



US00D762289S

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

(10) **Patent No.:** **US D762,289 S**  
(45) **Date of Patent:** **\*\* \*Jul. 26, 2016**

(54) **HEAT EXCHANGER**  
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4,493,308 A \* 1/1985 Hurley ..... A47J 37/067  
122/17.2  
4,599,773 A \* 7/1986 Sievers ..... B21D 11/06  
29/727

(Continued)

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FOREIGN PATENT DOCUMENTS

AU D360022 1/2015  
AU D360131 1/2015

(Continued)

(73) Assignee: **Dometic Sweden AB**, Solna (SE)

OTHER PUBLICATIONS

(\*) Notice: This patent is subject to a terminal dis-  
claimer.

Canadian Intellectual Property Office; Examiner's Report dated Oct.  
28, 2015 (Application No. 160490); pp. 1-2; Gatineau, Quebec,  
Canada Oct. 28, 2015.

(Continued)

(\*\*) Term: **14 Years**

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(21) Appl. No.: **29/496,587**

*Assistant Examiner* — Ania Aman

(22) Filed: **Jul. 15, 2014**

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

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

(57) **CLAIM**

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

We claim the ornamental design for a heat exchanger, as  
shown and described.

(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  
See application file for complete search history.

**DESCRIPTION**

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,828,319 A \* 10/1931 Cutler, Jr. .... F24H 3/006  
126/109  
2,657,020 A \* 10/1953 Hofmeister ..... F24H 1/52  
122/33  
3,285,334 A \* 11/1966 Pasternak ..... F28D 7/0016  
165/172

Cross-reference is made to U.S. patent application Ser. No.  
14,331,578 entitled "Heat Exchanger Coil for a Recreational  
Vehicle," which is filed on the same day as the present appli-  
cation and is expressly incorporated herein by reference.

FIG. 1 is a perspective view of a heat exchanger showing our  
new design;

FIG. 2 is a top plan view;

FIG. 3 is a bottom plan view;

FIG. 4 is a front elevation view;

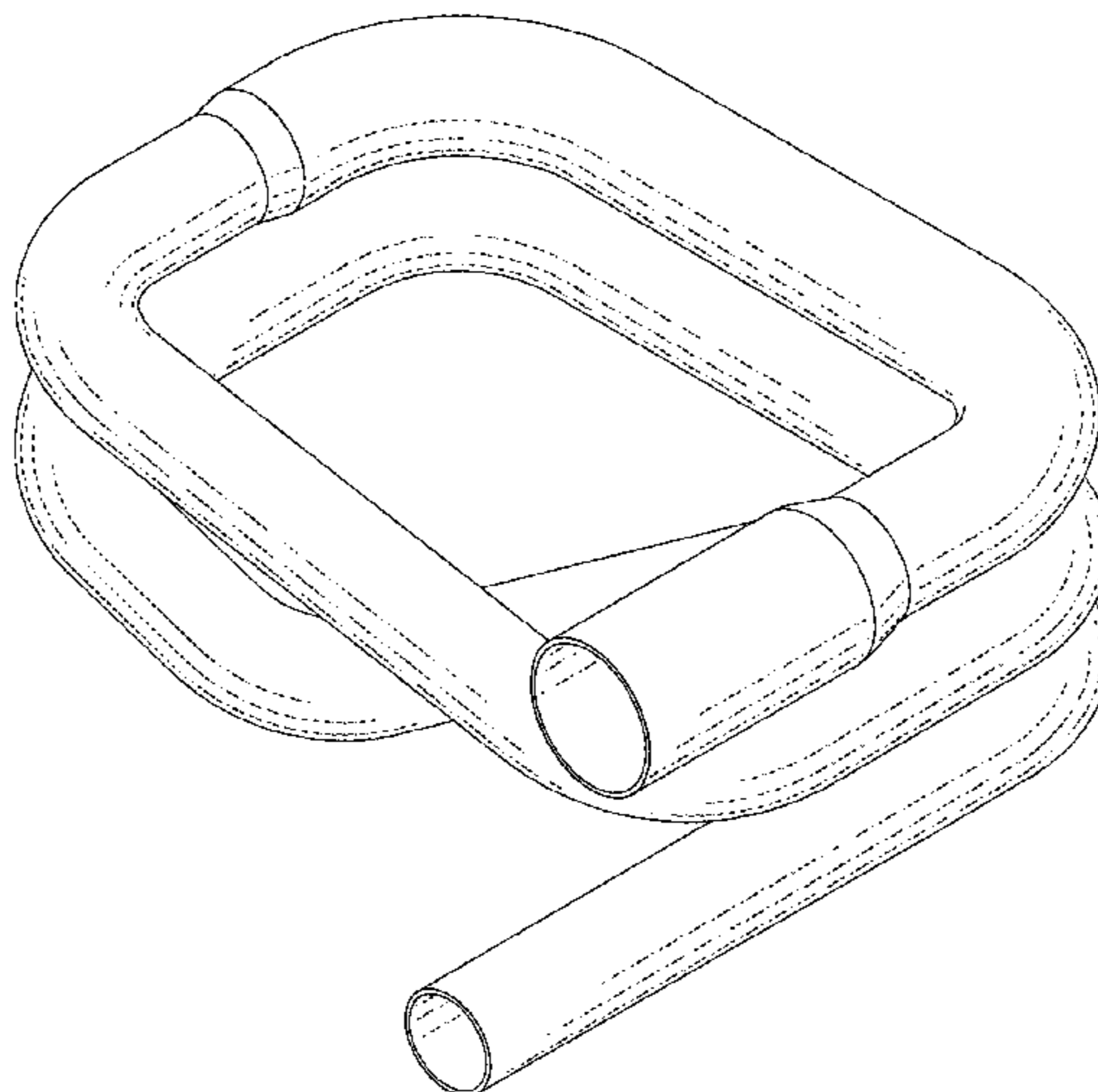
FIG. 5 is a rear elevation view;

FIG. 6 is a first side elevation view; and,

FIG. 7 is a second side elevation view.

The features shown in broken lines depict environmental  
subject matter only and form no part of claim design.

**1 Claim, 5 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

4,956,534 A \* 9/1990 Martin ..... H05B 6/804  
165/184  
5,094,224 A \* 3/1992 Diesch ..... F28F 1/42  
126/110 R  
5,179,259 A \* 1/1993 Martin ..... H05B 6/804  
165/184  
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. .... 165/184  
6,311,685 B1 \* 11/2001 Bassoli et al. .... 126/21 A  
2007/0199688 A1 \* 8/2007 Okonski, Sr. .... F22B 9/12  
165/163  
2007/0204980 A1 \* 9/2007 Kim et al. .... 165/172  
2009/0020265 A1 \* 1/2009 Feinauer ..... F28D 1/0472  
165/104.19  
2013/0306287 A1 \* 11/2013 Ryoo ..... 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 ..... F24H 9/0068  
126/116 R  
2014/0262185 A1\* 9/2014 Raina ..... 165/177  
2016/0018132 A1\* 1/2016 Schmidt ..... F28D 1/0477  
126/109

FOREIGN PATENT DOCUMENTS

|    |         |        |
|----|---------|--------|
| AU | D360132 | 1/2015 |
| NZ | D419738 | 4/2015 |
| NZ | D419740 | 4/2015 |
| NZ | D419741 | 4/2015 |

OTHER PUBLICATIONS

Chinese Patent Office, Application as filed dated Jan. 14, 2015 (Application No. 201530010579.5), pp. 1-37 (English and Chinese) Jan. 14, 2015.

Office for Harmonization in the Internal Market, Preliminary Examination Report dated Jan. 19, 2015 (Application No. 002613315), pp. 1-3; Alicante, Spain Jan. 19, 2015.

\* cited by examiner

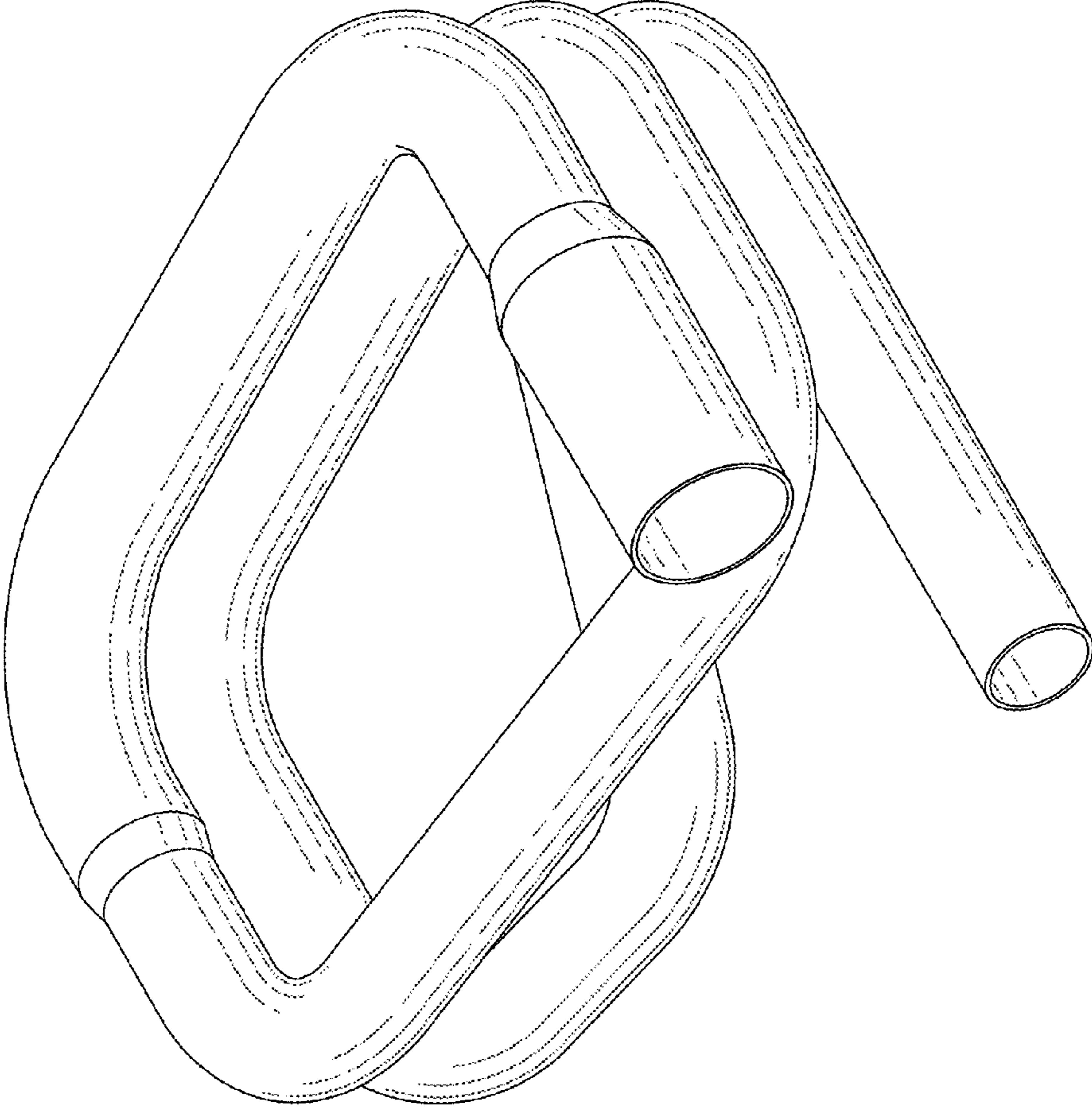


Fig. 1

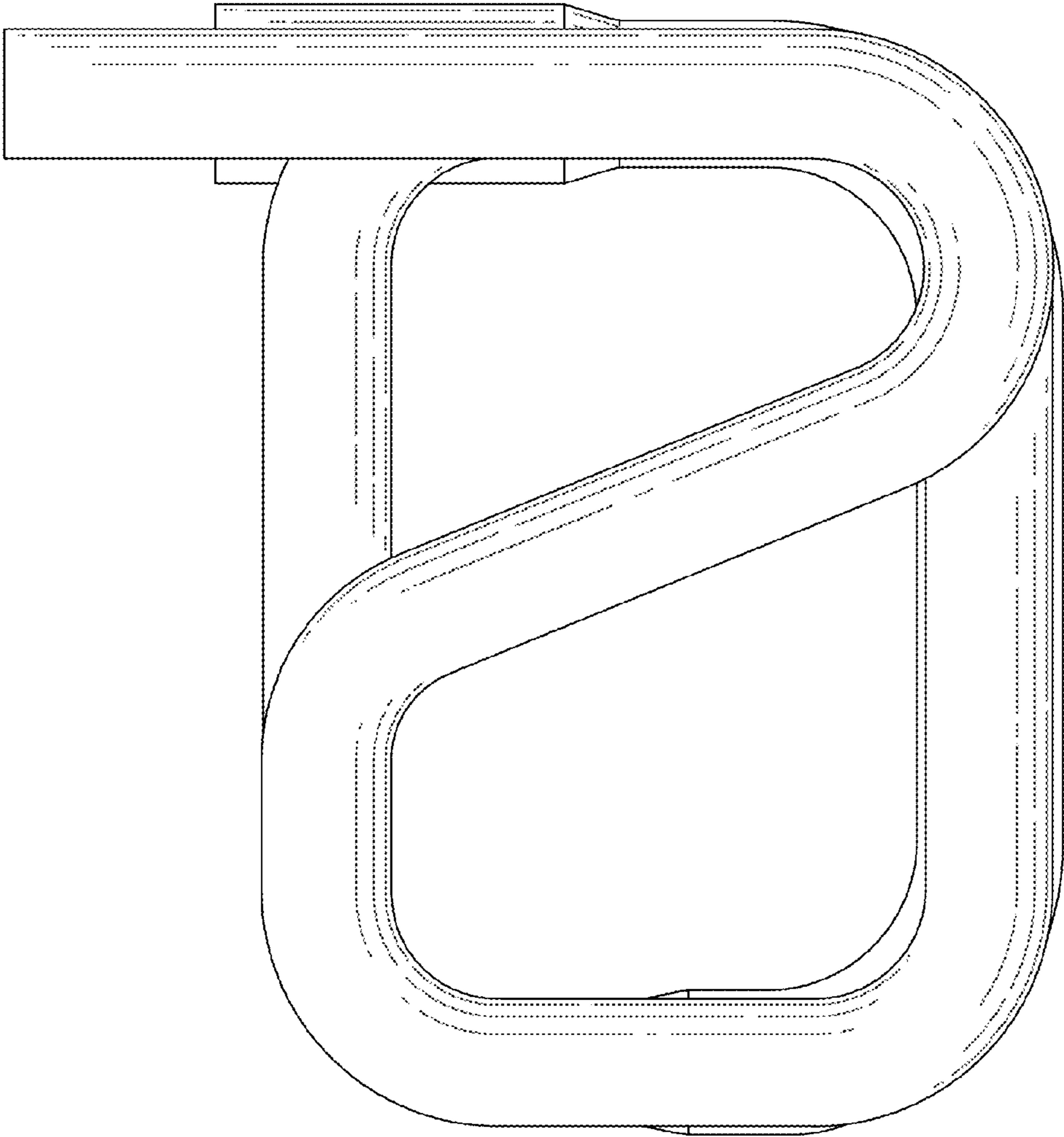


Fig. 2

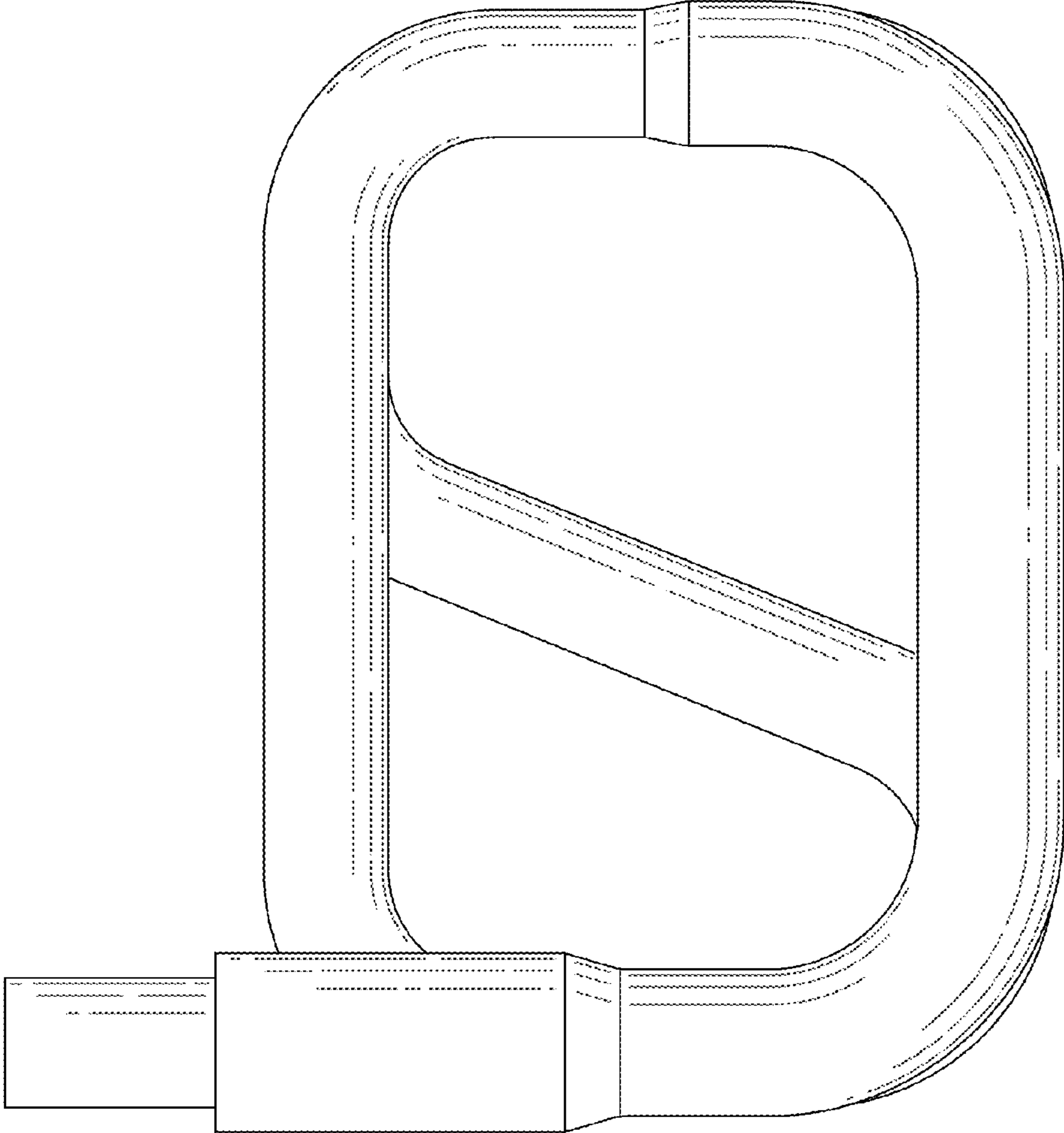


Fig. 3

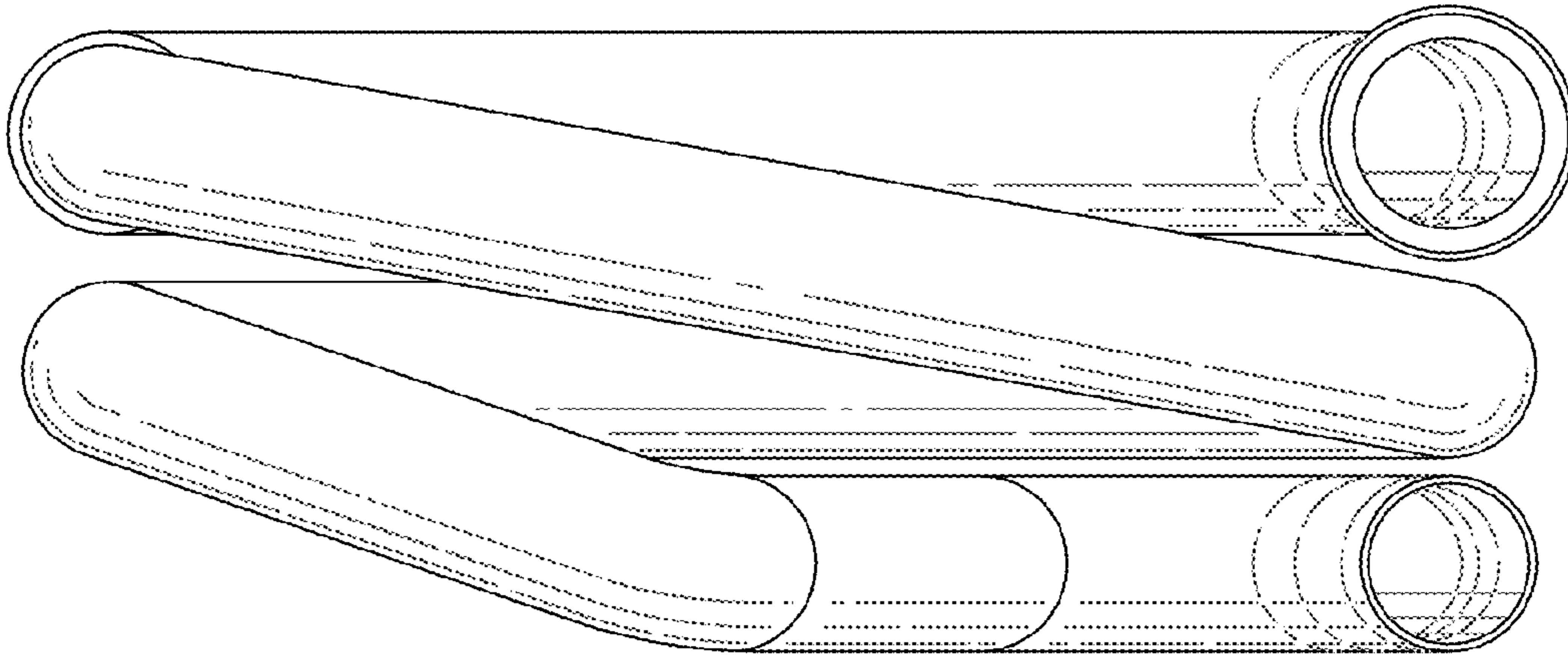


Fig. 4

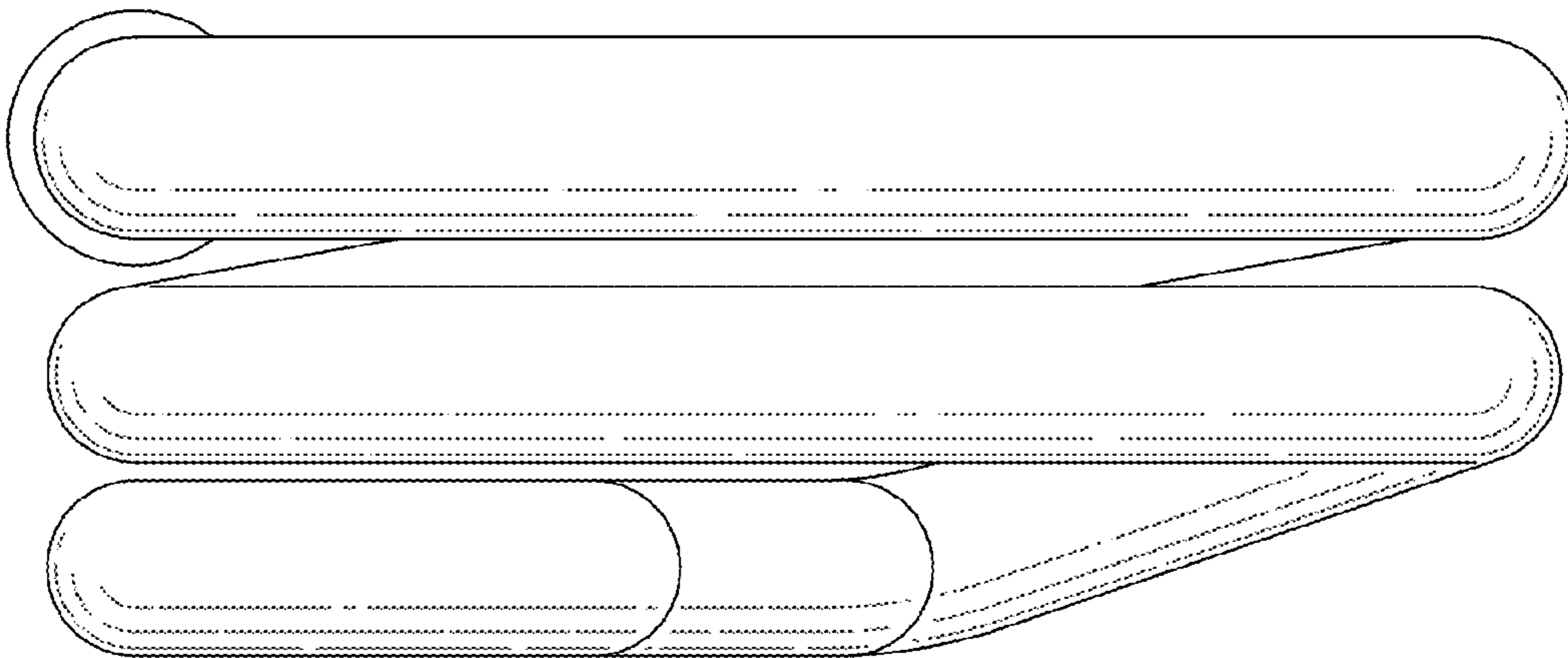


Fig. 5

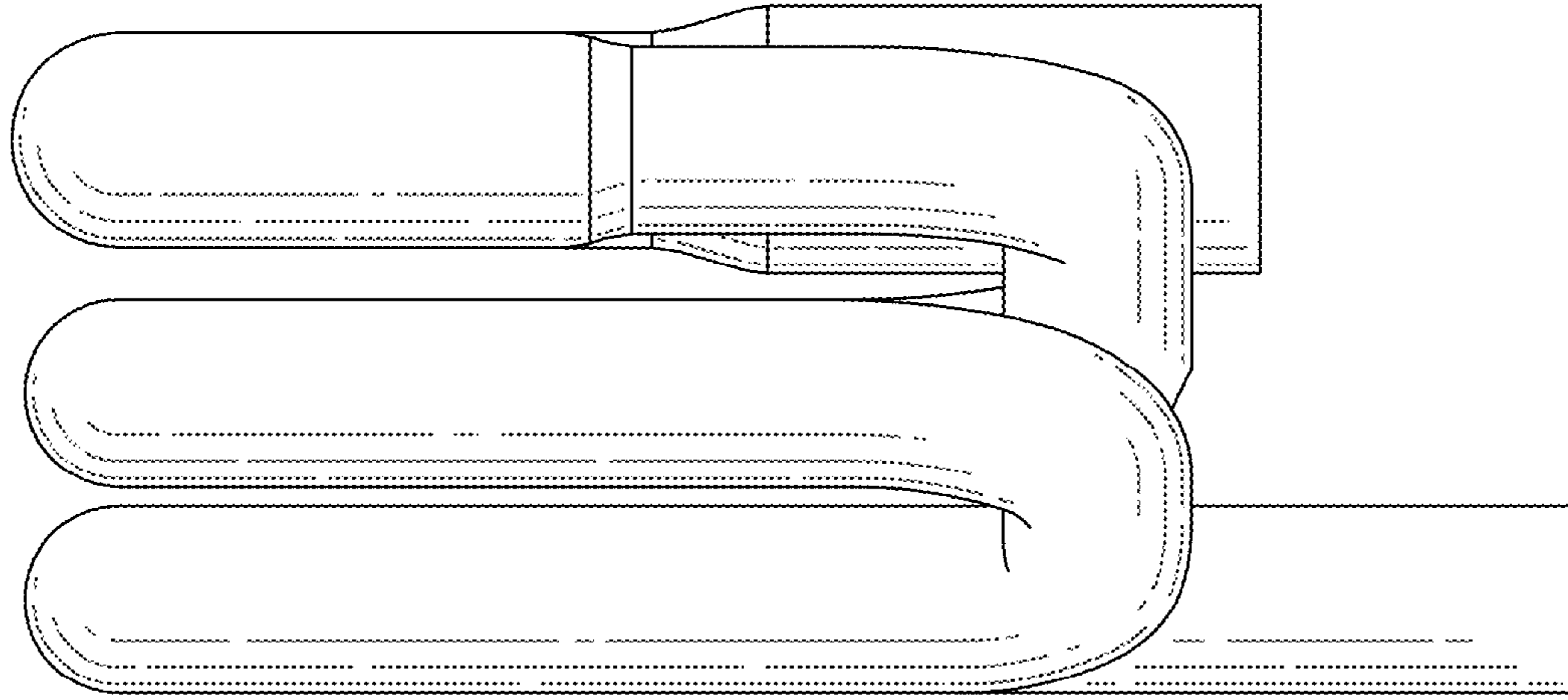


Fig. 6

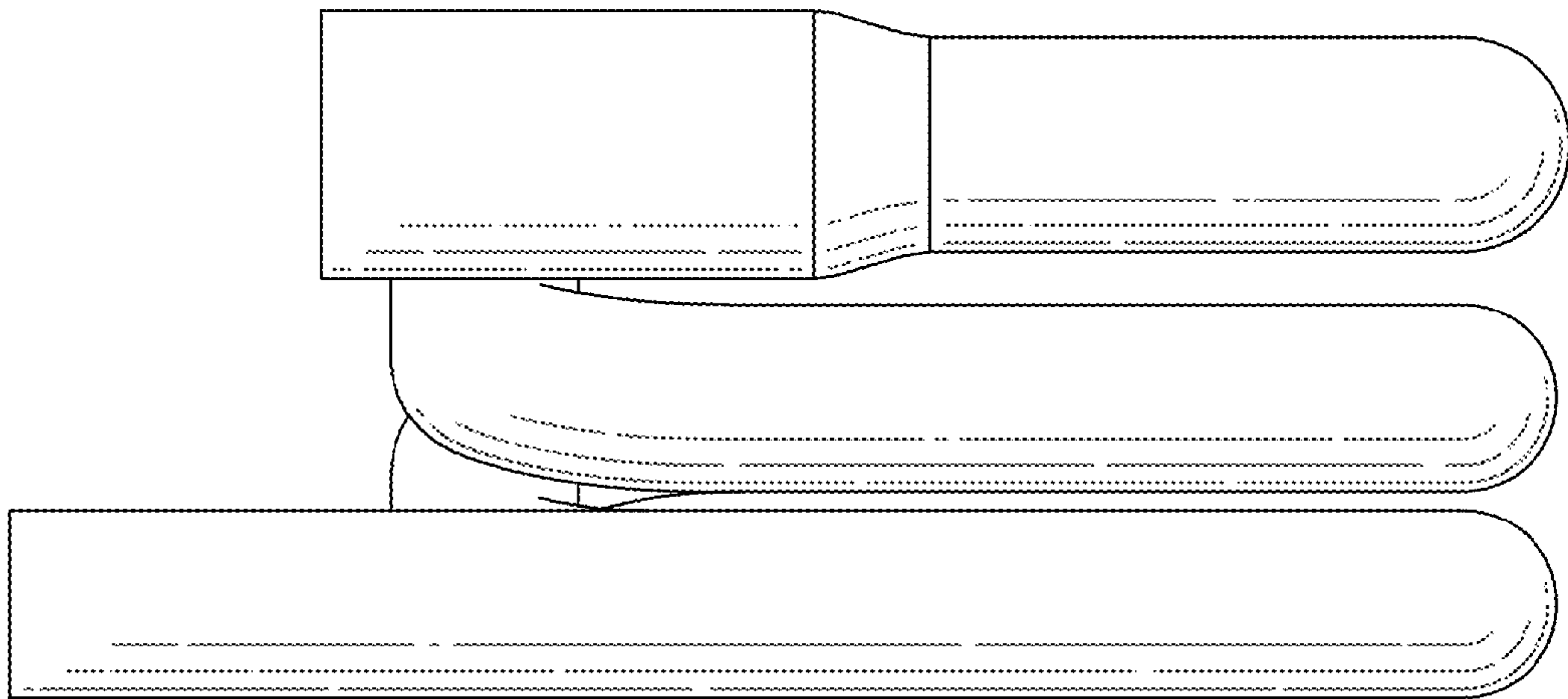


Fig. 7