



US0D1089656S

(12) **United States Design Patent** (10) **Patent No.:** **US D1,089,656 S**
Androsch et al. (45) **Date of Patent:** **** Aug. 19, 2025**

(54) **PNEUMATIC PLETHYSMOGRAPH
FINGERTIP SENSOR**

(71) Applicant: **Quantum BioTek Inc.**, Atlanta, GA
(US)

(72) Inventors: **Astrid Androsch**, Atlanta, GA (US);
David Yuan, Atlanta, GA (US);
Vladimir Fridman, Atlanta, GA (US)

(**) Term: **15 Years**

(21) Appl. No.: **29/884,194**

(22) Filed: **Feb. 8, 2023**

Related U.S. Application Data

(63) Continuation of application No. 17/523,754, filed on
Dec. 22, 2021, now abandoned.

(51) **LOC (15) Cl.** **24-02**

(52) **U.S. Cl.**
USPC **D24/169**

(58) **Field of Classification Search**

USPC D24/107, 134, 144, 158, 164–170,
D24/185–187, 216, 231–232; D10/32,
D10/70, 75, 78, 81; D13/103, 107–108,
D13/118–119, 168; D14/341, 344,
D14/138 R, 203.1, 203.3–203.7, 191
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

6,505,061 B2 * 1/2003 Larson A61B 5/6838
600/323
D535,397 S * 1/2007 Chen D24/146
(Continued)

FOREIGN PATENT DOCUMENTS

CN 3079943 * 6/1998

OTHER PUBLICATIONS

Analog Devices, Tutorial: Improve Sensor Performance and SNR in
Pulse Oximeter Designs, Published on: Jun. 21, 2010, Analog.com,
Retrieved from Internet: <https://www.analog.com/en/resources/technical-articles/tutorial-improve-sensor-performance-and-snr-in-pulse-oximeter-designs.html> (Year: 2010).*

Primary Examiner — Jennifer L Rempfer

Assistant Examiner — Edward P Jones

(74) *Attorney, Agent, or Firm* — Gugliotta & Gugliotta,
LPA

(57) **CLAIM**

The ornamental design for a pneumatic plethysmograph
fingertip sensor as shown and described.

DESCRIPTION

A portion of the disclosure of this patent document contains
material which is subject to copyright protection. This patent
document may show and/or describe matter which is or may
become trade dress of QuanCardio. The copyright and trade
dress owner has no objection to the facsimile reproduction
by anyone of this patent disclosure as it appears in the Patent
and Trademark Office patent files or records, but otherwise
reserves all copyright and trade dress rights whatsoever.

FIG. 1 is a front top perspective view of a pneumatic
plethysmograph fingertip sensor showing my new design;
FIG. 2 is a front bottom elevational view thereof;

FIG. 3 is a top plan view thereof;

FIG. 4 is a bottom plan view thereof;

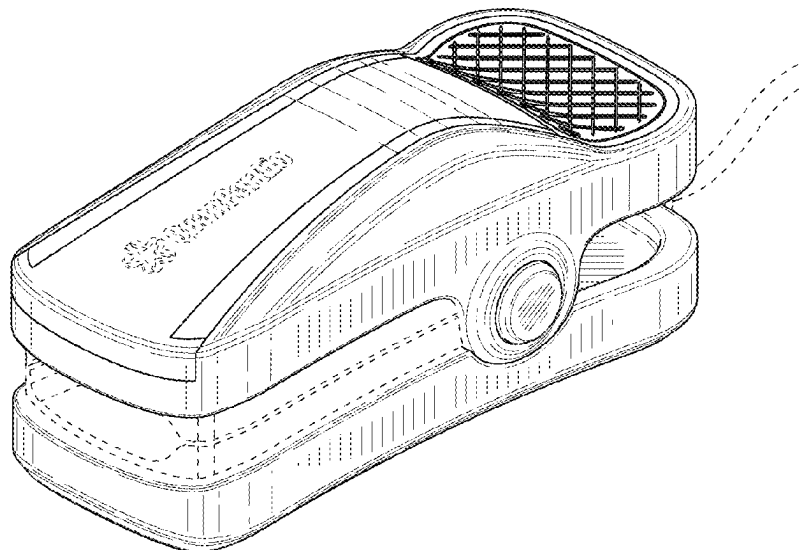
FIG. 5 is a front elevational view thereof;

FIG. 6 is a rear elevational view thereof; and,

FIG. 7 is a left side elevational view thereof, the right side
elevational view being a mirror image.

The broken lines in the drawings depict portions of the
pneumatic plethysmograph Fingertip Sensor and form no
part of the claimed design.

1 Claim, 4 Drawing Sheets



(58) **Field of Classification Search**

CPC A61B 5/0002; A61B 5/0015; A61B 5/681;
A61B 5/0205; A61B 5/14532; A61B
5/02438; A61B 5/0245; A61B 5/02427;
A61B 2560/0412; A61B 2560/00; A61B
2560/0295; A61B 2560/0462; A61B
2560/0468

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D621,516	S	*	8/2010	Kiani	.....	D24/165
D691,726	S	*	10/2013	Jin	.....	D24/169
D718,455	S	*	11/2014	Maser	.....	D24/169
9,713,446	B2	*	7/2017	Gal	.....	A61B 8/4209
10,342,487	B2	*	7/2019	Al-Ali	.....	A61B 46/10
D894,400	S	*	8/2020	Wei	.....	D24/169
D919,101	S	*	5/2021	Jung	.....	D24/186
D973,880	S	*	12/2022	Yi	.....	D24/169
D989,967	S	*	6/2023	McEwen	.....	D24/187
D1,048,409	S	*	10/2024	Chang	.....	D24/169
D1,048,410	S	*	10/2024	Xia	.....	D24/169
D1,050,444	S	*	11/2024	Huang	.....	D24/169
D1,050,445	S	*	11/2024	Zhang	.....	D24/169
D1,065,543	S	*	3/2025	Zhang	.....	D24/169
2015/0005600	A1	*	1/2015	Blank	.....	A61B 5/6833
						600/344
2015/0366507	A1	*	12/2015	Blank	.....	A61B 5/6826
						600/323

* cited by examiner

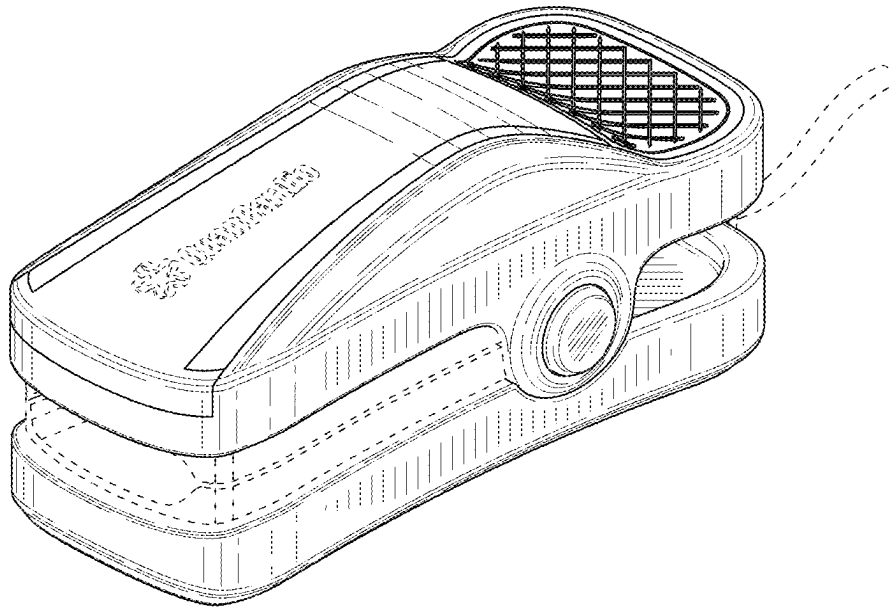


FIG. 1

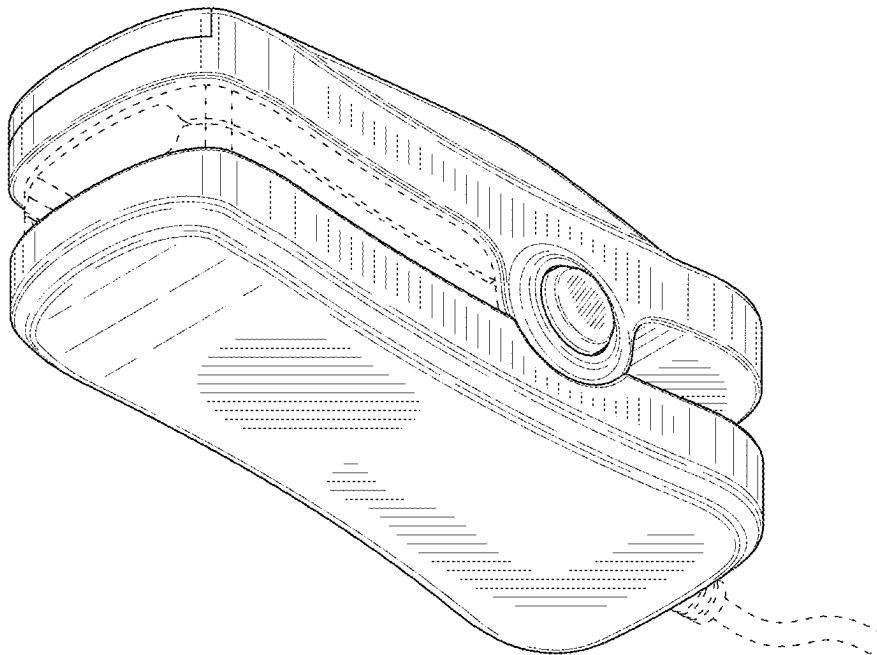


FIG. 2

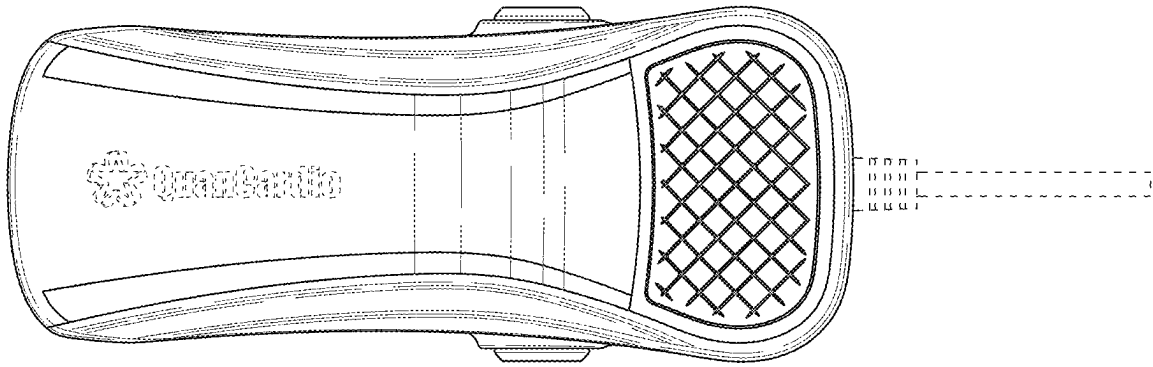


FIG. 3

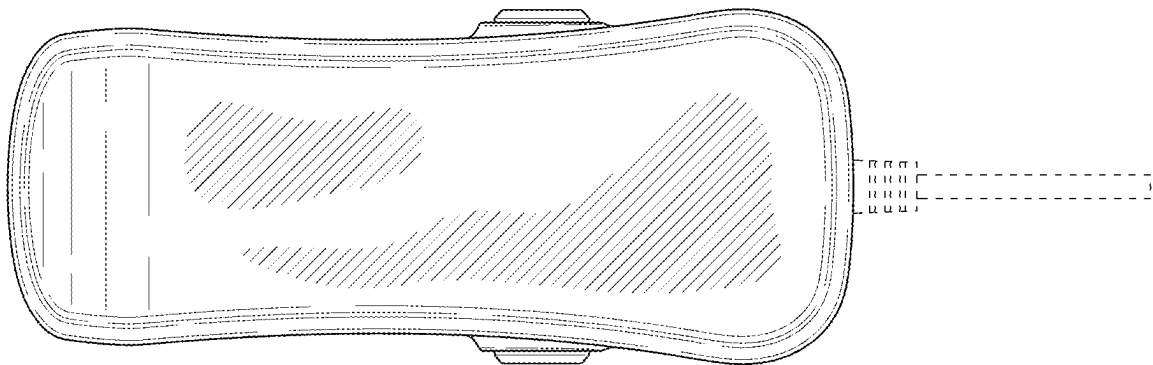


FIG. 4

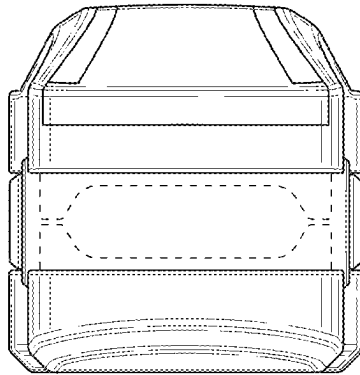


FIG. 5

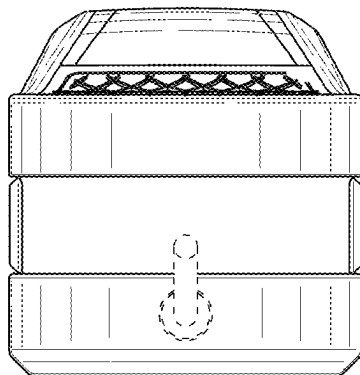


FIG. 6

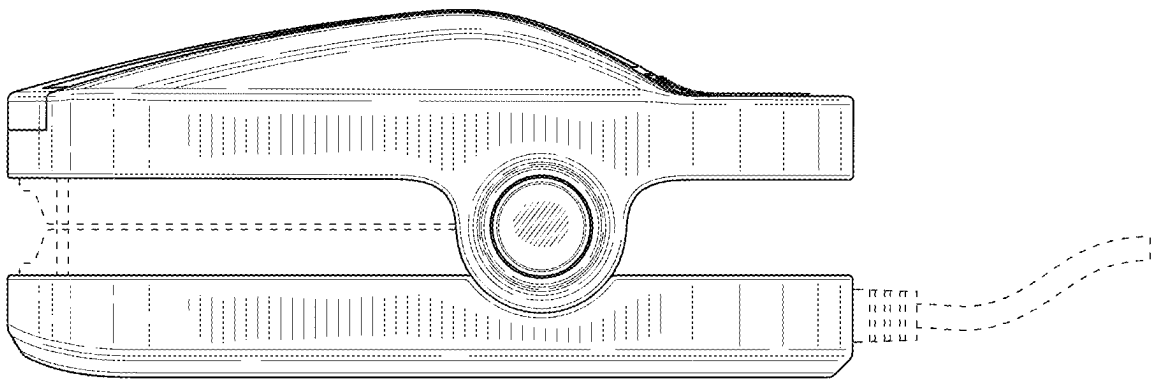


FIG. 7