

US 20240237268A9

(19) United States

(12) **Patent Application Publication** Chen et al.

(10) Pub. No.: US 2024/0237268 A9

(48) **Pub. Date: Jul. 11, 2024 CORRECTED PUBLICATION**

(54) CENTRIFUGAL HEAT DISSIPATION FAN OF PORTABLE ELECTRONIC DEVICE

(71) Applicant: **Acer Incorporated**, New Taipei City (TW)

(72) Inventors: Tsung-Ting Chen, New Taipei City (TW); Wen-Neng Liao, New Taipei City (TW); Cheng-Wen Hsieh, New Taipei City (TW); Kuang-Hua Lin, New Taipei City (TW); Wei-Chin Chen, New Taipei City (TW); Yu-Ming

Lin, New Taipei City (TW)

(73) Assignee: **Acer Incorporated**, New Taipei City (TW)

(21) Appl. No.: 18/486,178

(22) Filed: Oct. 13, 2023

Prior Publication Data

(15) Correction of US 2024/0138098 A1 Apr. 25, 2024 See (22) Filed See (30) Foreign Application Data

(65) US 2024/0138098 A1 Apr. 25, 2024

(30) Foreign Application Priority Data

Oct. 19, 2022 (TW) 111139595

Publication Classification

(51) Int. Cl. H05K 7/20 (2006.01) F04D 17/16 (2006.01) F04D 29/28 (2006.01)

(52) U.S. Cl.

CPC *H05K 7/20136* (2013.01); *F04D 17/16* (2013.01); *F04D 29/281* (2013.01)

(57) ABSTRACT

A centrifugal heat dissipation fan of a portable electronic device. The centrifugal heat dissipation fan includes a hub, multiple metal blades, and at least one ring. The metal blades are disposed surrounding the hub. The metal blades include multiple radial dimensions, and the structure of the metal blade with a shorter radial dimension is a part of the structure of the metal blade with a longer radial dimension. The metal blades having different radial dimensions form at least two ring areas, and the distribution numbers of the metal blades in the at least two ring areas are different from each other. The ring surrounds the hub and connects the metal blades.

