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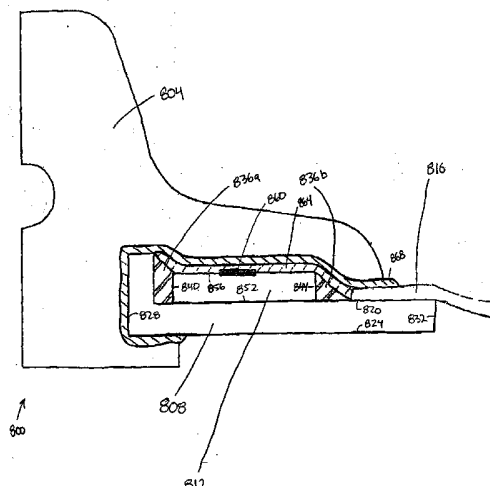
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(54) Title: AEROSOL FOR MEDICAL TREATMENT AND METHODS



(57) **Abstract:** Embodiments of the present invention include apparatus and methods for aerosolizing liquid. One embodiment of the invention provides an apparatus for generating an aerosol. The apparatus includes an actuator having a first face and a second face and defining an opening therethrough, as well as a vibratory element in mechanical communication with the actuator, and a sealing member configured to isolate the vibratory element from a surrounding environment. In accordance with certain embodiments, the apparatus further comprises an aerosolization element mounted on the actuator and disposed substantially over the opening, wherein the aerosolization element defines at least one aperture therethrough. Hence, the vibratory element may be operated to vibrate to cause movement of the aerosolization element in such a manner that a liquid at the first face of the aerosolization element can be dispensed as an aerosol through the at least one aperture. Some embodiments feature an electrode coupled to the vibratory element.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B05B 1/00, 1/08, 1/14, 3/04, 17/04
 US CL : 239/4, 102.1, 102.2, 552, 596

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)
 U.S. : 239/4, 102.1, 102.2, 552, 596

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

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,248,087 A (DRESSLER) 28 September 1993 (28.09.1993), See entire document.	1-28
A	US 5,152,456 A (ROSS et al) 06 October 1992 (06.10.1992), See entire document.	1-28
A	US 5,518,179 A (HUMBERSTONE et al) 21 May 1996 (21.05.1996), See entire document.	1-28
A	US 5,516,043 A (MANNA et al) 14 May 1996 (14.05.1996), See entire document.	1-28

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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Continuation of Item 4 of the first sheet:

Title more than 7 words.

AEROSOL APPARATUS FOR MEDICAL TREATMENT AND METHODS