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Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

— of inventorship (Rule 4.17(iv))

Published:

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

[Continued on next page]

(54) Title: CONNECTION OF A PROSTHESIS STRUCTURE WITH AN IMPLANT STRUCTURE

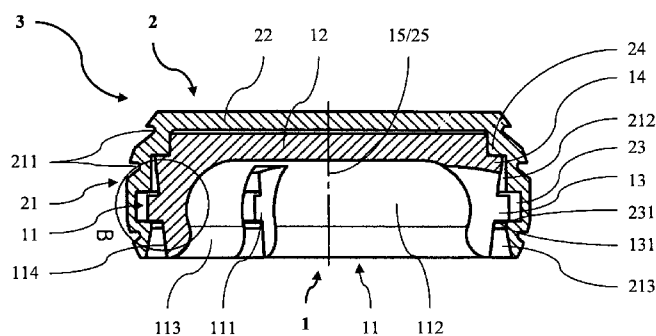


Fig. 6

(57) Abstract: A connection device for connecting a prosthesis structure with an implant structure comprises a holding shell and a retention insert. The retention insert comprises an end side and a substantially ring-shaped retention rim projecting therefrom. The holding shell comprises an end side and a substantially ring-shaped holding rim projecting therefrom. The holding rim and the end side of the holding shell form a retainer in which the retention insert can be arranged such that an outer surface of the retention rim is adjacent to an inner surface of the holding rim. Moreover, the outer surface of the retention rim is at least partly spaced from and adjacent to the inner surface of the holding rim when the retention insert is arranged in the retainer of the holding shell and when essentially no radial forces are acting on the holding rim and on the retention rim. In that the adjacent outer surface of the retention rim and inner surface of the holding rim are at least partly not contacting each other but are spaced from each other when essentially no radial forces are acting on the holding rim and on the retention rim, it can, i.e., be achieved that the retention insert is connected relatively loosely with the holding shell when the connection device has not yet been placed on the implant structure. This loose connection can allow the retention insert to be relatively easily removed from the holding shell and inserted in the holding shell without having to be substantially deformed or strained in any other way. Thus, it is possible to insert and remove the retention insert gently, which can improve the flexibility and lifetime of the connection device.



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- *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))*

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- *upon request of the applicant, before the expiration of the time limit referred to in Article 21(2)(a)*

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2010/003380

A. CLASSIFICATION OF SUBJECT MATTER
INV. A61C8/00 A61C13/265
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)
A61C

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 practical, search terms used)

EP0-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2010/055645 A1 (MULLALY SCOTT [US] ET AL) 4 March 2010 (2010-03-04)	1,2,11,13
Y	figure 24	3-5
A	paragraphs [0003], [0094]	6-10,12
Y	DE 20 2008 015854 U1 (ALPHADENT N V [BE]) 19 February 2009 (2009-02-19)	3-5
A	paragraphs [0001], [0022], [0036] figures 1,2	1,2,6-13
A	EP 0 891 750 A1 (RONDINI DENNI [IT]) 20 January 1999 (1999-01-20) the whole document	1-13



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 document 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

5 May 2011

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2010055645 A1	04-03-2010	AU 2009285941 A1	04-03-2010
		CA 2734644 A1	04-03-2010
		CN 102131476 A	20-07-2011
		EP 2315554 A1	04-05-2011
		KR 20100051585 A	17-05-2010
		WO 2010025034 A1	04-03-2010

DE 202008015854 U1	19-02-2009	NONE	

EP 0891750 A1	20-01-1999	IT RE970051 A1	14-10-1997

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2010/003380

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.: 14
because they relate to subject matter not required to be searched by this Authority, namely:
see FURTHER INFORMATION sheet PCT/ISA/210
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.:

1-13

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: 1-13

connection device and retention insert

2. claims: 15-21

mounting tool

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.1

Claims Nos.: 14

Independent claim 14 falls under Rule 39.1(iv) PCT as its subject-matter contains method steps for treatment of the human body by therapy. Claim 14 specifies a method of connecting a prosthesis structure with an implant structure. This obviously only makes sense if the implant structure is already positioned in the mouth of a patient. Connecting the prosthesis structure to an implant structure re-establishes the anatomy of the patient's mouth and is thus therapeutic.