

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2022/0386443 A1 **CHAN**

Dec. 1, 2022 (43) **Pub. Date:**

(54) PLASMA AIR STERILIZER

(71) Applicant: BEIJING BEIQING BOYU AIR STERILIZATION TECHNOLOGY CO., LTD, Beijing (CN)

(72) Inventor: Sun Sun CHAN, Beijing (CN)

(73) Assignee: BEIJING BEIQING BOYU AIR STERILIZATION TECHNOLOGY CO., LTD, Beijing (CN)

(21) Appl. No.: 17/790,719

(22) PCT Filed: Dec. 14, 2021

(86) PCT No.: PCT/CN2021/137829

§ 371 (c)(1),

(2) Date: Jul. 1, 2022

(30)Foreign Application Priority Data

Dec. 14, 2020 (CN) 202011462795.X

Publication Classification

(51) Int. Cl. H05H 1/24 (2006.01)F24F 8/20 (2006.01)

U.S. Cl. CPC H05H 1/24 (2013.01); F24F 8/20 (2021.01); H05H 2245/36 (2021.05)

(57)ABSTRACT

A plasma air sterilizer includes a fan assembly, a plasma generator, a plasma generator channel, and a grounded metal isolation mesh, where the fan assembly is a drum-type fan with side air intake which generates uniform air stream to a flat channel and outputs the uniform air stream to the plasma generator channel; the plasma generator channel has a flat structure and is connected to the plasma generator; the plasma generator generates plasma to sterilize air; and the grounded metal isolation mesh is arranged at an outlet of the plasma generator channel. The air sterilizer has a flat structure, so as to facilitate the arrangement of the sterilizer on wall panels, roofs, and the like without occupying extra space. Moreover, a circulating plasma sterilization mode enables the continuous sterilization of indoor air, is not limited to local sterilization, and shows a prominent sterilization effect.

