



US00D966032S

(12) **United States Design Patent** (10) **Patent No.:** **US D966,032 S**  
**Walter et al.** (45) **Date of Patent:** **\*\* Oct. 11, 2022**

(54) **SCREW SHAFT ELEMENT**  
(71) Applicant: **Buss AG**, Pratteln (CH)  
(72) Inventors: **Wolfgang Walter**, Aalen (DE); **Martin Schötzau**, Augst (CH)  
(73) Assignee: **Buss AG**, Pratteln (CH)  
(\*\*) Term: **15 Years**  
(21) Appl. No.: **29/826,262**  
(22) Filed: **Feb. 10, 2022**

(56) **References Cited**  
U.S. PATENT DOCUMENTS  
D23,336 S \* 6/1894 Quimby ..... D8/387  
3,189,324 A \* 6/1965 Gubler ..... A21C 1/065  
366/90  
D706,893 S \* 6/2014 Diederich ..... D8/387  
9,022,638 B2 \* 5/2015 Franz ..... B29B 7/44  
366/90  
9,168,676 B2 \* 10/2015 Siegenthaler ..... B29B 7/423  
D929,799 S \* 9/2021 Walter ..... D7/376  
2005/0249030 A1 \* 11/2005 Williams ..... B29C 48/507  
366/79

(Continued)

**Related U.S. Application Data**

(62) Division of application No. 29/668,738, filed on Nov. 1, 2018.

**FOREIGN PATENT DOCUMENTS**

CN 303608265 \* 3/2016  
CN 307285622 \* 4/2022

(Continued)

(30) **Foreign Application Priority Data**

May 4, 2018 (EM) ..... 005258472  
May 4, 2018 (EM) ..... 005258472-0001  
May 4, 2018 (EM) ..... 005258472-0002  
May 4, 2018 (EM) ..... 005258472-0003  
May 4, 2018 (EM) ..... 005258472-0006  
May 4, 2018 (EM) ..... 005258472-0008

*Primary Examiner* — Sheryl Lane  
*Assistant Examiner* — Ieisha N Price  
(74) *Attorney, Agent, or Firm* — Larson & Anderson, LLC

(57) **CLAIM**

The ornamental design for a screw shaft element, as shown and described.

(51) **LOC (13) Cl.** ..... **31-00**

(52) **U.S. Cl.**  
USPC ..... **D7/376**

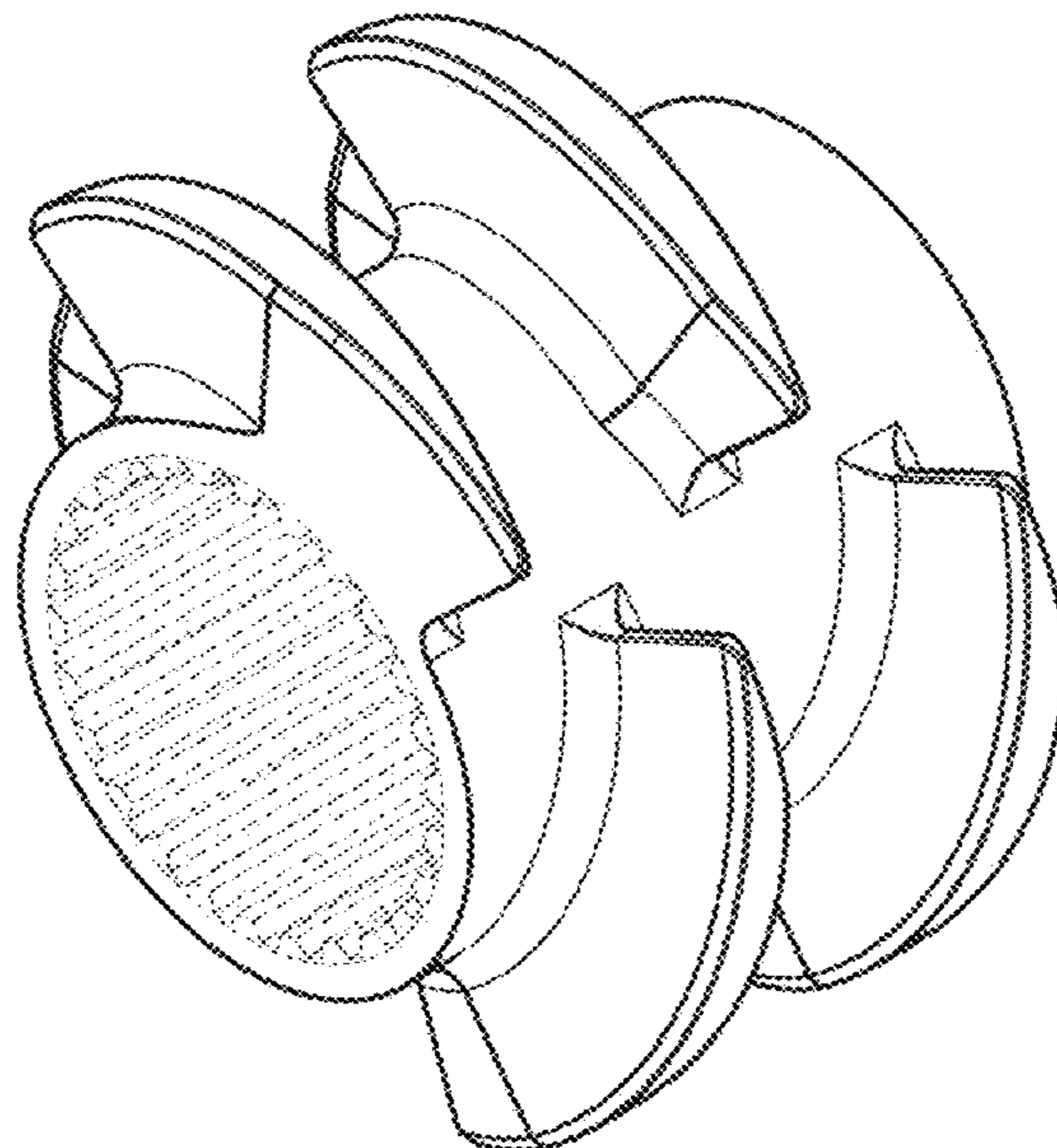
(58) **Field of Classification Search**  
USPC ..... D7/368, 377, 379, 376, 412, 387, 213;  
D8/387; D24/220  
CPC ..... B29C 48/03; B29C 48/395; B29C 48/04;  
B29C 48/67; B29C 48/45; B29C 48/565;  
B29C 48/687; B01F 7/00416; B01F  
7/086; B01F 2215/0049; B01F  
2215/0422; B29B 7/421; B29B 7/423;  
B29B 7/429; B29B 7/44

See application file for complete search history.

**DESCRIPTION**

FIG. 1 is a perspective view of a screw shaft element showing our new design;  
FIG. 2 is a front view thereof;  
FIG. 3 is a back view thereof;  
FIG. 4 is a left view thereof;  
FIG. 5 is a right view thereof;  
FIG. 6 is a top view thereof; and,  
FIG. 7 is a bottom view thereof.  
The broken lines in the drawings illustrate portions of the screw shaft element and form no part of the claimed design.

**1 Claim, 7 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

2007/0183253 A1\* 8/2007 Siegenthaler ..... B29B 7/423  
366/80  
2009/0027994 A1\* 1/2009 Grutter ..... B29B 7/423  
366/79  
2009/0238911 A1\* 9/2009 Hayashi ..... B29C 48/022  
425/202  
2009/0245014 A1\* 10/2009 Suzuki ..... B30B 11/221  
366/76.93  
2010/0067320 A1\* 3/2010 Blach ..... B29B 7/603  
366/85  
2010/0284236 A1\* 11/2010 Franz ..... B29C 48/04  
366/76.1  
2014/0199424 A1\* 7/2014 Behling ..... B29C 48/2522  
29/888.023  
2014/0306370 A1\* 10/2014 Dispenza ..... B29C 48/11  
29/407.01  
2020/0282622 A1\* 9/2020 Ougier ..... B22F 5/06

FOREIGN PATENT DOCUMENTS

KR 301075512.0000 \* 9/2020  
KR 301075513.0000 \* 9/2020

\* cited by examiner

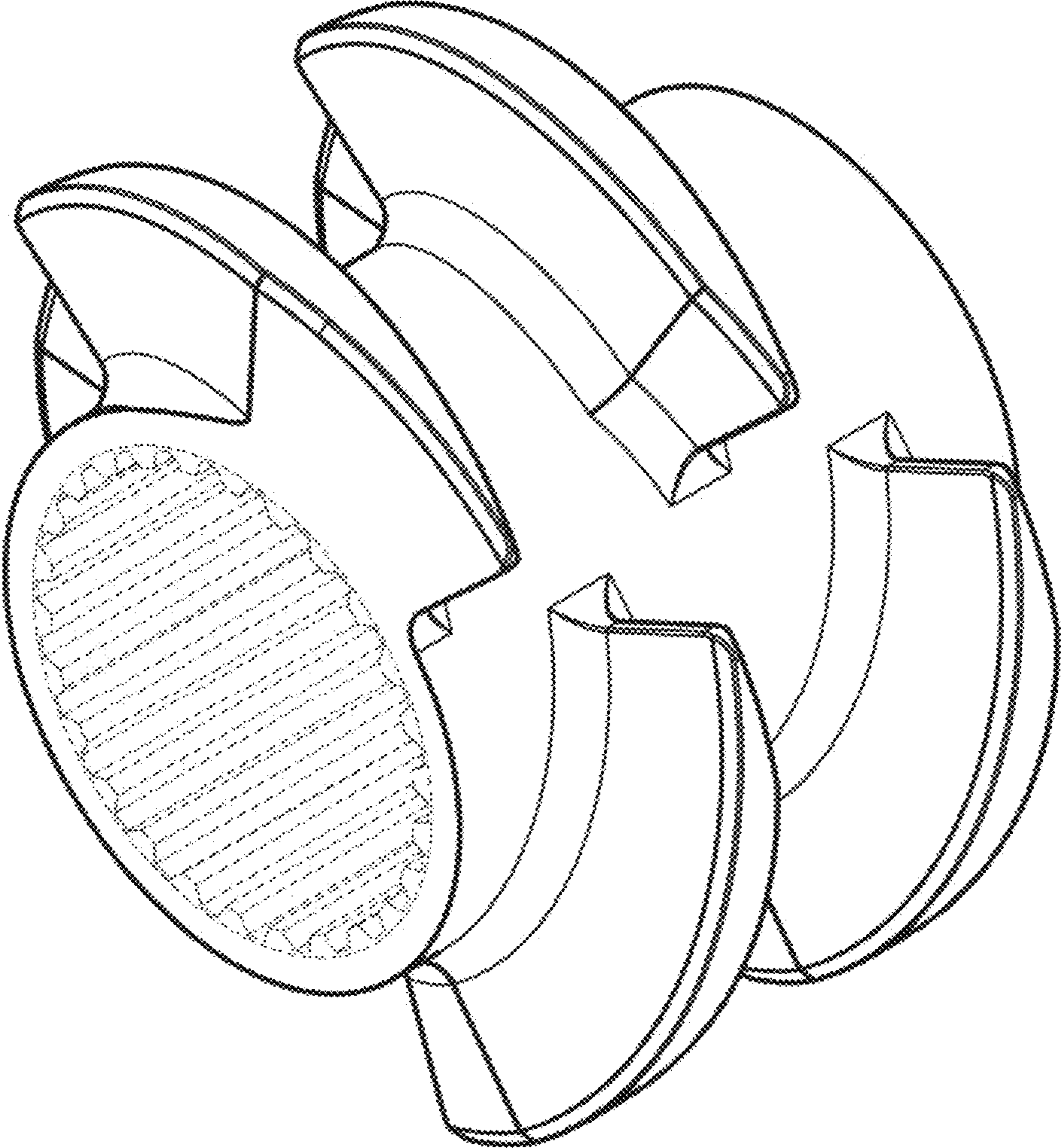


Fig. 1

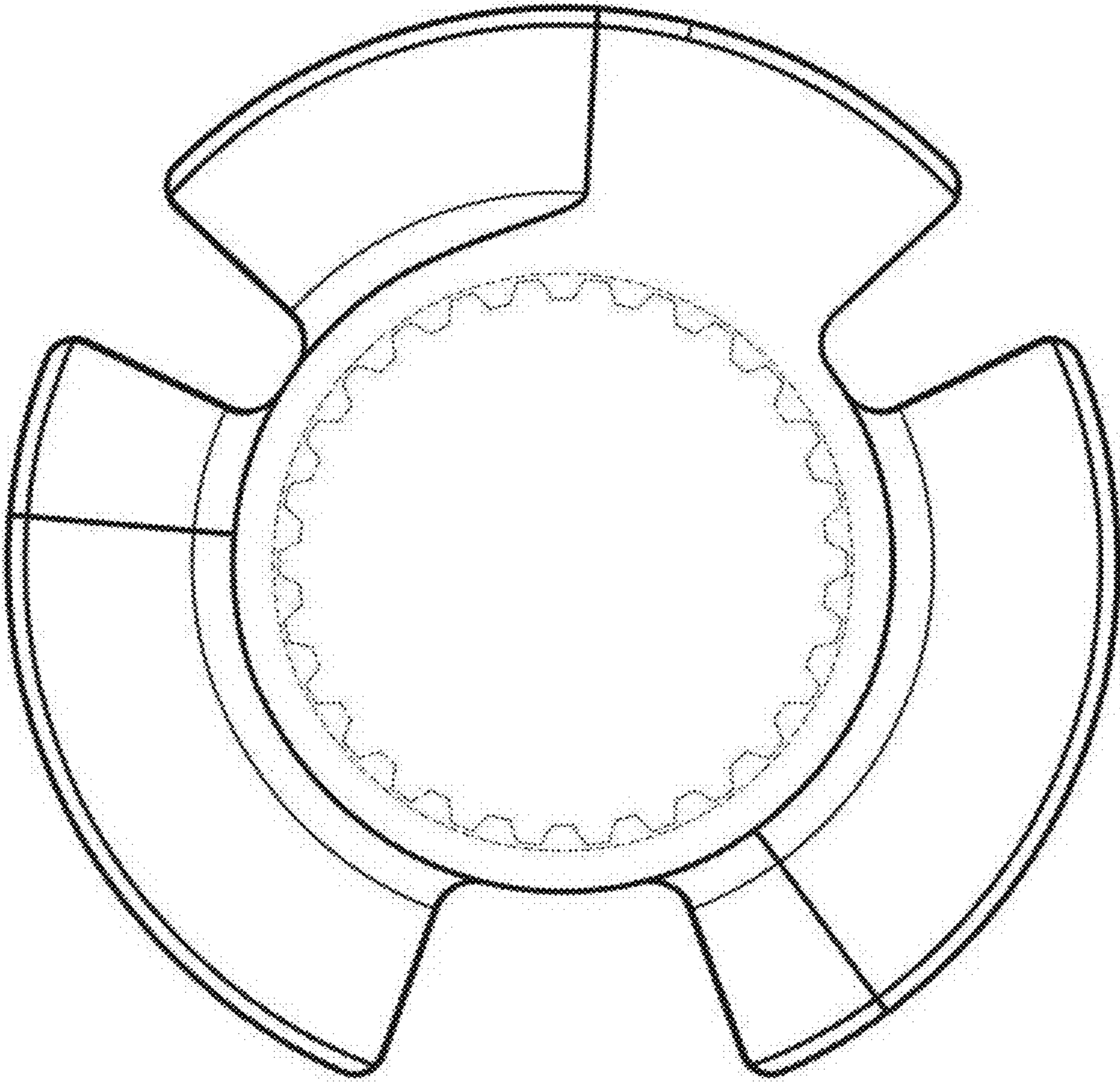


Fig. 2

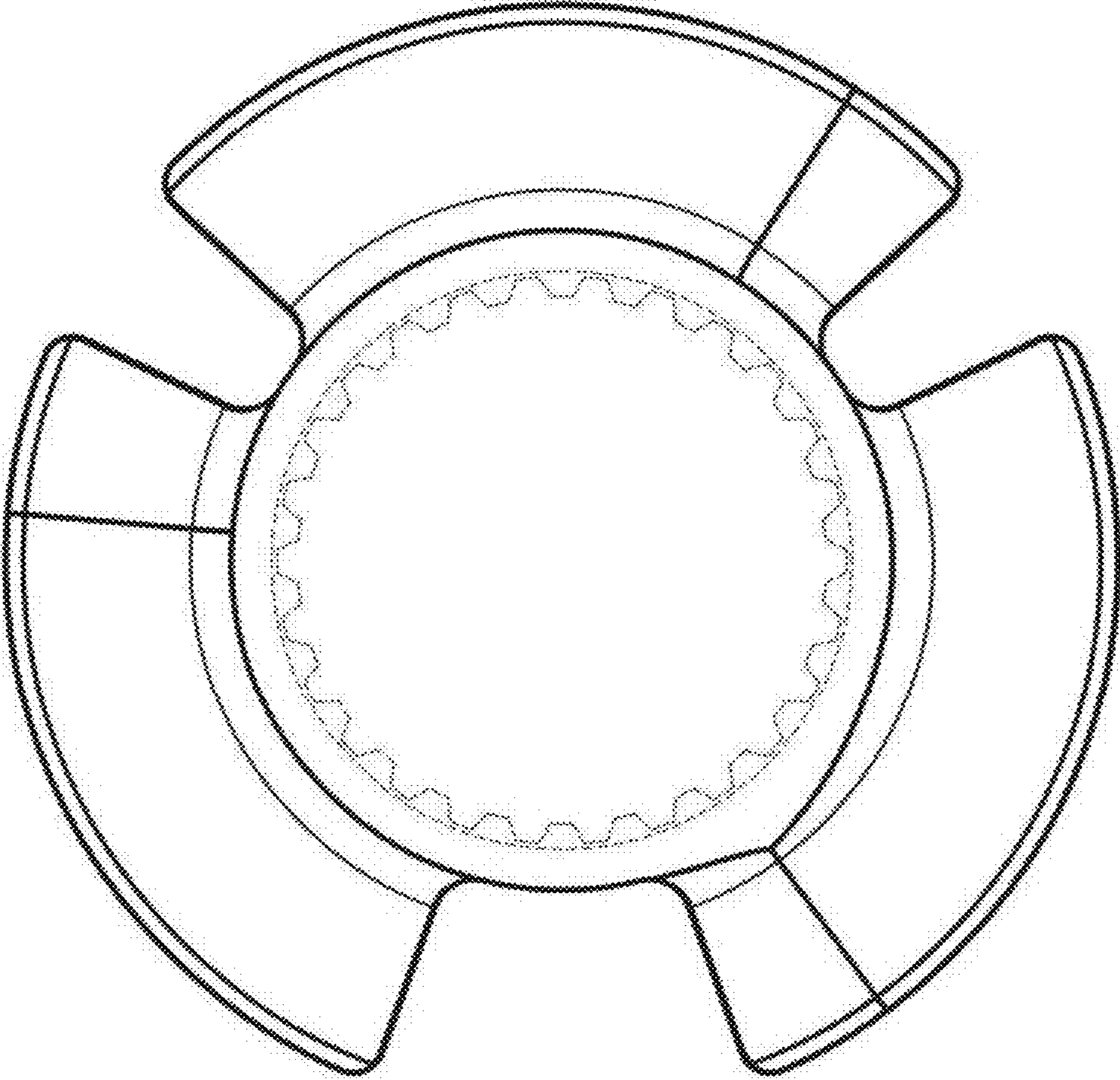


Fig. 3

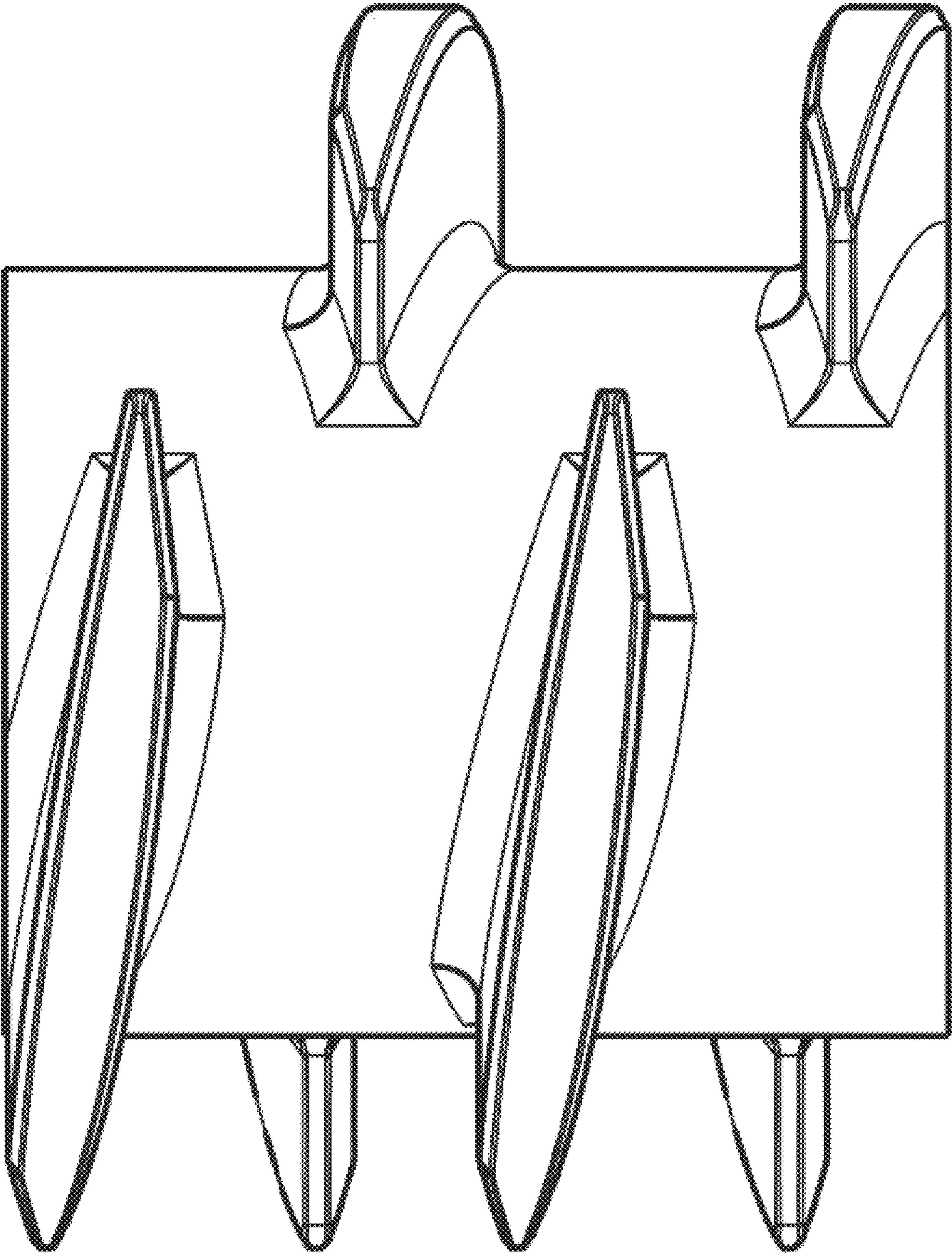


Fig. 4

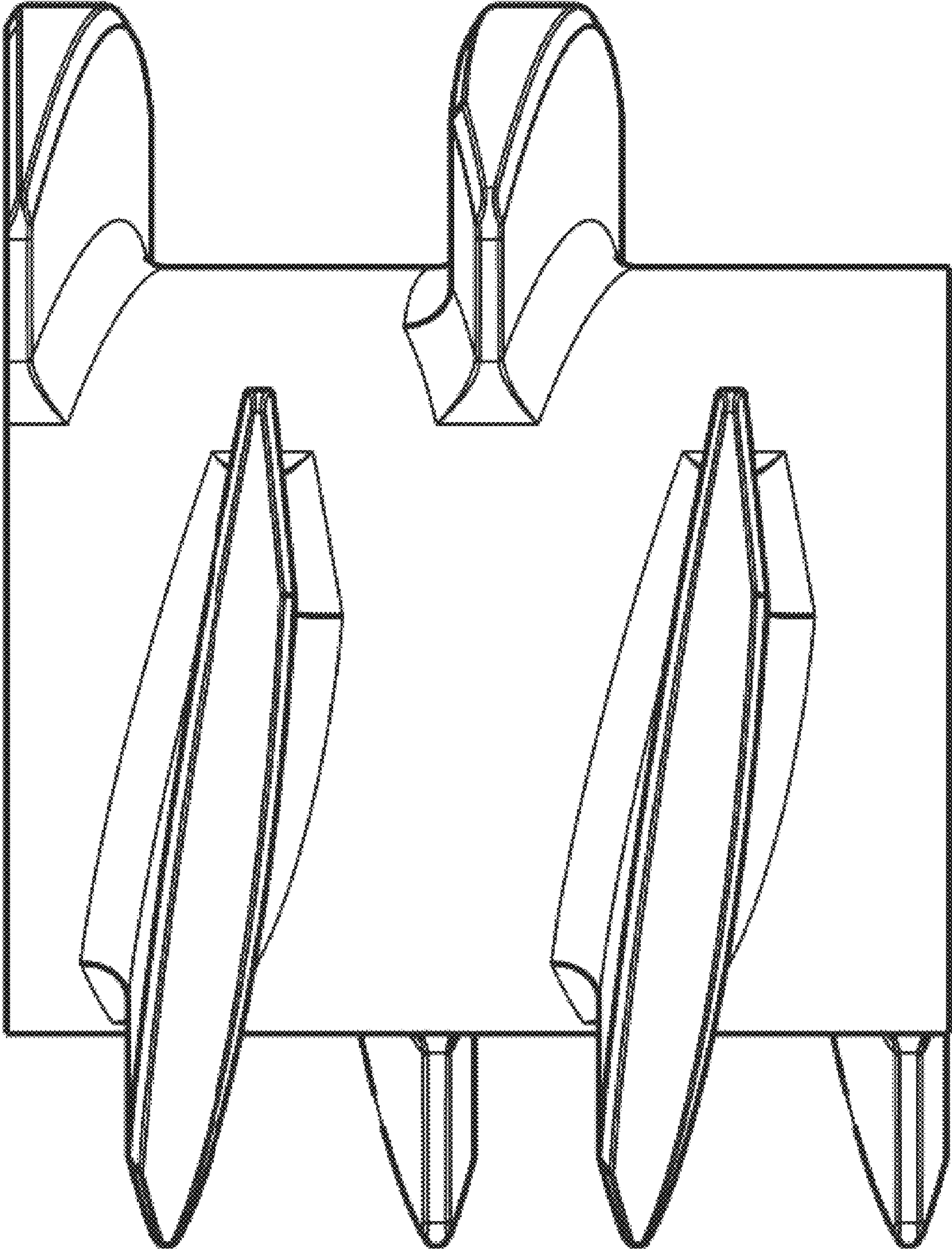


Fig. 5

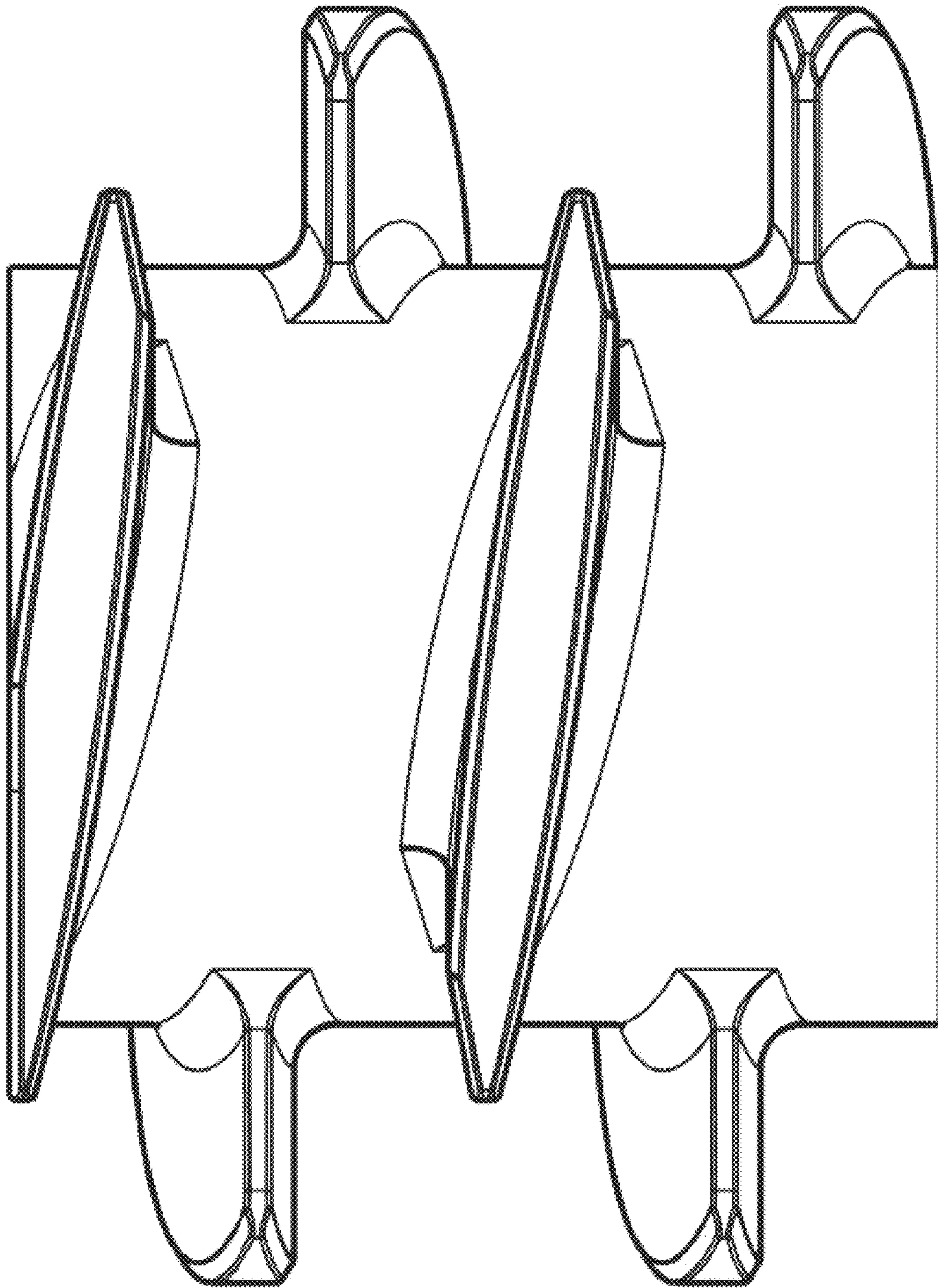


Fig. 6



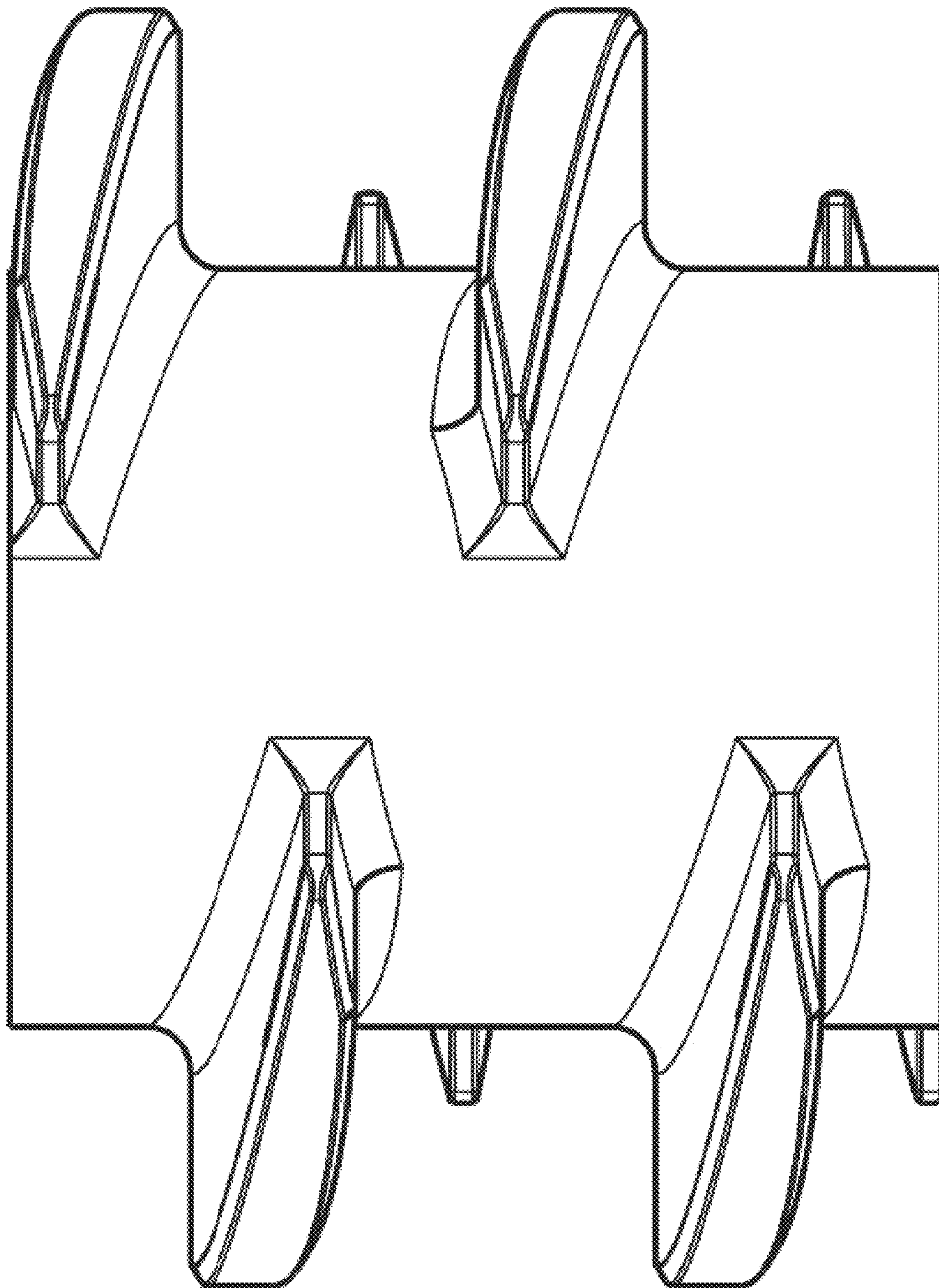


Fig. 7