

Title (en)  
LOCKABLE PIVOTAL CONNECTION DEVICE.

Title (de)  
DREHBARE SPERRFÄHIGE VERBINDUNGSVORRICHTUNG.

Title (fr)  
DISPOSITIF DE CONNEXION PIVOTANTE VERROUILLABLE.

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Application  
**EP 84904157 A 19841127**

Priority  
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Abstract (en)  
[origin: WO8502536A1] A lockable pivotal connection device which is relatively compact and suitable for use as a joint in an artificial limb such as an artificial leg for replacing a leg amputated close to the original joint. The lockable pivotal connection device, includes a cylindrically bored housing member (2) and, rotationally housed in said housing member bore (3), a cam member (7) with a generally periphery and an annular lock member (4), with the annular lock member (4) pivotally interconnecting the housing member (2) and cam member (7) relative to one another about a rotary pivot axis formed by the longitudinal axis of the cylindrical bore (3). The annular lock member (4) is housed in the housing member bore (3) with the outer periphery of the lock member (4) adjacent the inner periphery of the housing member bore (3) so that the housing member (2) is rotatable about the lock member (4), which lock member (4) has at least three bearing members (5) movably housed in apertures (6) opening radially through the inner and outer peripheries of the lock member (4) at peripherally spaced locations therearound. The cam member (7) has a generally circular periphery with, spaced around the cam member periphery, at least three substantially planar, concave or convex cam faces (8), which cam member (7) is housed in the lock member (4) with the outer periphery of the cam member adjacent the inner periphery of the lock member (4) with the bearing members (5) in contact with the respective cam faces (8). Means (11, 12) are provided, on or engageable with the lock member (4) whereby the lock member (4) can be rotatably displaced to a limited extent between at least two positions to rotate the annular lock member (4) in either direction to a limited extent about the rotary pivot axis relative to the housing and cam members (2, 7) so that with the lock member (4) in one of said at least two positions, the housing member (2) may rotate relative to the cam member (7) about the lock member (4) in either direction, and with the lock member (4) in the other of said at least two positions, the lock member (4) is rotatively displaced relative to the cam and housing members (7, 2) causing the bearing members (5) to be displaced by the lock member (4) along and up their respective cam faces (8) towards and into wedged locking engagement between the inner periphery of the housing member cylindrical bore (3) and the respective cam faces (8) to stop rotary movement of the housing member (2) relative to the cam member (7) in the direction of said other position but not in the opposite direction towards said one position.

Abstract (fr)  
Dispositif de connexion pivotante verrouillable relativement compact et indiqué pour être utilisé comme articulation dans un membre artificiel telle qu'une jambe artificielle, pour remplacer une jambe amputée à proximité de l'articulation originale. Le dispositif de connexion pivotante verrouillable comprend un organe de logement (2) présentant un alésage cylindrique, et un organe de came (7) logé dans l'alésage (3) de l'organe de logement de manière à pouvoir tourner, avec une périphérie généralement circulaire et un organe de verrouillage annulaire (4), l'organe annulaire de verrouillage (4) reliant de manière pivotante l'organe de logement (2) et l'organe de came (7) l'un par rapport à l'autre autour d'un axe de pivot rotatif formé par l'axe longitudinal de l'alésage cylindrique (3). L'organe annulaire de verrouillage (4) est logé dans l'alésage (3) de l'organe de logement, la périphérie externe de l'organe de verrouillage (4) étant adjacente à la périphérie interne de l'alésage (3) de l'organe de logement, de sorte que l'organe de logement (2) peut tourner autour de l'organe de verrouillage (4), celui-ci (4) possédant au moins trois organes de palier (5) logés de manière mobile dans des ouvertures (6) qui s'ouvrent radialement à travers les périphéries interne et externe de l'organe de verrouillage (4) à des endroits espacés sur la périphérie. L'organe de came (7) possède une périphérie généralement circulaire avec au moins trois faces de came planes, concaves ou convexes (8), espacées sur la périphérie de l'organe de came (7), lequel est logé dans l'organe de verrouillage (4) avec la périphérie externe de l'organe de came à proximité de la périphérie interne de l'organe de verrouillage (4), les organes de palier (5) étant en contact avec les faces de came respectives (8). Des organes (11, 12) sont disposés sur l'organe de verrouillage (4) ou peuvent s'engager dans celui-ci, de sorte que l'organe de verrouillage (4) peut être déplacé de manière rotative et limitée entre au moins deux positions pour faire

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