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(12) United States Design Patent

Liu et al.

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(45) Date of Patent: ** Sep. 30, 2025

(54) **HIGH VOLTAGE ELECTRICAL CONNECTOR**

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(73) Assignee: **Amphenol Corporation**, Wallingford, CT (US)

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

(21) Appl. No.: **29/923,334**

(22) Filed: **Dec. 28, 2023**

(51) **LOC (15) Cl.** **13-03**

(52) **U.S. Cl.**
USPC **D13/133**; D13/147

(58) **Field of Classification Search**
USPC D13/120, 133, 146, 147, 153, 154, 156, D13/199; D14/256, 432, 433; 439/94, 439/366, 205, 607.24
CPC H01R 13/02; H01R 13/11; H01R 13/40; H01R 13/64; H01R 13/74; H01R 13/6272; H01R 13/6275
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D472,524	S *	4/2003	Yamawaki	D13/147
D503,150	S *	3/2005	Yamawaki	D13/147
7,540,773	B2 *	6/2009	Ko	H01R 13/5808 439/607.17
D618,623	S *	6/2010	Peng	D13/147

(Continued)

FOREIGN PATENT DOCUMENTS

IN	421370-001	*	1/2025
IN	421350-001	*	2/2025

(Continued)

OTHER PUBLICATIONS

EnergyKlip EK350 Connectors, posted date unavailable, retrieved Apr. 30, 2025 (online), https://www.amphenol-cs.com/product-series/energyklip-ek350.html?page=1 (Year: 2025).*

(Continued)

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(57) **CLAIM**

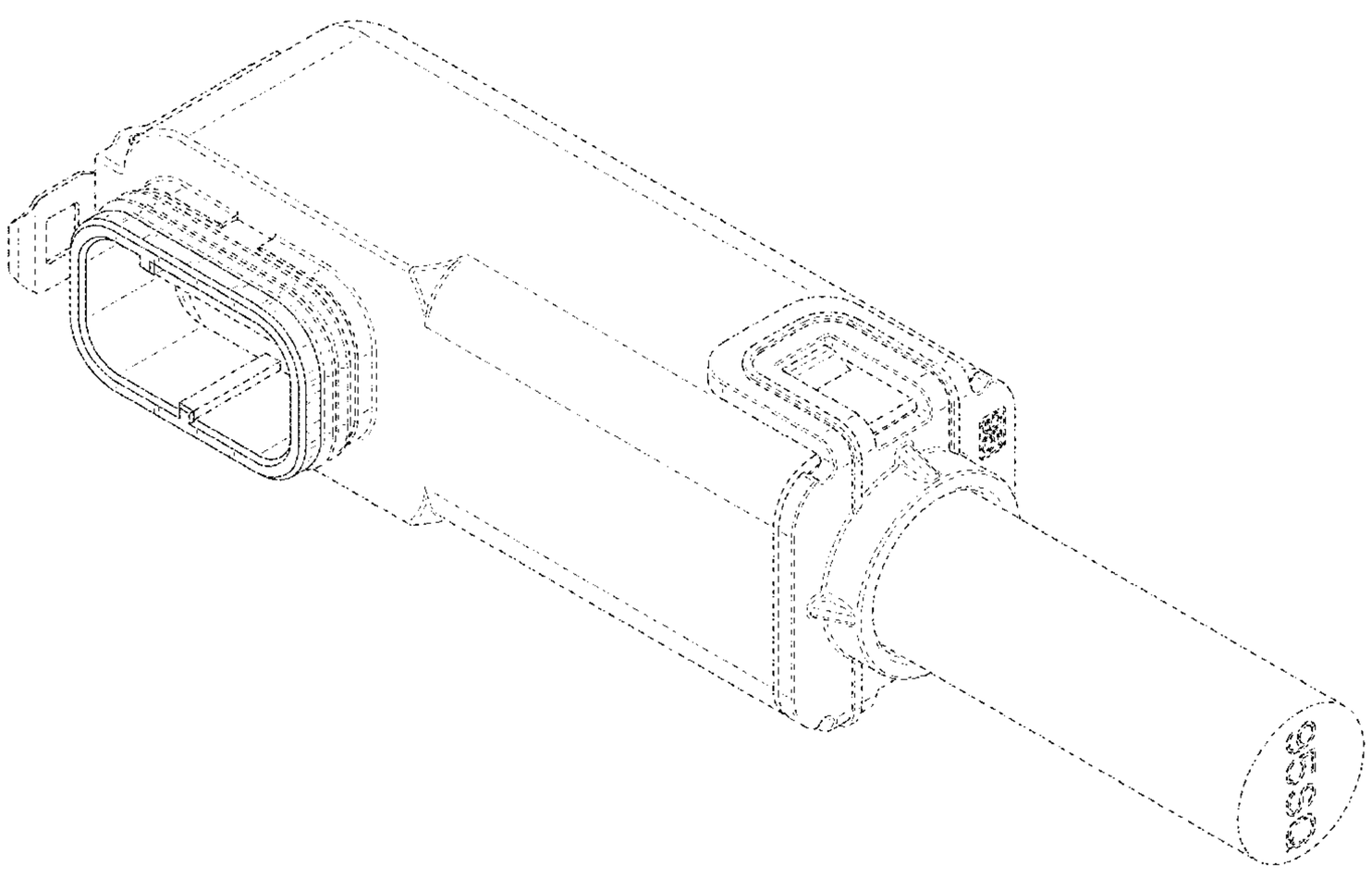
The ornamental design for a high voltage electrical connector, as shown and described.

DESCRIPTION

FIG. **1** is a front, top, left side perspective view of a high voltage electrical connector with environmental structure shown;
FIG. **2** is a front, bottom, left side perspective view thereof;
FIG. **3** is a front, bottom, right side perspective view thereof;
FIG. **4** is a front, top, right side perspective view thereof;
FIG. **5** is a rear, top, right side perspective view thereof;
FIG. **6** is a rear, bottom, left side perspective view thereof;
FIG. **7** is a front view thereof;
FIG. **8** is a rear view thereof;
FIG. **9** is a right side view thereof;
FIG. **10** is a left side view thereof;
FIG. **11** is a top view thereof; and,
FIG. **12** is a bottom view thereof.

The broken lines in the figures show portions of the high voltage electrical connector and environmental structure that form no part of the claimed design.

1 Claim, 12 Drawing Sheets



(56) **References Cited**

U.S. PATENT DOCUMENTS

D620,450	S	*	7/2010	Andre	D13/154
D671,898	S	*	12/2012	Andre	D13/154
D676,812	S	*	2/2013	Smith	D13/146
D684,538	S	*	6/2013	Akana	D13/147
D828,305	S	*	9/2018	Tsai	D13/147
D831,576	S	*	10/2018	Davidson	D13/147
D966,119	S	*	10/2022	Karimi	D10/78
D1,034,473	S	*	7/2024	Kamei	D13/133
D1,051,843	S	*	11/2024	Hasegawa	D13/133
2021/0203103	A1	*	7/2021	Zhu	H01R 43/26

FOREIGN PATENT DOCUMENTS

JP	1354464	S	3/2009
TW	D219847	S	7/2022
TW	D222539	S	12/2022

OTHER PUBLICATIONS

Taiwanese Office Action dated Nov. 1, 2024 in connection with Taiwanese Application No. 113303245.

Taiwanese Office Action dated Nov. 1, 2024 in connection with Taiwanese Application No. 113303245D01.

Taiwanese Office Action dated Nov. 1, 2024 in connection with Taiwanese Application No. 113304097.

Taiwanese Office Action dated Nov. 1, 2024 in connection with Taiwanese Application No. 113304133.

[No Author Listed], Busbar Connectors. Amphenol Communications Solutions. 2025. 4 pages. URL:https://www.amphenol-cs.com/busbar-connectors [retrieved on Jan. 3, 2025].

Pressel et al., High Voltage Electrical Connector, Design U.S. Appl. No. 29/923,325, filed Dec. 28, 2023.

Pressel et al., High Voltage Electrical Connector, Design U.S. Appl. No. 29/923,355, filed Dec. 28, 2023.

Liu et al., High Voltage Electrical Connector, Design U.S. Appl. No. 29/923,337, filed Dec. 28, 2023.

Xavier, High Voltage Electrical Connector, Design U.S. Appl. No. 29/923,345, filed Dec. 28, 2023.

Xavier, High Voltage Electrical Connector, Design U.S. Appl. No. 29/923,369, filed Dec. 28, 2023.

Liu et al., Latching Mechanism for an Electrical Connector, Design U.S. Appl. No. 29/923,332, filed Dec. 28, 2023.

Xavier, Latching Mechanism for an Electrical Connector, Design U.S. Appl. No. 29/923,346, filed Dec. 28, 2023.

Liu et al., Latching Mechanism for an Electrical Connector, Design U.S. Appl. No. 29/923,328, filed Dec. 28, 2023.

Xavier, Latching Mechanism for an Electrical Connector, Design U.S. Appl. No. 29/923,361, filed Dec. 28, 2023.

Japanese Notice of Allowance dated Jun. 11, 2025 in connection with Japanese Application No. 2025-005264.

* cited by examiner

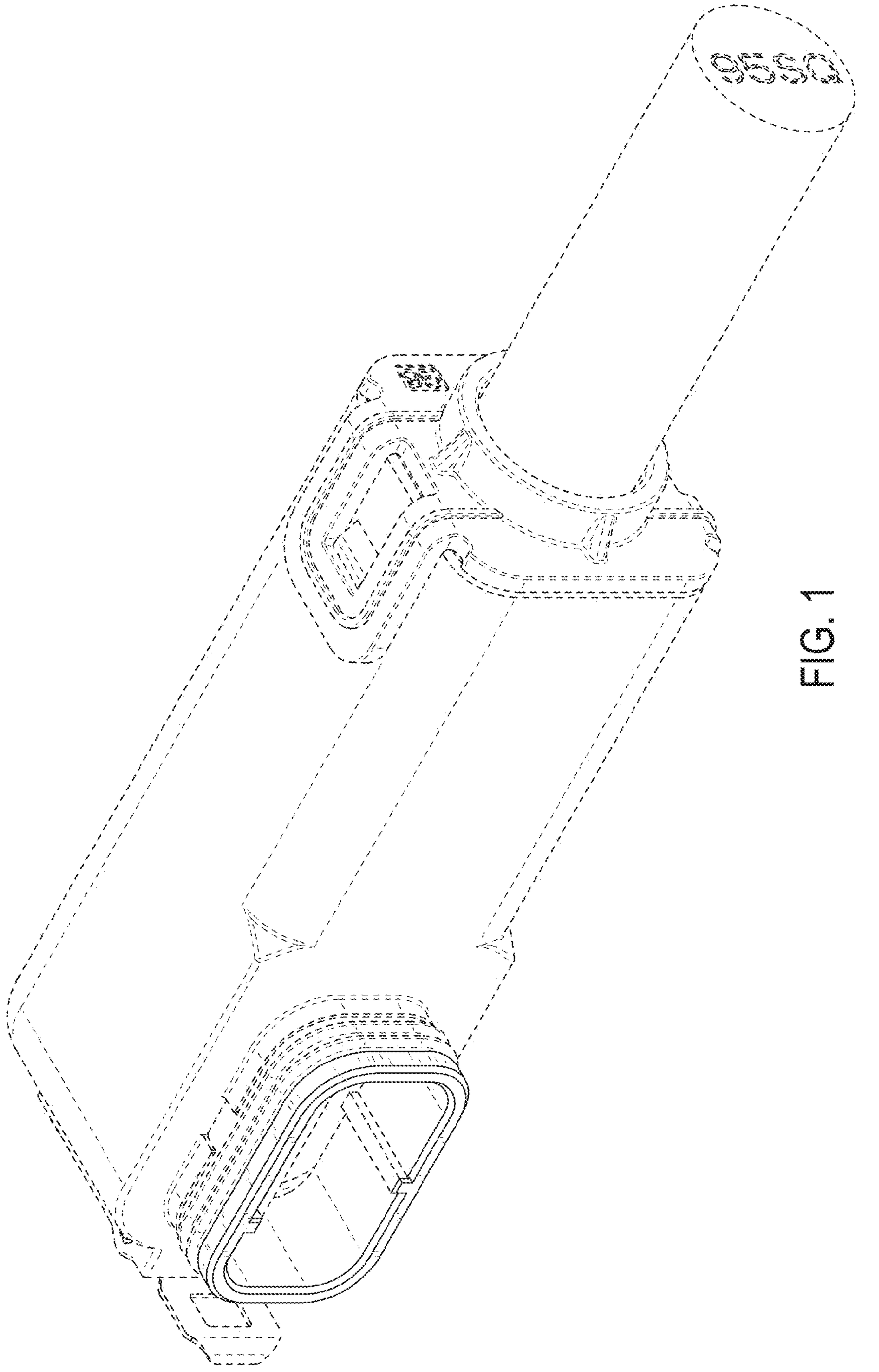


FIG. 1

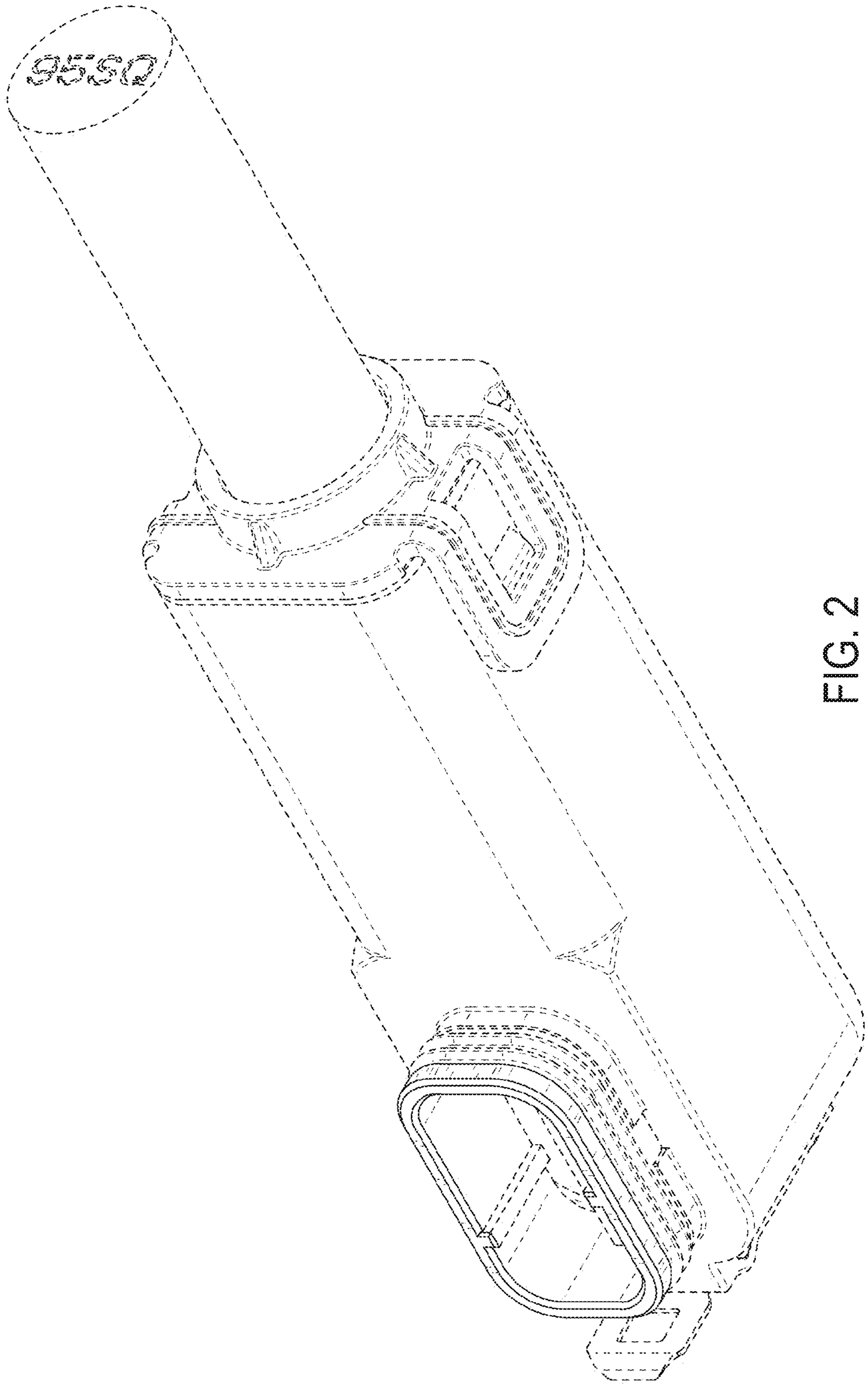
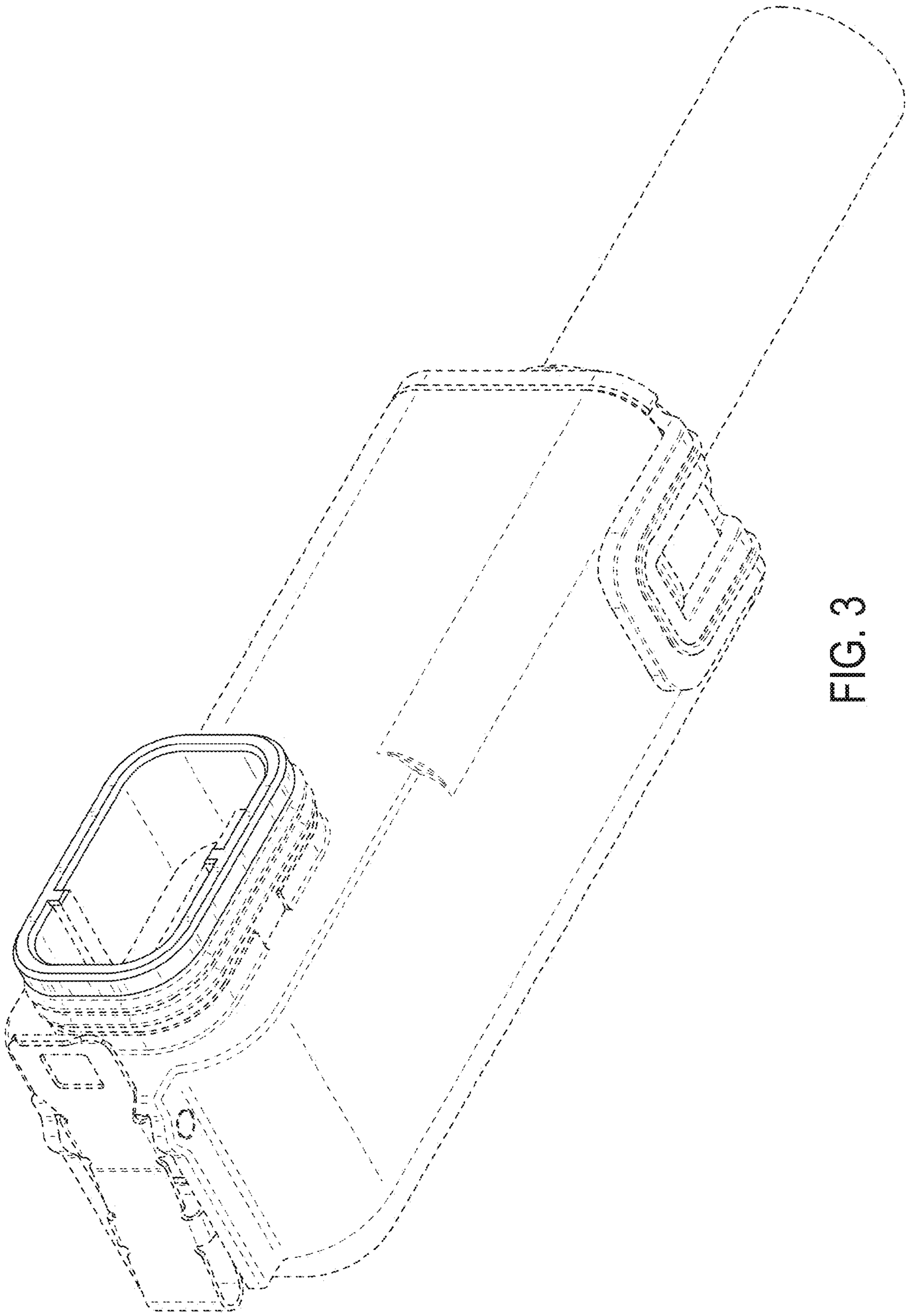


FIG. 2



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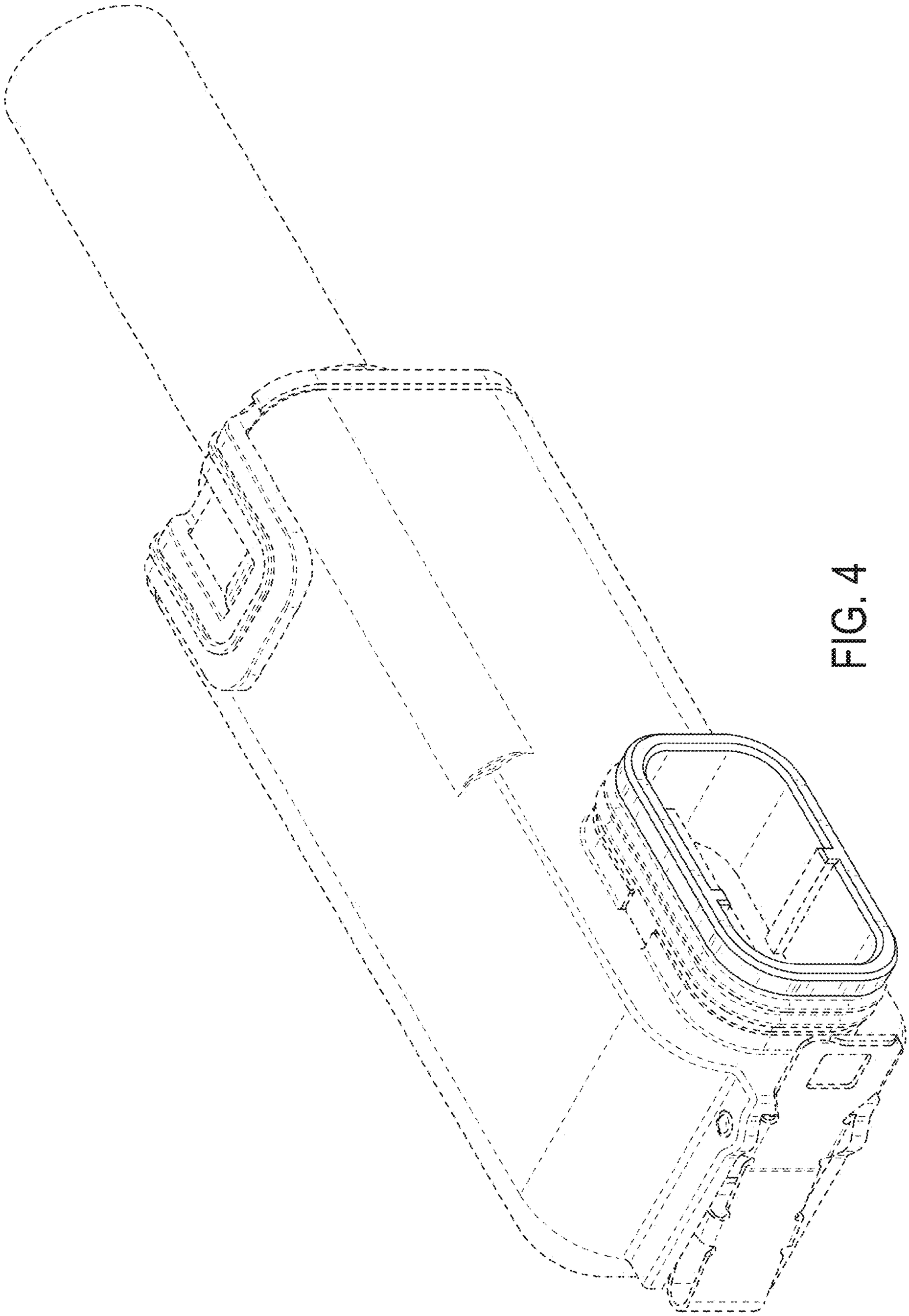

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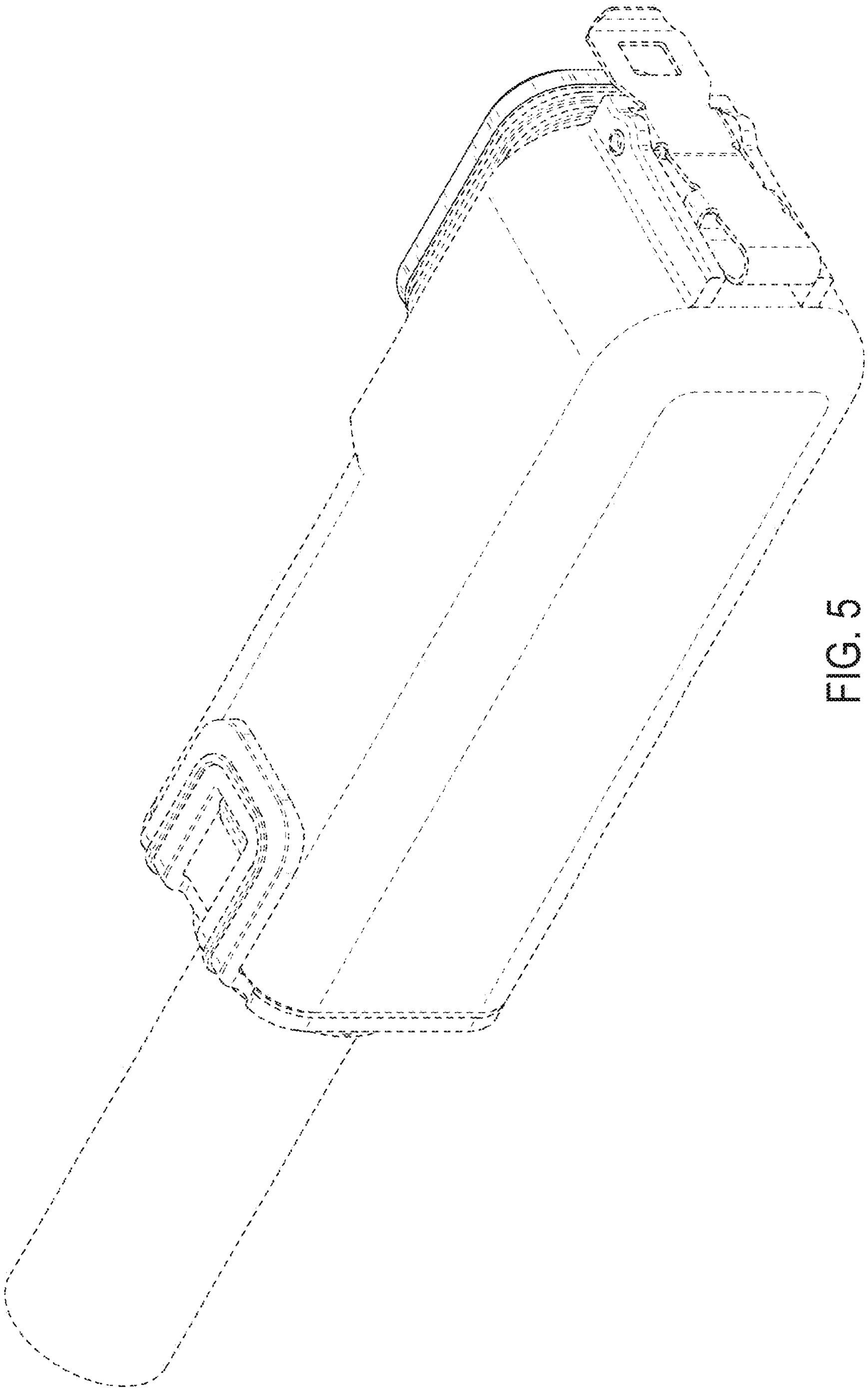


FIG. 5

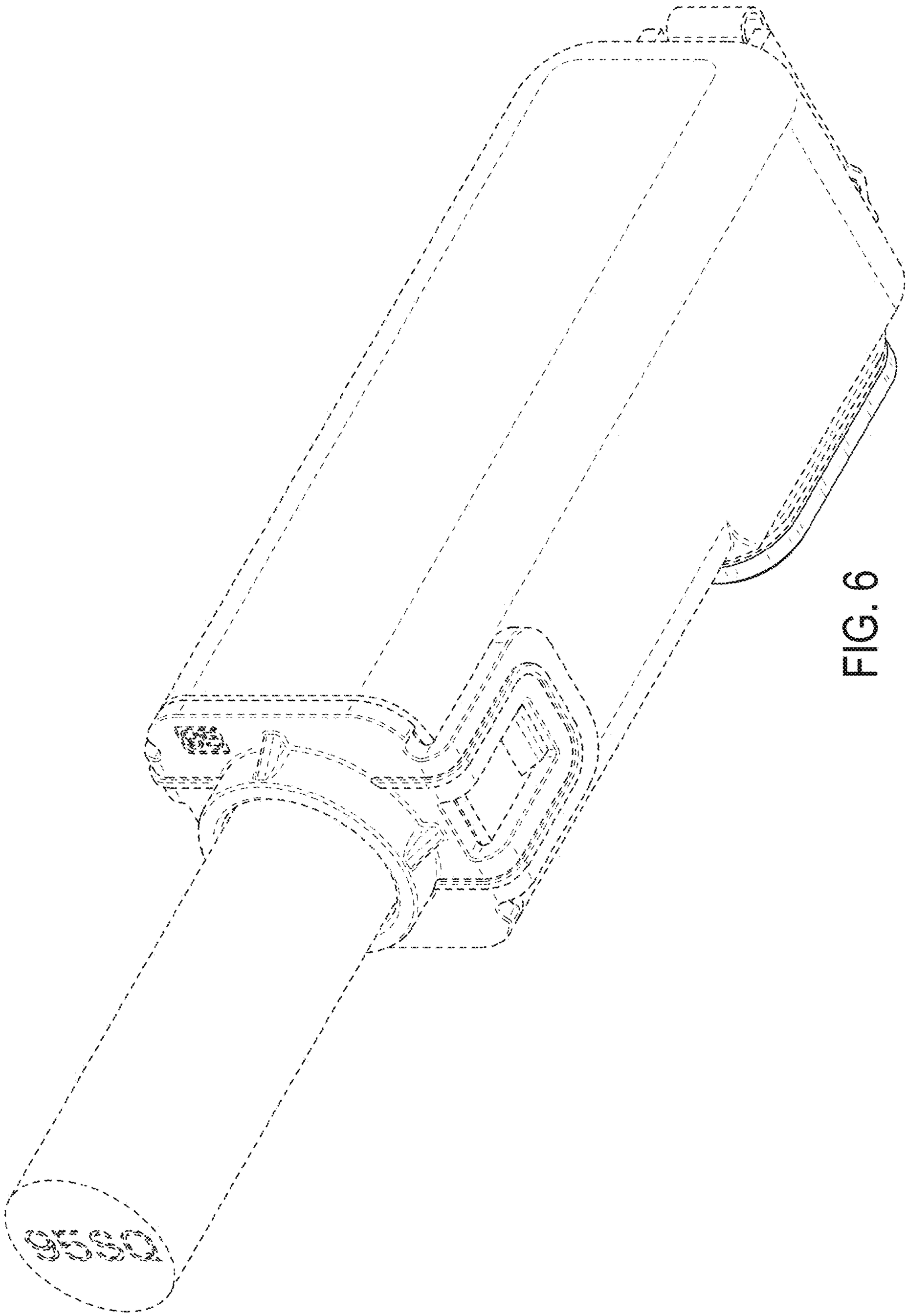
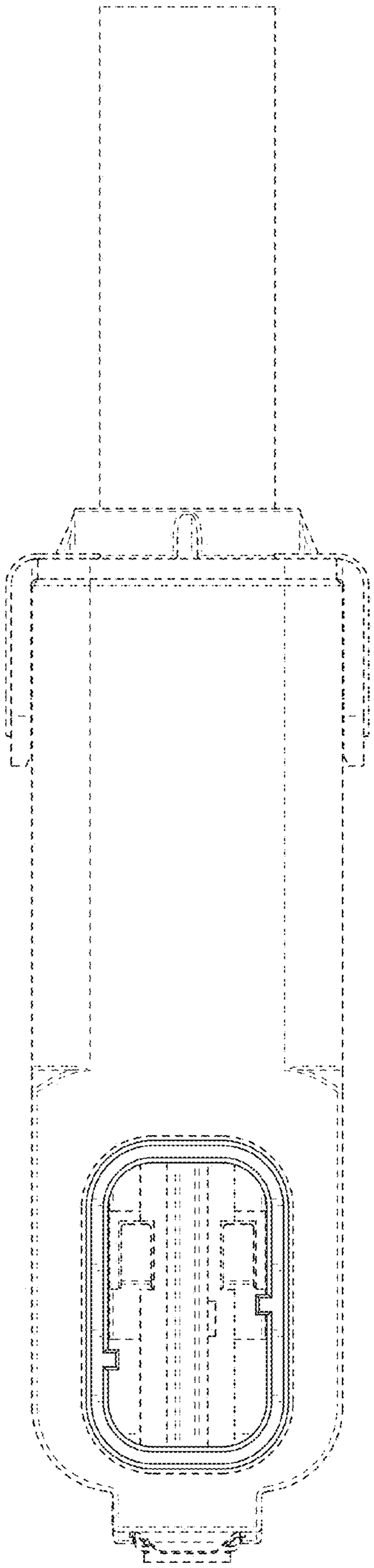


FIG. 6



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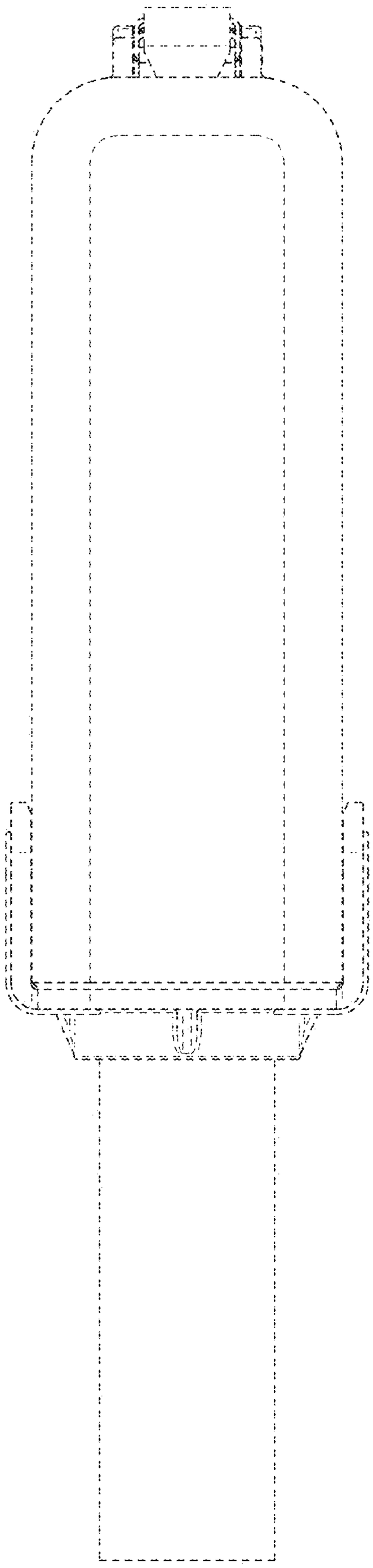

FIG. 8

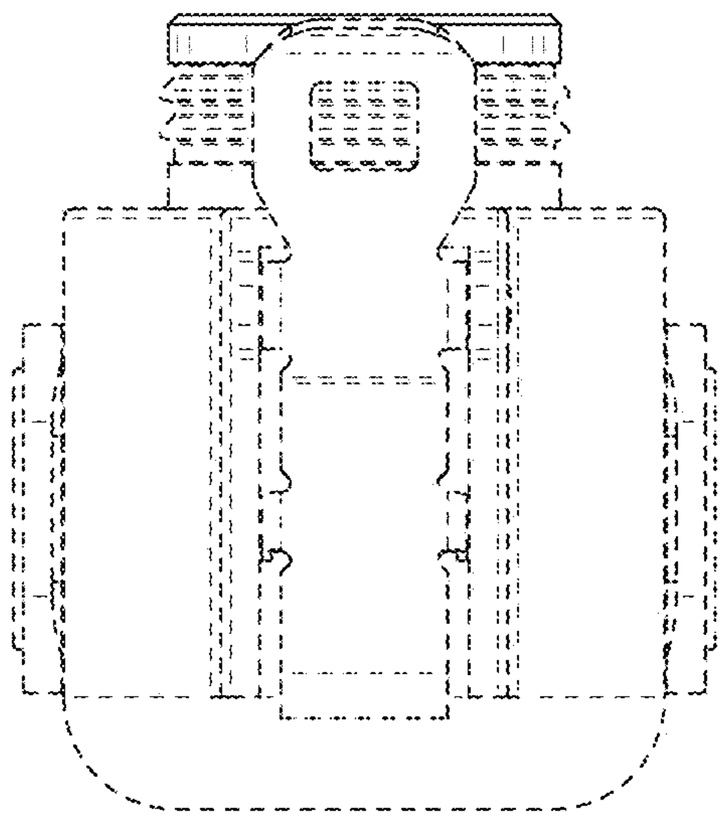

FIG. 9

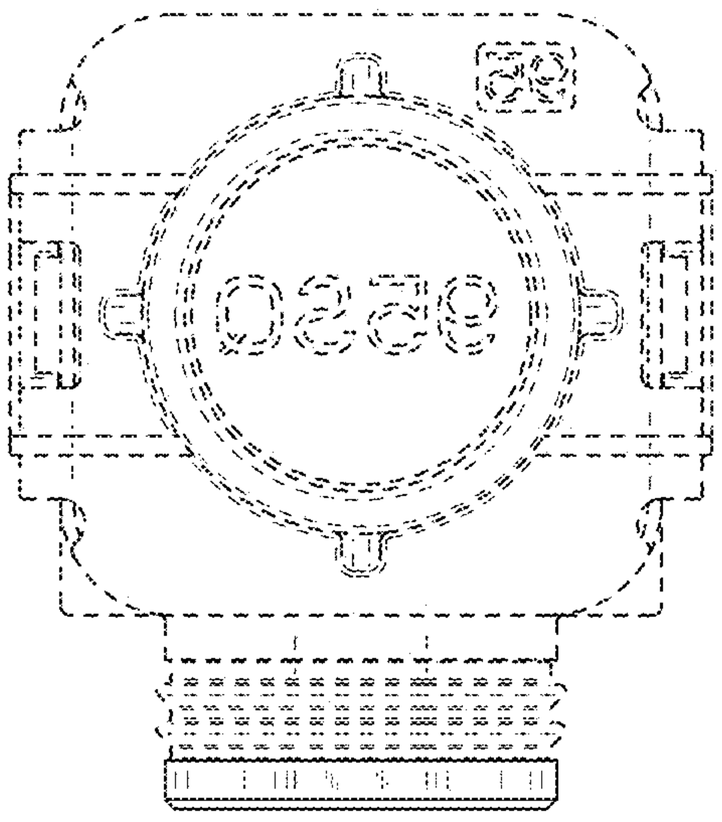

FIG. 10

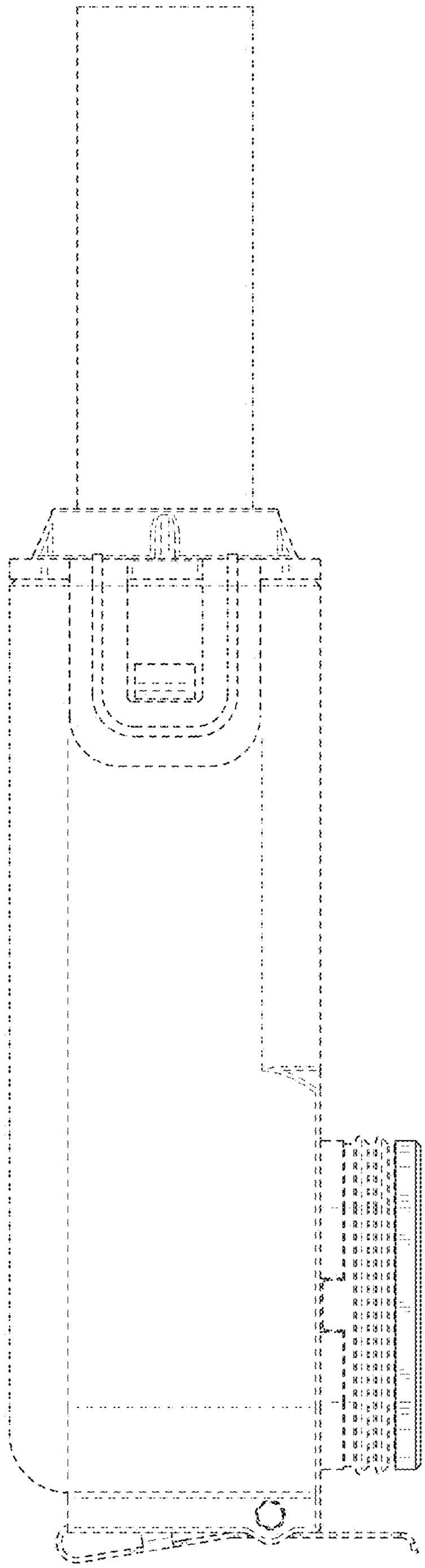

FIG. 11

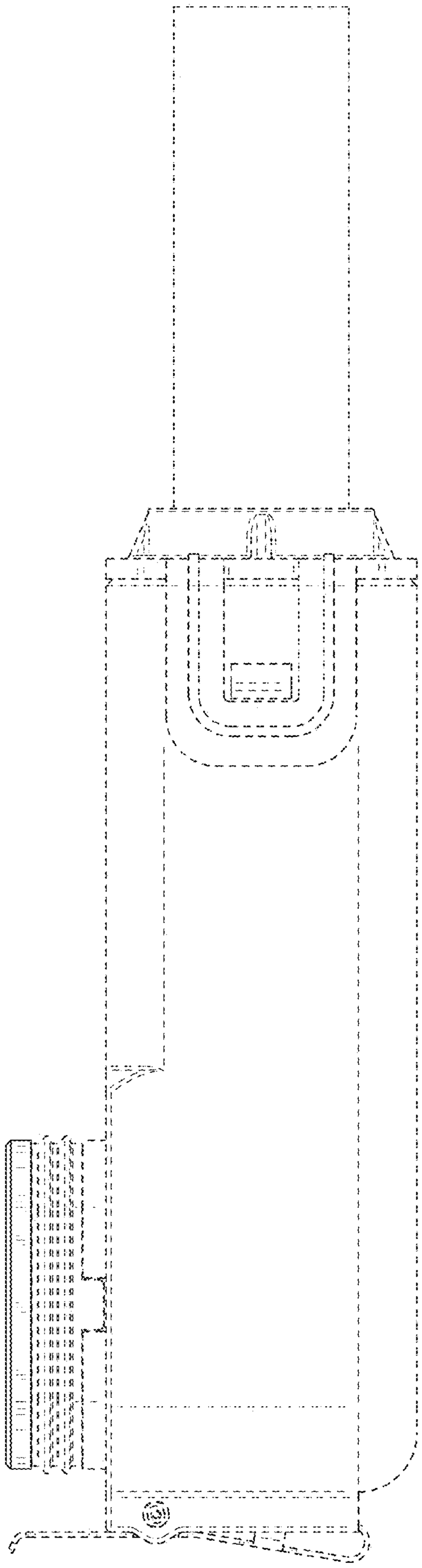

FIG. 12