

Title (en)
APPARATUS FOR PROVIDING A CLEAN AIR ZONE

Publication
EP 0372784 A3 19910102 (EN)

Application
EP 89312317 A 19891128

Priority
GB 8828127 A 19881202

Abstract (en)
[origin: EP0372784A2] Apparatus for providing a clean air zone, for example in a hospital operating theatre or microbiological clean room comprises a housing (30) preferably mounted above the zone and having a plenum chamber (P) and a fan and filter means (89, 52) operative to supply air, e.g. from inlets (39), to the plenum chamber, as well as diffuser means (40) in the form of one or more perforated plates (60, 64) arranged below the chamber so that air flows out therethrough. In order to reliably ensure a downward and outward air flow pattern, without the need for temperature controls or differential air velocities, so that influx of airborne contaminants to the sterile zone is precluded, the central diffuser area (60) is planar and successive peripheral diffuser areas (72, 73) are arranged at increasing greater angles relative to the central area so that each increasingly deflects the air outwards, e.g. at 5 DEG , 15 DEG or more, from the central downflow. Advantageously the peripheral diffuser areas (perforate) and intervening imperforate areas serving as deflector vanes are formed integrally as adjacent regions of specially corrugated elongate panels (63).

IPC 1-7
F24F 13/068

IPC 8 full level
F24F 7/06 (2006.01); **A61G 13/00** (2006.01); **F24F 3/16** (2006.01); **F24F 13/068** (2006.01)

CPC (source: EP)
A61G 13/108 (2013.01); **F24F 3/163** (2021.01); **F24F 13/068** (2013.01)

Citation (search report)

- [X] GB 2120778 A 19831207 - HOWORTH AIR ENG LTD
- [Y] DE 2836820 A1 19800306 - DUVLIS ZINON DR MED
- [Y] GB 601239 A 19480430 - STURTEVANT ENG CO LTD, et al
- [A] WO 8602711 A1 19860509 - TOTAL AIR INC [US]
- [A] US 3356006 A 19671205 - SCOTT ROBERT D
- [A] DE 2013244 A1 19701001
- [A] US 3935803 A 19760203 - BUSH LOUIS

Cited by
US2011294411A1; FR2979006A1; ES2800398A1; AU688121B2; US10058012B2; WO9516168A1; WO2021224518A1; WO9301455A1; US8733060B2; US9326428B2; US9854711B2

Designated contracting state (EPC)
AT BE CH DE ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)
EP 0372784 A2 19900613; EP 0372784 A3 19910102; EP 0372784 B1 19931020; AT E96218 T1 19931115; AU 4558789 A 19900607; DE 68910091 D1 19931125; GB 8828127 D0 19890105; HU 896322 D0 19900228; HU T55900 A 19910628; JP H02187548 A 19900723

DOCDB simple family (application)
EP 89312317 A 19891128; AT 89312317 T 19891128; AU 4558789 A 19891127; DE 68910091 T 19891128; GB 8828127 A 19881202; HU 632289 A 19891130; JP 31412189 A 19891201