



US006248095B1

(12) **United States Patent**
Giambattista et al.

(10) **Patent No.:** **US 6,248,095 B1**
(45) **Date of Patent:** **Jun. 19, 2001**

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

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. .

(75) Inventors: **Lucio Giambattista**, East Hanover, NJ (US); **Carlos Guillermo**, East Hampton; **John Burbank**, Ridgefield, both of CT (US)

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

* cited by examiner

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

Primary Examiner—Sharon Kennedy
Assistant Examiner—Catherine Serke
(74) *Attorney, Agent, or Firm*—Alan W. Fiedler

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

(57) **ABSTRACT**

(22) Filed: **Feb. 23, 1998**

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.

(51) **Int. Cl.**⁷ **A61M 5/00**

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

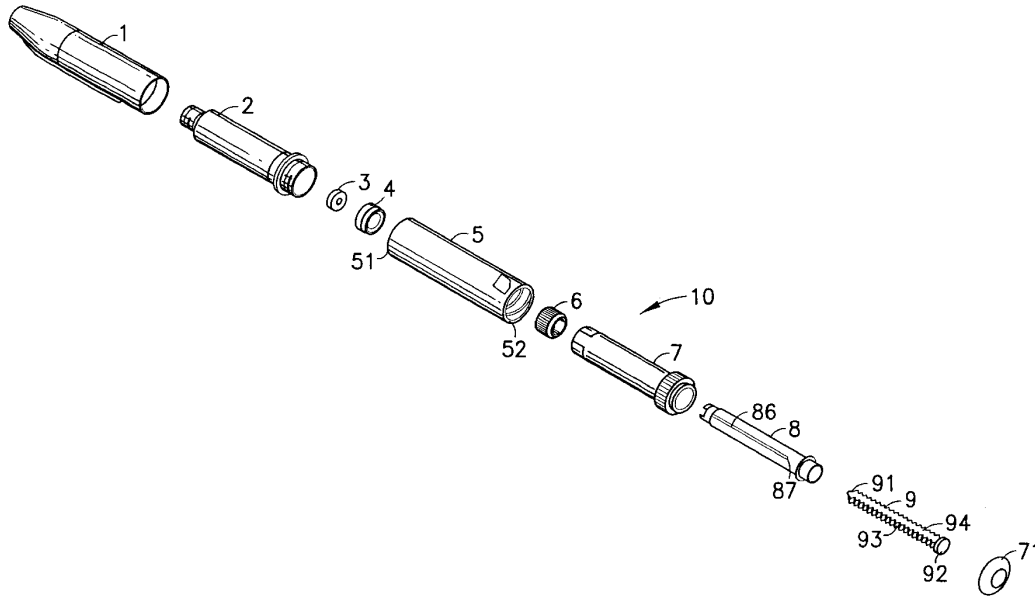
(58) **Field of Search** 604/207, 208, 604/209, 210, 211, 187, 218, 224; 222/32, 637

(56) **References Cited**

U.S. PATENT DOCUMENTS

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

7 Claims, 4 Drawing Sheets



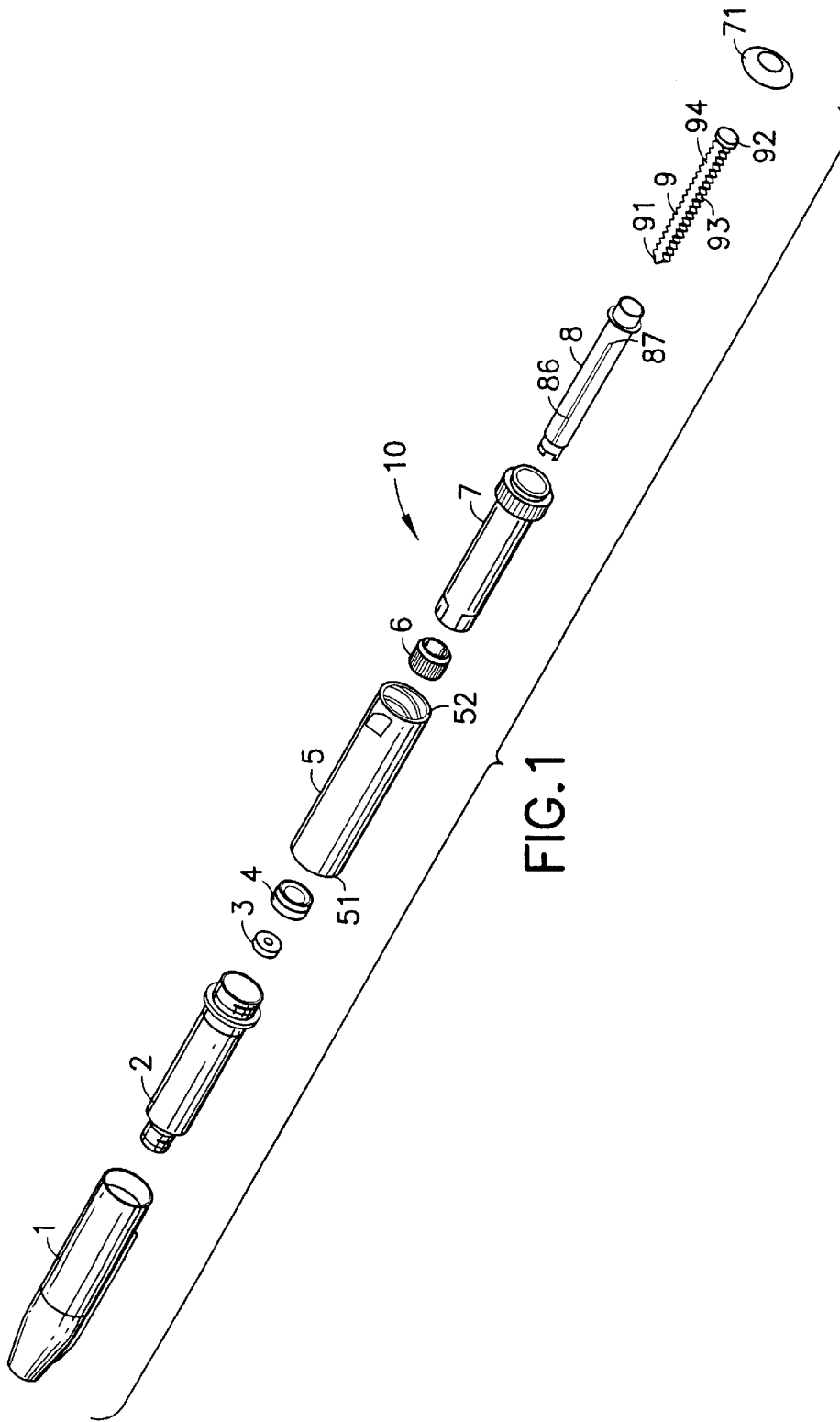


FIG. 1

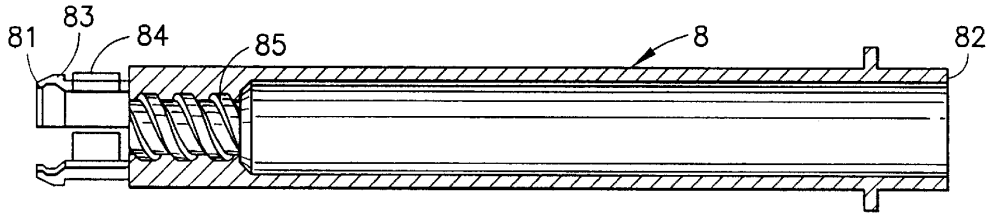


FIG. 2

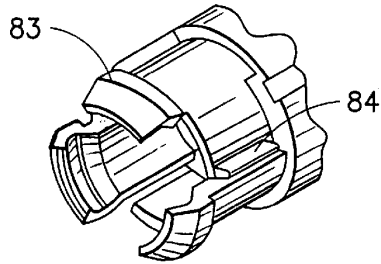


FIG. 3

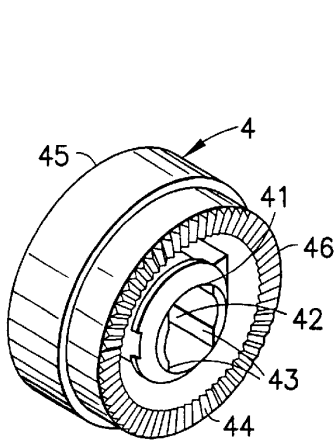


FIG. 4

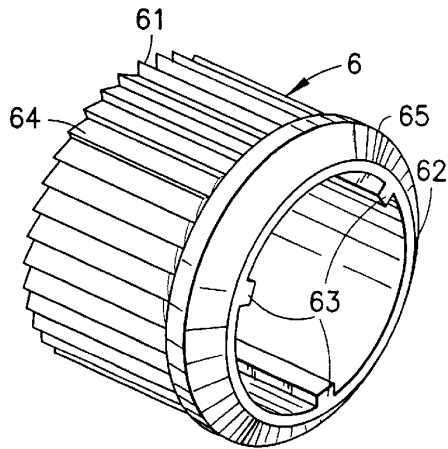


FIG. 5

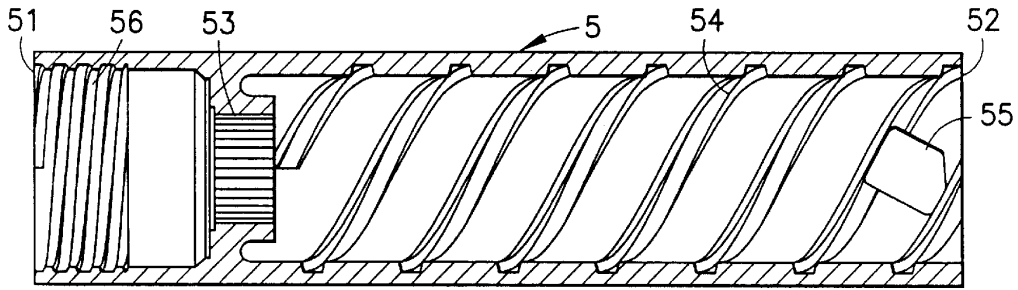


FIG. 6

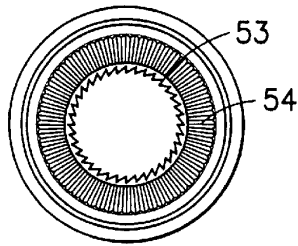


FIG. 7

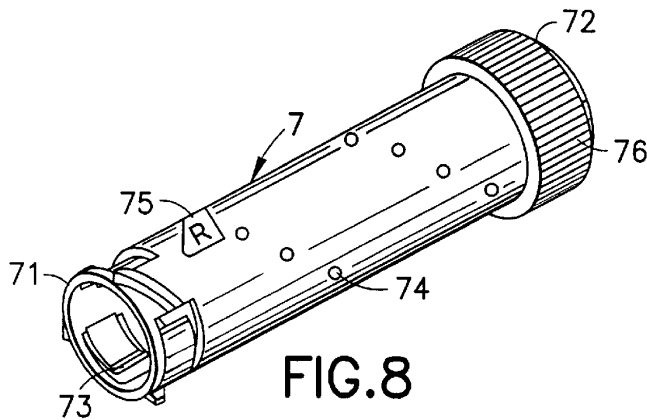


FIG. 8

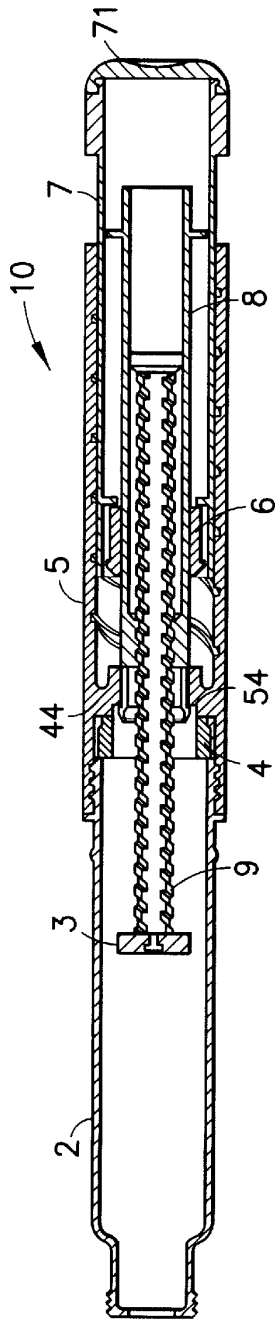


FIG. 9

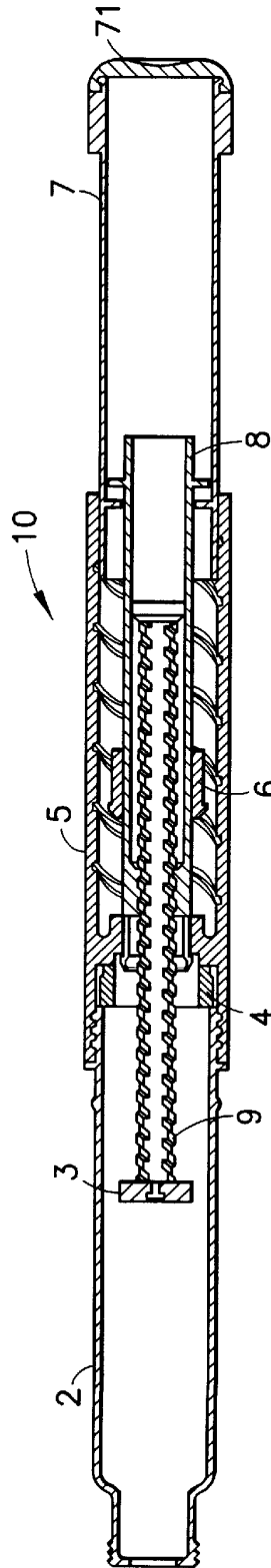


FIG. 10

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.