



US00D764034S

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

(10) **Patent No.:** **US D764,034 S**  
(45) **Date of Patent:** **\*\* Aug. 16, 2016**

(54) **HEAT EXCHANGER**

3,285,334 A 11/1966 Pastemak

(Continued)

(71) Applicants: **DOMETIC SWEDEN AB**, Solna (SE);  
**Beckett Gas, Inc.**, North Ridgeville, OH  
(US)

FOREIGN PATENT DOCUMENTS

(72) Inventors: **Gale A. Schmidt**, West Jordan, UT (US);  
**Christopher C. Schmidt**, West Valley,  
UT (US); **Steve R. Matson**, West Jordan,  
UT (US); **Richard Maricic**, Parma, OH  
(US)

AU D360022 1/2015  
AU D360131 1/2015

(Continued)

OTHER PUBLICATIONS

(73) Assignees: **Dometic Sweden AB**, Solna (SE);  
**Beckett Gas, Inc.**, North Ridgeville, OH  
(US)

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**

*Primary Examiner* — T. Chase Nelson

*Assistant Examiner* — Ania Aman

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

(74) *Attorney, Agent, or Firm* — Middleton Reutlinger

(22) Filed: **Jan. 28, 2016**

**Related U.S. Application Data**

(62) Division of application No. 29/496,587, filed on Jul.  
15, 2014.

(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;

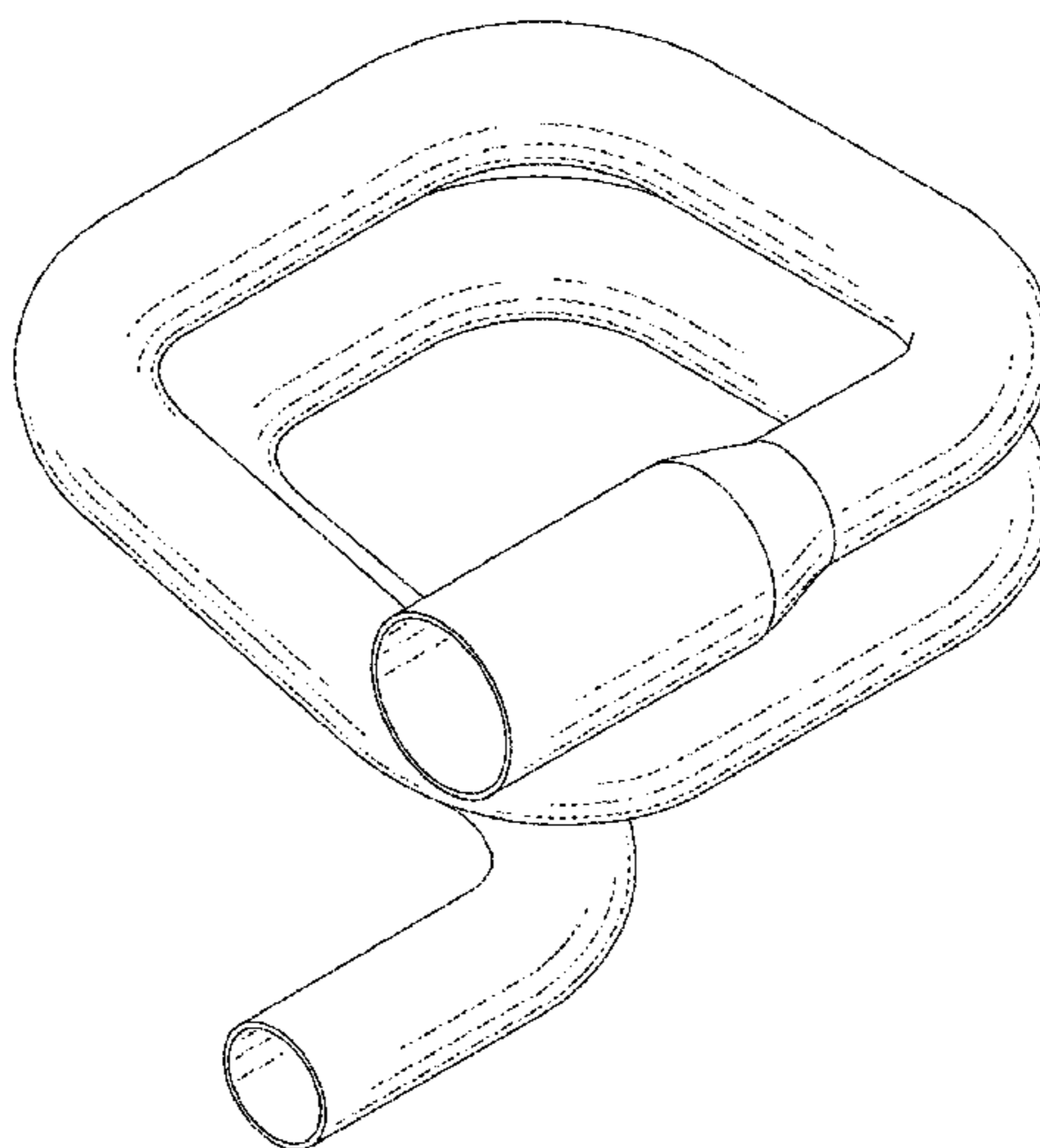
FIG. 4 is a front elevational view thereof of the design of FIG.  
1;

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

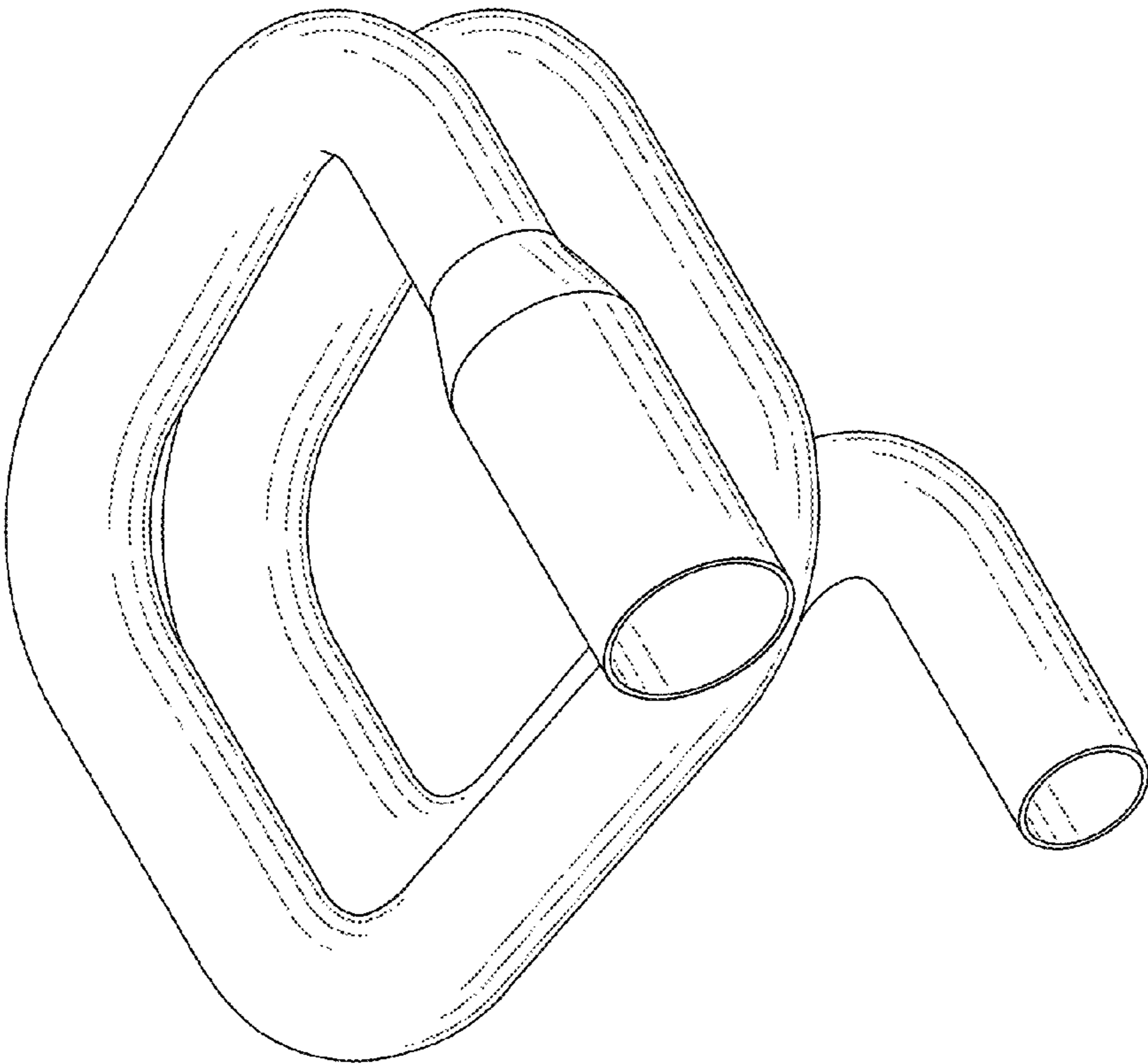


Fig. 1

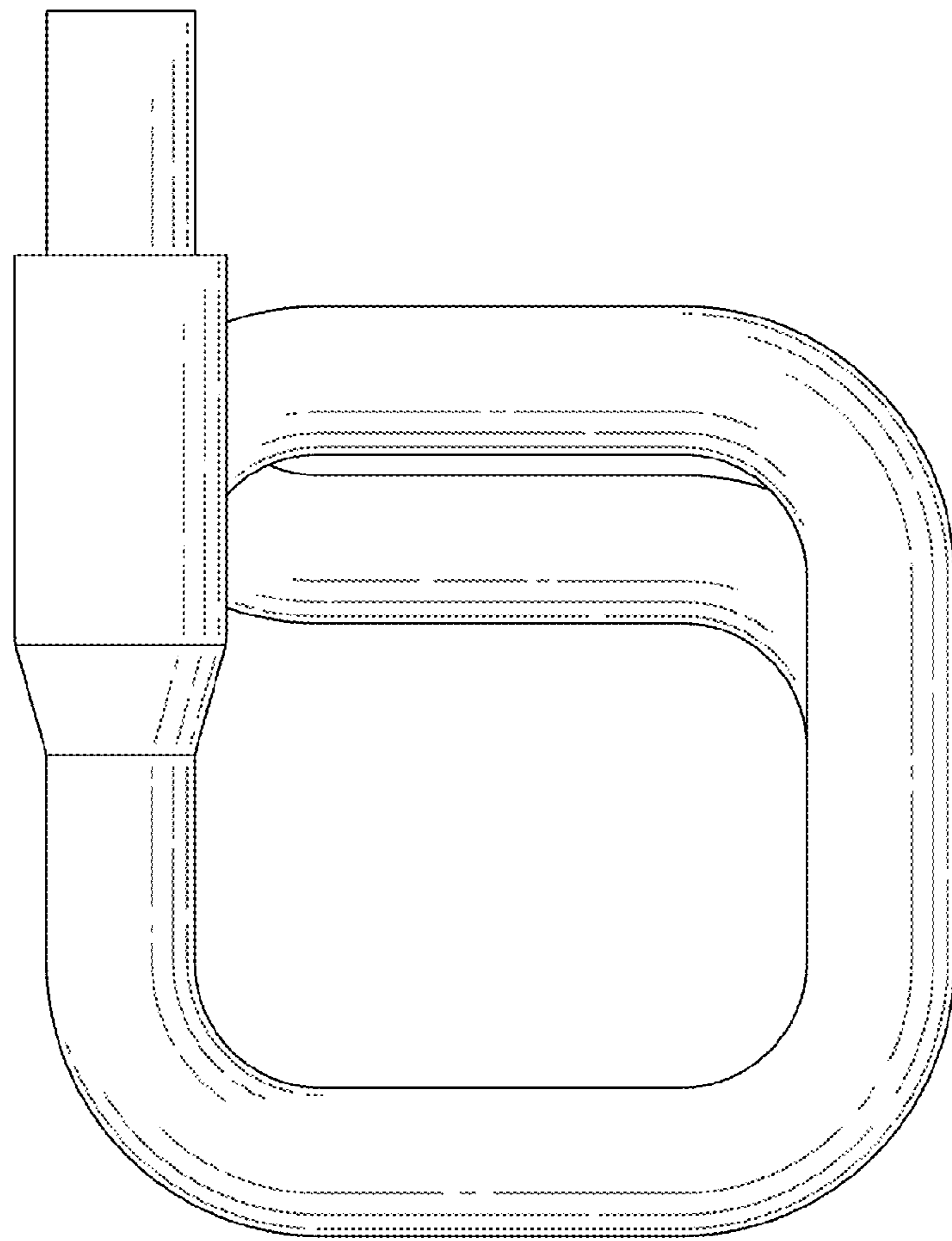


Fig. 2

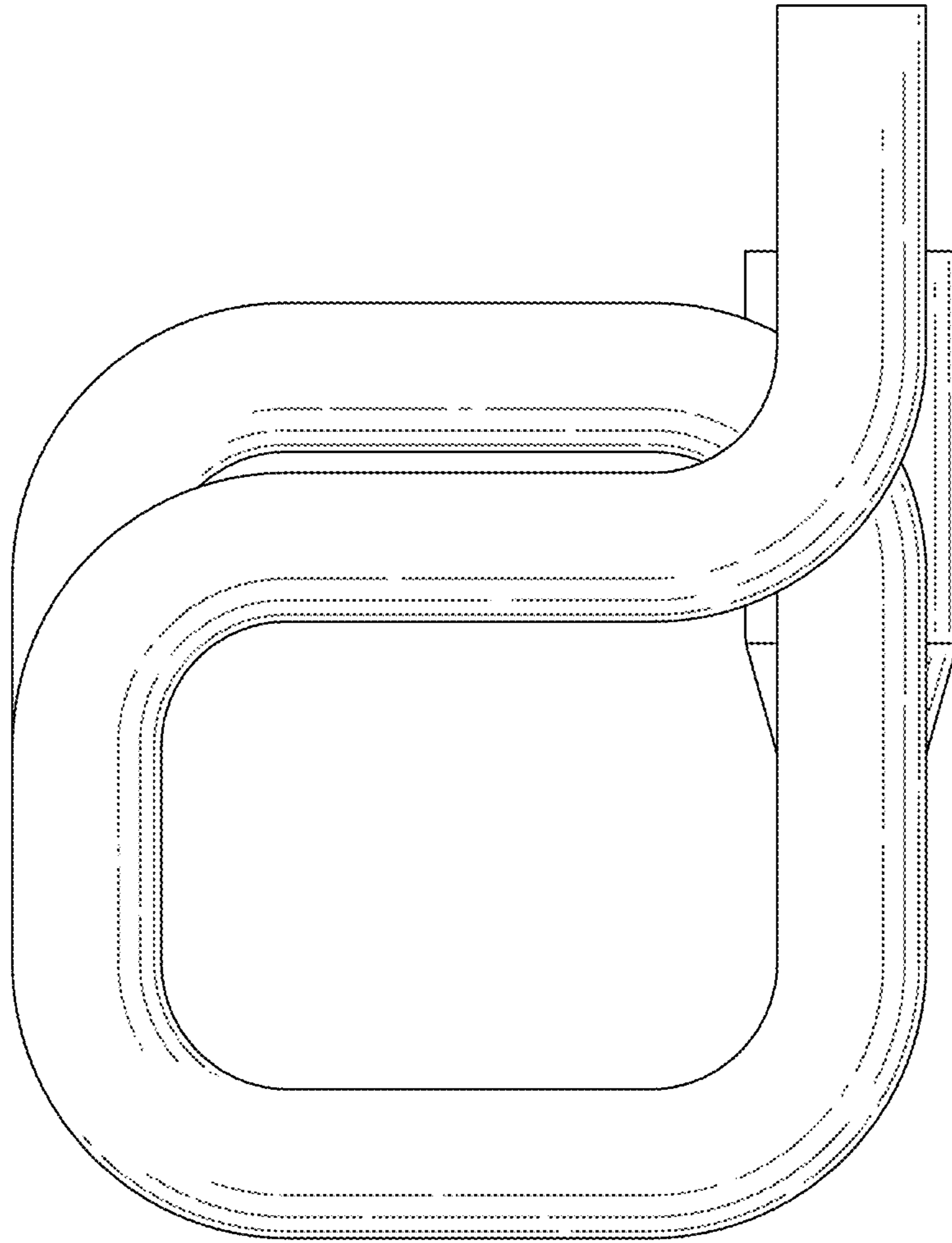


Fig. 3

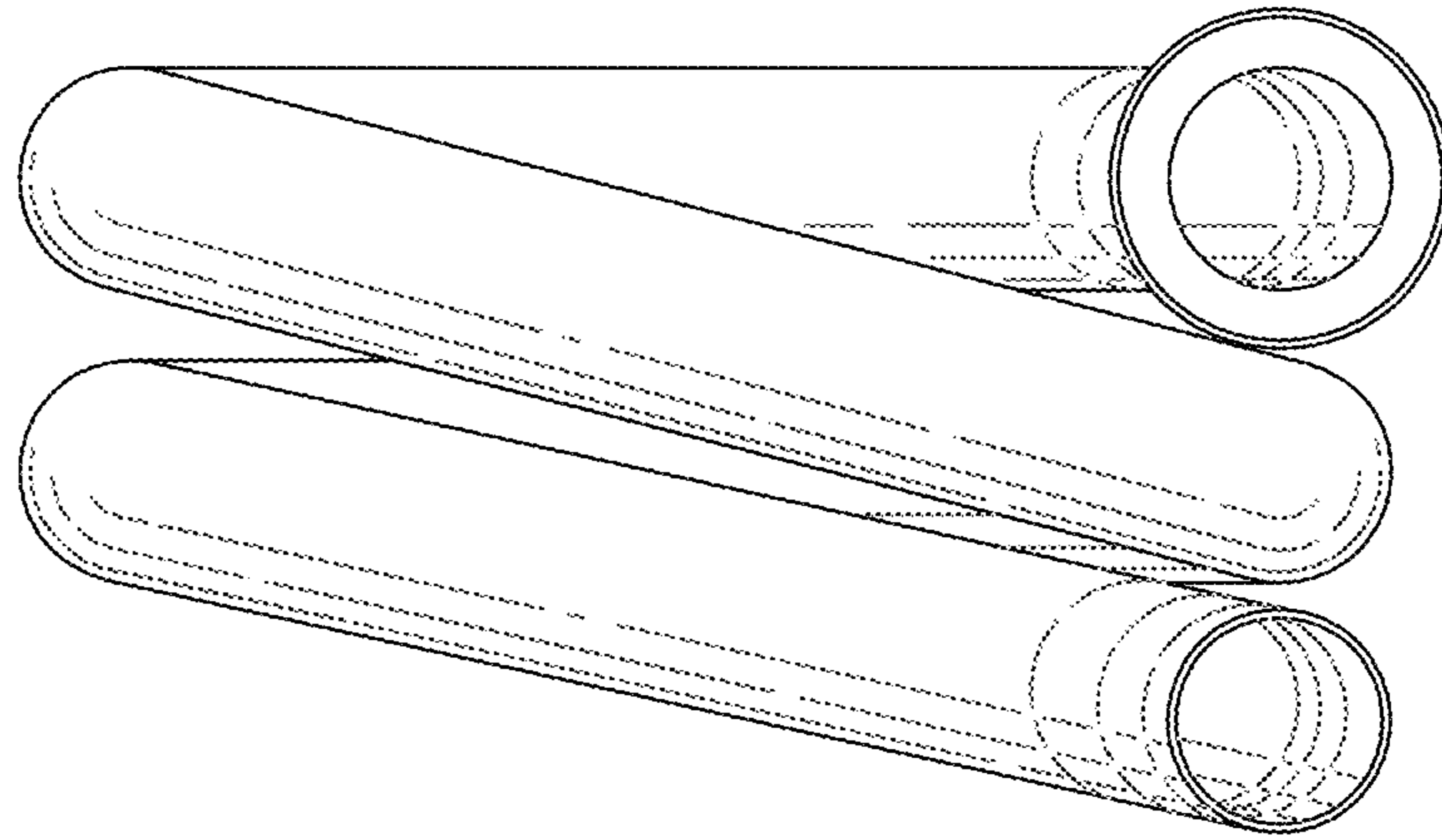


Fig. 4

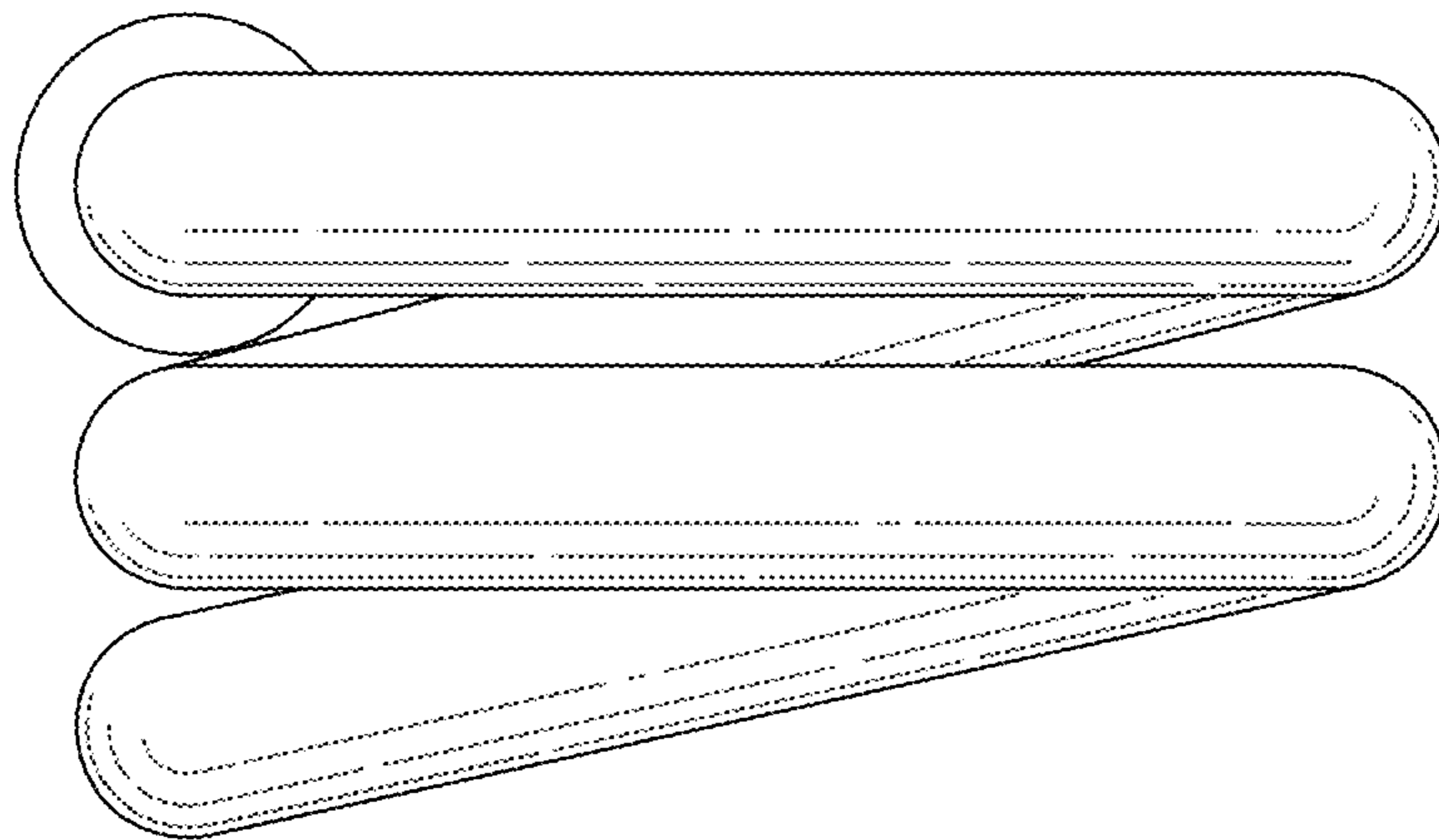


Fig. 5

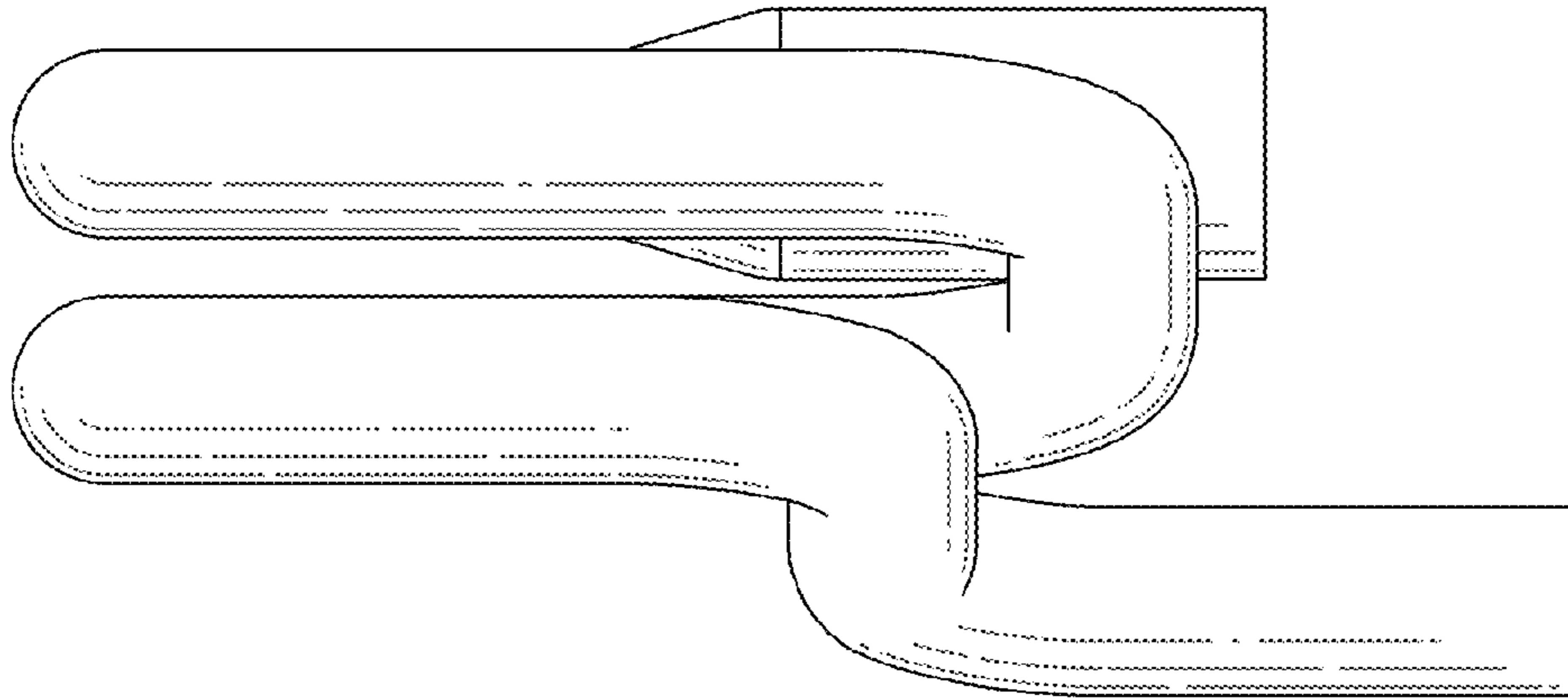


Fig. 6

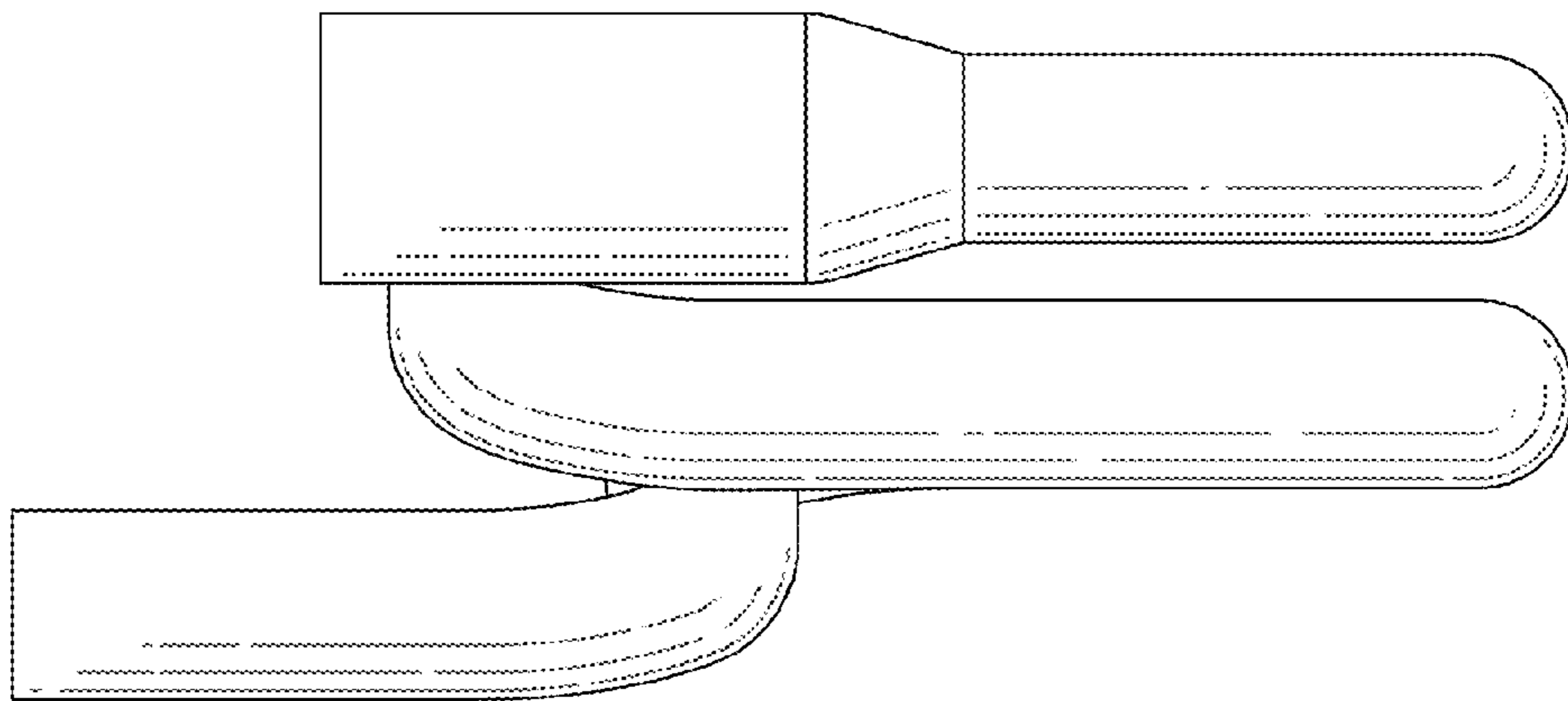


Fig. 7