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(54) Title (EN): DEVICE FOR DISINFECTING AN AIR FLOW VIA UV-C RADIATION AND ASSISTED VENTILATION SYSTEM COMPRISING SUCH A DEVICE

(54) Title (FR): DISPOSITIF POUR DÉSINFECTER D'UN FLUX D'AIR PAR L'INTERMÉDIAIRE D'UN RAYONNEMENT UV-C ET SYSTÈME DE VENTILATION ASSISTÉE COMPRENANT UN TEL DISPOSITIF

(57) Abstract:

(EN): A device for disinfecting an air flow, comprising a hollow body (2) having an axis A, a side wall (3) and two base walls (4,5) provided with internal reflective surfaces, an inlet opening (6) and an outlet opening (8) formed in the respective base walls and at least one source (15) of UV-C radiation disposed within the hollow body (2), and a helical-shaped deflector (10) axially housed in the hollow body (2); wherein the hollow body (2) is cylindrical and an outer edge of the deflector (10) cooperates substantially sealingly with the inner surface (12) of the side wall (3) of the hollow body (2) so as to define with said side wall (3) a helical conduit (13) traversed by the entire flow. The device may be used in assisted ventilation systems to disinfect the air exhaled by a patient.

(FR): La présente invention concerne un dispositif pour désinfecter un flux d'air, comprenant un corps creux (2) possédant un axe A, une paroi latérale (3) et deux parois de base (4, 5) pourvues de surfaces réfléchissantes internes, une ouverture d'entrée (6) et une ouverture de sortie (8) formées dans les parois de base respectives et au moins une source (15) de rayonnement UV-C disposée à l'intérieur du corps creux (2), et un déflecteur (10) de forme hélicoïdale logé axialement dans le corps creux (2); le corps creux (2) étant cylindrique et un bord externe du déflecteur (10) coopérant sensiblement de manière étanche avec la surface interne (12) de la paroi latérale (3) du corps creux (2) de sorte à délimiter, avec ladite paroi latérale (3), un conduit hélicoïdal (13) traversé par la totalité du flux. Le dispositif peut être utilisé dans des systèmes de ventilation assistée pour désinfecter l'air expiré par un patient.

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