(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
22 August 2013 (22.08.2013)

WIPO | PCT

(10) International Publication Number
WO 2013/123202 A3

(51) International Patent Classification:
A61M 5/14 (2006.01) *A61M 39/20* (2006.01)

(21) International Application Number:
PCT/US2013/026155

(22) International Filing Date:
14 February 2013 (14.02.2013)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/598,956 15 February 2012 (15.02.2012) US

(71) Applicant: **NP MEDICAL INC.** [US/US]; 101 Union Street, Box 2005, Clinton, Massachusetts 01510-2005 (US).

(72) Inventors: **CHELAK, Todd**; 109 Adams Street, Westborough, Massachusetts 01581 (US). **KIMBALL, Ian**; 194 Pierce Road, Townsend, Massachusetts 01469 (US). **MASEDA, Luis**; 2 Ridge Avenue, Natick, Massachusetts 01760 (US). **ZEYTOONIAN, Paul**; 16 Demarco Road, Sudbury, Massachusetts 01776 (US).

(74) Agents: **SUNSTEIN, Bruce D.** et al.; Sunstein Kann Murphy & Timbers LLP, 125 Summer Street, Boston, Massachusetts 02110-1618 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, 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, PA, 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.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report (Art. 21(3))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:
31 October 2013

(54) Title: MULTI-PURPOSE PROTECTIVE COVERING FOR USE ON A MEDICAL DEVICE

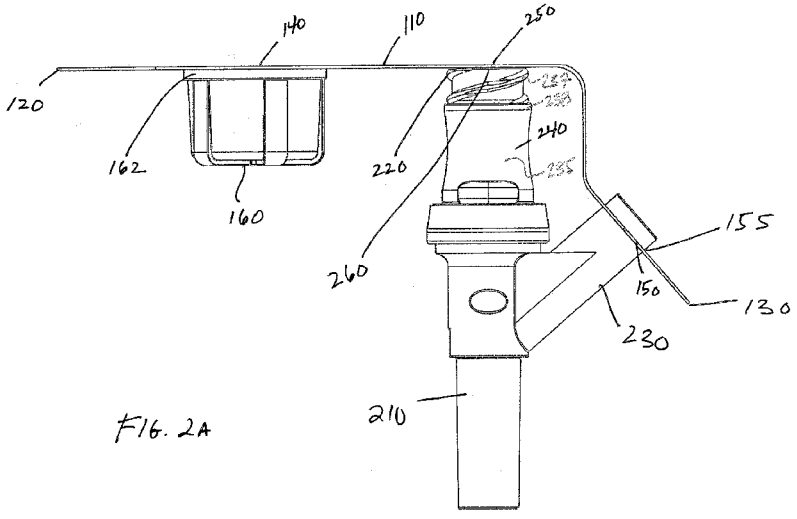


FIG. 2A

(57) Abstract: A multi-purpose covering for use with a medical device having a housing and an access port includes a substrate (110) with a first end and a second end. The substrate defines the structure of the covering. The covering also includes a first securing portion nearer the first end of the substrate for securing at least one protective cap (160) to the substrate, and a second securing portion (150) nearer the second end for securing the substrate to the medical device. To protect the access port when the covering is sealed to the medical device, the covering also includes a sealing portion (250) configured to be releasably secured to the medical device.

WO 2013/123202 A3

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2013/026155

A. CLASSIFICATION OF SUBJECT MATTER
INV. A61M5/14 A61M39/20
ADD.

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)
A61M

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)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 003 556 A (BRUGGER JAMES M [US] ET AL) 21 December 1999 (1999-12-21) figures 1-3	1,27,50
X	US 2004/236311 A1 (ISHII JERRY SEIICHI [US] ET AL) 25 November 2004 (2004-11-25) figures 1-5	1-11,15, 16,18, 24-36, 40,41, 43, 49-63,69

-/--

[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"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

"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

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
18 June 2013	16/09/2013

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Krassow, Heiko

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2013/026155

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 97/26932 A1 (YARGER RICHARD J [US]) 31 July 1997 (1997-07-31) figures 1,2	1-11,15, 16,18, 24-36, 40,41, 43, 49-63,69
X	EP 1 430 923 A2 (INTERSURGICAL LTD [GB]) 23 June 2004 (2004-06-23) figure 6	1-11,15, 16,18, 24-36, 40,41, 43, 49-63,69
X	US 2012/016318 A1 (HOANG MINH QUANG [US] ET AL) 19 January 2012 (2012-01-19) figures 9A-11A	1-11,15, 16,18, 24-36, 40,41, 43, 49-63,69

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/026155

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-11, 15, 16, 18, 24-36, 40, 41, 43, 49-63, 69

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-11, 15, 16, 18, 24-36, 40, 41, 43, 49-63, 69

   A multi-purpose covering for use with a medical device having a housing and an access port, the multi-purpose covering comprising1) a substrate having a first end and a second end and defining the structure of the covering; 2) a first securing portion nearer the first end of the substrate for securing at least one protective cap to the substrate; 3) a second securing portion nearer the second end for securing the substrate to the medical device; and 4) a sealing portion configured to be releasably secured to the medical device, the sealing portion protecting the access port when sealed to the medical device and prior to first use of the medical device, and 5) the cover comprising an antimicrobial coating (claim 2).

   ---

2. claims: 12-14, 37-39

   A multi-purpose covering for use with a medical device, the covering comprising the combination of features 1) to 4) as detailed for the first group, wherein
   5) the substrate includes perforations (cf. claims 12 and 37).

   ---

3. claims: 17, 42, 64

   A multi-purpose covering for use with a medical device, the covering comprising the combination of features 1) to 4) as detailed for the first group, wherein 5) the sealing portion includes a hydrophobic filter element (cf. claims 17, 42, 64).

   ---

4. claims: 19, 20, 44, 45, 65, 66

   A multi-purpose covering for use with a medical device, the covering comprising the combination of features 1) to 4) as detailed for the first group, wherein 5) the substrate includes at least one tab configured to wrap around the inlet housing (cf. claims 19, 44, 65).

   ---

5. claims: 21-23, 46-48, 67, 68

   A multi-purpose covering for use with a medical device, the covering comprising the combination of features 1) to 4) as detailed for the first group, wherein 5) the sealing portion includes a pocket (cf. claims 21, 46, 67).

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2013/026155

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6003556 A	21-12-1999	NONE	
US 2004236311 A1	25-11-2004	JP 2007500057 A	11-01-2007
		US 2004236311 A1	25-11-2004
		US 2006197046 A1	07-09-2006
		US 2006264908 A1	23-11-2006
		WO 2004105857 A1	09-12-2004
WO 9726932 A1	31-07-1997	AU 728394 B2	11-01-2001
		AU 1698597 A	20-08-1997
		EP 0876173 A1	11-11-1998
		US 5674209 A	07-10-1997
		WO 9726932 A1	31-07-1997
EP 1430923 A2	23-06-2004	EP 1430923 A2	23-06-2004
		GB 2396303 A	23-06-2004
		US 2004168690 A1	02-09-2004
US 2012016318 A1	19-01-2012	AU 2011279235 A1	21-02-2013
		CN 103068438 A	24-04-2013
		EP 2593174 A1	22-05-2013
		JP 2013530794 A	01-08-2013
		US 2012016318 A1	19-01-2012
		WO 2012009456 A1	19-01-2012