

(12) United States Patent
Giambattista et al.

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(54) **LOW-COST MEDICATION DELIVERY PEN**

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(73) Assignee: **Becton, Dickinson and Company**, Franklin Lakes, NJ (US)

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

(21) Appl. No.: **09/027,607**

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(51) Int. Cl.⁷ **A61M 5/00**

(52) U.S. Cl. **604/207**

(58) **Field of Search** 604/207, 208, 604/209, 210, 211, 187, 218, 224; 222/32, 637

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,936,833 * 6/1990 Sams 604/232

5,304,152 * 4/1994 Sams .
 5,308,340 * 5/1994 Harris 604/208
 5,383,865 * 1/1995 Michel .
 5,514,097 * 5/1996 Knauer .
 5,584,815 * 12/1996 Pawelka et al. .

* cited by examiner

Primary Examiner—Sharon Kennedy

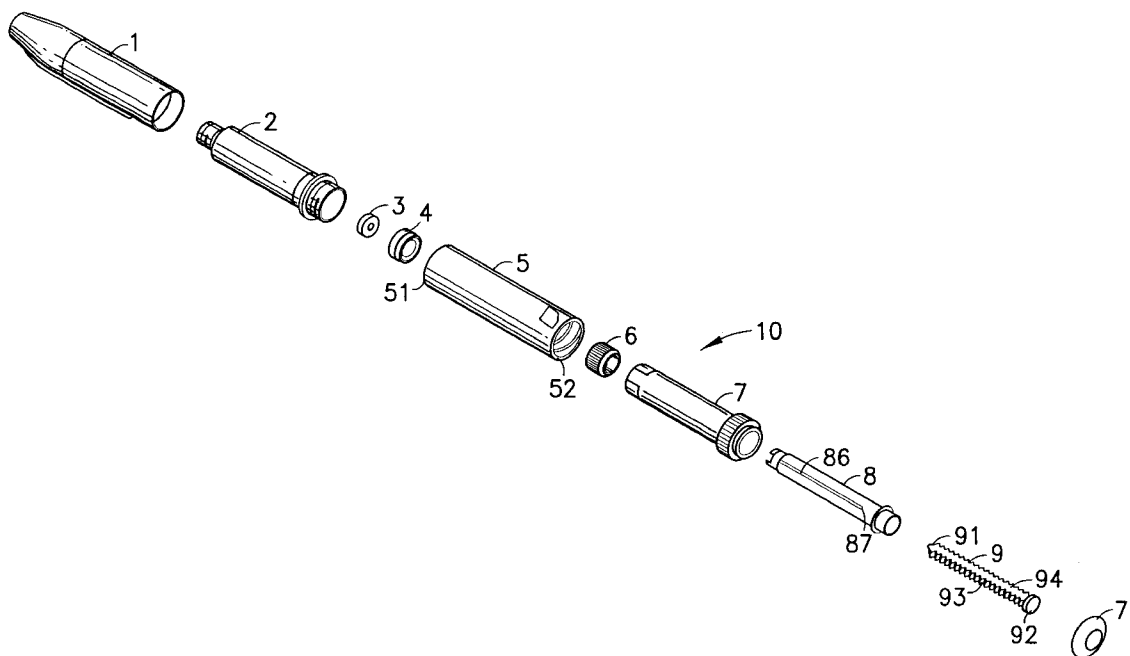
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(57) **ABSTRACT**

A medication delivery pen having very few parts allowing it to be manufactured at a very low-cost. The medication delivery pen also includes an automatic release mechanism to allow the user to easily reset the dose on the medication delivery pen and a mechanism for allowing the lead screw to easily retract back into the body of the medication delivery pen when the vial retainer has been removed to receive a new vial.

7 Claims, 4 Drawing Sheets



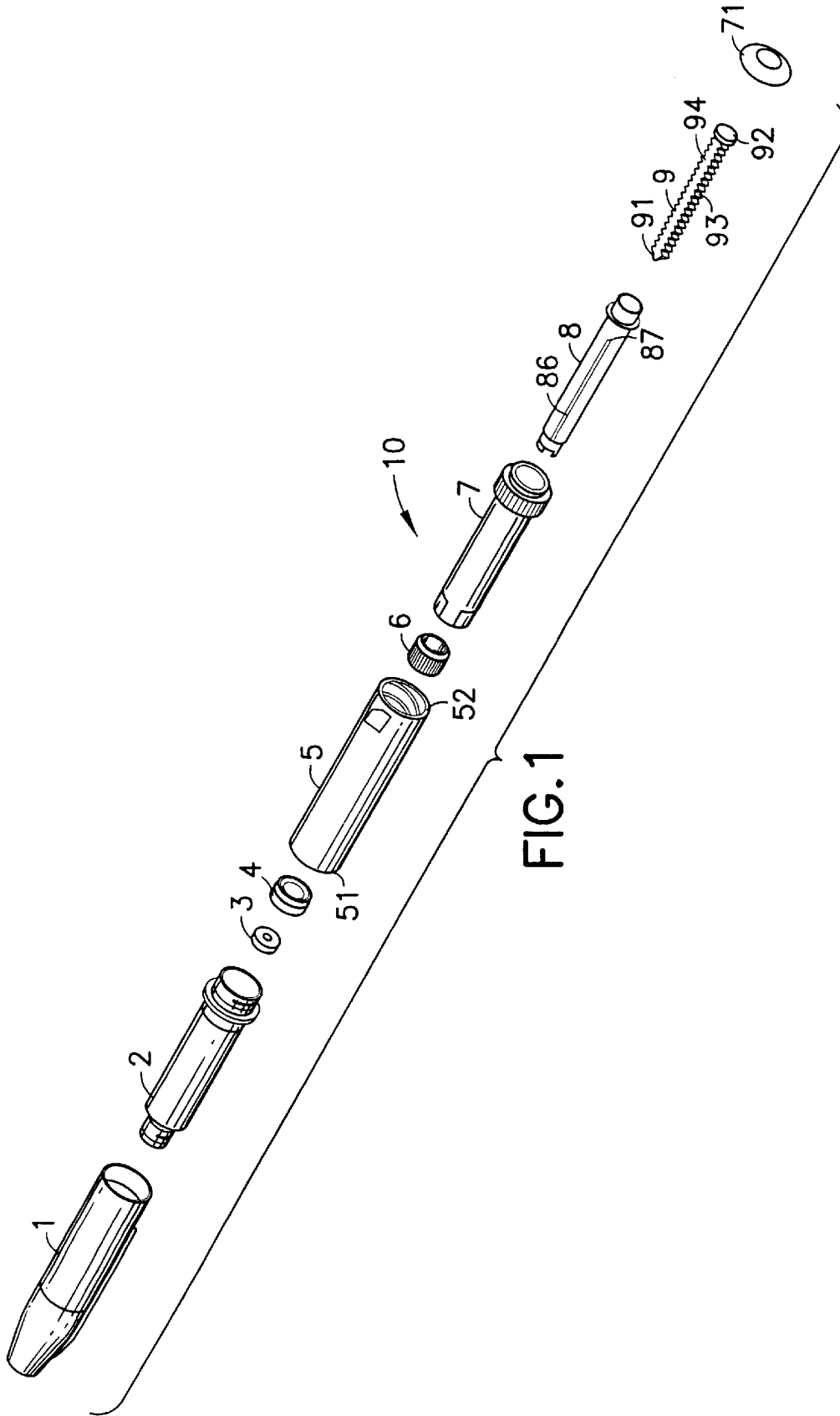


FIG.1

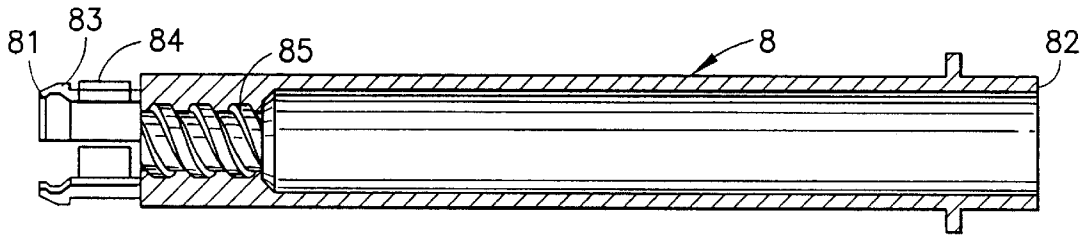


FIG. 2

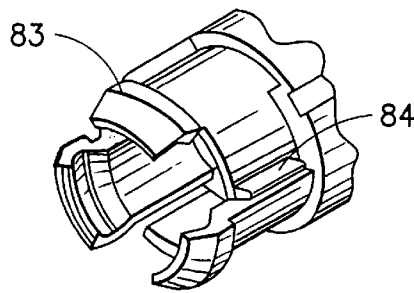


FIG. 3

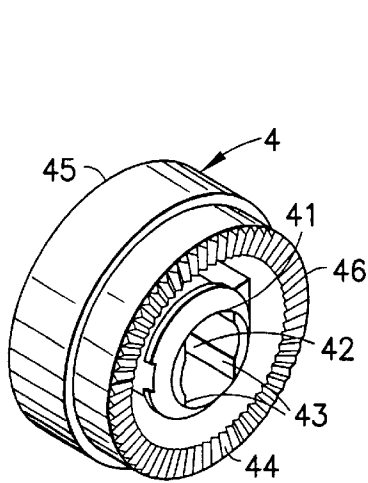


FIG. 4

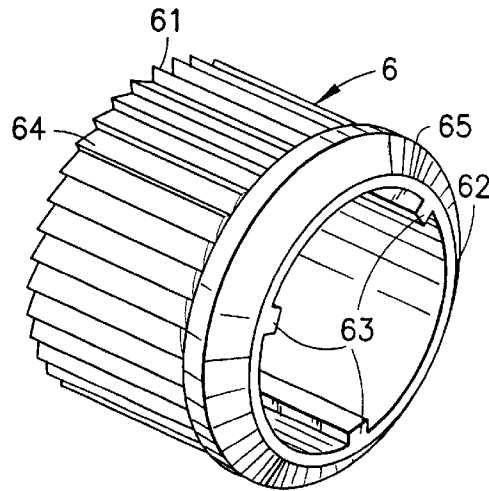


FIG. 5

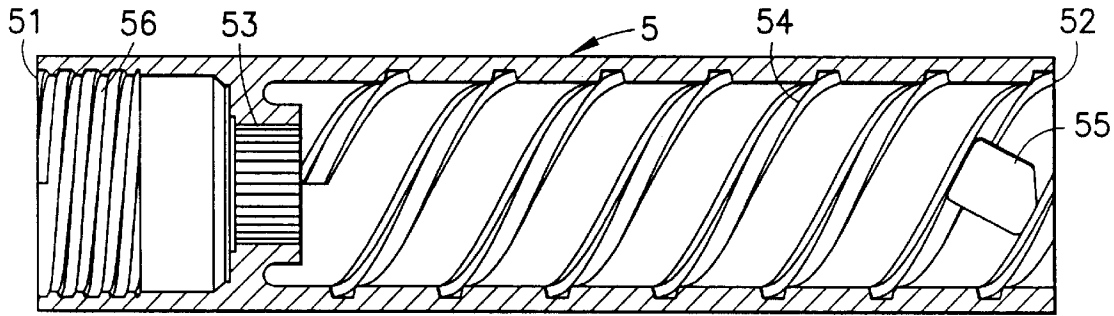


FIG. 6

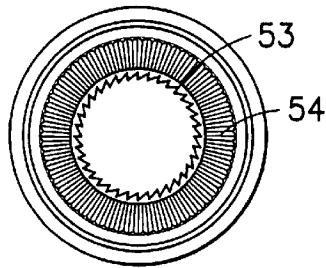


FIG. 7

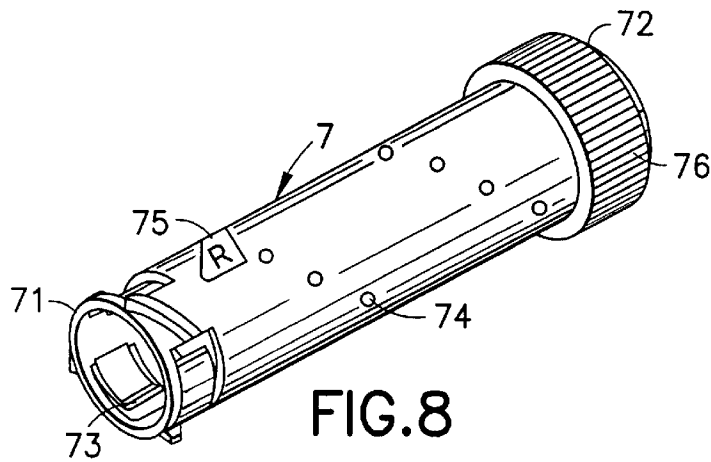


FIG. 8

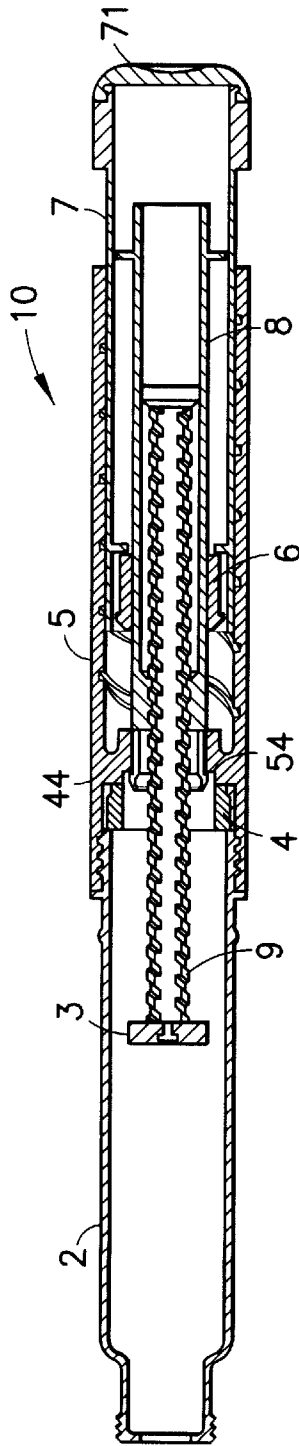


FIG. 9

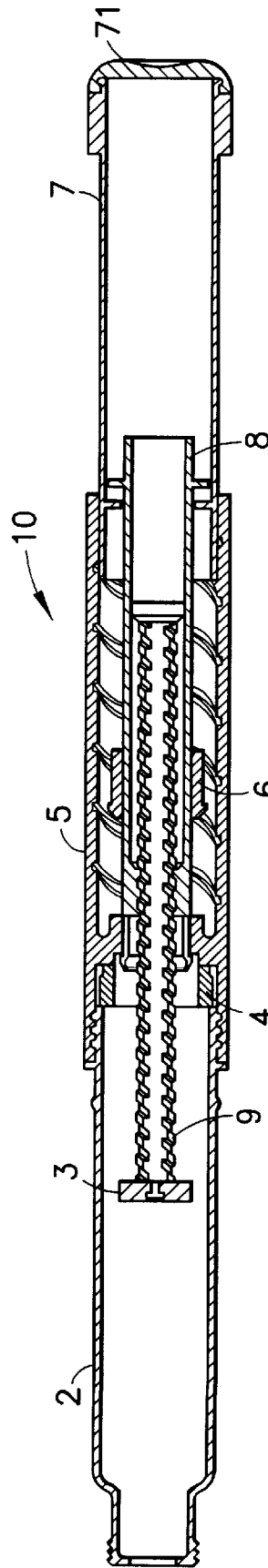


FIG. 10

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