

Title (en)

METHOD AND DEVICE USED IN DENTAL MEDICINE TO CARRY OUT A TREATMENT USING A FREE LIQUID JET SPRAY

Title (de)

VERFAHREN UND VORRICHTUNG ZUR ZAHNÄRZTLICHEN BEHANDLUNG MITTELS EINES FREIEN FLÜSSIGKEITSSTRAHLES

Title (fr)

PROCEDE ET DISPOSITIF UTILISES EN MEDECINE DENTAIRE POUR REALISER UN TRAITEMENT AU MOYEN D'UN JET DE LIQUIDE LIBRE

Publication

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Application

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Abstract (en)

[origin: WO0071049A1] The invention relates to dental method and to a device for separating different materials to be removed during dental treatment conducted at the boundary of healthy bone tissue or, optionally, to abrade the healthy bone tissue. According to the invention, a highly-pressurized liquid provided in the form of a concentrated free liquid jet spray is directed with a large amount of kinetic energy onto the tooth surface to be treated via a nozzle mounted on the end of a dental tool. The working element of the hand tool (5) is formed by a nozzle (6) which is suited for discharging a concentrated highly-pressurized liquid jet spray and which is supplied with liquid by a hydraulic supply unit (2). Said hydraulic supply unit serves as an energy source and is controlled by an adjustable pressure controller (28). In addition, the hydraulic supply unit (2) contains a hydraulic pump (17) which is actuated by a drive unit and which is connected to a liquid container (3). A pneumatically controlled three-way valve (37) is placed in the supply line of said pump (17) which leads to the nozzle (6). A tool sensing element valve (39), said tool sensing element valve being actuated by a switching element that detects the lifting of the hand tool (5), as well as a foot valve (40) which is actuated by a foot switch are connected in series in the pneumatic control circuit of said three-way valve.

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