

1/10 © EPODOC / EPO

PN - [CN108309480](#) A 20180724

PR - CN201810155796 20180223

AP - CN201810155796 20180223

DT - I

CNOI - [A61C8/0037](#)

PA - THE FOURTH MILITARY MEDICAL
UNIV OF THE CHINESE PEOPLES
LIBERATION ARMY; XIAN
ZHONGBANG TITANIUM
BIOLOGICAL MAT CO LTD

TI - **Dental implant**

AB - The invention discloses a **dental implant**. The **dental implant** comprises an **implant** part implanted into alveolar bones and an **abutment** part, wherein double threads are arranged at the peripheries of the implant main body part and a **cone** part; in addition, a cylindrical surface and a conical surface are formed on an addendum face of the double threads; the double threads of the **implant** main body part form a conical surface with an upper larger part and a small lower part; the **implant** part has good bone cutting and bone extrusion effects in the alveolar bones and has better stability; an **implant** shoulder part is in an inverted **cone** shape; a small clearance formed between the **implant** shoulder part and bone wall facilitates filling of regenerated new bone and regeneration of the alveolar bones; a rotation preventing structure of an improved three-face boss which is in embedded fit with an improved three-face groove in the middle section of an inner side of the **implant** part is arranged on the abutment part; a conical **Morse taper** surface on the upper section of the inner hole of the **implant** part and a positive conical circular truncated **cone** surface of the **abutment** part are both treated by adopting an ultrasonic surface rolling technology, so that the structure of the **implant** part is matched with the structure of the **abutment** part more precisely, microleakage is improved and reduced,

the **implant** is screwed more conveniently and quickly during operation, and the **abutment** is in place more accurately during repairing.

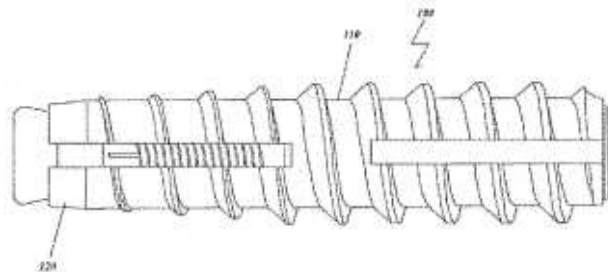
2/10 © EPODOC / EPO

- PN - [CN106109035](#) A 20161116
- PR - CN201610731354 20160826
- AP - CN201610731354 20160826
- DT - I
- CT - || STSE (A)
[DE202006010552U](#) U1 20061109
 [Y] (PARSAKSEN JOERG [DE])
 [Y] 1-6
 * 说明书第[0001]-[0010]段、附图 1 *;
[CN202128556U](#) U 20120201
 [Y] (CHENGGEN LI)
 [Y] 1-6
 * 说明书第[0027]段 *;
[CN105266904](#) A 20160127
 [Y] (TAIWAN INNOVATIVE BIOMEDICAL CO LTD)
 [Y] 7-10
 * 附图3 *;
[CN205494045U](#) U 20160824
 [Y] (CHENGDU HUAMEI DENTAL CHAIN MAN CO LTD)
 [Y] 1-6
 * 说明书第[0025]-[0026]段、附图 1-3 *;
[CN206151611U](#) U 20170510
 [R] (SHENZHEN BEIKANGMEI MEDICAL ELECTRONIC COMMERCE CO LTD)
 [R] 1-10
 * 权利要求1-10 *
- CNOI - [A61C8/0071](#)
- PA - SHENZHEN BEIKANGMEI MEDICAL E-COMMERCE CO LTD
- TI - **Abutment** free of adhesive joint and dentition defect **implant** upper portion repair device
- AB - The invention provides an **abutment** free of adhesive joint and a dentition defect **implant** upper portion repair device. The **abutment** free of adhesive joint comprises a hollow **implant** connection portion and a hollow **Morse's taper abutment** body, the **implant** connection portion and the hollow **Morse's taper abutment** body which is positioned at the top end of the **implant** connection portion

are integrated, and the external diameter of the **Morse's taper abutment** body is gradually increased from the top end to the bottom end. The **Morse's taper abutment** body is provided with at least one cutting groove with the height smaller than or equal to half of that of the **Morse's taper abutment** body. An included angle between the axis of the **implant** connection portion and the axis of the **Morse's taper abutment** body is 0-30 degrees, and the **Morse's taper abutment** body is 0-5 degrees in **Morse's taper**, 3-6mm in external diameter and 3-8mm in height. By adoption of the **Morse's taper abutment** body for dental crown connection, adhesion or screw retaining for connection is avoided, simplicity in processing and convenience and quickness in connection are realized, and inflection caused by utilization of adhesives is avoided.

3/10 © EPODOC / EPO

- PN - [US2012058451](#) A1 20120308
- PR - US201113298748
20111117; US20080012278
20080201; US20070899245P
20070201
- AP - US201113298748 20111117
- DT - *; Rep
- CT - || R141 (A1)
[US5762500](#) A [];
[US5882200](#) A [];
[US6419492](#) B1 [];
[US6726481](#) B1 []
- CCI - [A61C8/0022](#) ; [A61C8/0033](#) ;
[A61C8/006](#) ; [A61C8/0068](#) ;
[A61C8/0071](#) ; [A61B17/8625](#) ;
[A61B17/8685](#)
- CQI - [A61C8/00](#)
- CCA - [A61B2017/8655](#)
- PA - LAZAROF SARGON [US]
- TI - **DENTAL SECURING MECHANISM WITH TAPERSEAL**
- AB - A method comprises attaching an **abutment** to an **implant** body so as to form a seal and cover the **implant** body, the **implant** body having a top portion with an external **tapered** surface and a bottom portion secured within



a jaw bone of a patient.

The **abutment** has a top portion adapted to secure a prosthetic component and a bottom portion adapted to be positioned below a gumline of the patient. The bottom portion of the **abutment** is shaped to attach to and fit over the **implant** body. The bottom portion of the **abutment** has a cavity with an internal **tapered** surface. The internal **tapered** surface of the **abutment** and the external **tapered** surface of the **implant** body form a **Morse taper**.

PN - [US2011275030](#) A1 20111110
 PR - WO2008IT00432 20080626
 AP - US20080674520 20080626
 DT - **
 CT - || R141 (A1)
 [US3481027](#) A [];
 [US6200345](#) B1 [];
 [US6358050](#) B1 [];
 [US2002123806](#) A1 [];
 [US8328556](#) B2 [];
 [US2005240265](#) A1 [];
 [US2006046229](#) A1 []

CCI - [A61C8/005](#)
 CCA - [A61C8/006](#) ; [A61C8/0071](#)
 TI - **DENTAL IMPLANT**
 AB - **Dental implant**, comprising
 an **abutment** (2) for connection
 with a fixture (1) by means of
 a **Morse-taper** coupling, with the
 installation of a truncated-cone
 shank (21) of the **abutment** (2)
 into a corresponding cavity (11)
 exhibited by the fixture (1), the
 said **abutment** (2) being
 provided with an appendix,
 having polygonal cross-section
 (22), which is positioned below
 said shank (21) and to be fitted
 into a corresponding impression
 (12) provided in the bottom of
 the said cavity (11) of fixture (1),
 the **abutment** being also
 provided, on the side opposite to
 said appendix (22) with respect
 to said shank (21), with a
 portion (20, 24) intended for
 supporting a **dental** prosthesis
 (D), the said appendix (22) can
 be rotated about its longitudinal
 axis, relative to the said shank
 (21) of the **abutment** (2). The
 said appendix (22) features an
 upper stem (220) whose external
 wall is **Morse-tapered** and the
 said shank (21) is internally
 provided with a **Morse-tapered**
 cavity inside which said stem
 (220) of the appendix (22) is
 destined to be fitted.

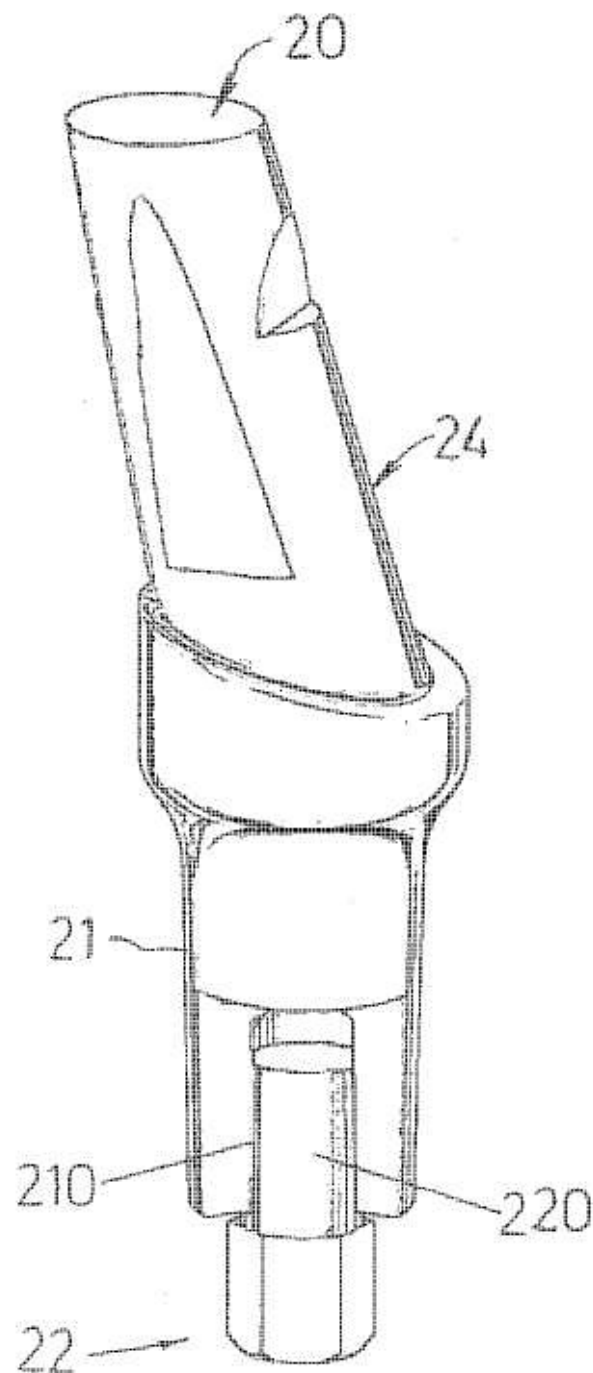


FIG 3

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PN - [CN101249024](#) A 20080827
 PR - CN2008114755 20080312
 AP - CN2008114755 20080312
 DT - I
 PA - WEIHAI WEIGAO BIOLOG TECHNOLOG [CN]
 TI - Mouth cavity planting body device

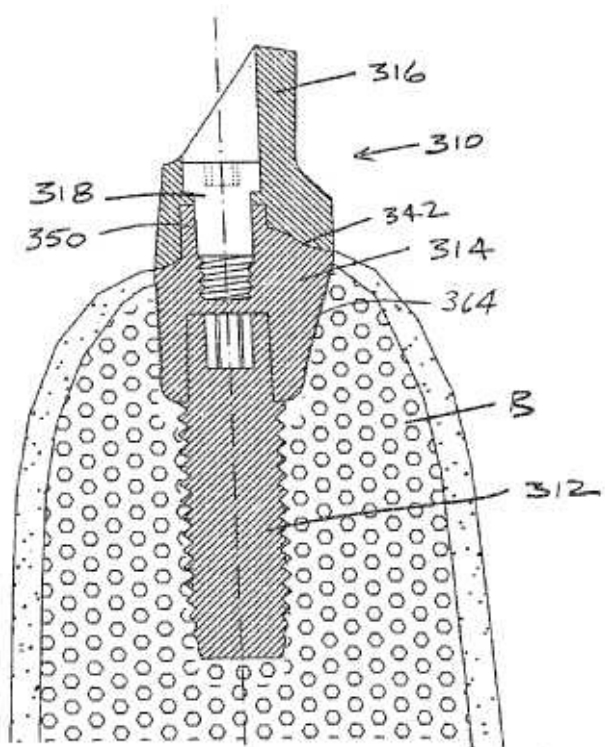
AB - The invention discloses a **dental implant** assembly, which is characterized in that the diameter of the neck portion is slightly larger than that of the body portion of the **dental implant** and has a **taper**, the **implant** body portion has a **dental root** shape, the root portion of the **dental implant** has a self-tapping cut groove, the **dental implant** is provided inside with a **Morse taper** mechanism for fillet positioning, the neck portion is provided inside with a stepped cylindrical surface that is in clearance fit with an **abutment**, the junctions between the **abutment** and the **dental implant** are positioned on the stepped cylindrical surface, and the diameter of the upper part of the **abutment** is larger than that of the **dental implant**. The clearance between the **abutment** and the **implant** is helpful for in-growth of gingival and bone tissues. After implantation in vivo, the stress position for bondage between the **dental plant** and the **abutment** descends to prevent alveolar resorption due to overload on the neck portion of the **dental implant**; the marginal size of the **abutment** is enlarged to avoid food debris from entering implantation zone during chewing process. Additionally, the **dental implant** assembly fits well with a nut cap, thereby realizing **implant** esthetics.

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PN - [US6419492](#) B1 20020716
 PR - US20010855351 20010515; US20000204320P 20000515
 AP - US20010855351 20010515
 DT - *
 CT - [US4738623](#) A []; [US5106300](#) A [];
[US6203324](#) B1 []
 CCI - [A61C8/0018](#) ; [A61C8/005](#) ; [A61C8/006](#) ; [A61C8/0069](#)
 CCA - [A61C8/0068](#) ; [A61C8/0071](#)
 TI - **Dental implant** system incorporating an external hex and **Morse tapered** walls
 AB - A **dental implant** system having an **implant** and an coordinating **abutment** is described. The **implant** includes an hexagonal reference post against which a prosthesis can be keyed and a **Morse-tapered** cavity wall. The **abutment** is adapted to engage the **implant** cavity wall and can be indexed relative to the **implant**. In an alternative embodiment, the post within the **implant** is provided as a separate piece which fits snugly within the **implant**.

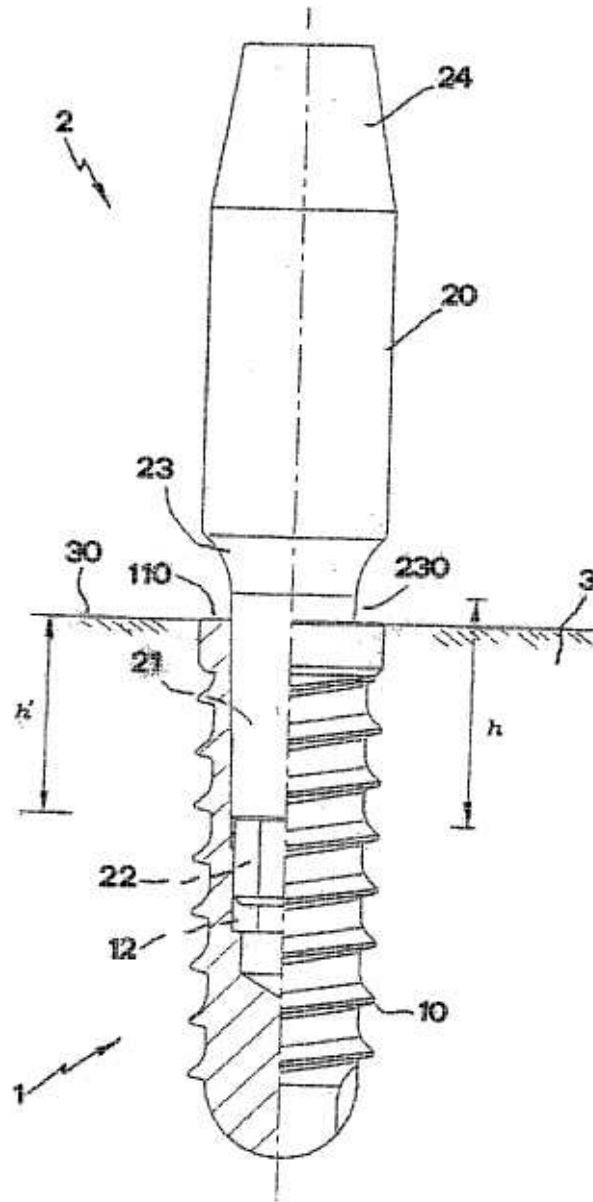
7/10 © EPODOC / EPO

PN - [US2005266381](#) A1 20051201
 PNFP - US7264469 B2 20070904
 PR - US20050122857
 20050505; US20020216307
 20020809; US20040568681P
 20040507; US20010311089P
 20010810
 AP - US20050122857 20050505
 DT - *; Rep
 CT - || STSE (B2)
[US4687443](#) A 19870818 [
] (BOEHRINGER MANNHEIM
 CORP [US])
[US5782636](#) A 19980721 [
] (SULZER CALCITEK INC [US])
[US5915967](#) A 19990629 [
] (UNIV MCGILL [CA])
[US6283754](#) B1 20010904 [
] (WOEHRLE PETER S [US])
[US6375465](#) B1 20020423 [
] (NOBEL BIO CARE AB [SE])
[US6726481](#) B1 20040427 [
]



-] (ZICKMANN ALBERT [US], et al)
[US2005100863](#) A1 20050512 [
] (CHANG SANG-KOHN [KR])
- || R141 (A1)
[US5863200](#) A [];
[US2003013068](#) A1 [];
[US2003031982](#) A1 [];
[US6537070](#) B1 [];
[US6375465](#) B1 [];
[US6726481](#) B1 [];
[US4086701](#) A [];
[US2005100863](#) A1 [];
[US5915967](#) A [];
[US6743018](#) B1 [];
[US5782636](#) A [];
[US4687443](#) A [];
[US5810592](#) A [];
[US6283754](#) B1 [];
[US6287117](#) B1 [];
[US2001044095](#) A1 [];
[US5376004](#) A [];
[US5588838](#) A [];
[US6164969](#) A []
- CCI - [A61C8/0018](#) ; [A61C8/005](#) ;
[A61C8/0071](#) ; [A61C8/0077](#) ;
[A61C8/0089](#) ; [A61C1/084](#)
- CCA - [A61C8/0054](#) ; [A61C8/006](#) ;
[A61C8/0068](#) ; [A61C8/0069](#) ;
[A61C19/04](#)
- TI - (A1 B2)
 Split-**implant** and **abutment**
 system for **dental** reconstruction
- AB - (A1 B2)
 A **dental implant** assembly that
 includes an apical insert and at
 least one other component. The
 apical insert includes a top
 portion that is adapted to be at
 least partially secured to the
 component via a **tapered Morse**
 fit.

PN - [US2006121417](#) A1 20060608
 PNFP - US8328556 B2 20121211
 PR - IT2004FI00013 20040119
 AP - US20040007818 20041208
 DT - **
 CT - || STSE (B2)
 [US4854872](#) A 19890808 [] (DETSCH STEVEN G [US])
 [US5030095](#) A 19910709 [] (NIZNICK GERALD A [US])
 [US5116225](#) A 19920526 [] (RIERA JUAN CA [UY])
 [US5195891](#) A 19930323 [] (SULC JOSEF M [US])
 [US5197881](#) A 19930330 [] (CHALIFOUX PAUL R [US])
 [US5316477](#) A 19940531 [] (CALDERON LUIS O [US])
 [US5350301](#) A 19940927 [] (DE BUCK VINCENT [BE])
 [US5417570](#) A 19950523 [] (ZUEST MAX [US], et al)
 [US5571015](#) A 19961105 [] (SIEGMUND ERNIE [CA])
 [US6068480](#) A 20000530 [] (MISCH CARL E [US], et al)
 [US6217331](#) B1 20010417 [] (ROGERS DAN PAUL [US], et al)
 [US6254387](#) B1 20010703 [] (BERGSTROEM NILS GUSTAF [SE], et al)
 [US6283753](#) B1 20010904 [] (WILLOUGHBY ANDREW J M [BS])
 [US6402515](#) B1 20020611 [] (PALTI ADY [DE], et al)
 [US6572373](#) B2 20030603 [] (TRAMONTE SILVANO UMBERTO [IT])
 [US2002031748](#) A1 20020314 [] (CRUDO VINCENZO [IT])
 [US2003068599](#) A1 20030410 [] (BALFOUR ALAN R [US], et al)
 [US2003082498](#) A1 20030501 [] (HALLDIN ANDERS [SE], et al)
 [US2003194679](#) A1 20031016 [] (ODRICH RONALD B [US], et al)
 - || R141 (A1)
 [US5195891](#) A [];
 [US5197881](#) A [];
 [US2002031748](#) A1 [];
 [US6217331](#) B1 [];
 [US2003068599](#) A1 [];
 [US5116225](#) A [];
 [US5316477](#) A [];
 [US5417570](#) A [];
 [US6068480](#) A [];
 [US2003082498](#) A1 [];
 [US6402515](#) B1 [];



	US6572373 B2 []; US5030095 A []; US6254387 B1 []; US6419492 B1 []; US4854872 A []; US5350301 A []; US6283753 B1 []; US2003194679 A1 []; US5571015 A []
CCI	- A61C8/005 ; A61C8/006 ; A61C8/0066 ; A61C8/0069 ; A61C8/0074
CCA	- A61C8/0071
PA	- (B2) SCOMMEGNA GABRIELE [IT]; DOLFI MAURIZIO [IT]; LEONE SPA [IT]
TI	- (A1 B2) Dental implant
AB	- (A1) An abutment (2) connects with a fixture (1) by a Morse-taper type coupling, with the installation of a truncated- cone shank (21) of the abutment (2) into a corresponding cavity (11) exhibited by the fixture (1). The abutment (2) is provided with an appendix having a polygonal cross-section (22), and is positioned below the shank (21). The appendix is fitted into a corresponding impression (12) provided in the bottom of the cavity (11) of fixture (1). The abutment is also provided, on the side opposite to the appendix (22), with respect to the shank (21), with a portion (20, 24) intended for supporting a dental prosthesis (D). The appendix (22) can be rotated about its longitudinal axis, relative to the shank (21) of the abutment (2). - (B2) An abutment (2) connects with a fixture (1) by a Morse-taper type coupling, with the installation of a truncated- cone shank (21) of the abutment (2) into a corresponding cavity (11) exhibited by the fixture (1). The abutment (2) is provided with an appendix having a polygonal cross-section (22), and is positioned below the shank (21). The appendix is fitted into a corresponding impression

(12) provided in the bottom of the cavity (11) of fixture (1). The **abutment** is also provided, on the side opposite to the appendix (22), with respect to the shank (21), with a portion (20, 24) intended for supporting a **dental** prosthesis (D). The appendix (22) can be rotated about its longitudinal axis, relative to the shank (21) of the **abutment** (2).

9/10 © EPODOC / EPO

- PN - [WO2009157024](#) A1 20091230
 PR - WO2008IT00432 20080626
 AP - WO2008IT00432 20080626
 DT - *; Rep
 CT - |EP| ISR (A1)
[EP1554988](#) A1 20050720
 [DA] (LEONE SPA [IT])
 [DA] 1-4
 * paragraphs [0014] - [0017] -
 [0024] - [0027] *
 * figure - *;
[US6419492](#) B1 20020716
 [A] (SCHROERING ROBERT L [US])
 [A] 1,4
 * column 3, line 46 - column 4,
 line 55 *
 * figures 7-12 *;
[EP0308738](#) A1 19890329
 [A] (RICHTER ERNST JURGEN DR
 MED DE)
 [A] 1
 * column 3, lines 2-34 *
 * figure - *
 CCI - [A61C8/005](#)
 CCA - [A61C8/006](#) ; [A61C8/0071](#)
 PA - LEONE SPA [IT]; DOLFI MAURIZIO
 [IT]; SCOMMEGNA GABRIELE [IT]
 TI - **DENTAL IMPLANT**
 AB - **Dental implant**, comprising
 an **abutment** (2) for connection
 with a fixture (1) by means of
 a **Morse-taper** coupling, with
 the installation of a
 truncated- **cone** shank (21) of
 the **abutment** (2) into a
 corresponding cavity (11)
 exhibited by the fixture (1), the
 said **abutment** (2) being
 provided with an appendix,
 having polygonal cross-section
 (22), which is positioned below
 said shank (21) and to be fitted
 into a corresponding impression
 (12) provided in the bottom of

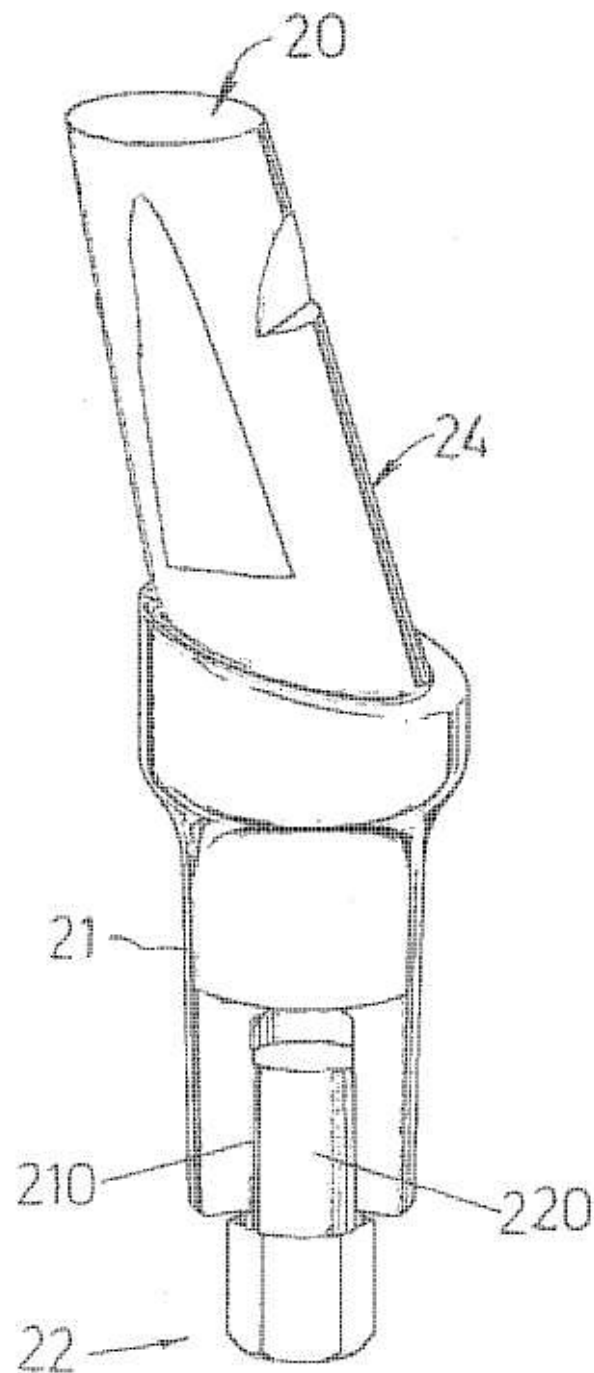


FIG 3

the said cavity (11) of fixture (1), the **abutment** being also provided, on the side opposite to said appendix (22) with respect to said shank (21), with a portion (20, 24) intended for supporting a **dental** prosthesis (D), the said appendix (22) can be rotated about its longitudinal axis, relative to the said shank (21) of the **abutment** (2). The said appendix (22) features an upper stem (220) whose external wall is **Morse-tapered** and the said shank (21) is internally provided with a **Morse-tapered** cavity inside which said stem (220) of the appendix (22) is destined to be fitted.

10/10 © EPODOC / EPO

PN - [EP1554988](#) A1 20050720

PNFP - EP1554988 B1 20070905

PR - IT2004FI00013 20040119

AP - EP20040028366 20041130

DT - *; Rep

CT - || STSE (A1)

[WO9626685](#) A1 19960906

[AD] (ACCIUS BV [NL], et al)

[AD] 1

* figure - *;

[US6419492](#) B1 20020716

[A] (SCHROERING ROBERT L [US])

[A] 1

* figures 7-12 *

CCI - [A61C8/005](#) ; [A61C8/006](#) ;
[A61C8/0066](#) ; [A61C8/0069](#) ;
[A61C8/0074](#)

CCA - [A61C8/0071](#)

PA - (A1 B1)
LEONE SPA [IT]

TI - (A1 B1)
Dental implant

AB - (A1)
Dental implant, comprising an **abutment** (2) for connection with a fixture (1) by means of a **Morse-taper** coupling, with the installation of a truncated-cone shank (21) of the **abutment** (2) into a corresponding cavity (11) exhibited by the fixture (1), the said **abutment** (2) being provided with an appendix, having polygonal cross-section (22), which is positioned below said shank (21) and to be fitted

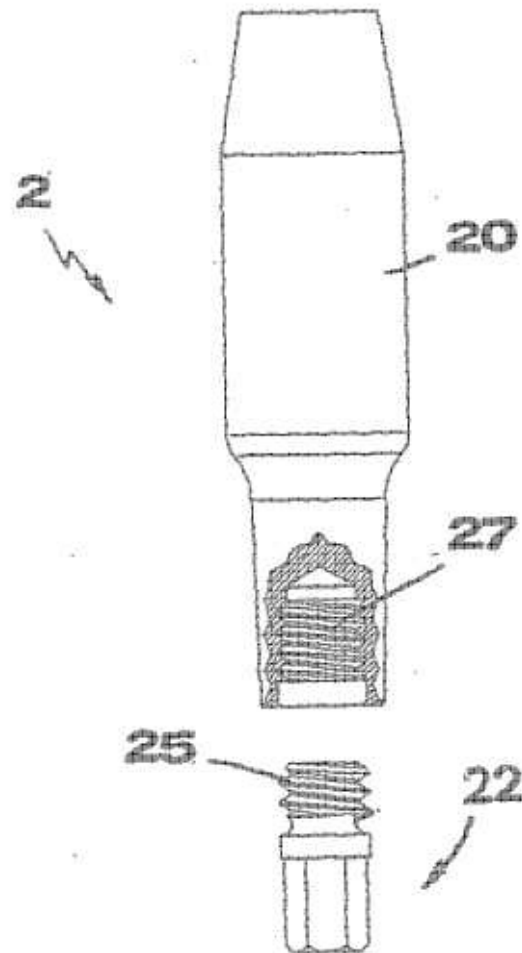


Fig. 4

into a corresponding impression (12) provided in the bottom of the said cavity (11) of fixture (1), the **abutment** being also provided, on the side opposite to said appendix (22) with respect to said shank (21), with a portion (20, 24) intended for supporting a **dental** prosthesis (D), characterized in that the said appendix (22) can be rotated about its longitudinal axis, relative to the said shank (21) of the **abutment** (2).

<IMAGE>