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O'Donovan

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(54) **REAGENT CUVETTE**

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(51) **Int. Cl.**
B01L 3/00	(2006.01)
B01L 3/02	(2006.01)
C12M 1/34	(2006.01)
C12M 3/00	(2006.01)
C12M 3/04	(2006.01)
C12M 1/24	(2006.01)

(52) **U.S. Cl.** **422/102**; 422/99; 422/100; 435/288.1; 435/299.2; 435/304.1

(58) **Field of Classification Search** 422/102, 422/99, 100; 435/288.1, 299.2, 304.1
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,715,189	A	2/1973	Nighohossian	23/259
5,954,268	A *	9/1999	Joshi et al.	239/34
6,495,373	B1	12/2002	Mauchan	436/165
2002/0197631	A1	12/2002	Lawrence et al.	435/6

FOREIGN PATENT DOCUMENTS

EP	0 573 098	A2 *	5/1993
GB	1026138		4/1966

* cited by examiner
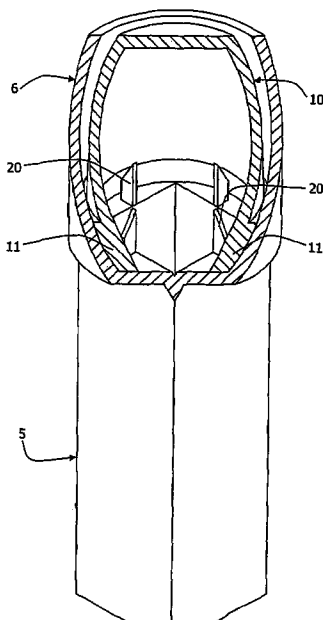
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(57) **ABSTRACT**

A reagent cuvette has a first chamber with an inspection part and a socket, and a second chamber. The socket has four spikes at its base. Both chambers are sealed with a membrane. At the point-of-care the foil membrane of the first chamber is peeled away by the therapist (typically general practitioner doctor). A sample, such as blood, is added to the chamber using a pipette or other device to provide a verifiable quantity of sample. This provides a mixture of a buffer reagent supplied in the chamber and the sample injected into the inspection chamber at the point of care. The chamber is then inserted into the socket by gently pressing it down so that its foil membrane is broken by the spikes. This causes the starter reagent to drop down from within the second chamber into the inspection part of the first chamber. The inspection part is then inserted into an optical inspection instrument for analysis of the two reagents and the sample mixed together.
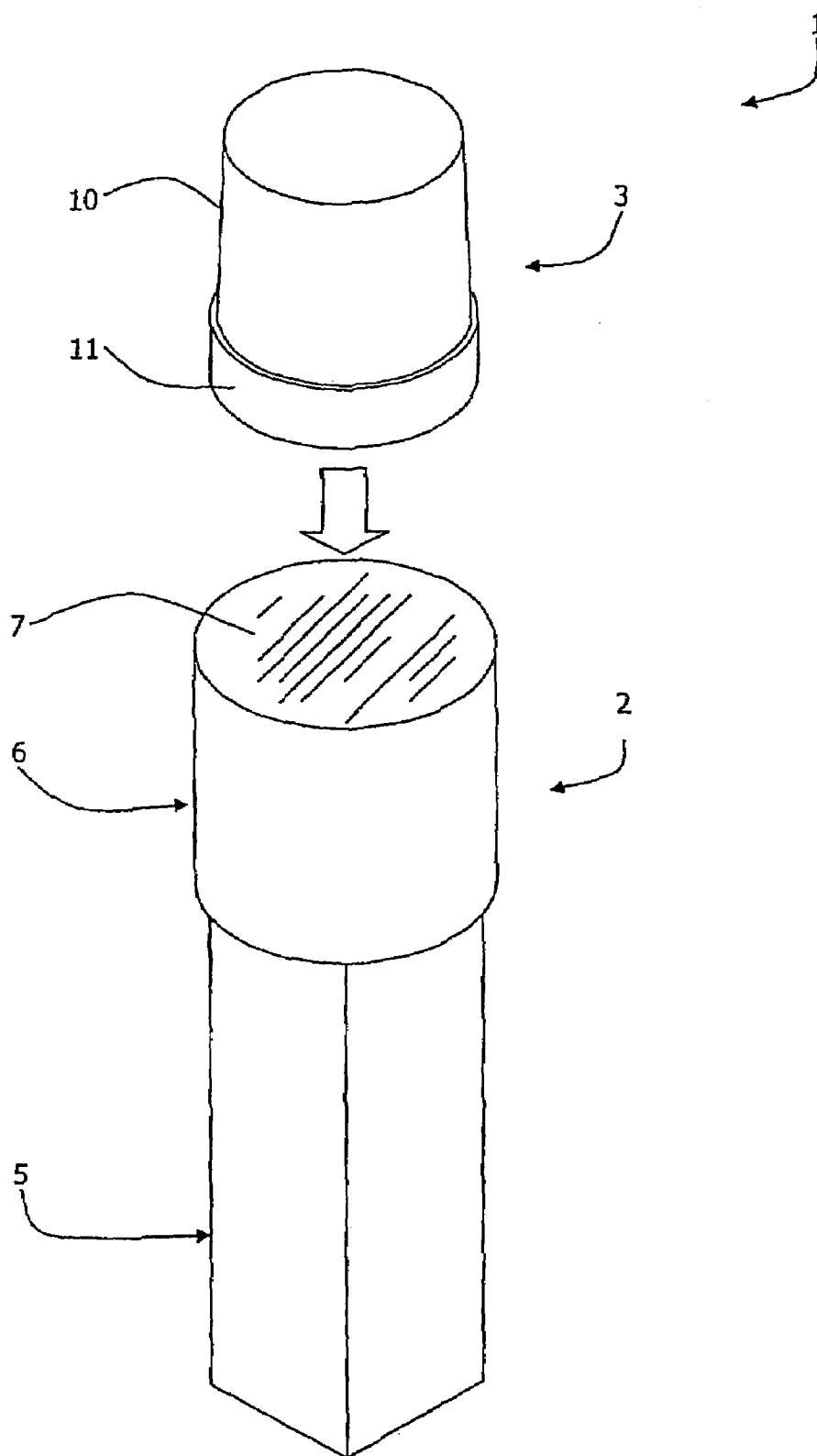
7 Claims, 4 Drawing Sheets

Fig.1

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Fig.2

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Fig.3

Fig.4

DOCKET ALARM
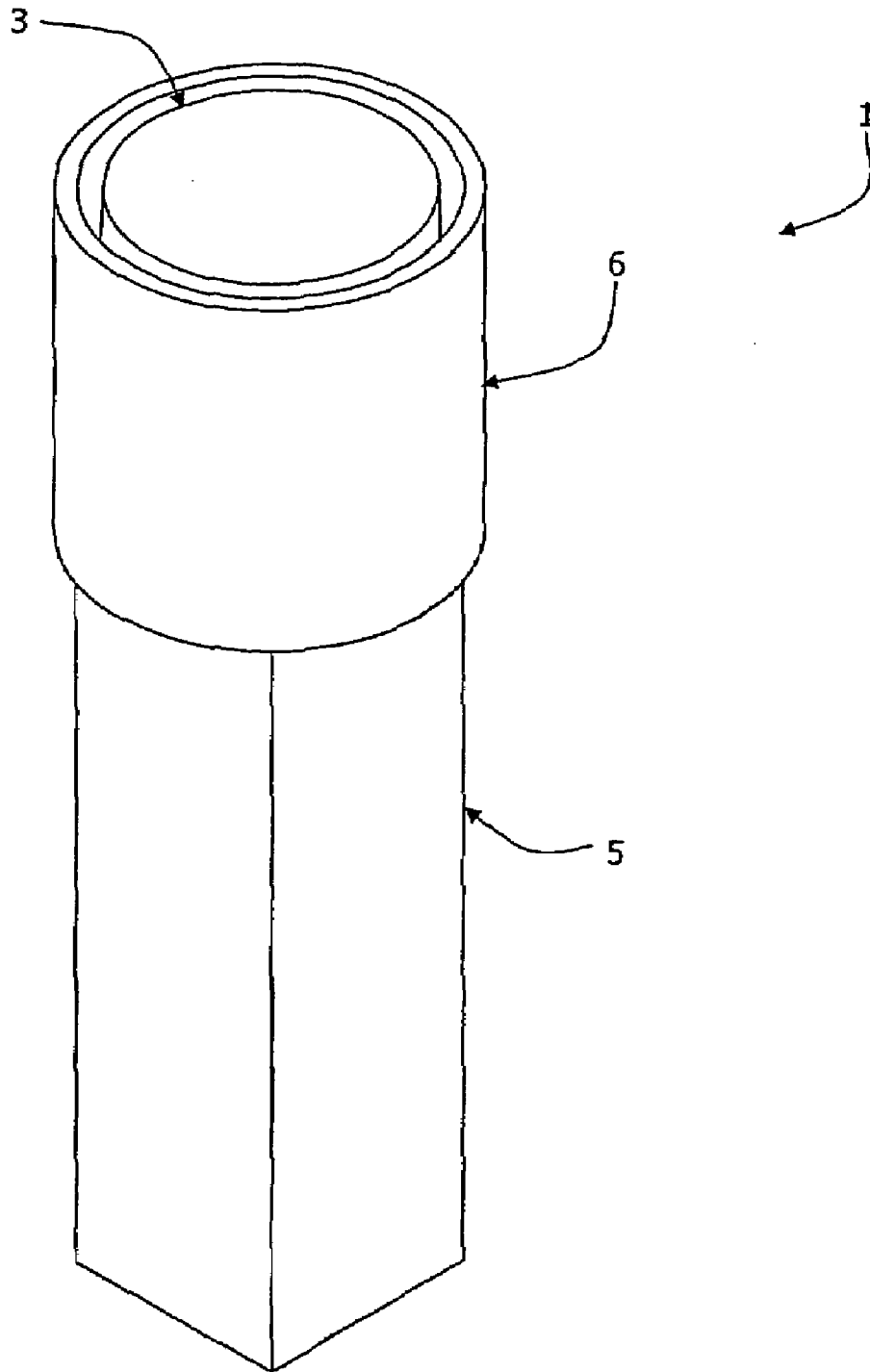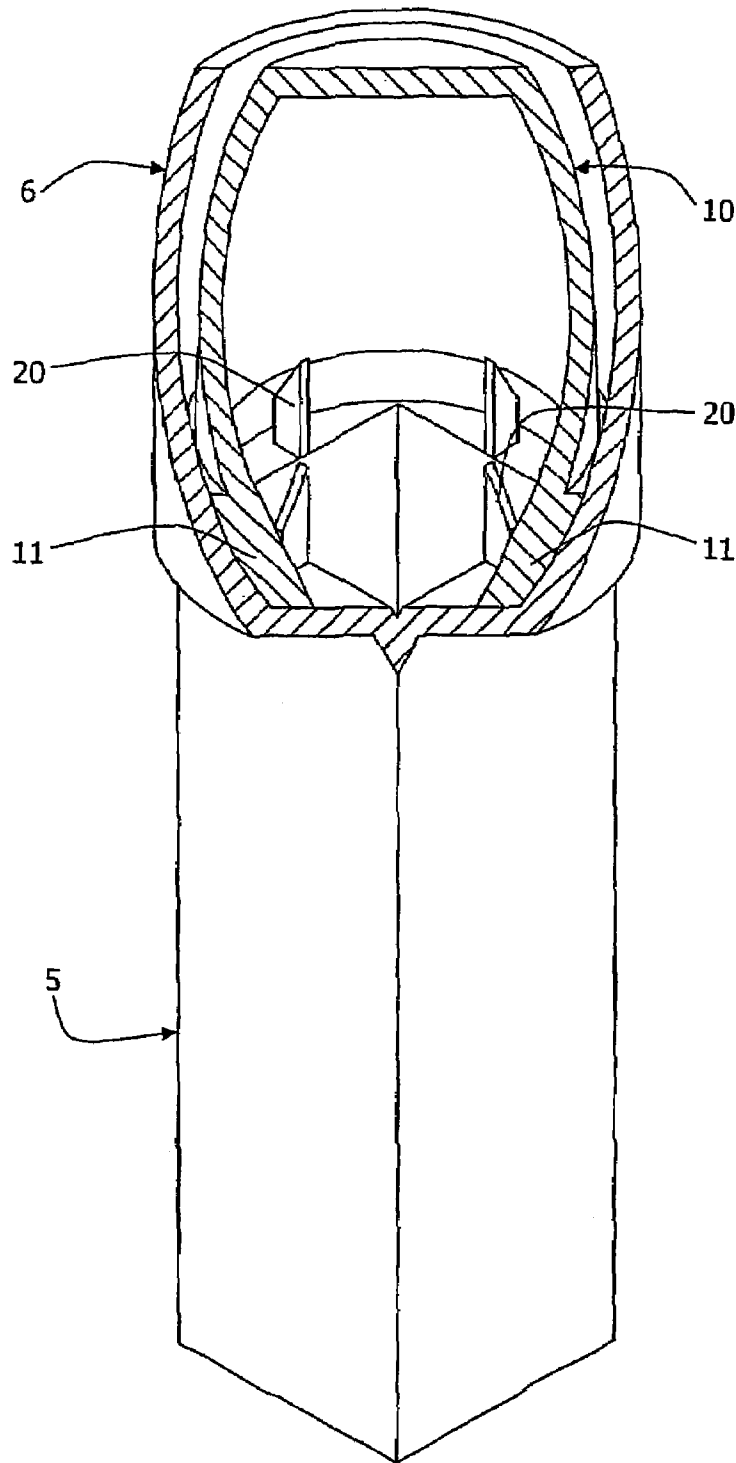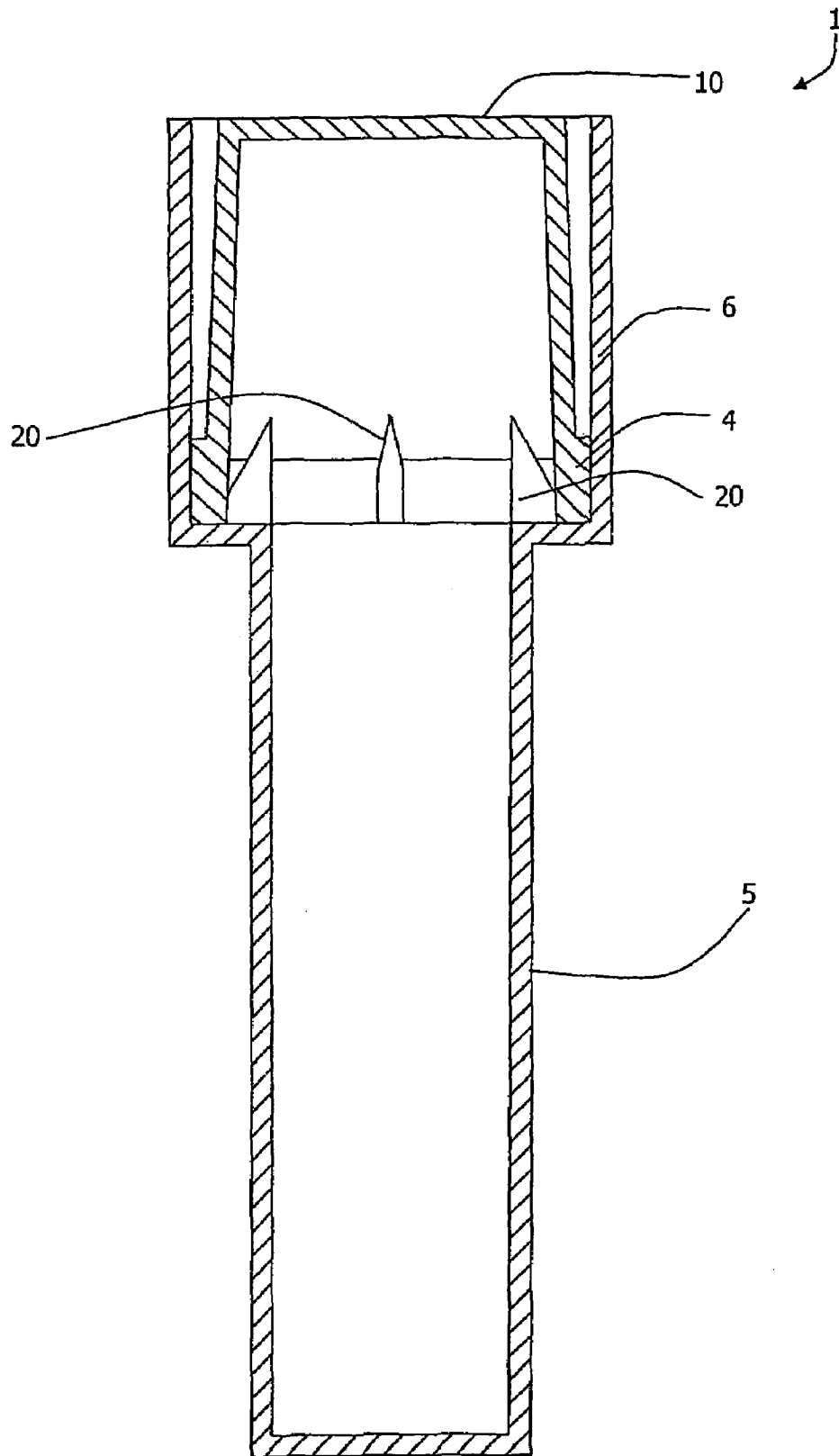
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