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(12) **United States Design Patent**
Schmidt et al.

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(54) **HEAT EXCHANGER**

3,285,334 A 11/1966 Pastemak

(Continued)

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FOREIGN PATENT DOCUMENTS

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AU D360022 1/2015
AU D360131 1/2015

(Continued)

OTHER PUBLICATIONS

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Canadian Intellectual Property Office; Examiner's Report for appli-
cation No. 160490 dated Oct. 3, 2015; pp. 1-2; Gatineau, Quebec,
Canada.

(Continued)

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

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(21) Appl. No.: **29/553,103**

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(51) **LOC (10) Cl.** **23-03**

(52) **U.S. Cl.**
USPC **D23/323**

(58) **Field of Classification Search**
USPC D23/314, 323, 330, 386, 499; 165/181,
165/121, 166, 167, 170, 150, 151, 182, 172,
165/48.1, 177, 184, 41; 126/21 A, 91 A,
126/11 R; 123/109

CPC F28F 1/10; F24C 15/322; F24H 3/087;
F24H 3/08; F28D 1/0477; F24D 17/001
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,657,020 A 10/1953 Hofmeister

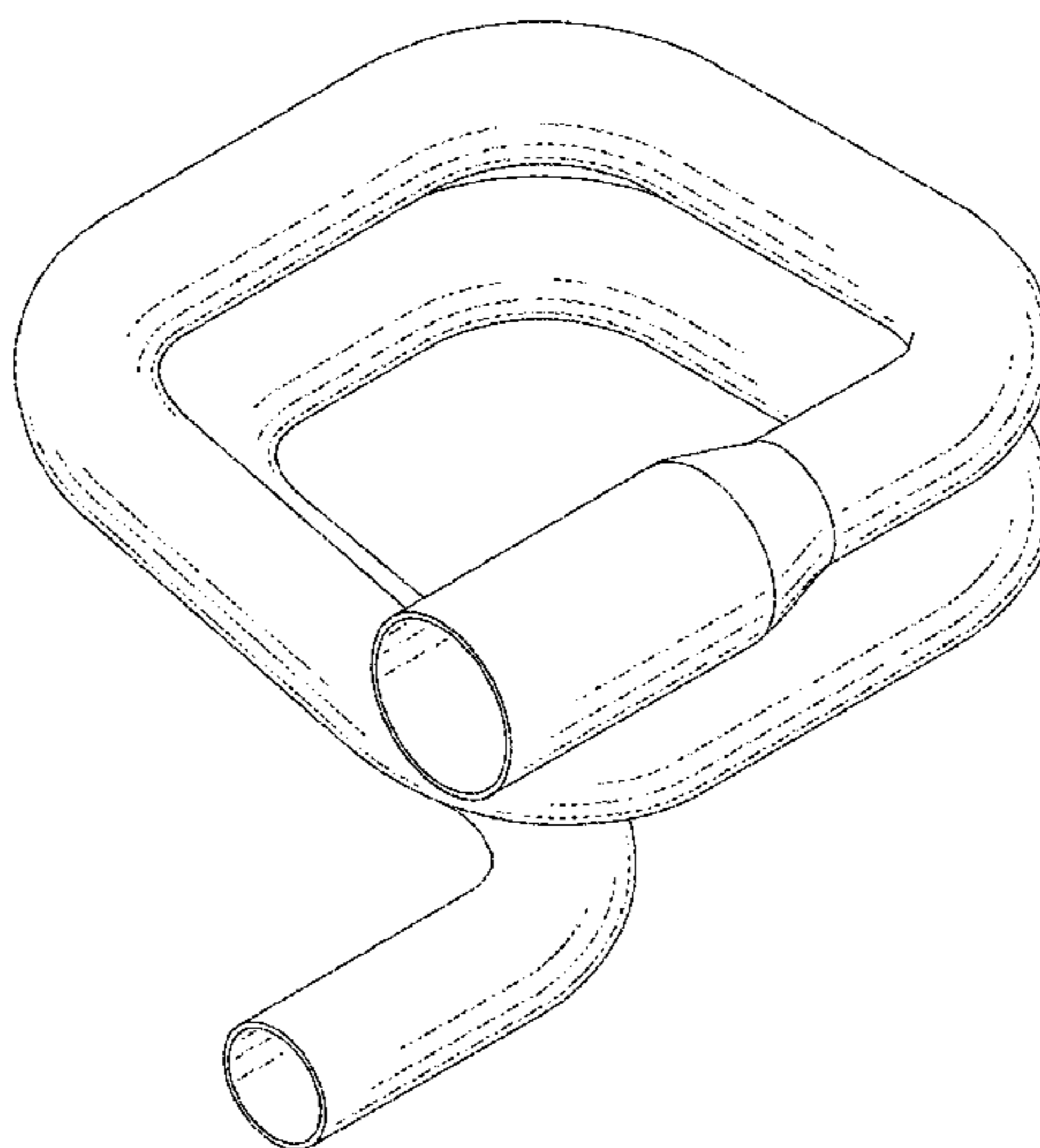
(57) **CLAIM**

The ornamental design for a heat exchanger, as shown and
described.

DESCRIPTION

FIG. 1 is a perspective view of a heat exchanger showing our
new design;
FIG. 2 is a top plan view of the design of FIG. 1;
FIG. 3 is a bottom plan view of the design of FIG. 1;
FIG. 4 is a front elevational view thereof of the design of FIG.
1;
FIG. 5 is a rear elevational view thereof of the design of FIG.
1;
FIG. 6 is a first side elevational view of the design of FIG. 1;
and,
FIG. 7 is a second side elevational view of the design of FIG.
1.

1 Claim, 5 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

1,828,319 A 10/1981 Cutler, Jr.
 4,493,308 A 1/1985 Hurley et al.
 4,599,773 A 7/1986 Sievers
 4,956,534 A 9/1990 Martin
 5,094,224 A 3/1992 Diesch
 5,179,259 A 1/1993 Martin
 5,265,444 A * 11/1993 Martin H05B 6/804
 165/201
 5,803,163 A * 9/1998 Goulet B67D 1/0864
 165/163
 5,915,372 A * 6/1999 Wiedemann F24C 15/322
 126/21 A
 5,967,228 A 10/1999 Bergman et al.
 6,311,685 B1 * 11/2001 Bassoli F24C 15/322
 126/21 A
 7,325,480 B2 * 2/2008 Gruhbaum F24C 15/322
 99/330
 2007/0199688 A1 * 8/2007 Okonski F22B 9/12
 165/163
 2007/0204980 A1 * 9/2007 Kim F28D 7/0066
 165/172
 2009/0020265 A1 1/2009 Feinauer et al.
 2013/0306287 A1 * 11/2013 Ryoo F28D 1/047
 165/181

2014/0020669 A1 * 1/2014 Sherrow F24H 9/0068
 126/110 C
 2014/0150769 A1 * 6/2014 Raghavan F24C 15/322
 126/21 A
 2014/0202443 A1 7/2014 Sherrow et al.
 2014/0262185 A1 9/2014 Raina
 2016/0018132 A1 * 1/2016 Schmidt F28D 1/0477
 126/109

FOREIGN PATENT DOCUMENTS

AU	D360132	1/2015
CN	201530010579.5	1/2015
JP	2013011404	1/2013
KR	1020120038621	4/2012
KR	1020120108177	10/2012
KR	1020130011213	1/2013
NZ	D419738	4/2015
NZ	D419740	4/2015
NZ	D419741	4/2015

OTHER PUBLICATIONS

Office for Harmonization in the Internal Market, Preliminary Examination Report for design registration No. 002613315 dated Jan. 19, 2015, pp. 1-3; Alicante, Spain.
 Korean Intellectual Property Office; International Search Report and Written Opinion for PCT/US2015/040442 Oct. 21, 2015.

* cited by examiner

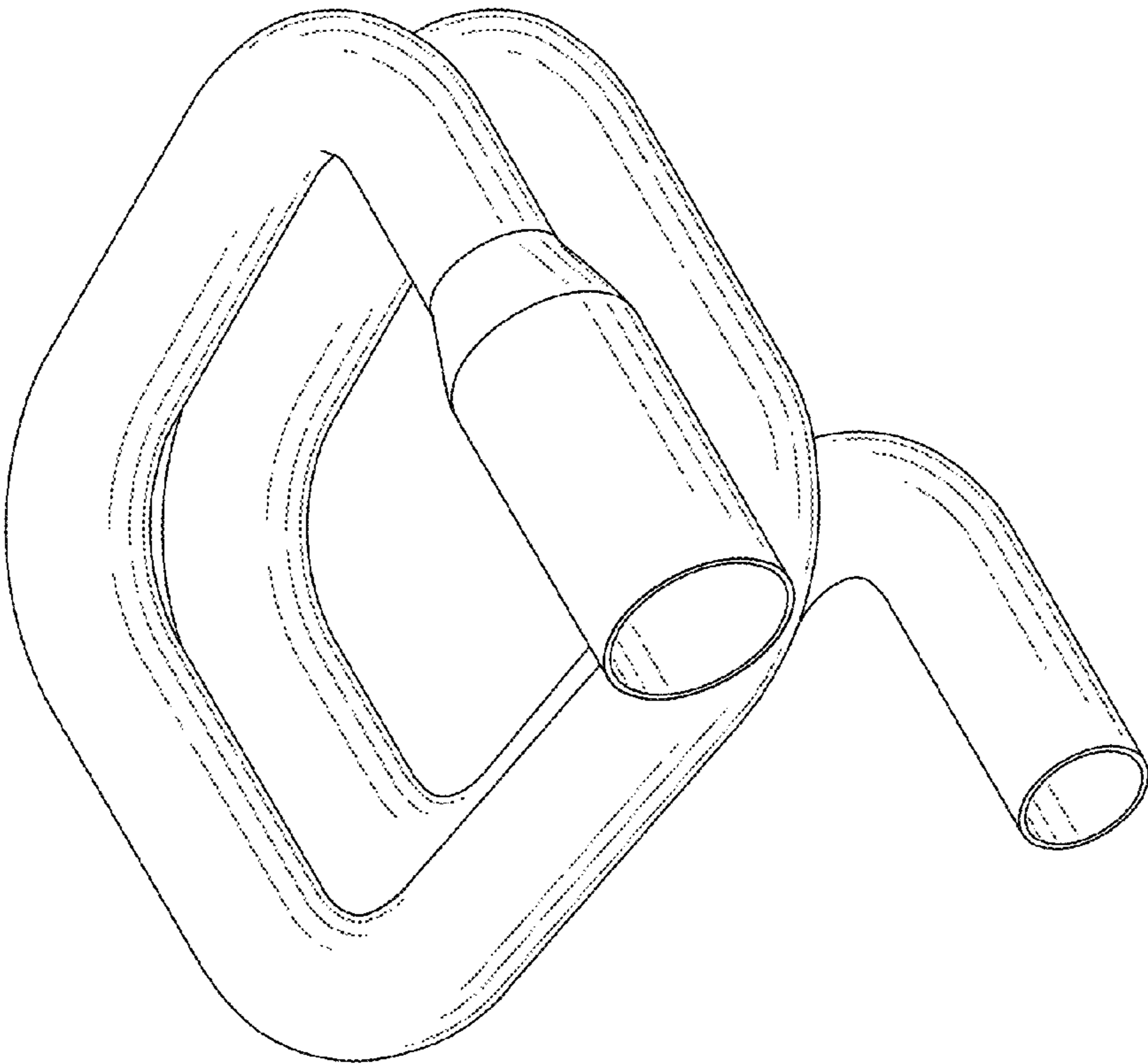


Fig. 1

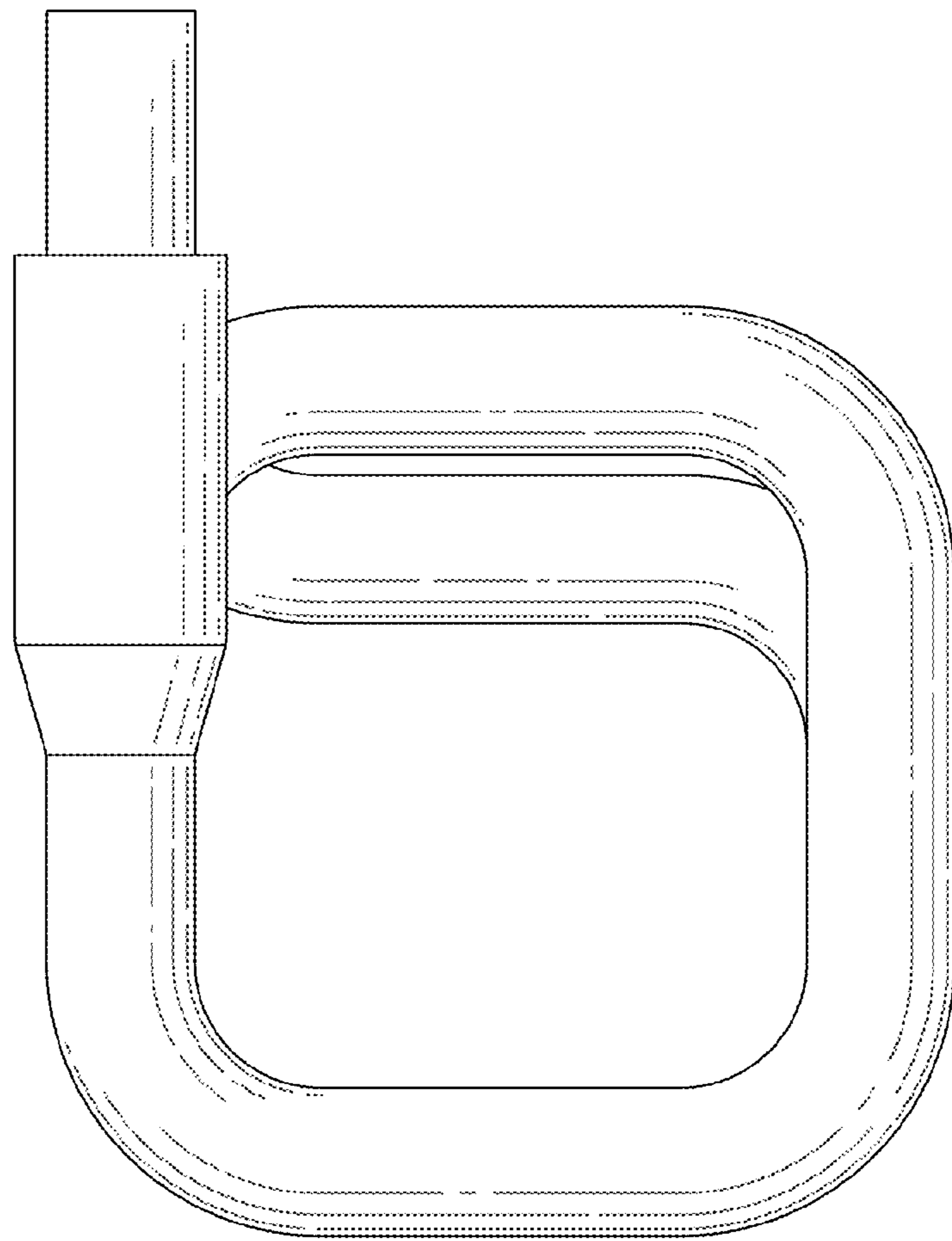


Fig. 2

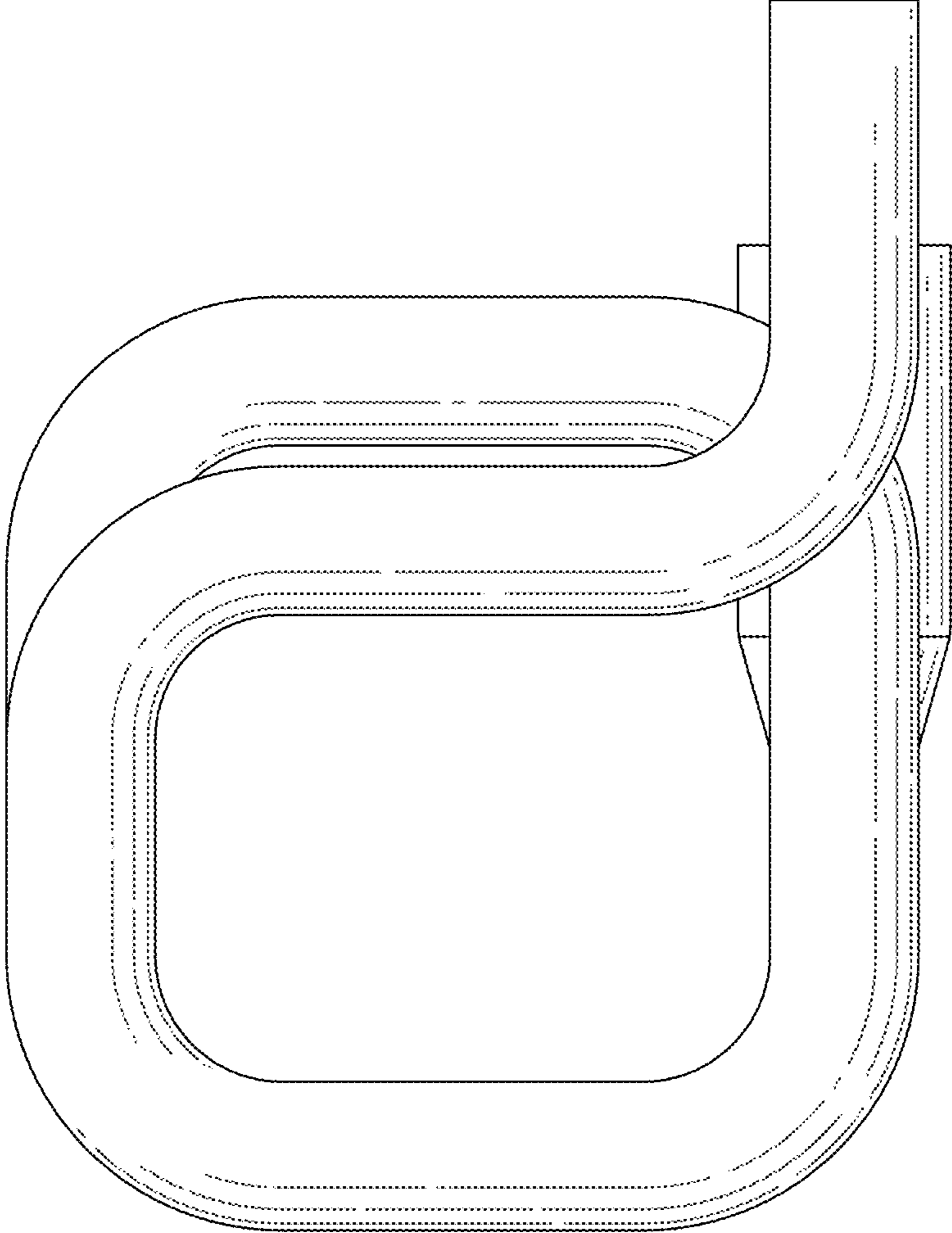


Fig. 3

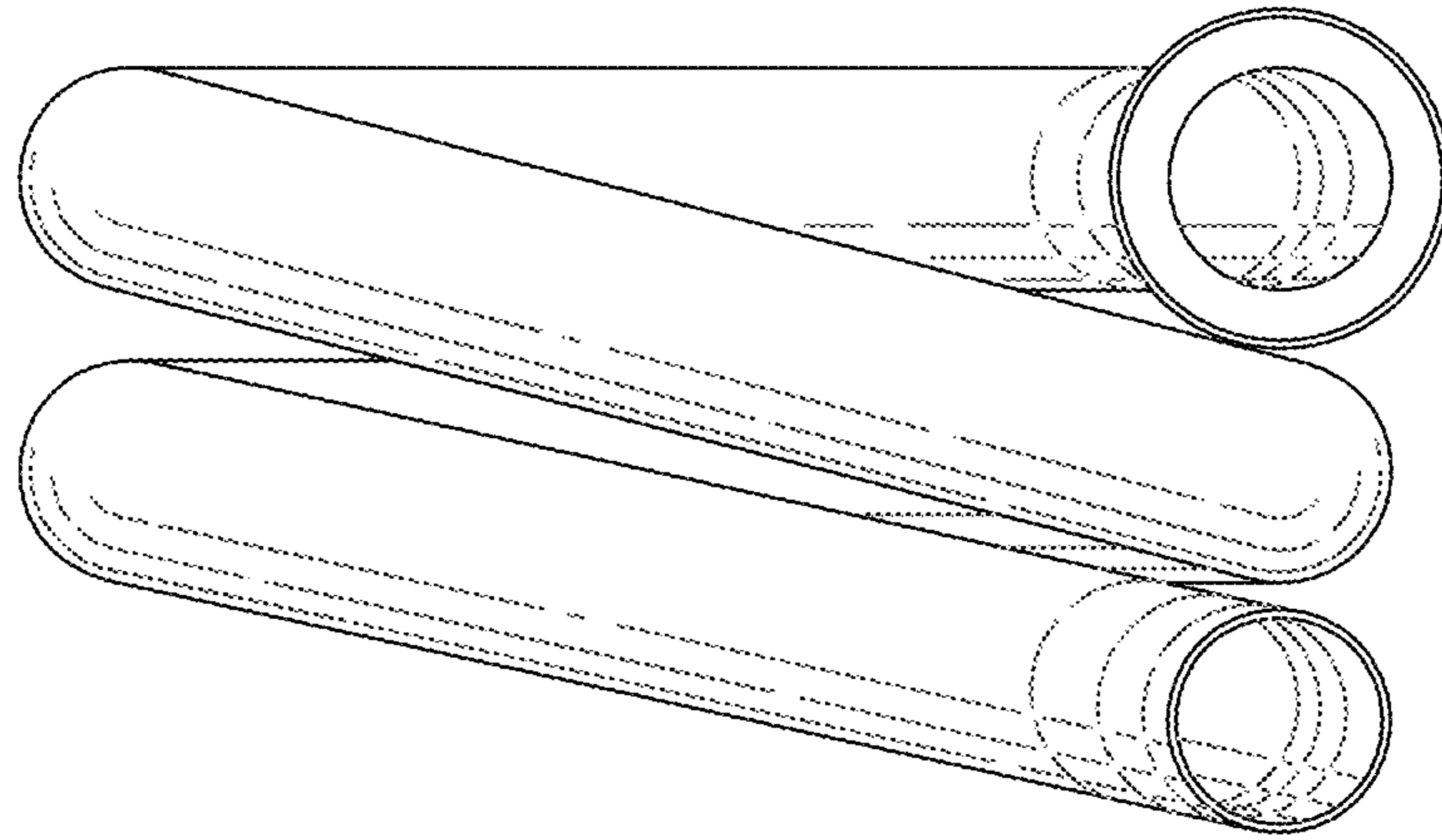


Fig. 4

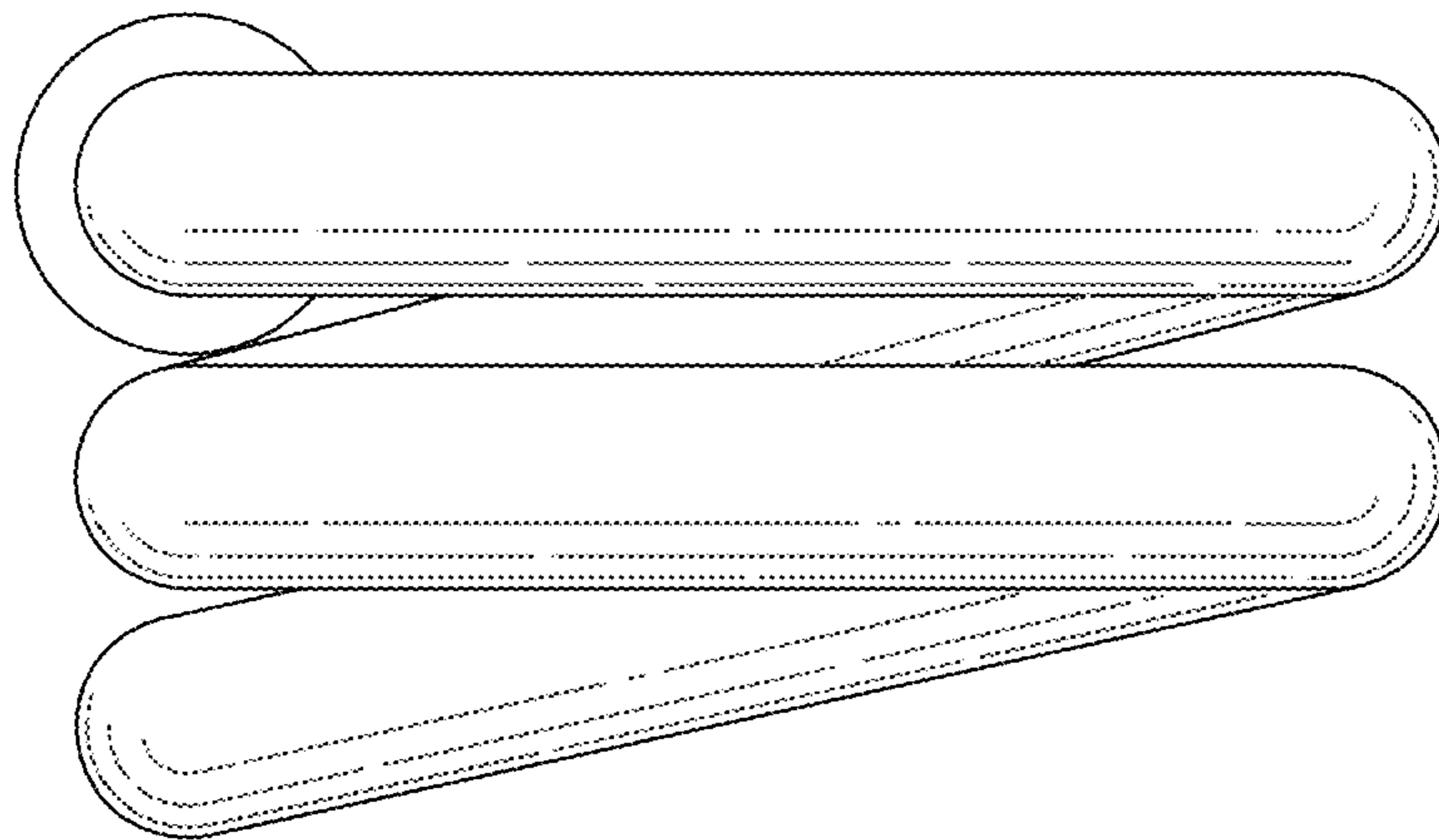


Fig. 5

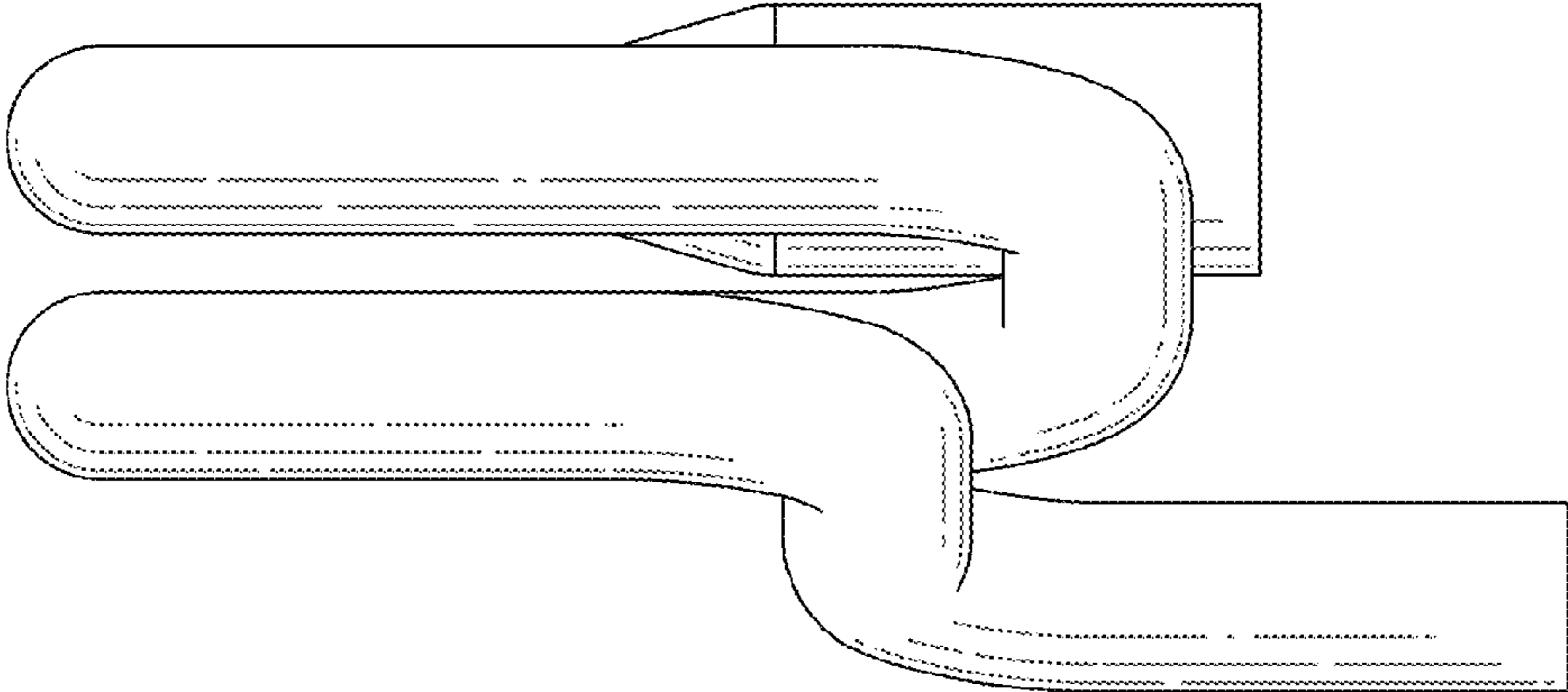


Fig. 6

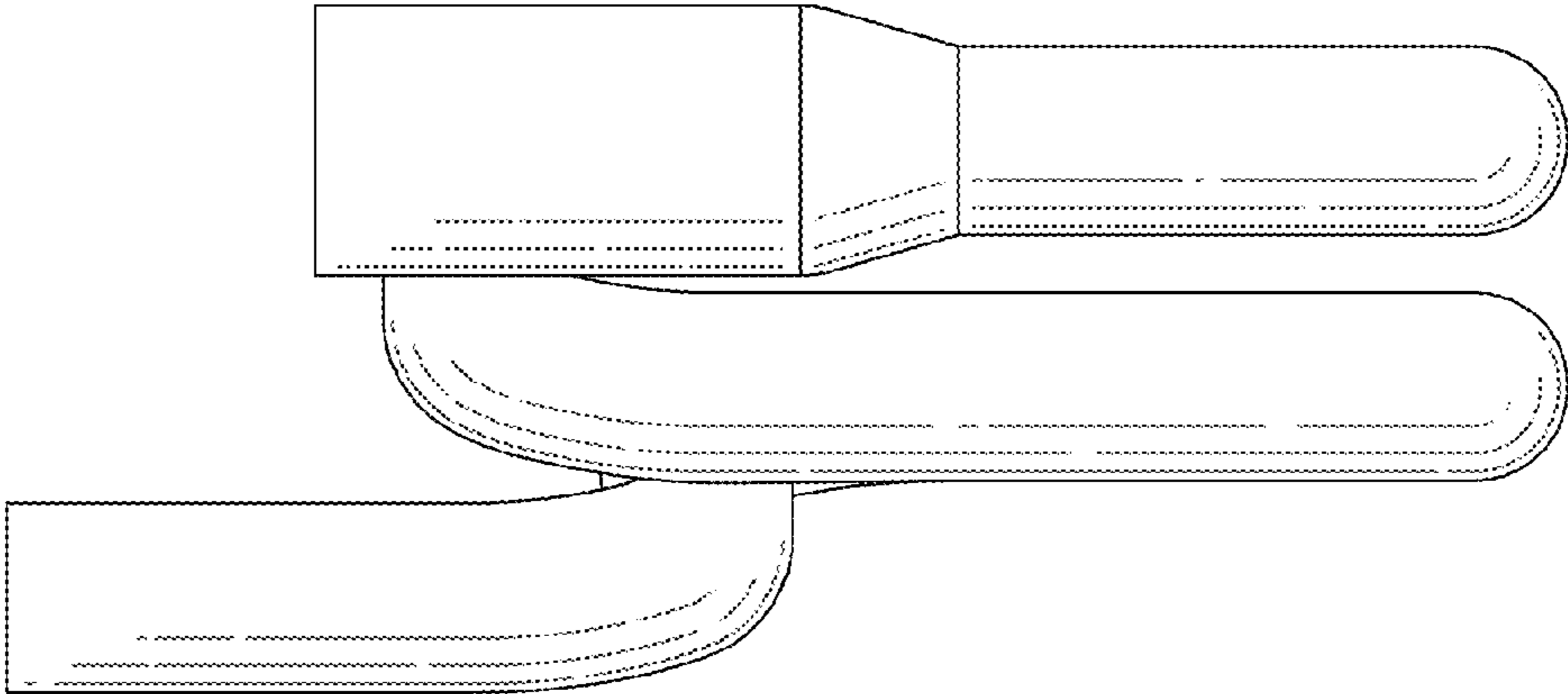


Fig. 7