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(54) Title: IMPLANTED TONGUE TRACTION DEVICE, PULL PLATE, PULL LINES, TRACTOR AND METHOD THERE-OF

(54) 发明名称: 植入型舌牵拉装置、牵引板、牵引线、牵拉器及方法

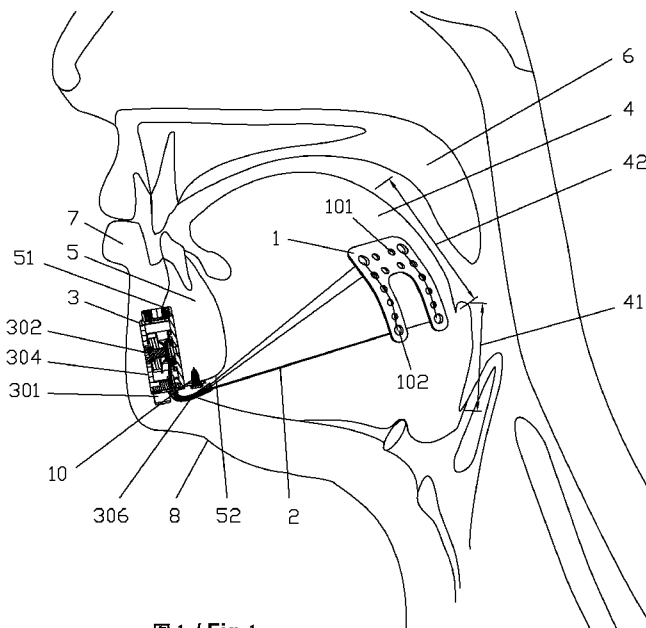


图 1 / Fig.1

(57) Abstract: An implanted tongue traction device, a pull plate, pull lines, a tractor and a method thereof. The tongue traction device is implanted in the mandible and the tongue of the human body, for tightening the dorsum of the tongue and/or the root of the tongue, and is applicable to the treatment of the obstructive sleep apnea/hypopnea syndrome (OSAHS). The tongue traction device comprises a pull plate (1), pull lines (2), and a tractor (3). Two ends of each pull line (2) are respectively connected to the pull plate (1) and the tractor (3). At least three pull lines (2) are used for spatial location of the pull plate (1). The pull plate (1) is a flat object capable of being implanted beneath the dorsum of the tongue and/or the stratum mucosum of the root of the tongue, and comprises through holes (101) for the growth of tissues and pull line fixing mechanisms (102). The pull line (2) comprises a draw line (201) and a sleeve (202). The tractor (3) comprises a control switch (301), a pull line fixing device (302) and a casing (304). The control switch (301) and the pull line fixing device (302) are mounted on the casing (304). The control switch (301) is capable of adjusting the pulling force of the pull lines. The patient after operation may press the control switch outside the skin of the mandible, to adjust upon requirements the tightening degree of the implanted tongue traction device to the dorsum of the tongue and/or the root of the tongue. In a non-sleeping state, the pulling force is reduced to facilitate the movement of the tongue. In a sleeping state, the pulling force is increased to keep the posterior pillar of fauces open, thereby preventing the OSAHS.

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WO 2012/041205 A1



本国际公布:

— 包括国际检索报告(条约第 21 条(3))。

(57) 摘要:

一种植入型舌牵拉装置、牵引板、牵引线、牵拉器及方法,所述舌牵拉装置植入在人体的下颌骨和舌体内,用于拉紧舌背和/或舌根,适用于治疗阻塞性睡眠呼吸暂停综合症。舌牵拉装置含有牵引板(1)、牵引线(2)和牵拉器(3),牵引线(2)的两端分别连接牵引板(1)和牵拉器(3),至少3根牵引线(2)对牵引板(1)实现空间定位;牵引板(1)是能植入舌背和/或舌根黏膜层下的扁平状植入物,含有让组织生长的通孔(101)和牵引线固定机构(102);牵引线(2)含有拉线(201)和套管(202);牵拉器(3)含有控制开关(301)、牵引线固定装置(302)及壳体(304),控制开关(301)和牵引线固定装置(302)安装在壳体(304)上,控制开关(301)能调节牵引线拉力大小。手术后患者可通过在下颌皮肤外按压控制开关以根据需要自我调节该植入型舌牵拉装置对舌背和/或舌根的拉紧程度,非睡眠时,减弱牵引力,便于舌的运动,而睡眠时,通过增强牵引力而保持咽喉部的开放,防止 OSAHS 的发生。