United States Patent [19]

Chandler

[11] **4,246,452**

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[54] **SWITCH APPARATUS**

[75] Inventor: **David P. Chandler**, Downey, Calif.

[73] Assignee: **Mattel, Inc.**, Hawthorne, Calif.

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[51] **Int. Cl.**[3] **H01H 13/70**; H01H 25/00

[52] **U.S. Cl.** ..... **200/5 A**; 200/6 A; 200/292

[58] **Field of Search** ..... 200/5 A, 86 R, 159 B, 200/292, 6 A; 364/705, 709, 712

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[57] **ABSTRACT**

A switch apparatus having first and second surfaces with conductive pattern segments thereon in proximate spaced overlying relation, each of the patterns being generally identical and having a circular array of alternating solid and interleaved conductive portion, one pattern being movable toward the other by tilting of a disc for providing a plurality of discrete signals.

23 Claims, 6 Drawing Figures

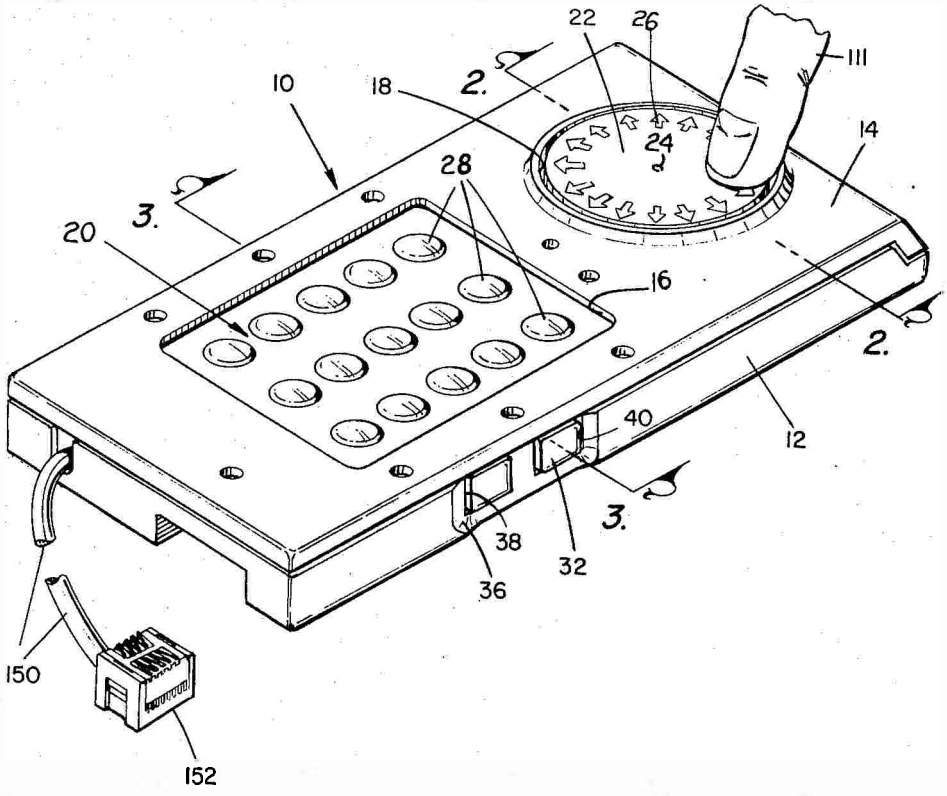

FIG. 1

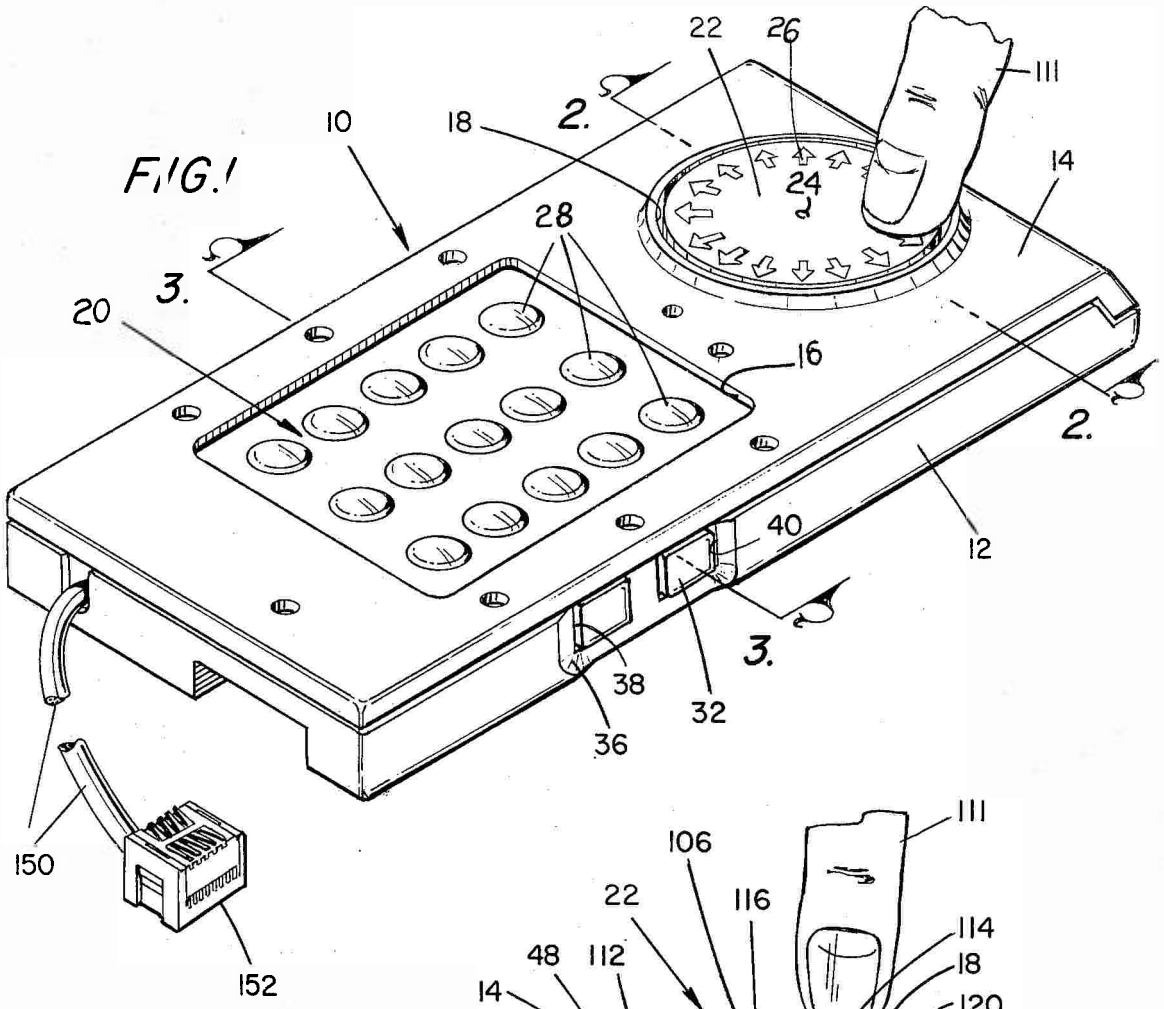

FIG. 2

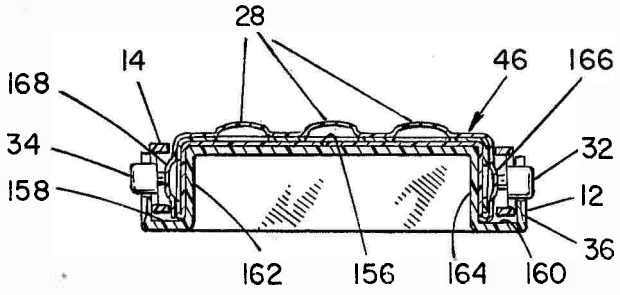

FIG. 3