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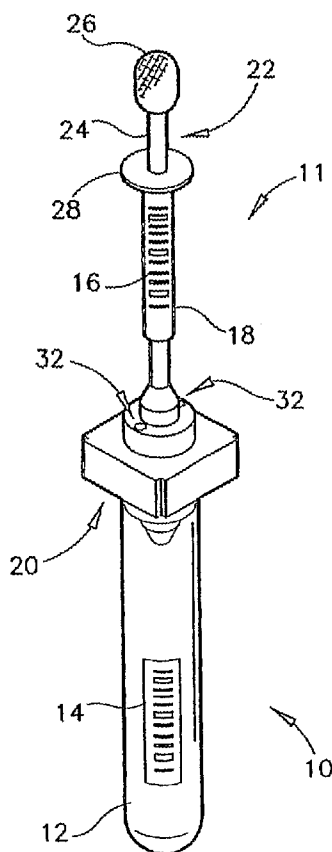
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[Continued on next page]

(54) Title: LOW PRESSURE SAMPLE COLLECTION APPARATUS



(57) Abstract: A low pressure sample collection apparatus includes a double-ended cap member having similarly sized plug members extending from opposite sides, a vacuum connection nipple on one side and a shaft connection portion on the opposite, a passage extending through the cap from the nipple to the shaft connection portion, a tubular shaft connected to the shaft connection portion and having a sample collection swab member secured to an outer end thereof, and a container member having one end closed and an opposite end open. The cap member is reversibly plugged into the container either to use the container as a handle or to position the swab within the container for protection. A vacuum source may be connected to the assembly to draw air through the swab. The shaft may have a barrel telescoped thereon for separation of the swab from the shaft without contacting the swab.



FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL,
PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 07/09221

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - B65D 81/18 (2008.01); B65D 85/50 (2008.01)

USPC - 206/569

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)

IPC(8): B65D 81/18 (2008.01); B65D 85/50 (2008.01)

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

IPC(8): B65D 81/00, 81/02; B65D 85/00 (2008.01)

USPC: 600/572

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

PubWEST(USPT,PGPB,EPAB,JPAB); DialogPRO, GoogleScholar

Search Terms: sample, collection, specimen, cap, chamber, shaft, swab, pledget, conical, identification indicia, barcode

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ----- Y	US 4,175,008 A (WHITE) 20 November 1979 (20.11.1979) entire document, especially Fig. 1 and col 4, ln 10-14 and col 4, ln 13-15	1-2 and 5 ----- 3-4 and 6-34
Y	US 6,312,395 B1 (TRIPP et al.) 6 November 2001 (06.11.2001) entire document, especially Abstract, Fig. 2 and col 3, ln 52-65	3-4, 9, 19-25 and 32
Y	US 2,711,586 A (GROVES) 28 June 1955 (28.06.1955) entire document, especially Fig. 3 and col 2, ln 36	6, 21 and 29
Y	US 2005/0010132 A1 (PESTES et al.) 13 January 2005 (13.01.2005) entire document, especially Abstract	7 and 22
Y	US 3,674,007 A (FREIS) 4 July 1972 (04.07.1972) entire document, especially Fig. 2 and col 2, ln 13-25	8, 16 and 23

☒ Further documents are listed in the continuation of Box C.

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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"&" document member of the same patent family

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INTERNATIONAL SEARCH REPORT

International application No.

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,899,127 A (SHIAO) 4 May 1999 (04.05.1999) entire document, especially col 2, ln 30-34	10-11, 24-25 and 29
Y	US 6,180,395 B1 (SKIFFINGTON et al.) 30 January 2001 (30.01.2001) entire document, especially Fig. 3 and col 8, ln 58-65	12-28 and 31-34
Y	US 4,813,931 A (HAUZE) 21 March 1989 (21.03.1989) entire document, especially Fig. 2 and col 3, ln 48-58	12-28 and 31-34
Y	US 2003/0101523 A1 (LEPLEY, JR) 5 June 2003 (05.06.2003) entire document, especially Fig. 2 and para[0006]	15-16 and 34
Y	US 5,129,402 A (KOLL et al.) 14 July 1992 (14.07.1992) entire document, especially Fig. 1 and col 6, ln 30-35	15-18 and 27-28
Y	US 6,350,415 B1 (NIERMANN et al.) 26 February 2002 (26.02.2002) entire document, especially Fig. 5 and col 4, ln 50-end	30-34