

[54] **BIOERODIBLE SYSTEM FOR DELIVERING DRUG MANUFACTURED FROM POLY(CARBOXYLIC ACID)**

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[73] Assignee: **Alza Corporation, Palo Alto, Calif.**

[\*] Notice: The portion of the term of this patent subsequent to May 21, 1991, has been disclaimed.

[21] Appl. No.: **54,788**

[22] Filed: **Jul. 5, 1979**

**Related U.S. Application Data**

[60] Continuation of Ser. No. 750,701, Dec. 15, 1976, Pat. No. 4,180,064, which is a division of Ser. No. 591,443, Jun. 30, 1975, Pat. No. 4,014,987, which is a continuation-in-part of Ser. No. 467,246, Jun. 4, 1974, abandoned, which is a continuation-in-part of Ser. No. 318,831, Dec. 27, 1972, abandoned.

[51] Int. Cl.<sup>3</sup> ..... **A61M 7/00**

[52] U.S. Cl. .... **128/260; 128/271; 424/33**

[58] Field of Search ..... 128/260, 271; 424/19-22, 33; 71/1, 65, 3, 64 F

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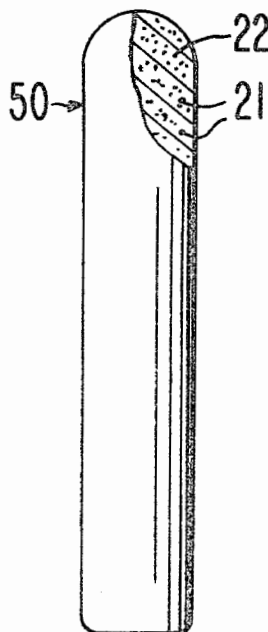
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[57]

**ABSTRACT**

A device for the controlled continuous administration of an active agent to an environment of use is disclosed. The device comprises a body of erodible agent release rate controlling material containing an agent dispersed therethrough; the rate controlling material is a hydrophobic poly(carboxylic acid) having one ionizable carboxylic hydrogen for each 8 to 12 carbon atoms, which material erodes at a controlled and continuous rate over a prolonged period of time in response to the environment by a process of carboxylic hydrogen ionization, thereby releasing the dispersed agent at a controlled rate over a prolonged period of time.

**15 Claims, 9 Drawing Figures**



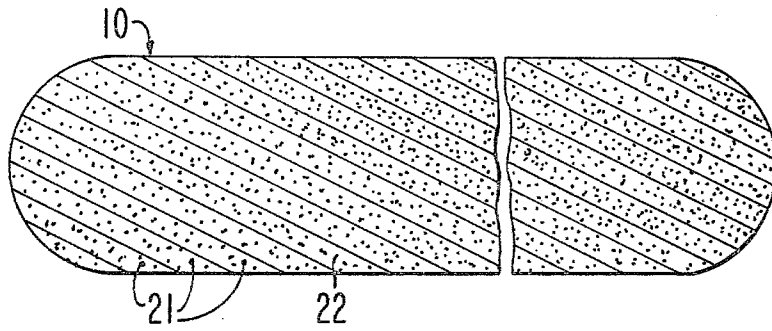


FIG. 1

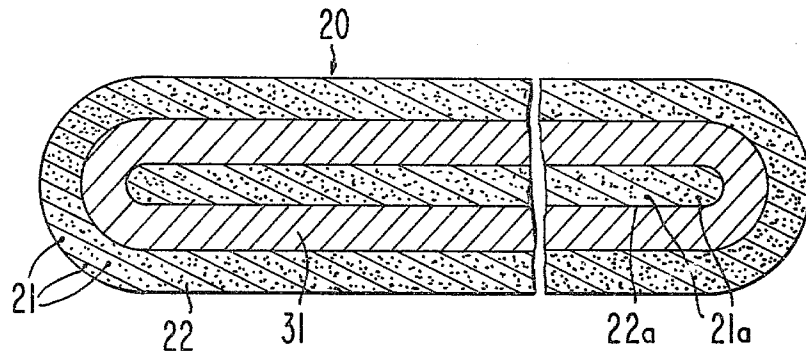


FIG. 2

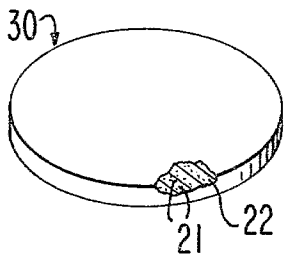


FIG. 3

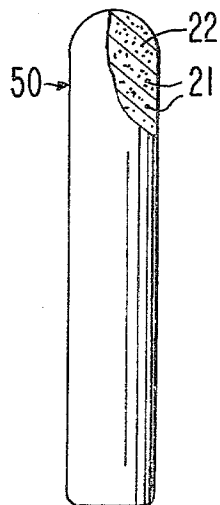


FIG. 5

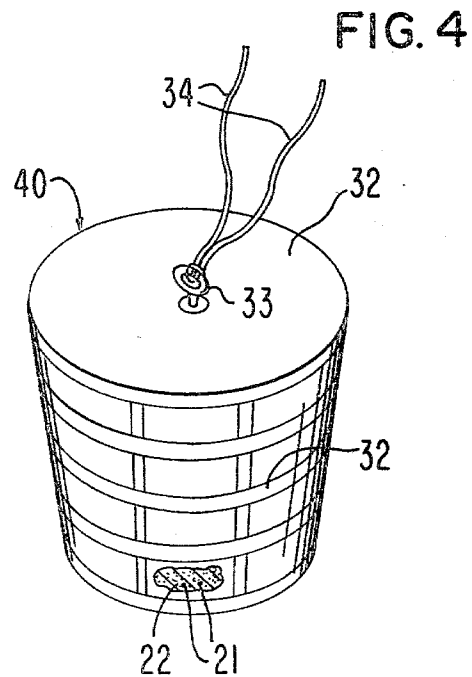


FIG. 4

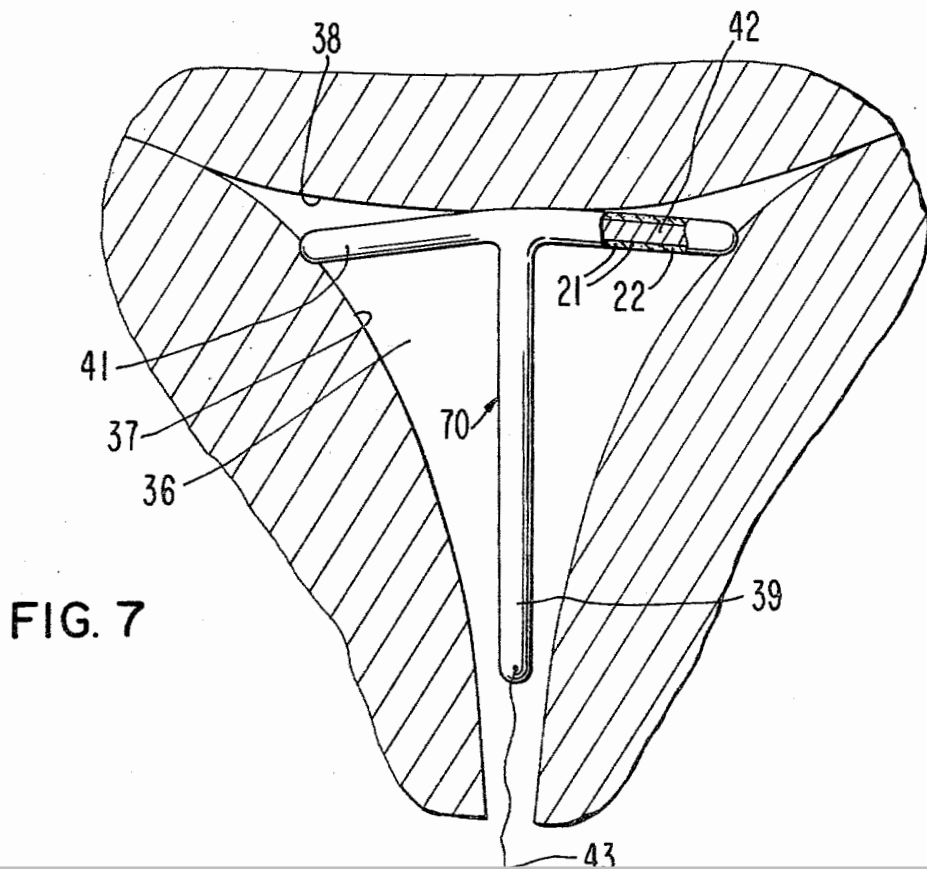
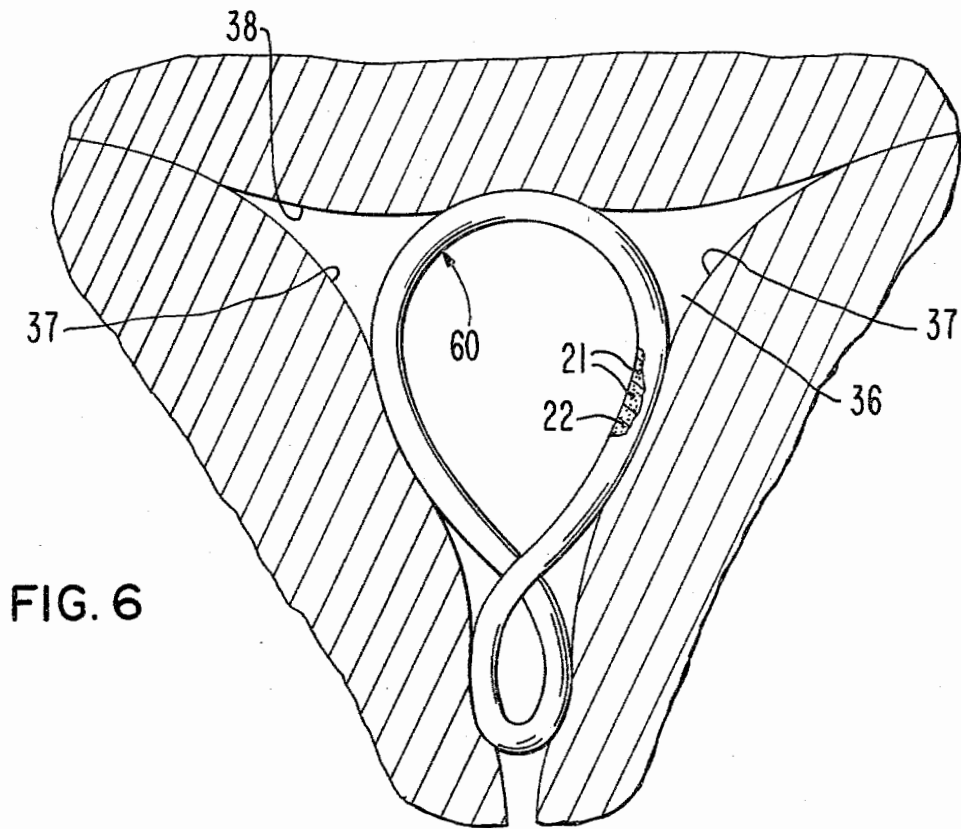
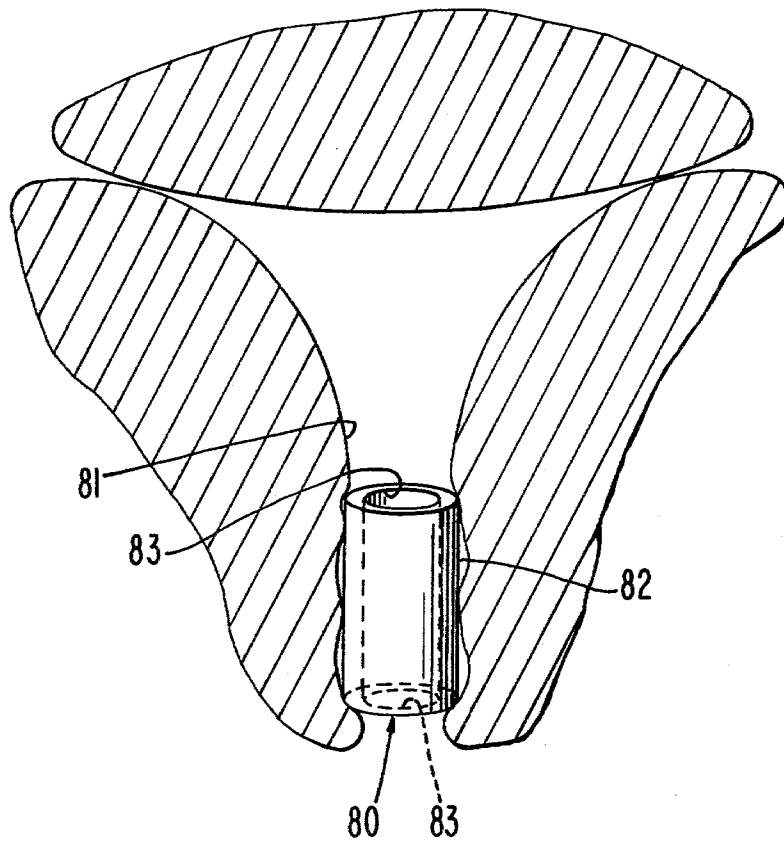
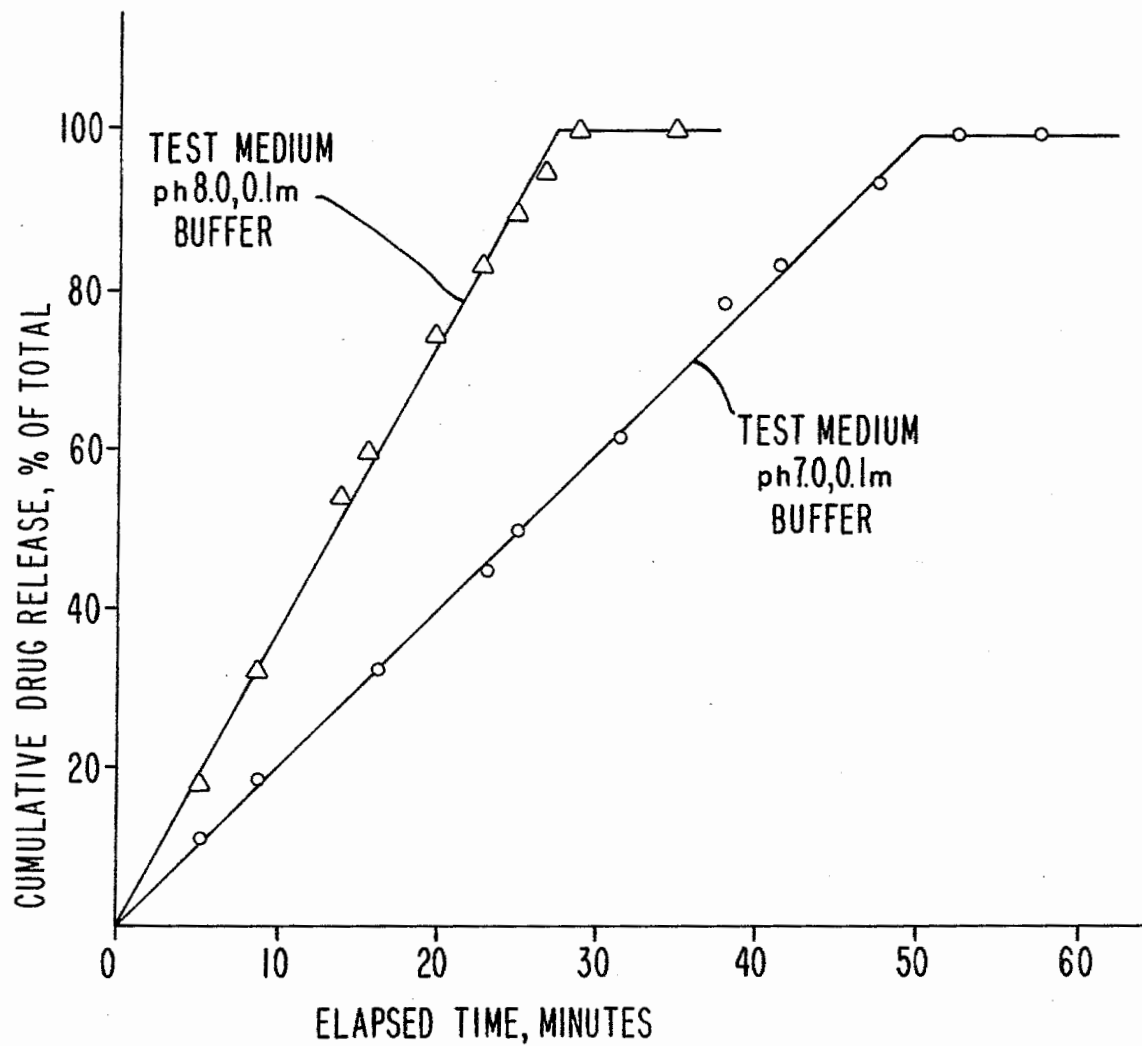


FIG. 8





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