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(54) Title: INTRAMAMMARY INJECTION DEVICE

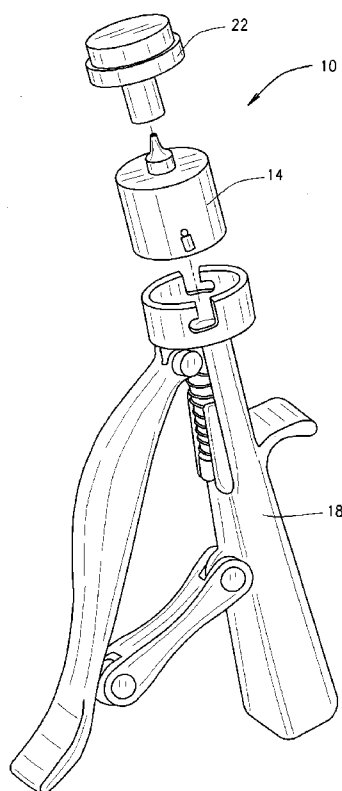


FIG. 1

(57) Abstract: In various embodiments, the present disclosure provides an injection system (10) for injecting a fluidic treatment substance into an orifice of an animal. In various implementations the system comprises a treatment cartridge (14) having a hollow body (138) that is structured and operable to retain a treatment substance within the hollow body (138). The system further comprises a plunger assembly (18) structured and operable to removably retain the treatment cartridge (14) and controllably dispense the treatment substance from the treatment cartridge (14). In various implementations the injection system (10) can additionally include an injection site cleaning adaptor (22) that is removably connectable to the treatment cartridge (14) and is structured and operable to clean a site in which the treatment substance is to be injected.



KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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A. CLASSIFICATION OF SUBJECT MATTER*A61D 1/02(2006.01)i, A61J 1/06(2006.01)i, A61M 5/24(2006.01)i*

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)

A61D 1/02; A61M 5/24; A61M 5/28; A61M 31/00; A61M 5/00; B67D 5/42

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: injection system, treatment cartridge, plunger assembly, hollow body, injection nozzle, push plate, lever bar.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2009-113883 A1 (ANCARE SCIENTIFIC LIMITED et al.) 17 September 2009	1-3,5,6,10,13-17
A	See abstract, page 3, pages 6-9, lines 6-9, page 23, column10, page 32, lines 16-20, figs.1-7.	4,7-9,11,12,18-20
X	US 05022563 A (MARCHITTO, MICHAEL et al.) 11 June 1991	1-3,5,6,10,13-17
A	See column 5, lines 24-49, column 8, lines 23-42,53-60, claims 1,12, and figs . 1,2,5,6.	4,7-9,11,12,18-20
A	US 2002-0133138 A1 (PYRET, THOMAS WALTER et al.) 19 September 2002	1-20
	See abstract, paragraphs [0016], [0017], claims 1-7, and figs. 1,3.	
A	US 2005-0171506 A1 (HALLAHAN, STEPHEN et al.) 04 August 2005	1-20
	See paragraph [0109], claims 1-6,24,37,38, and figs. 1,8,9.	



Further documents are listed in the continuation of Box C.



See patent family annex.

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"&" document member of the same patent family

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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