



US006932794B2

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

(10) **Patent No.:** **US 6,932,794 B2**  
(45) **Date of Patent:** **Aug. 23, 2005**

- (54) **MEDICATION DELIVERY PEN**
- (75) Inventors: **Lucio Giambattista**, East Hanover, NJ (US); **Antonio Bendek**, Vernon, NJ (US)
- (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 236 days.

- 5,383,865 A 1/1995 Michel
- 5,514,097 A 5/1996 Knauer
- 5,584,815 A 12/1996 Pawelka et al.
- 6,248,095 B1 6/2001 Giambattista et al.

*Primary Examiner*—Sharon Kennedy  
(74) *Attorney, Agent, or Firm*—David M. Fortunato

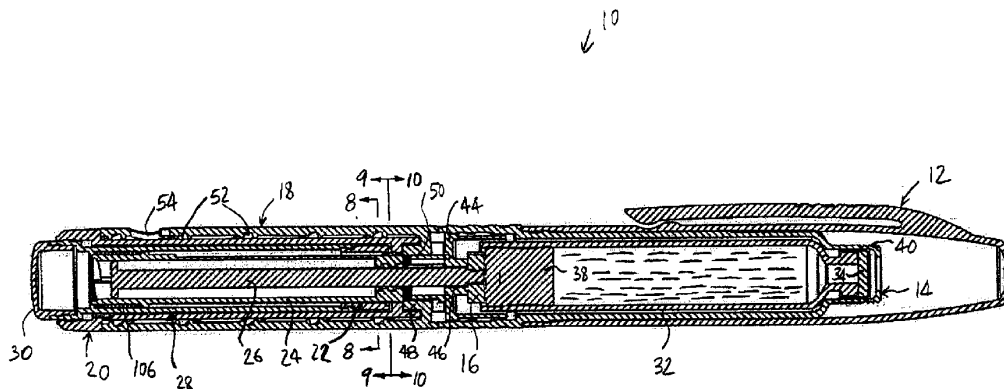
(57) **ABSTRACT**

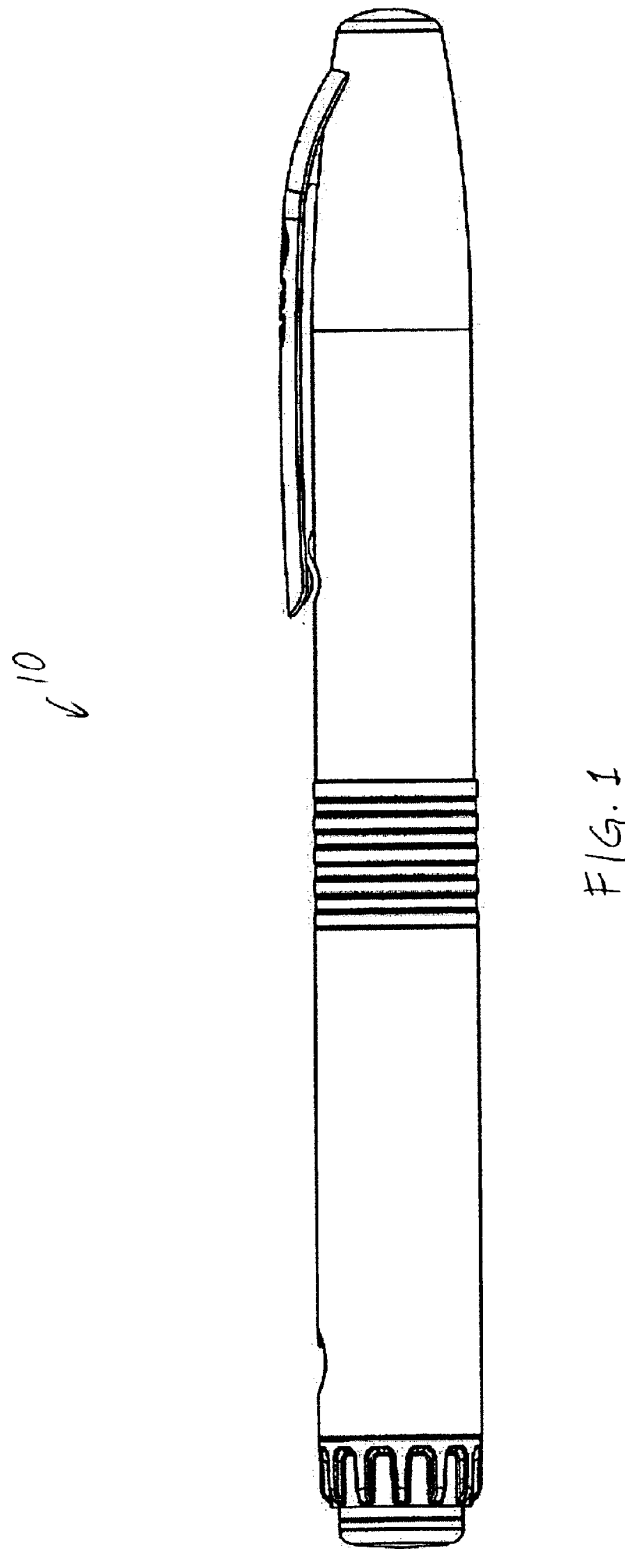
A medication delivery pen is provided including a leadscrew having a plurality of threads; a driver coaxially disposed about at least a portion of the leadscrew; a dosing ring non-rotatably disposed on the driver, the dosing ring also being slidable along the driver; and, a dose knob coaxially disposed about the dosing ring. At least one tooth is formed on one of the dose knob and the dosing ring, and at least one groove is formed on the other of the dose knob and the dosing ring, with the groove being formed to receive the tooth. The dosing ring is selectively movable relative to the dose knob from a first position where the tooth and the groove are spaced apart to a second position where the tooth is received within the groove, the dosing ring being rotatable with the dose knob with the dosing ring being in the second position. Incorrect dosage settings of the inventive pen may be easily corrected by a user via a novel dial-back feature that enables the user to reset the dose amount without expelling medication and without having to dial the dose knob to an extended, reset position.

- (21) Appl. No.: **10/406,302**
- (22) Filed: **Apr. 3, 2003**
- (65) **Prior Publication Data**  
US 2004/0199117 A1 Oct. 7, 2004
- (51) **Int. Cl.**<sup>7</sup> ..... **A61M 5/00**
- (52) **U.S. Cl.** ..... **604/207**; 604/208; 604/211
- (58) **Field of Search** ..... 604/207, 208, 604/211, 209, 210, 232, 218, 224

- (56) **References Cited**  
**U.S. PATENT DOCUMENTS**  
4,936,833 A 6/1990 Sams  
5,304,152 A 4/1994 Sams  
5,308,340 A 5/1994 Harris

**18 Claims, 9 Drawing Sheets**





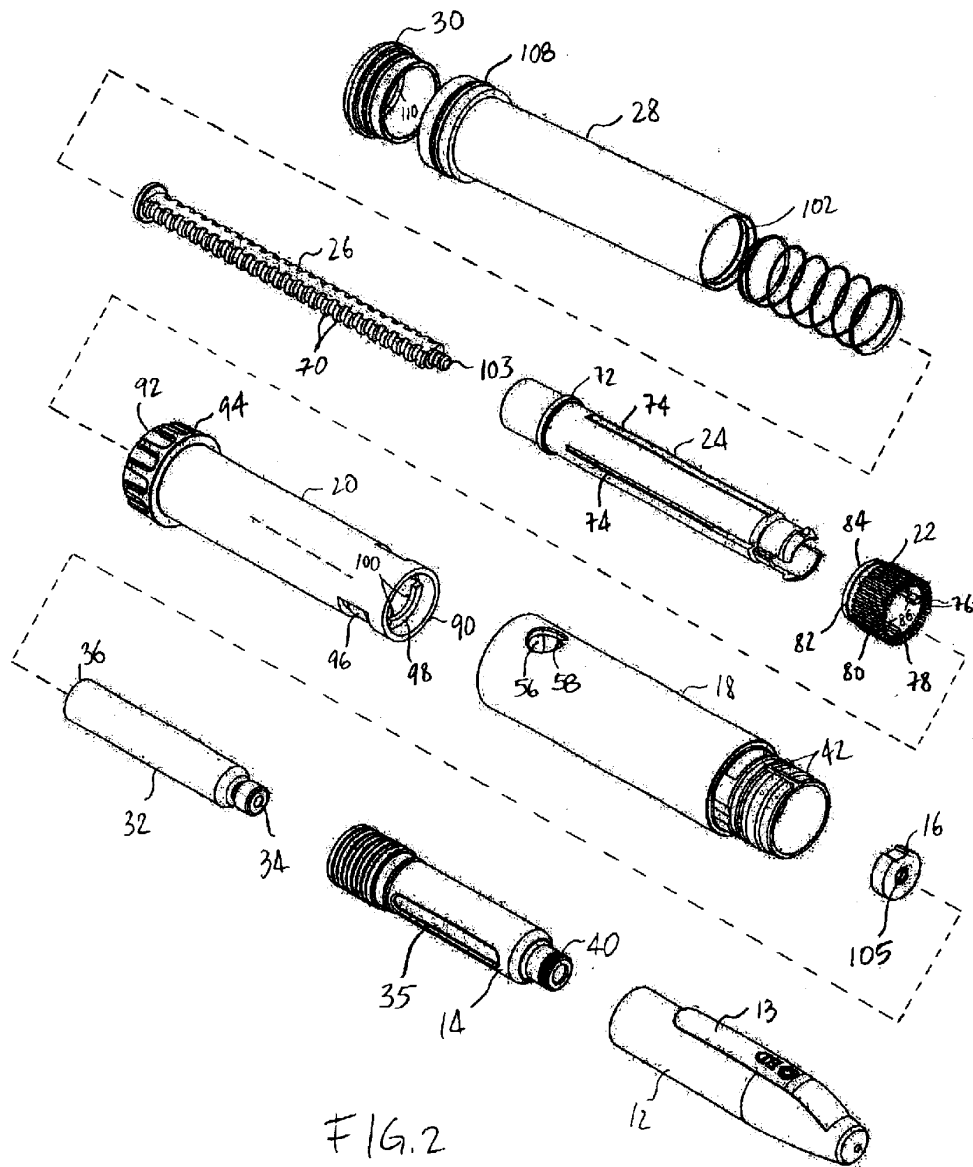


FIG. 2

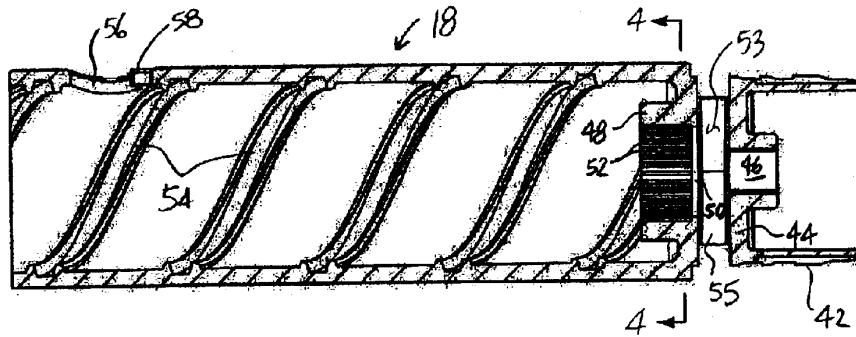


FIG. 3

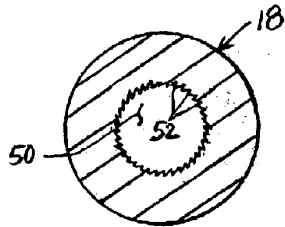


FIG. 4

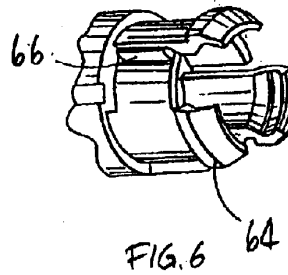


FIG. 6

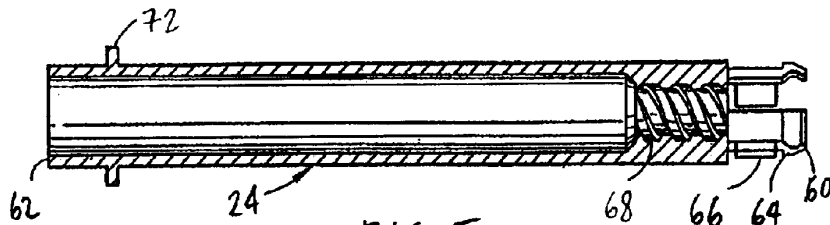


FIG. 5

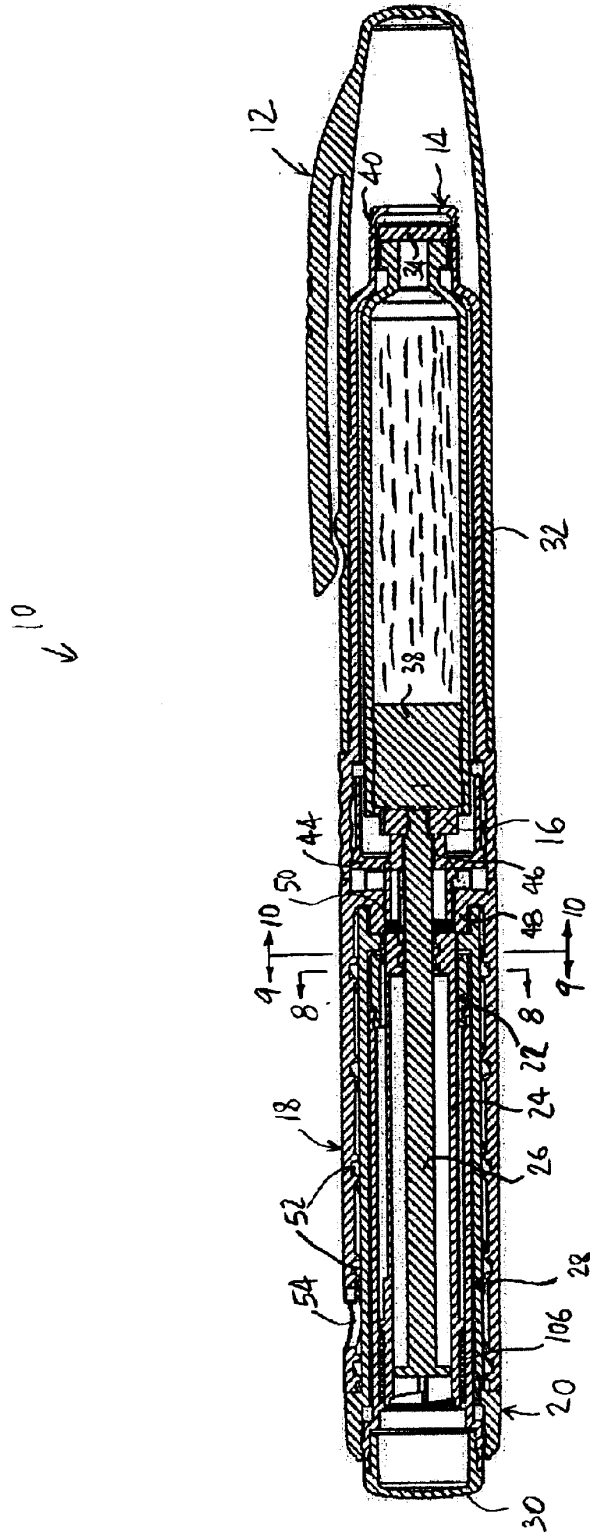


FIG. 7

# 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.