Odontoiatric video-endoscope

UNIVERSITÀ DI SIENA 1240

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Invention

The invention consists of a device for intraoral dental video-endoscopy, which comprises a PC connected to at least one HD color monitor (15, 20, 30) and to at least one intraoral video camera (50, 60) and / or nasal endoscope. pharyngeal (70), which include a non-toxic fluid-based anti-fog system (90) and a fiber optic cable illuminator (200, 300). It has been designed to improve the quality of the patient's examination or dental intervention by reducing the postural and ocular fatigue of the operator, who can use the high-definition screens to enlarge the visual information of both radiological and reported in situ by intraoral cameras. The operator will therefore be able to act on the patient while maintaining the hygienic safety distance and will not need specific magnifying glasses that would limit his movements and posture. Thanks to the anti-fog and lighting system, the transmitted images allow an accurate visual examination of the intervention area, even those difficult to access with current systems. Finally, through the PC, the device can be set up for remote interventions or teaching (telemedicine and distance learning, 80).

Drawings & pictures

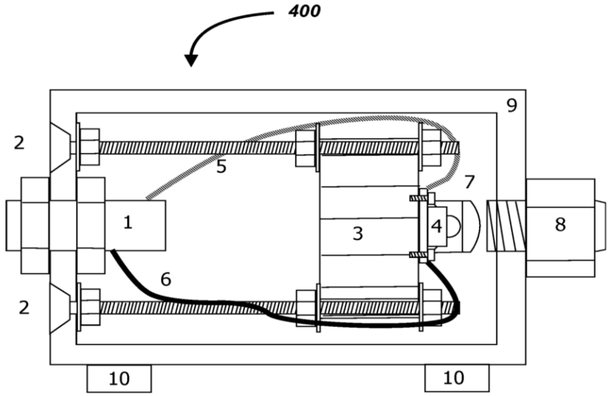

Fig. 2

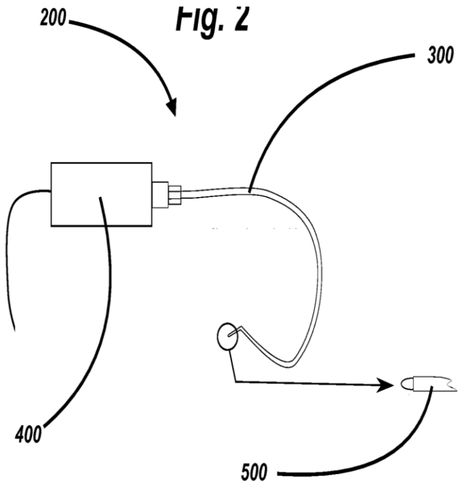

Fig. 3

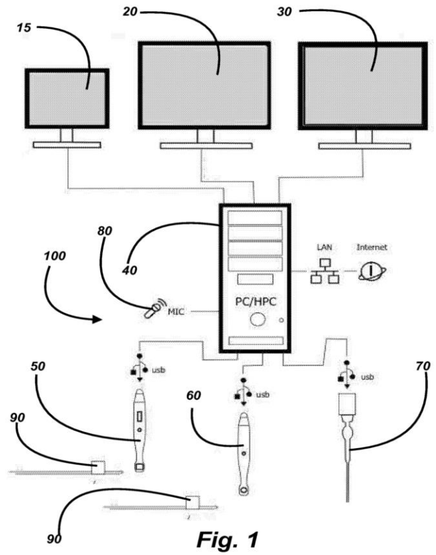

Fig. 1

Industrial applications

The technology can be applied to Health and Life Sciences, as a medical device and ICT for health (digital dentistry). In particular, it is aimed at companies producing integrated intraoral microscopy systems for diagnostic and/or surgical purposes at low cost, and possibly at didactic support platforms in videoconference.

Possible developments

The research group is open to possible collaborations with companies operating in the field of digital medical devices, including dentists, for a technological maturation project aimed at improving the current integrated system, already tested in dental practice, for ease of use and reducing production costs. The University of Siena is available to negotiate specific development agreements, license, or options for the patent title in question.

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