

[54] **AUTOMATED INTRAVENOUS FLUID REGULATING AND ADMINISTERING APPARATUS**

[75] Inventors: Alvin J. Marx, Rochester; Abraham Edelman, New York, both of N.Y.

[73] Assignee: Alvin J. Marx, Rochester, N.Y.

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Related U.S. Application Data

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[58] Field of Search 128/214 E, DIG. 13

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Primary Examiner—William E. Kamm
 Attorney, Agent, or Firm—Hopgood, Calimafde, Kalil, Blaustein & Lieberman

[57] **ABSTRACT**

Automated dispensing apparatus is disclosed for administering intravenous fluid to a patient at a controlled volumetric rate such that deviations from the desired fluid volumetric flow rate are automatically corrected. In accordance with the invention, the width and silhouette of each drop of fluid are measured and give rise to representative signals of each such parameter. These signals are then multiplied to obtain a signal proportional to the volume of the drop. This drop volume signal is combined with a rate control signal to modify the latter to reflect deviations in the measured drop volume from a nominal value. The thus modified control signal is compared against the actual rate of drop administration, and any necessary adjustment made in the constriction of a fluid-passing tube. The rate at which intravenous fluid is supplied to the patient is thus maintained at the desired volumetric rate.

11 Claims, 4 Drawing Figures

