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(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, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, 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, SA, 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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(54) **Title:** DEVICES, SYSTEMS, AND METHODS FOR PROVIDING SEALABLE ACCESS TO A WORKING CHANNEL

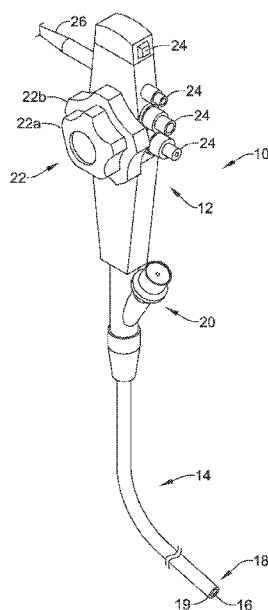


FIG. 1

(57) **Abstract:** The present disclosure relates generally to the field of medical devices such as endoscopes, endoscope assemblies, guide tubes, introducers, and instrument caps for endoscopes, guide tubes, and introducers. In particular, the present disclosure relates to biopsy cap configurations providing sealable access for medical instruments to a working channel, such as a working channel for an endoscope.



TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

**Published:**

- *with international search report (Art. 21(3))*
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INTERNATIONAL SEARCH REPORT

International application No  
PCT/IB2019/059411

A. CLASSIFICATION OF SUBJECT MATTER  
INV. A61B1/00  
ADD. A61B1/018

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)  
A61B

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 2010/087705 A1 (BYERS RANSOM H [US] ET AL) 8 April 2010 (2010-04-08) paragraphs [0063], [0064], [0065], [0073], [0074] figures 4,10	1,7-10
X	WO 2009/143137 A1 (BOSTON SCIENT SCIMED INC [US]; WELDON JAMES M [US] ET AL.) 26 November 2009 (2009-11-26) page 11, line 13 - page 13, line 9 page 13, line 19 - line 24 figures 6A-6E,8	1,7,9,10
X	US 2006/195117 A1 (RUCKER BRIAN K [US] ET AL) 31 August 2006 (2006-08-31) paragraphs [0063], [0064], [0072] - paragraph [0076] figures 1,5,6	1-5,7
A		6,8-10

Further documents are listed in the continuation of Box C.

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  4 February 2020	Date of mailing of the international search report  25/06/2020
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer  Doyle, Aidan
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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/IB2019/059411

## 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.:

1-10

### 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: 1-10

A seal assembly, comprising:  
a biopsy cap having an inner chamber therein, a cap aperture at a first end in fluid communication with the inner chamber, and a securing member at a second end;  
a plurality of seal members disposed within the inner chamber, each seal member having a seal aperture in fluid communication with the cap aperture; and  
a base disposed within the securing member, the base having a base aperture therethrough in fluid communication with each of the seal apertures.

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2. claims: 11-15

A device configured to attach to a port of an endoscope, comprising:  
an aperture through the device in fluid communication with the port;  
at least two extensions that extend distally from the base and are configured to engage a port of a working channel;  
and  
a recess disposed about the device configured to engage a biopsy cap.

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/IB2019/059411
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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