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(12) **United States Design Patent** (10) **Patent No.:** **US D957,461 S**
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(54) **INTERCOOLER FOR AUTOMOTIVE APPLICATIONS**

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(52) **U.S. Cl.**
USPC **D15/5**

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CPC F02B 29/0425; F02B 29/0412; F02B 29/0437; F02B 29/0443; F02B 29/045; F02B 29/0406; F02B 29/0431; F28D 7/0066; F28D 1/0408; F28D 7/1653; F28F 1/04; F28F 1/12; F28F 9/02; F28F 21/02; B60H 1/14; B60H 1/3211; B60H 1/00271; B60H 1/3205; B60H 1/00342; F01P 11/08; B21D 53/08; F02M 26/27; F02M 26/31; F02M 35/10268

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D920,382 S * 5/2021 Tafe D15/5
D931,336 S * 9/2021 Tafe D15/5
2005/0189096 A1 * 9/2005 Wilson H01L 23/473
257/E23.098
2008/0271722 A1 * 11/2008 Grunenwald F28F 21/083
123/568.12
2009/0314483 A1 * 12/2009 Kalbacher F02B 29/0456
165/185

2012/0024511 A1 * 2/2012 Harada F28D 1/05366
165/181
2012/0138025 A1 * 6/2012 Yoon F02B 29/0456
123/563
2016/0176284 A1 * 6/2016 Nugteren F02B 37/16
180/68.3
2017/0122186 A1 * 5/2017 Park F02B 29/0412
2017/0254257 A1 * 9/2017 Park B60H 1/3211
2018/0178677 A1 * 6/2018 Swain F02M 35/048
2019/0292979 A1 * 9/2019 Hlavac F28D 7/0066
2020/0040810 A1 * 2/2020 Uehane F02B 37/16
2020/0182205 A1 * 6/2020 Moyer F02M 35/024

(Continued)

FOREIGN PATENT DOCUMENTS

DE 102009036745 A1 * 2/2011 F02B 29/0431
DE 102011080204 A1 * 2/2013 F02B 29/04

(Continued)

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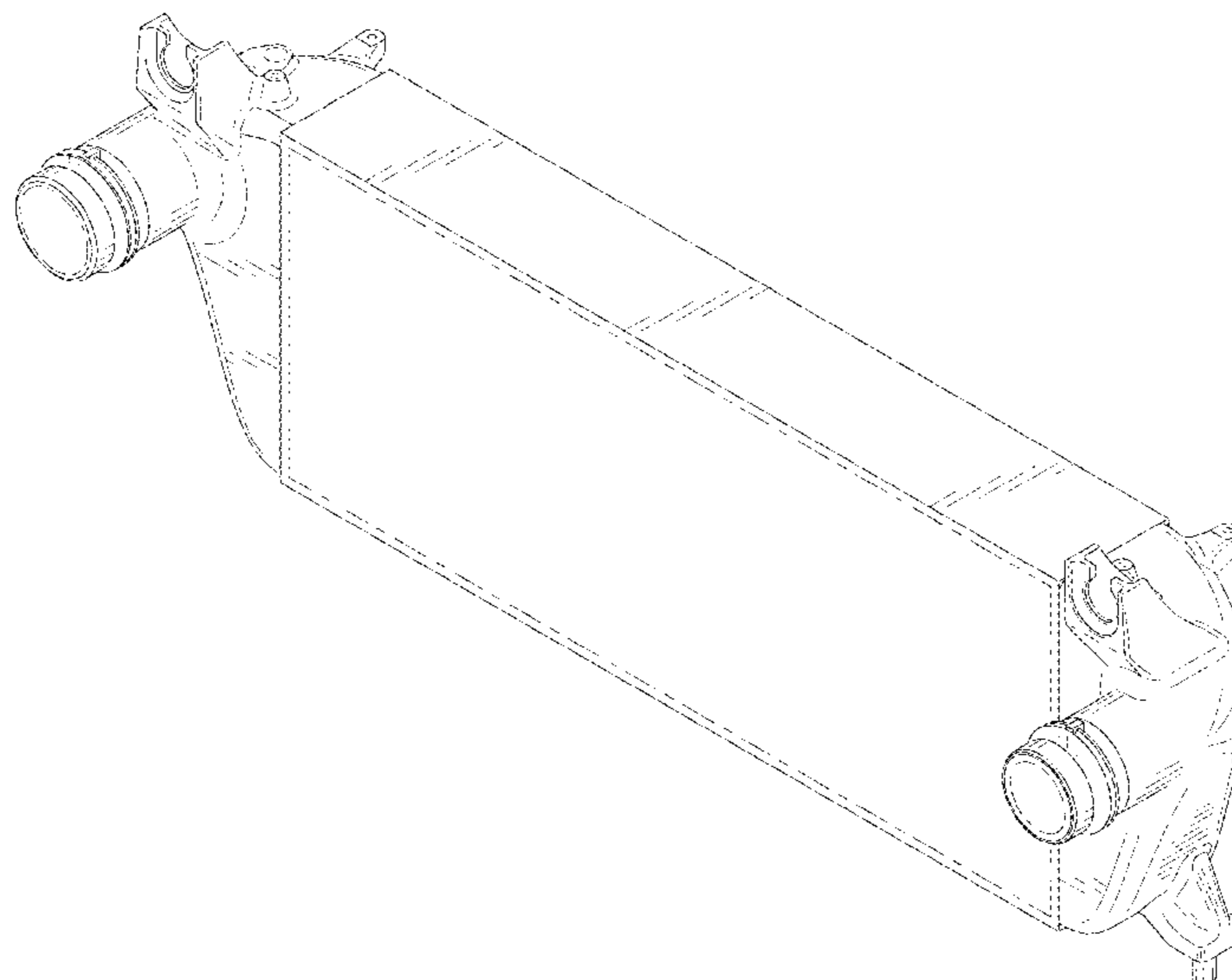
(57) **CLAIM**

The ornamental design for an intercooler for automotive applications, as shown and described.

DESCRIPTION

FIG. 1 is a top front perspective view of the intercooler for automotive applications showing my new design;
FIG. 2 is a front elevation view thereof;
FIG. 3 is a rear elevation view thereof;
FIG. 4 is a right elevation view thereof;
FIG. 5 is a left elevation view thereof;
FIG. 6 is a top elevation view of the embodiment; and,
FIG. 7 is a bottom elevation view of the embodiment.
The broken lines shown in the drawings illustrate portions of the intercooler for automotive applications that form no part of the claimed design.

1 Claim, 5 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2020/0347774 A1* 11/2020 Barrios F02B 29/0418
2020/0370466 A1* 11/2020 Yang F28D 7/1684
2021/0331579 A1* 10/2021 Usuki B60L 50/50

FOREIGN PATENT DOCUMENTS

EP 1512853 A2 * 3/2005 F02B 29/0418
GB 6022639 * 11/2017
JP 2009180482 A * 8/2009

* cited by examiner

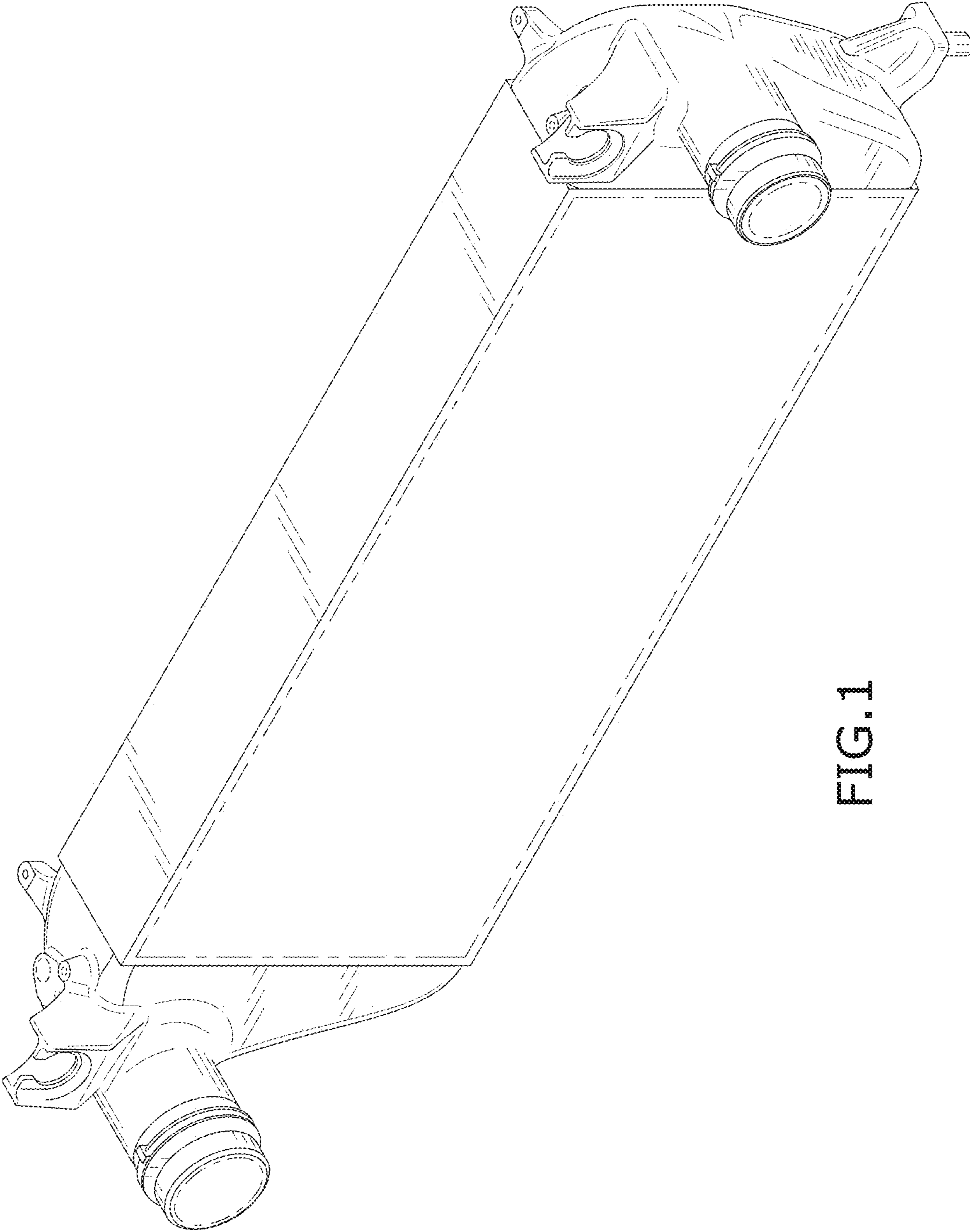


FIG.1

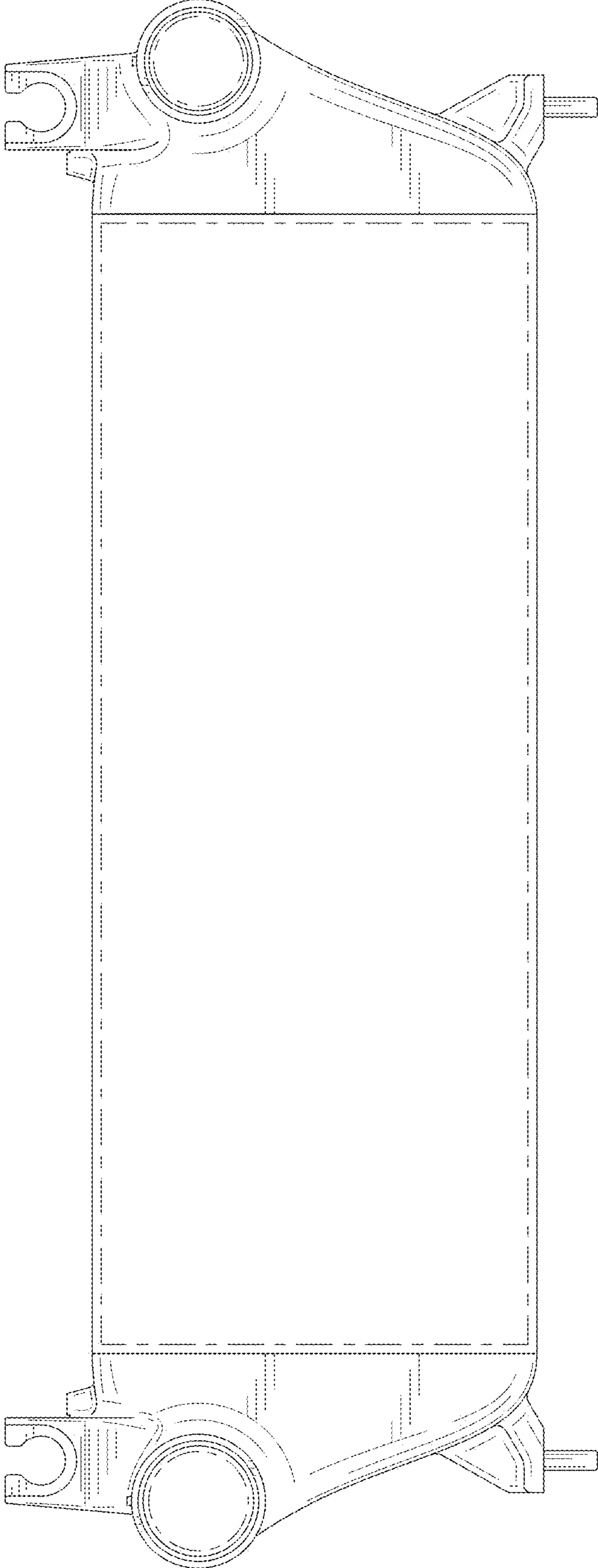


FIG. 2

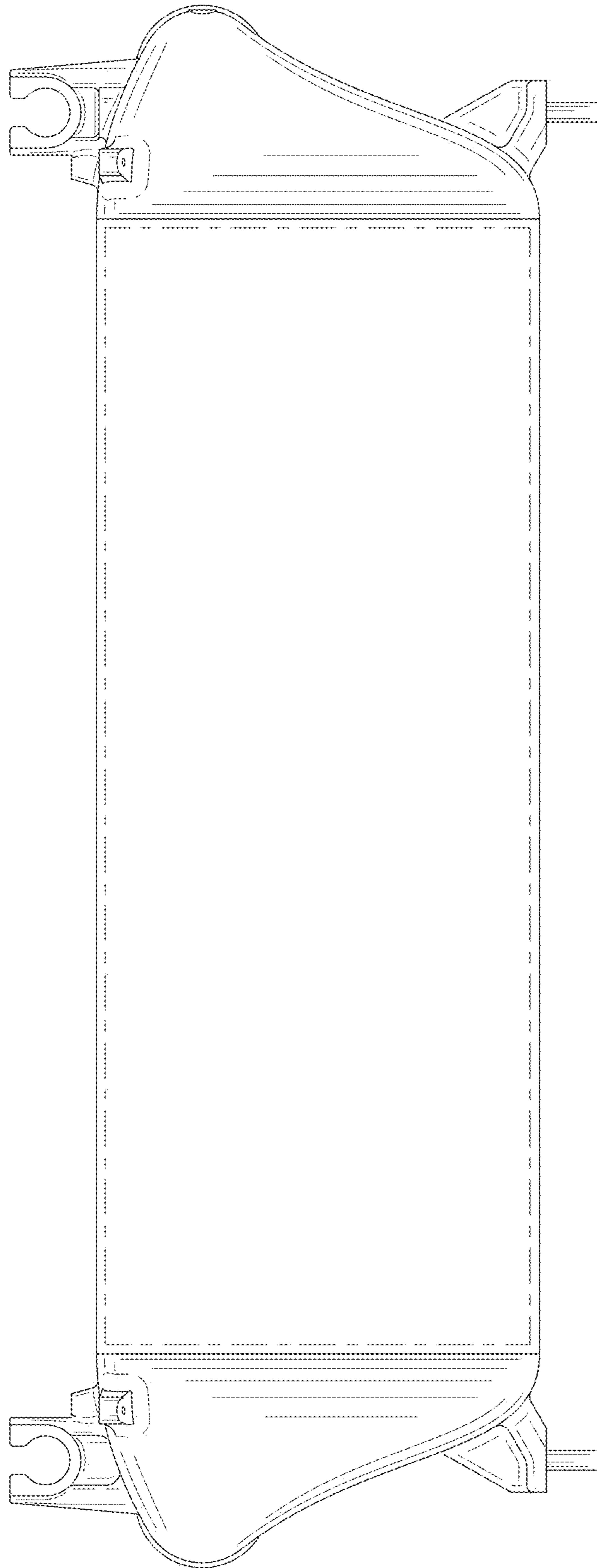


FIG. 3

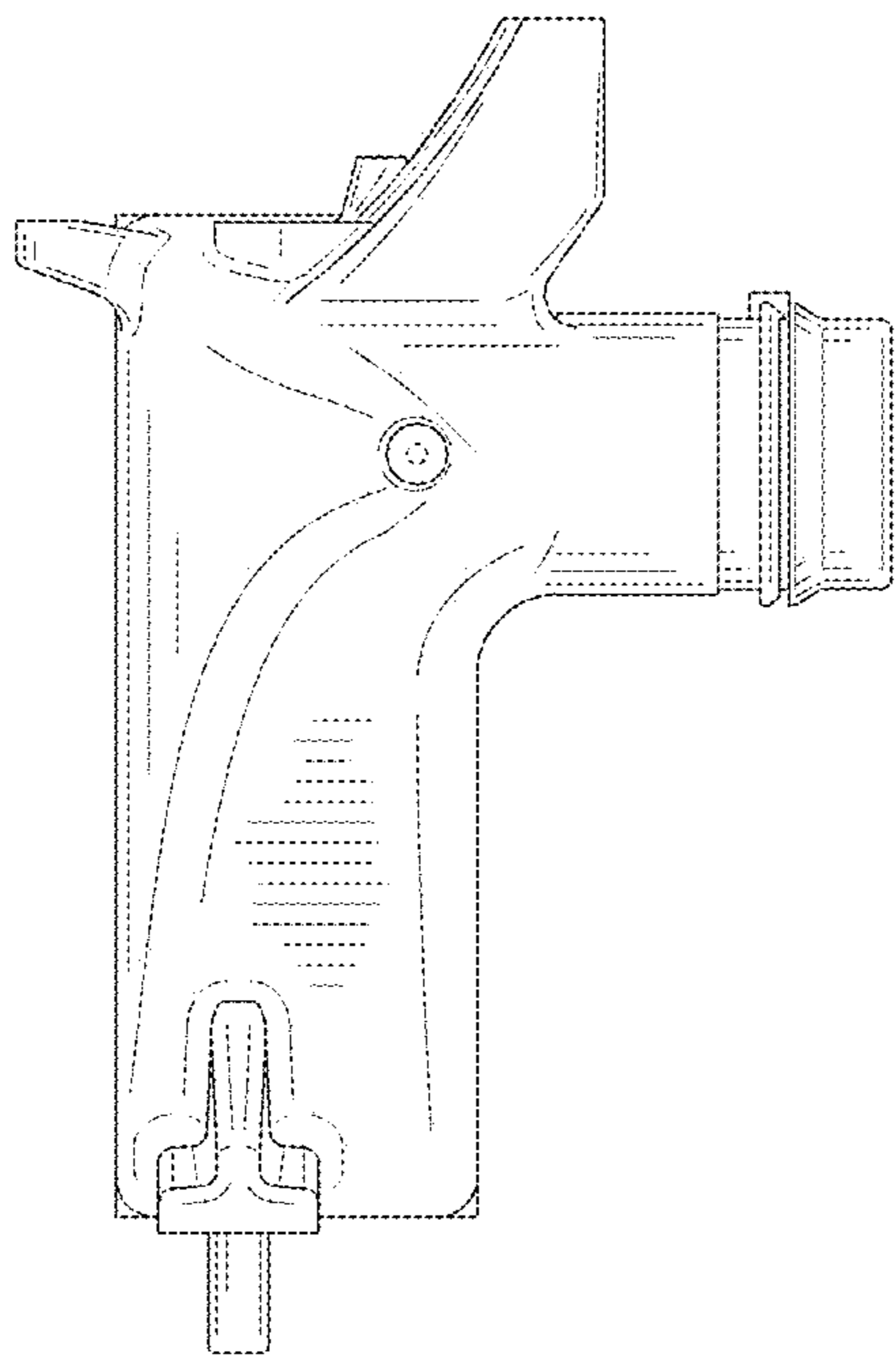


FIG. 4

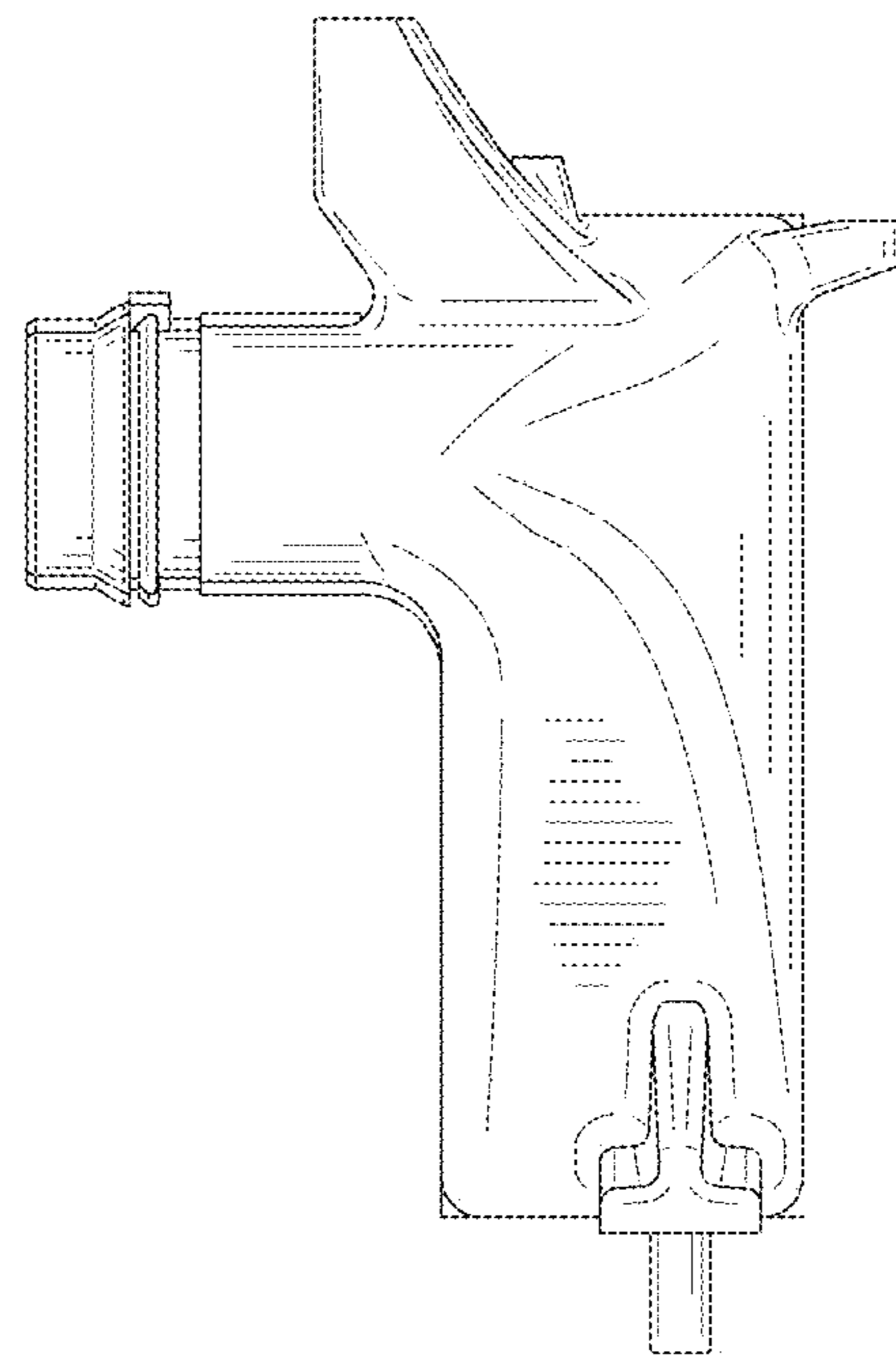


FIG. 5



FIG. 6

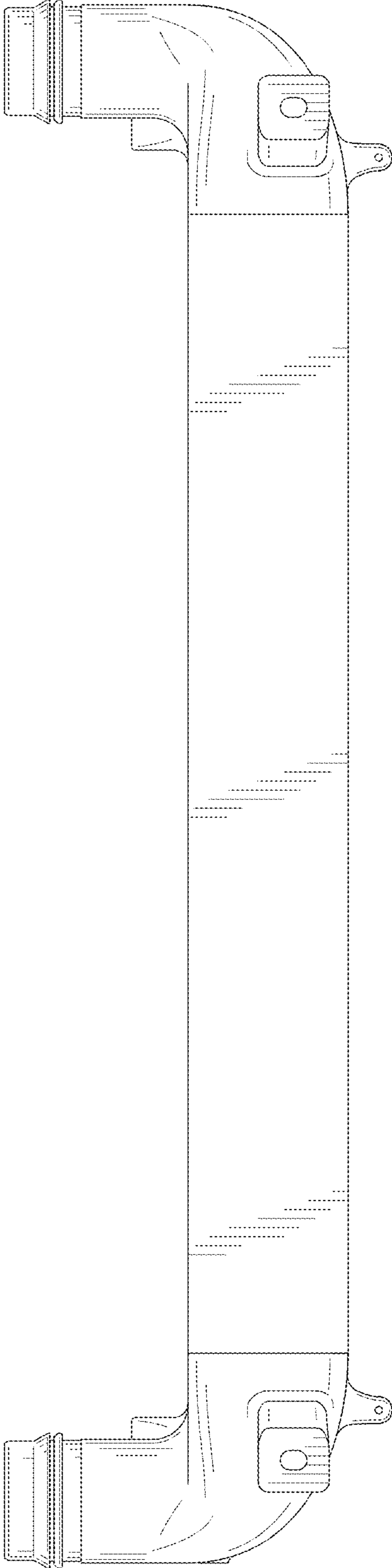


FIG. 7