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Morris et al.

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(54) **DUAL-CONNECTOR WIRELESS VEHICLE COMMUNICATION INTERFACE**

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(73) Assignee: **Snap-on Incorporated**, Kenosha, WI (US)

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

(21) Appl. No.: **29/593,272**

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(51) **LOC (10) Cl.** **13-03**

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

(58) **Field of Classification Search**
USPC D13/133, 146, 147, 154, 184, 199
CPC H01R 4/183; H01R 4/2404; H01R 13/405;
H01R 13/5202; H01R 13/5205; H01R 13/5216; H01R 13/5219; H01R 13/6273;
H01R 13/74
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D356,296 S *	3/1995	Chapman	.....	D13/146
D525,202 S *	7/2006	Bihrer	.....	D13/146
7,134,275 B2	11/2006	Tsutsumoto et al.		
8,479,499 B2	7/2013	Berke et al.		
8,589,018 B2	11/2013	Sarnacke et al.		
8,731,627 B2	5/2014	Inabathuni et al.		
8,919,098 B2	12/2014	Barucchi et al.		
D722,024 S *	2/2015	Smith	.....	D13/147
D722,971 S *	2/2015	Smith	.....	D13/147
9,002,554 B2	4/2015	Chen		

9,634,435 B1 *	4/2017	Raschilla	.....	H01R 13/652
2007/0271906 A1	11/2007	Berke et al.		
2014/0120750 A1 *	5/2014	Johnson	.....	H01R 27/00 439/131
2015/0118902 A1 *	4/2015	Data	.....	H01R 24/28 439/587
2016/0327754 A1 *	11/2016	Hill	.....	G02B 6/3879

OTHER PUBLICATIONS

Autel Maxi Check User Manual V3, Intelligent Technology Corp., Ltd., Jun. 7, 2016 (159 pages (Table of Contents to p. 156)).

(Continued)

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(57) **CLAIM**

The ornamental design for a dual-connector wireless vehicle communication interface, as shown and described.

DESCRIPTION

FIG. 1 is a top, back and left side perspective view of a dual-connector wireless vehicle communication interface showing our new design;

FIG. 2 is a left side elevational view thereof;

FIG. 3 is a right side elevational view thereof;

FIG. 4 is a front elevational view thereof;

FIG. 5 is a back elevational view thereof;

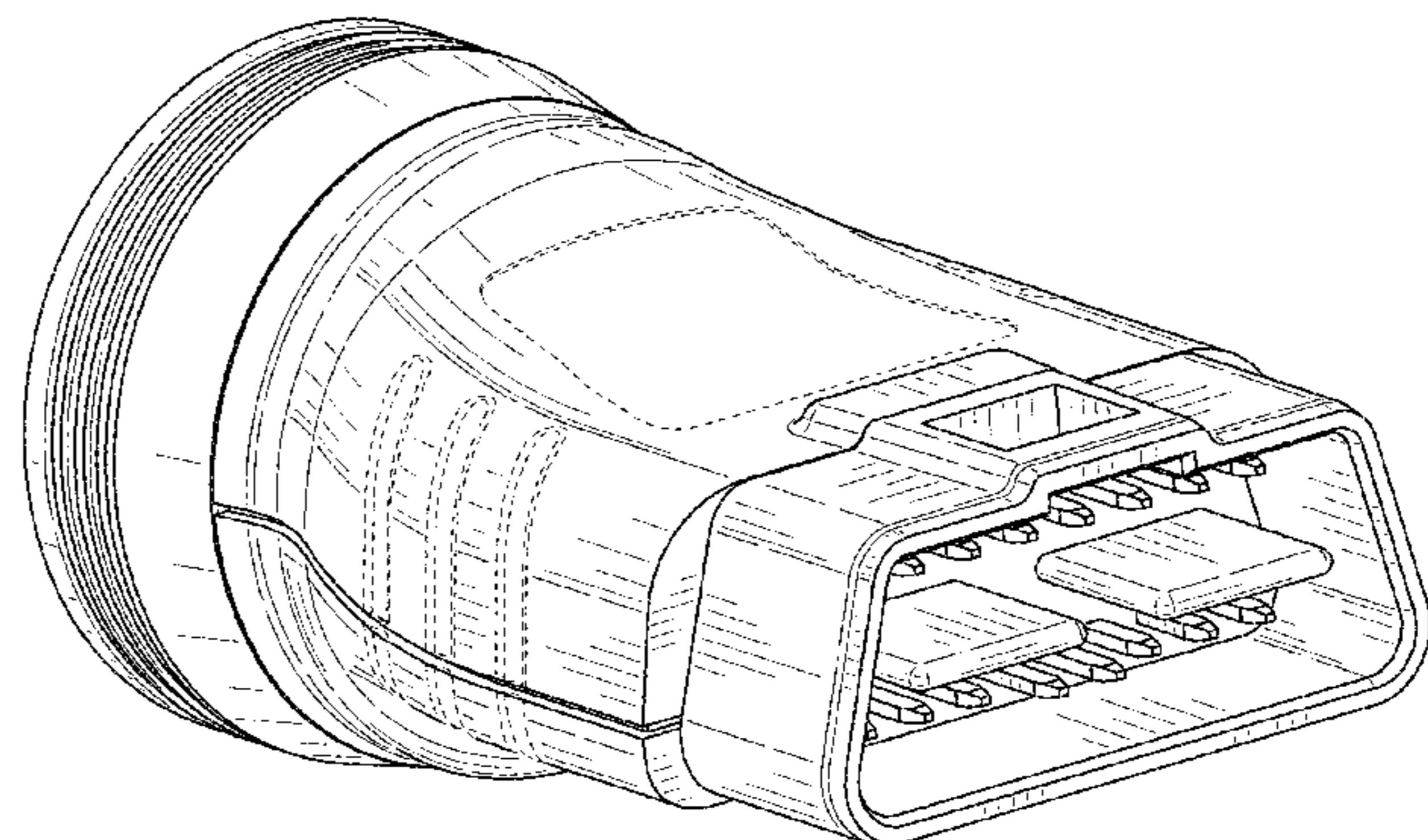
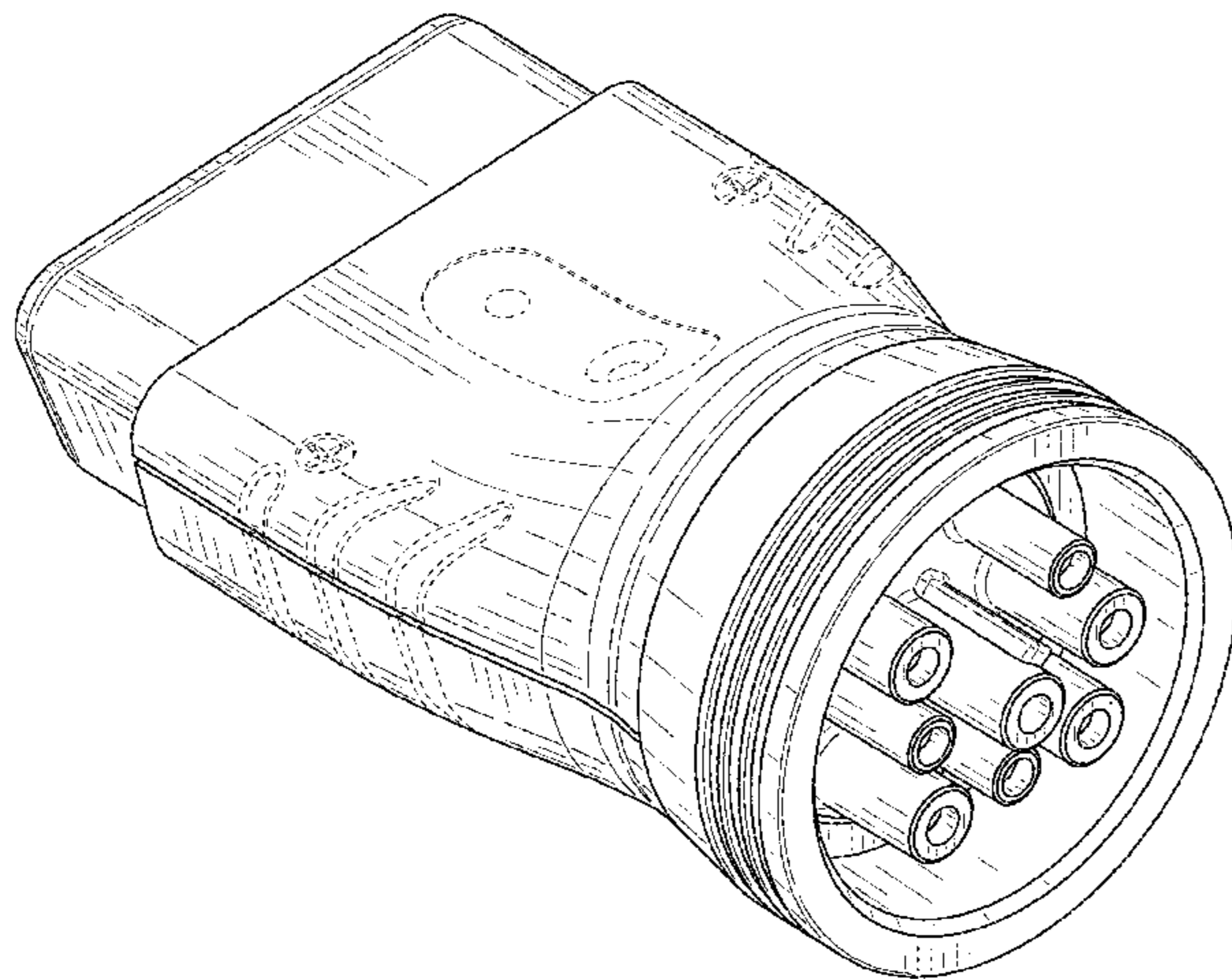
FIG. 6 is a top plan view thereof;

FIG. 7 is a bottom plan view thereof; and,

FIG. 8 is a bottom, front and right side perspective view thereof.

The broken line shown in the drawing views represents unclaimed environmental only and forms no part of the claimed design.

1 Claim, 6 Drawing Sheets



(56)

References Cited

OTHER PUBLICATIONS

Campbell, Bruce and Reavell, Kingsley, Cambustion Ltd., Accelerated ash load testing of particulate filters on an automated test rig, Technical Innovations, Testing, Powertrain, magazine article, Off-Highway Engineering, Apr. 2016 (2 pages).

DG Technologies Product Pinouts and Industry Connectors References Guide, DG Technologies Vehicle Network Solutions, Dearborn Group, Inc., document date: Apr. 23, 2014, document revision: 2.5.6, (38 pages).

Diesel Particulate Filter (DPF) Service Regeneration, Alldata Repair, 2012 Chevy Truck Silverado 2500 4WD V8-6.6L Turbo, downloaded from the World Wide Web at https://www.google.com/url?sa=t&rct=j&q=&erc=s&source=web&cd=4&ved=0ahUKEwiNyrDuldbTAhUh4oMKHck4CNEQFgg_MAM&url=http%3A%2F%2Faskatech.com%2FaskATechLive%2Fforums%2FResourceHandler.ashx%3Fa%3D7419&usq=AFQjCNHhGuQFTxU51QJ-m9EFookmndJ5eg&cad=rja, Jul. 19, 2014 (5 pages).

Diesel particulate filter, Wikipedia, the free encyclopedia, web page downloaded Feb. 12, 2016 from https://en.wikipedia.org/wiki/Diesel_particulate_filter (8 pages).

DPF Diagnostic Tool, European Exhaust and Catalyst EEC, web page downloaded Feb. 12, 2016 from <http://www.eurocats.co.uk/products/dpf-tool/> (2 pages).

HD Mobile, CanDo International Inc., web page downloaded from <http://www.vehicleservicepros.com/directory/computers-and-software/mobile-apps/product/20851004/cando-international-inc-hd-mobile>, Feb. 2, 2017 (2 pages).

Jaltest Multibrand Diagnostics Global Solution, Cojali Group, www.jaltest.com, catalog downloaded May 1, 2017 from www.m2kinc.com/pdf/445-reference.pdf (11 pages (cover sheet, index and pp. 4-12)).

Kvaser, J1939 Standards Overview, web page downloaded Sep. 9, 2016 from <https://kvaser.com/about-can/higher-layer-protocols/j1939-standards-overview/> (4 pages).

LADD Distribution, TE Connectivity's Industrial & Commercial Transportation Products, Sep. 8, 2016 (164 pages).

Mack Trucks, Inc. Operator's Handbook, Maintenance and Lubrication, MP7, MP8, and MP10 Engines, 21394653, Apr. 2010 (167 pages).

Mack Trucks, Service Manual, Trucks, Group 28, Engine Control Module (ECM), Diagnostic Trouble Code (DTC), Guide 2010 Emissions CHU, CXU, GU, TD, PV776-88961816, manual down-

loaded from [Mack_Trucks_service_manual_trucks_group_28_ECM_DTC_guide_manual.pdf](http://www.macktrucks.com/service_manual_trucks_group_28_ECM_DTC_guide_manual.pdf), Mar. 2, 2010, (98 pages).

The SAE J1939 Communications Network, an SAE White Paper, an overview of the J1939 family of standards and how they are used, SAE International, Sep. 11, 2011 (7 pages).

SAE J1962: Diagnostic Connector Equivalent to ISO/DIS, Society of Automotive Engineers, 40 CFR 86.094-17(h)(4), Jan. 1995 (8 pages).

Sanders, Kevin, How Diesel Particular Filters Work, Extend Regen Cycles, Protect Your Engine, DPF Remedy, web page downloaded Feb. 12, 2016 from <http://dpfremedy.com/2015/10/how-diesel-particulate-filters-work/> (5 pages).

Taylor, Drew, FSX Equipment, Ask the Expert: Is there ever a time when a forced regeneration of a diesel particulate filter is necessary?, web page downloaded Apr. 7, 2016 from <http://www.vehicleservicepros.com/article/12182625/ask-the-expert-is-there-ever-a-time-when-a-forced-regeneration-of-a-diesel-particulate-filter-is-necessary> (6 pages).

Vehicle Identification Number Requirements, Department of Transportation, National Highway Traffic Safety Administration, 49 CFR Part 565, RIN 2127-AJ99, Apr. 25, 2008 (77 pages).

Welcome to ZED, Simple & Affordable ELD Compliance and GPS Tracking, The Lowest Cost ELD and Fleet Management Solutions, ZED, LLC, web page downloaded May 1, 2017 from [ZED_The_Simple_Affordable_ELD_Solution_For_Truck_Drivers_and_Fleets](http://www.zed-eld.com/), <https://zed-eld.com/> (5 pages).

ZED 16-Pin Converted Cable, ZED, LLC, web page downloaded May 1, 2017 from [ZED_16_Pin_Converter_Cable.pdf](http://www.zed-eld.com/collections/related-products/products/j1939-9-pin-type-1-male-to-j1939-9-pin-type-2-female), <https://zed-eld.com/collections/related-products/products/j1939-9-pin-type-1-male-to-j1939-9-pin-type-2-female> (4 pages).

ZED Bluetooth Adapter, ZED, LLC, web page downloaded May 1, 2017 from [ZED_Bluetooth_Adapter_for_Truck_Driver_E_Log.pdf](http://www.zed-eld.com/products/bluetooth-data-link-adapter), <https://zed-eld.com/products/bluetooth-data-link-adapter> (4 pages).

Design U.S. Appl. No. 29/593,270, inventors: Dan O. Morris and Ivan Wei, filed Feb. 7, 2017, title: Dual-connector wireless vehicle communication interface (16 pages).

Design U.S. Appl. No. 29/593,271, inventors: Dan O. Morris and Ivan Wei, filed Feb. 7, 2017, title: Dual-connector wireless vehicle communication interface (14 pages).

Design U.S. Appl. No. 29/593,273, inventors: Dan O. Morris and Ivan Wei, filed Feb. 7, 2017, title: Dual-connector wireless vehicle communication interface (14 pages).

* cited by examiner

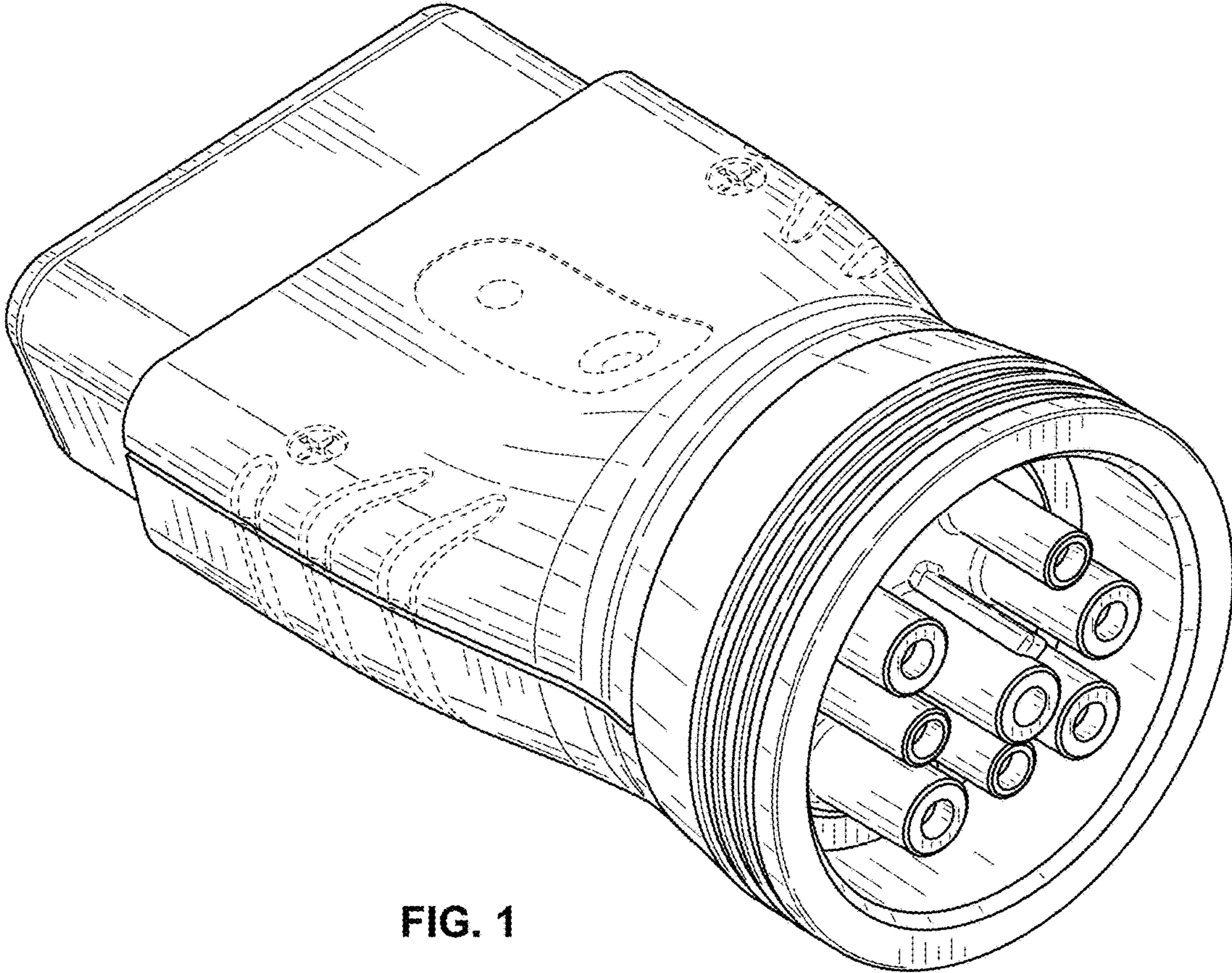


FIG. 1

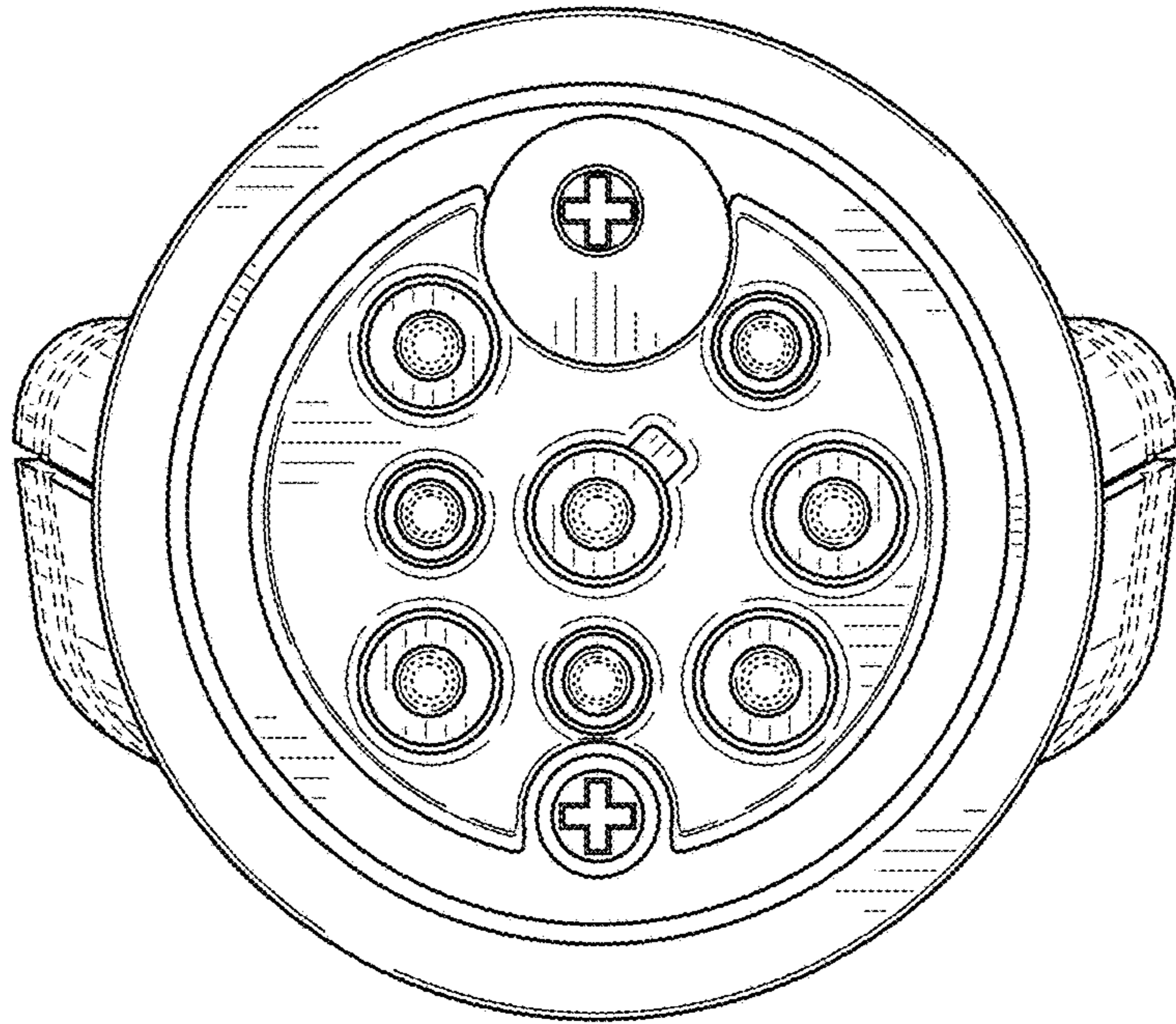


FIG. 2

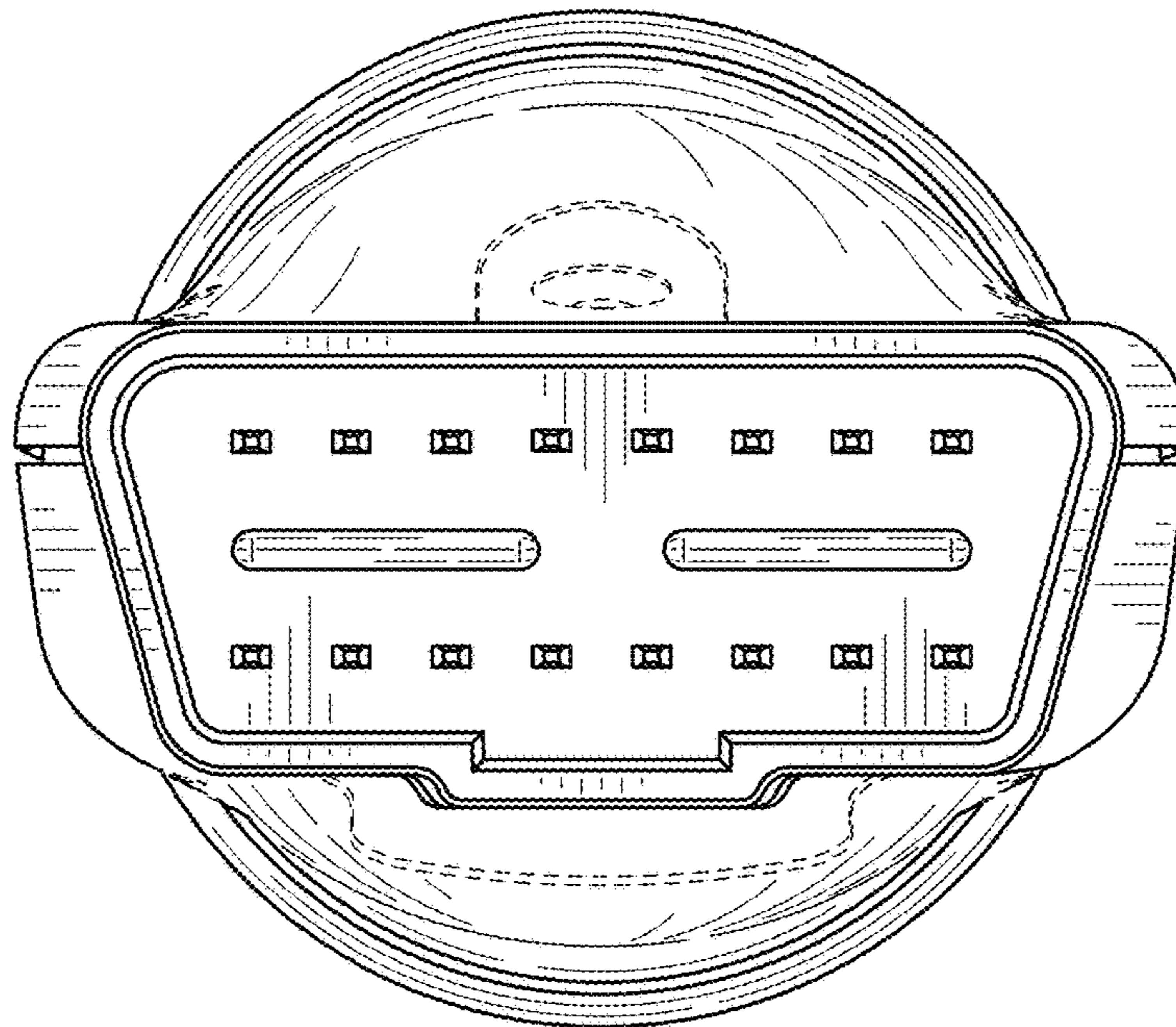


FIG. 3

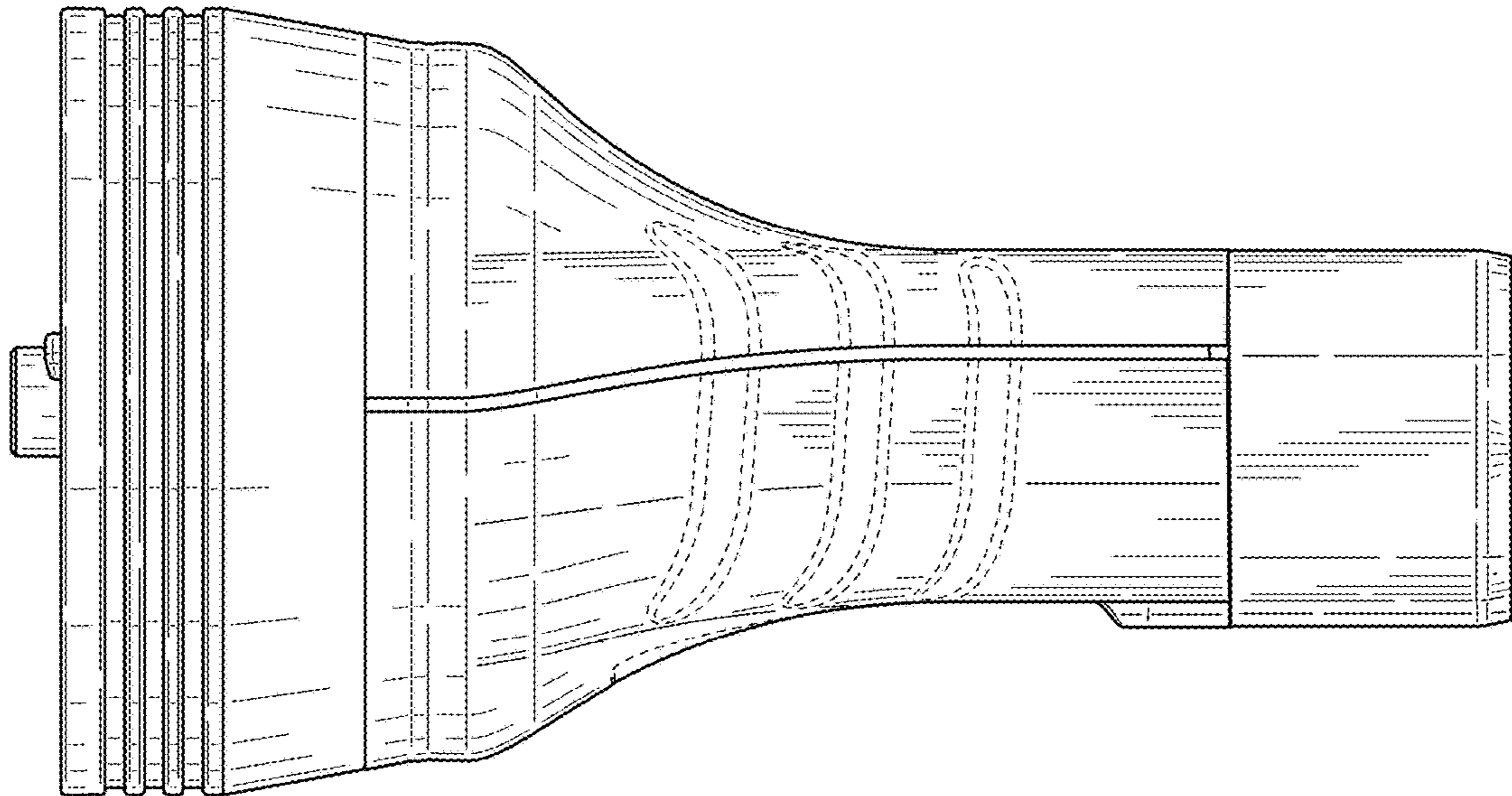


FIG. 4

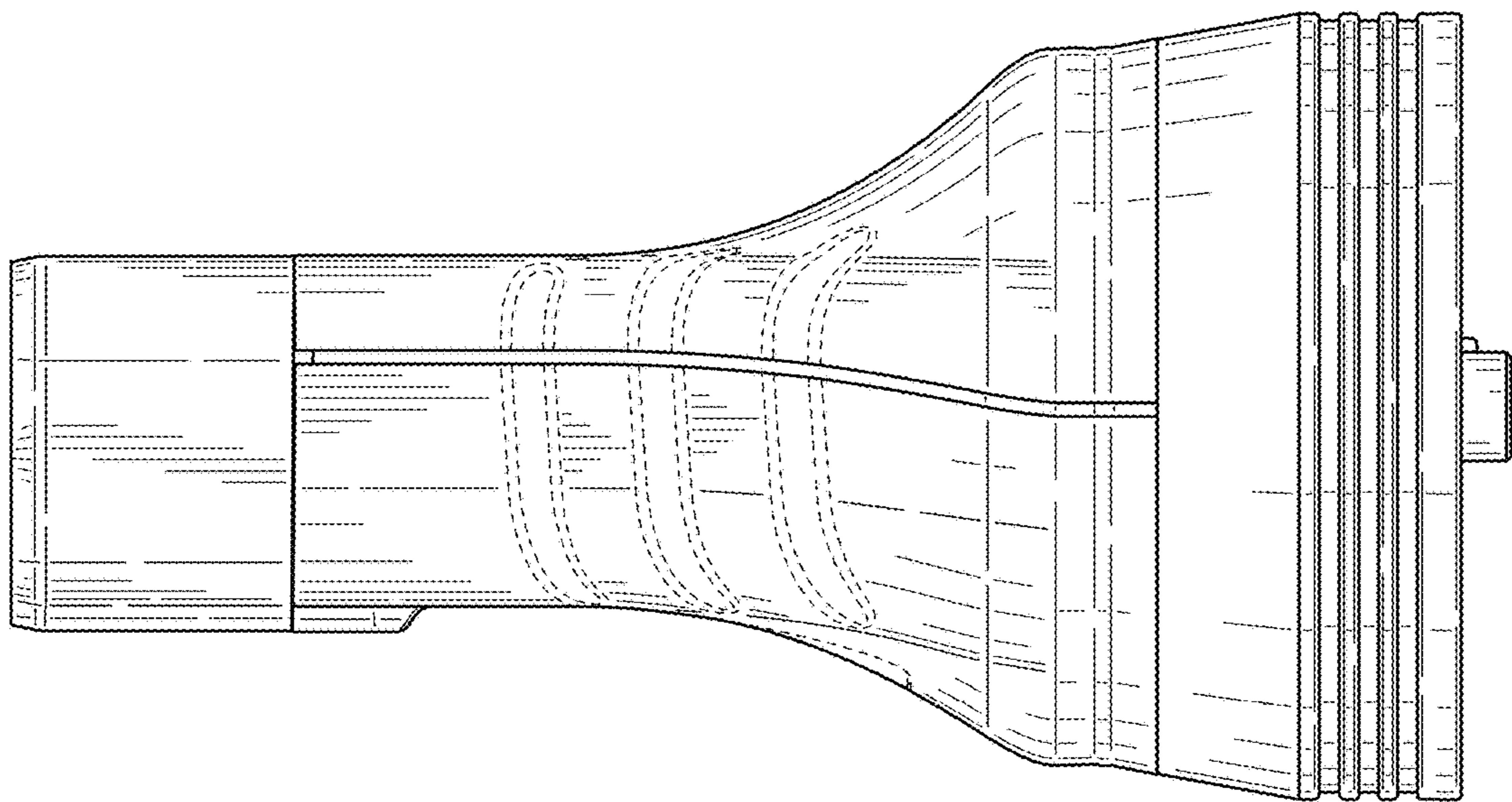


FIG. 5

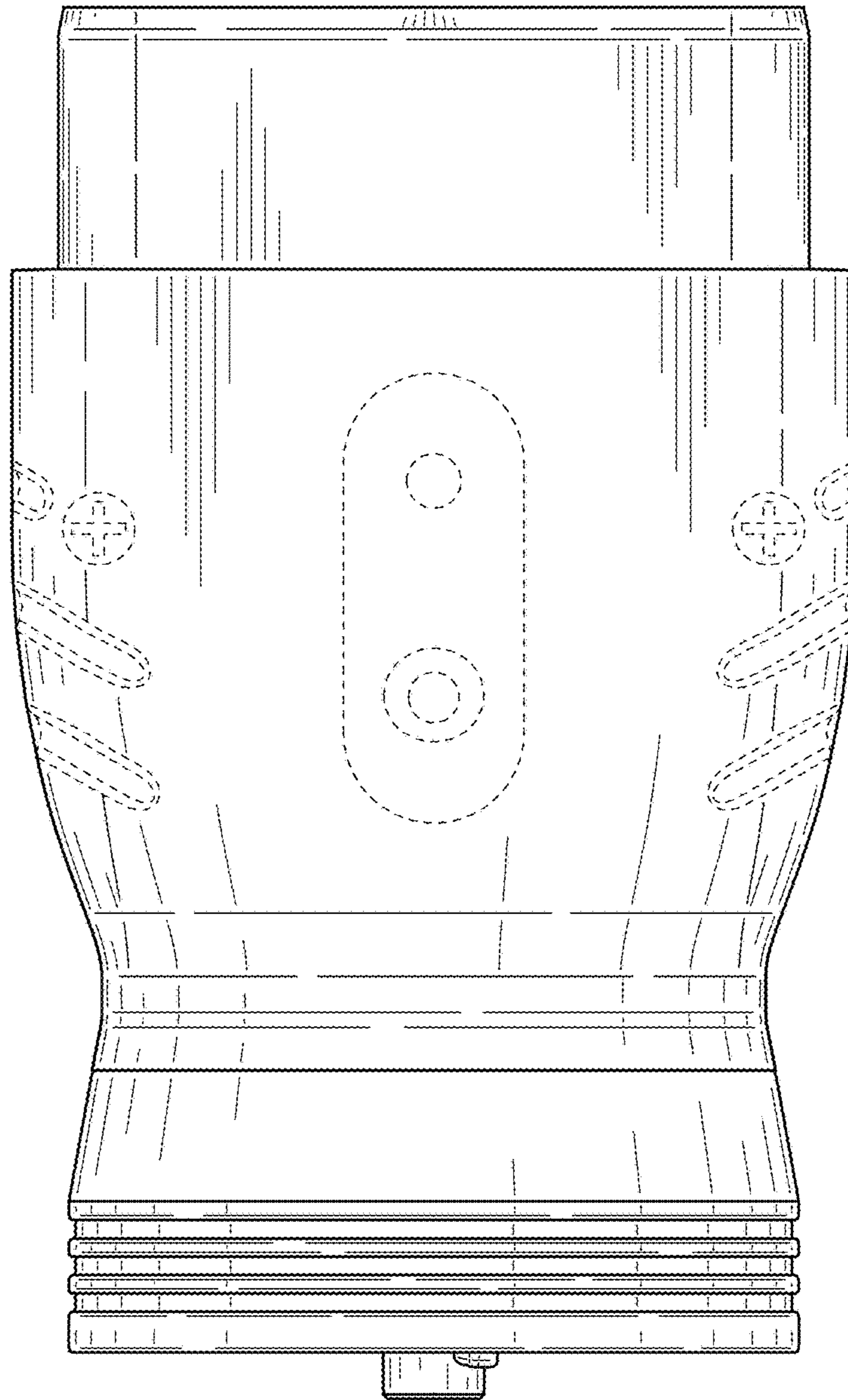


FIG. 6

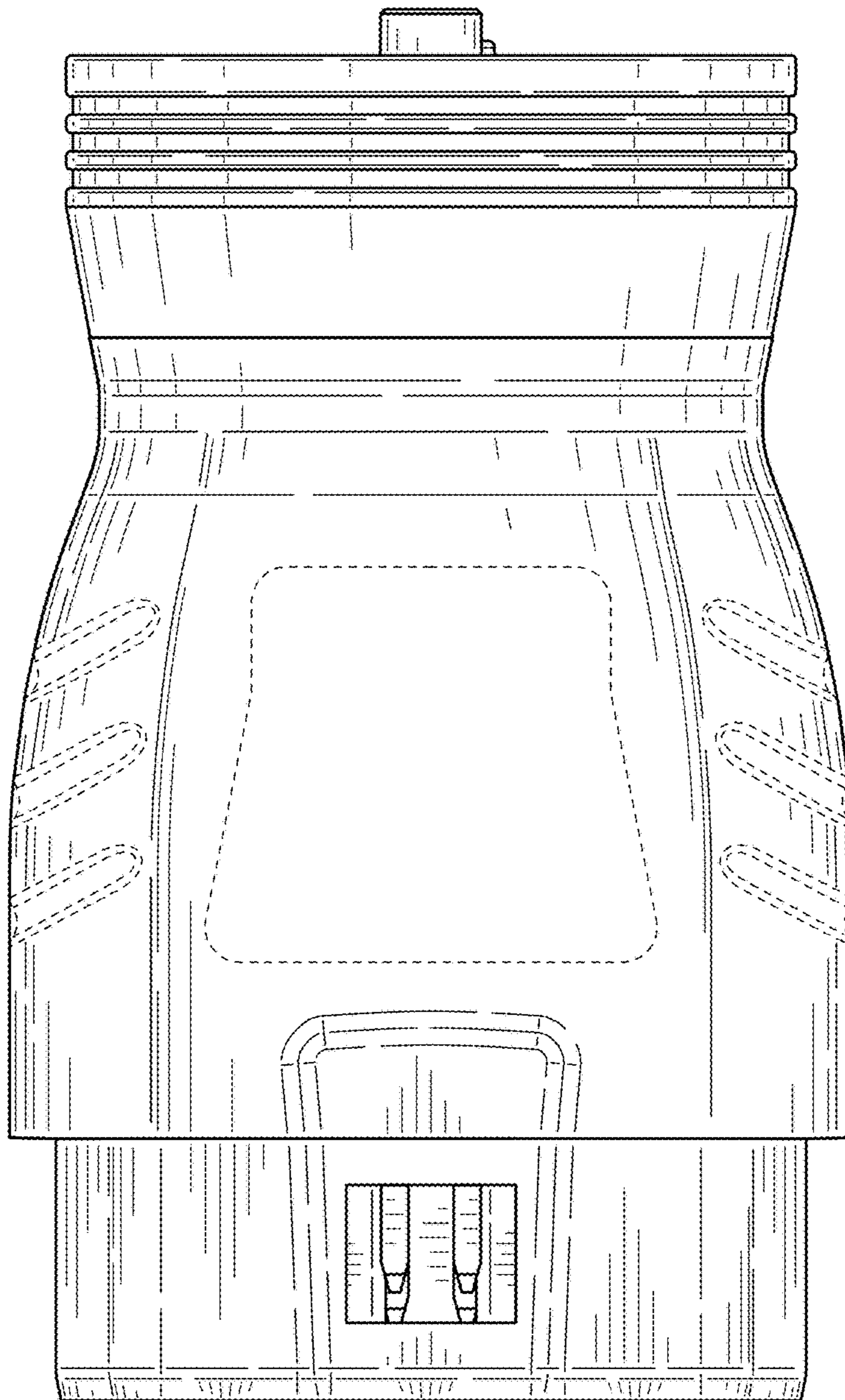


FIG. 7

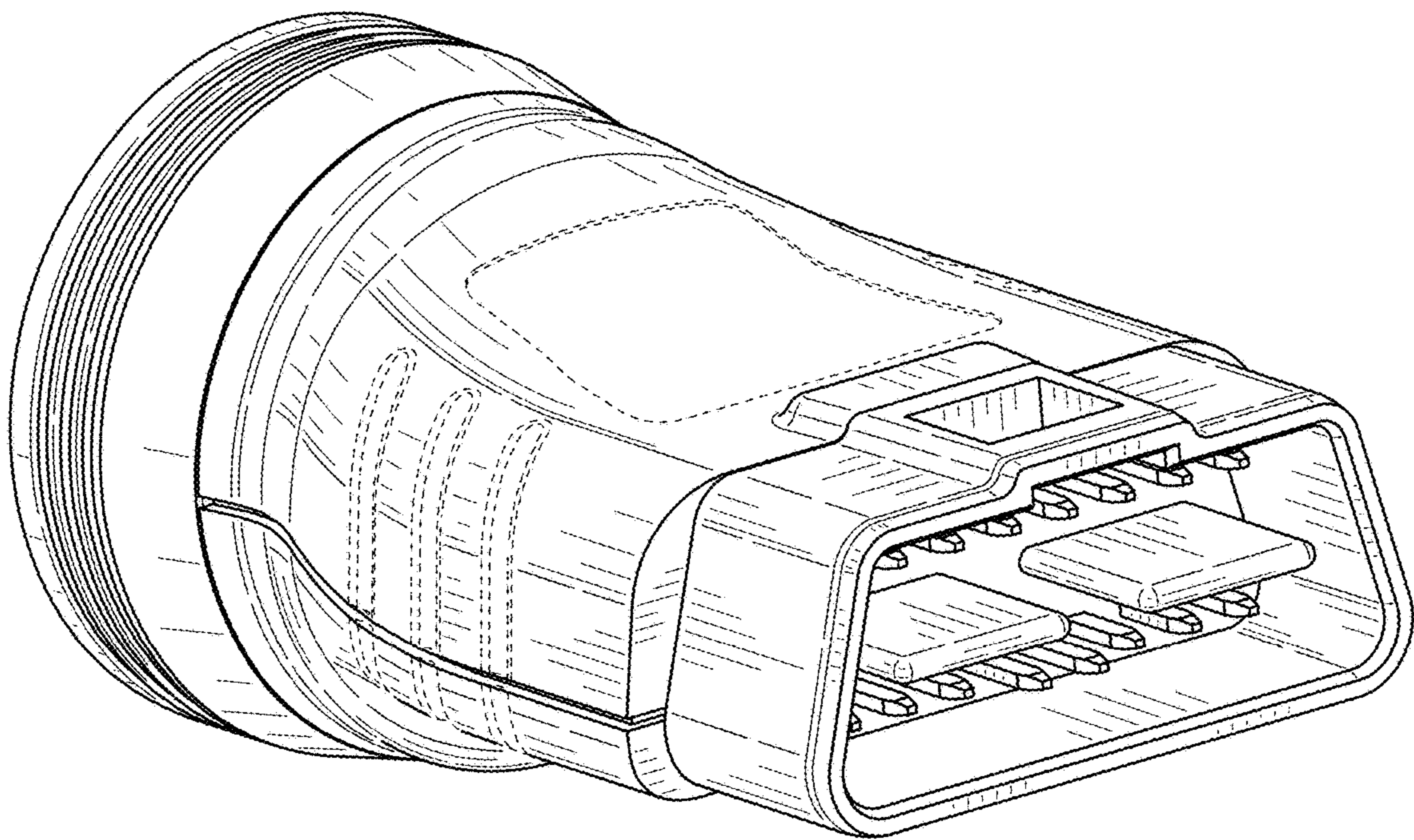


FIG. 8