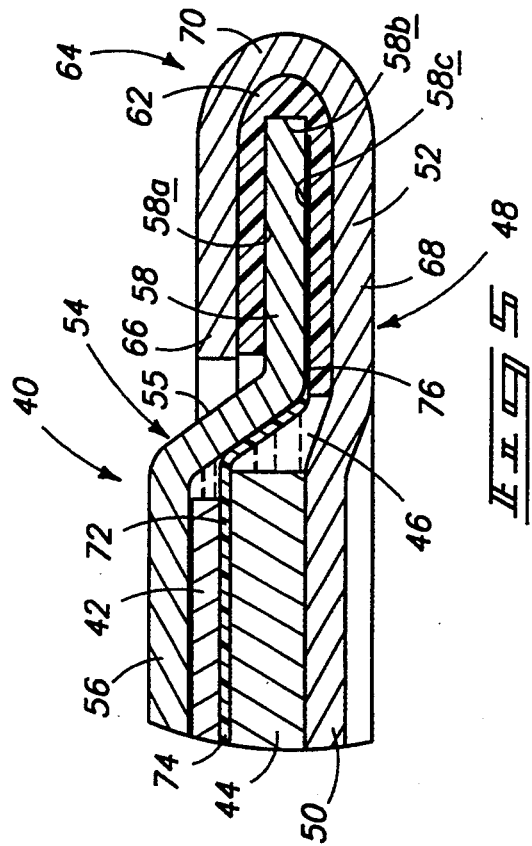
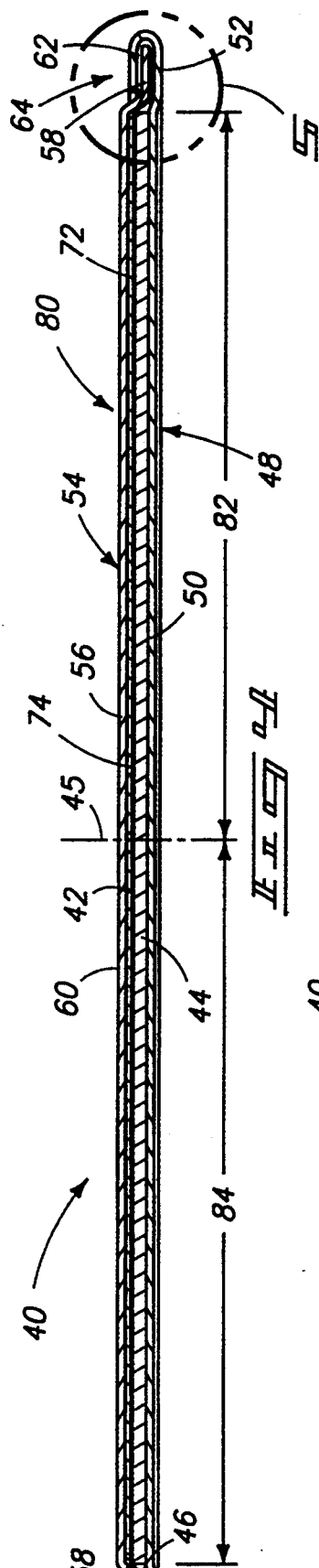


FIG. 1
PRIOR ART





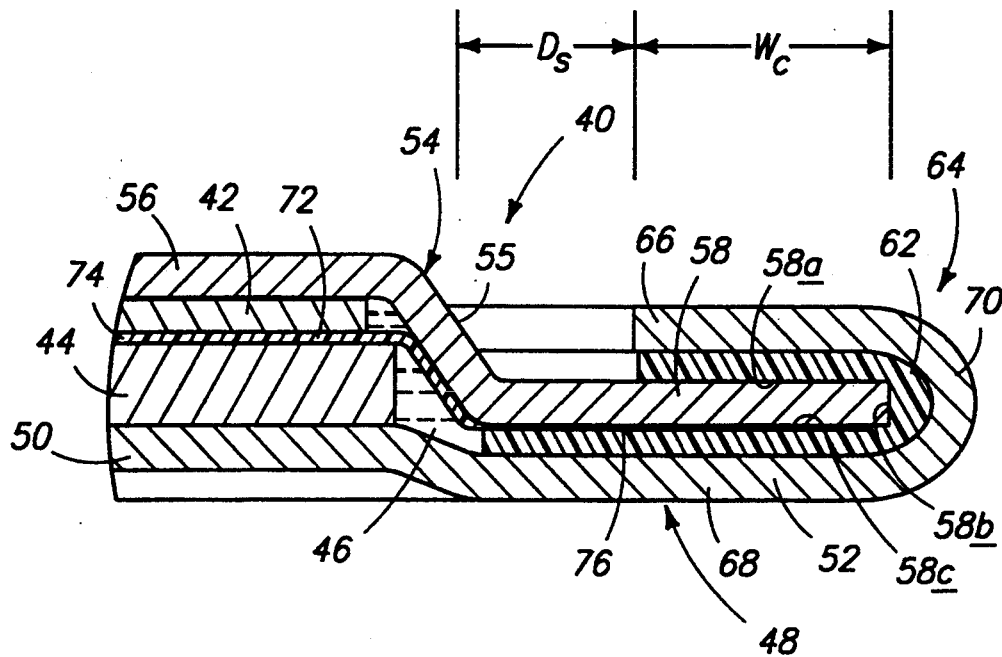
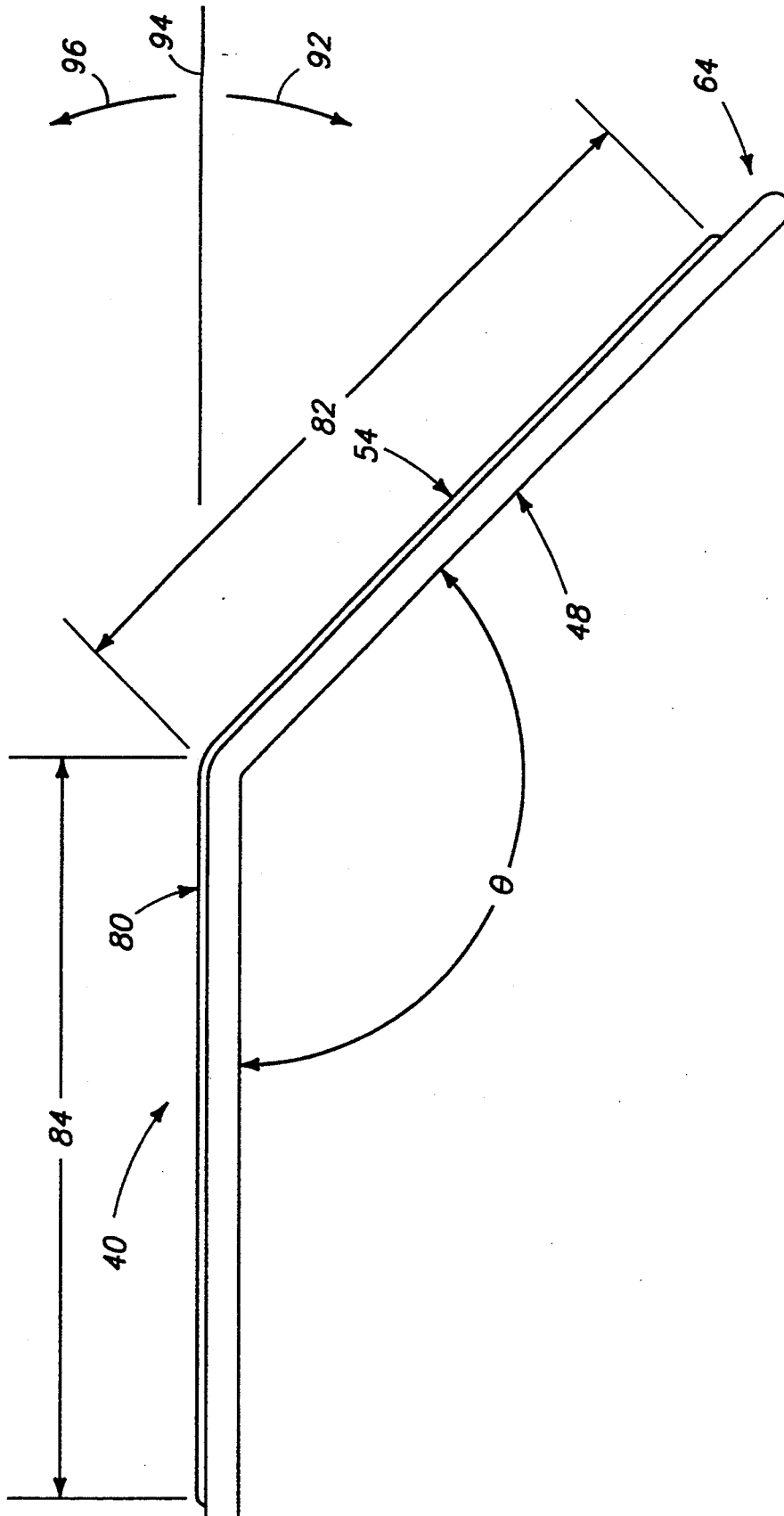


FIG. 16



H. H. O. O.

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