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(72) Inventors and

(74) Agent: GRIBOK, Stephan, P; Duane Morris LLP, One Liberty Place, Philadelphia, PA 19103 (US).


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(Continued on next page)

(54) Title: CLINICAL SYRINGE WITH ELECTRICAL STIMULATION ASPECTS

(57) Abstract: A treatment device (22) is provided for applying electrical energy to biological tissue in conjunction with injecting a composition. An injector (32) such as a syringe (32) has a reservoir (44) for the treatment composition and injection cannula (34). The cannula (34) can function as an electrode (36), and one or more additional electrodes (36). The electrodes (36) can each have tissue penetrating needles, or one or more of the electrodes (36) can have a surface bearing conductive contact part (136). The syringe (32) or injector (32) and a drive unit (82) that applies electrical power to the electrodes (36) are operable simultaneously or in a sequence. The treatment device (2) uses a disposable syringe (32) received in a carrier (66).
For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
   IPC(7)  : A61N 1/30
   US CL.  : 604/21
   According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
   Minimum documentation searched (classification system followed by classification symbols)
   3,372,373,382,395,149,150,148

   Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

   Electronic database consulted during the international search (name of database and, where practicable, search terms used)
   EAST(syringe, dispenser, needles, cannulas, electrodes)

C. DOCUMENTS CONSIDERED TO BE RELEVANT
   Category *  | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No.
   X           | US 4,269,174 A (ADIAN) 26, May 1981, figs. 12-16                                  | 23,24

☐ Further documents are listed in the continuation of Box C.  ☐ See patent family annex.

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Date of the actual completion of the international search

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2 OCT 2003

Name and mailing address of the ISA/US
Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
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