



US00D908889S

(12) **United States Design Patent**  
**Moon**

(10) **Patent No.:** **US D908,889 S**  
(45) **Date of Patent:** **\*\* Jan. 26, 2021**

(54) **PALATAL EXPANSION APPLIANCE**

8,821,156 B2 \* 9/2014 Ehrenberger ..... A61C 7/10  
433/7

(71) Applicant: **Sung Chul Moon**, Seoul (KR)

9,642,679 B2 \* 5/2017 Montalban ..... A61C 7/10  
D799,041 S \* 10/2017 Kim ..... D24/152

(72) Inventor: **Sung Chul Moon**, Seoul (KR)

D901,017 S \* 11/2020 Moon ..... D24/180  
2002/0142259 A1 \* 10/2002 Ceppatelli ..... A61C 7/10

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

2004/0214126 A1 \* 10/2004 Forster ..... A61C 7/10  
433/7

(21) Appl. No.: **29/668,829**

(Continued)

(22) Filed: **Nov. 2, 2018**

*Primary Examiner* — Wan Laymon

*Assistant Examiner* — Clint A Samuel

(30) **Foreign Application Priority Data**

(74) *Attorney, Agent, or Firm* — Burriss Law, PLLC

May 28, 2018 (KR) ..... 30-2018-0024616

(51) **LOC (13) Cl.** ..... **24-02**

(52) **U.S. Cl.**

USPC ..... **D24/180**

(58) **Field of Classification Search**

USPC ..... D24/152, 153, 176, 177, 180, 181, 182;  
433/7

See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

- D308,095 S \* 5/1990 Collins, Jr. .... D24/180
- D311,579 S \* 10/1990 Collins, Jr. .... D24/180
- 5,281,133 A \* 1/1994 Farzin-Nia ..... A61C 7/10  
433/7
- 5,383,784 A \* 1/1995 Sernetz ..... A61C 7/00  
433/23
- 5,439,377 A \* 8/1995 Milanovich ..... A61C 7/10  
433/7
- 5,472,344 A \* 12/1995 Binder ..... A61C 7/10  
433/7
- 6,174,162 B1 \* 1/2001 Pozzi ..... A61C 7/02  
433/141
- 7,780,445 B2 \* 8/2010 Keles ..... A61C 7/10  
433/24
- 7,837,465 B2 \* 11/2010 Forster ..... A61C 7/10  
433/7

(57) **CLAIM**

The ornamental design for a palatal expansion appliance, as shown and described.

**DESCRIPTION**

FIG. 1 is a top perspective view of a first embodiment of a palatal expansion appliance in accordance with my new design.

FIG. 2 is a front view thereof;

FIG. 3 is a rear view thereof;

FIG. 4 is a left side view thereof;

FIG. 5 is a right side view thereof;

FIG. 6 is a top plan view thereof;

FIG. 7 is a bottom plan view thereof;

FIG. 8 is a top perspective view of a second embodiment of the palatal expansion appliance in accordance with my new design.

FIG. 9 is a front view thereof;

FIG. 10 is a rear view thereof;

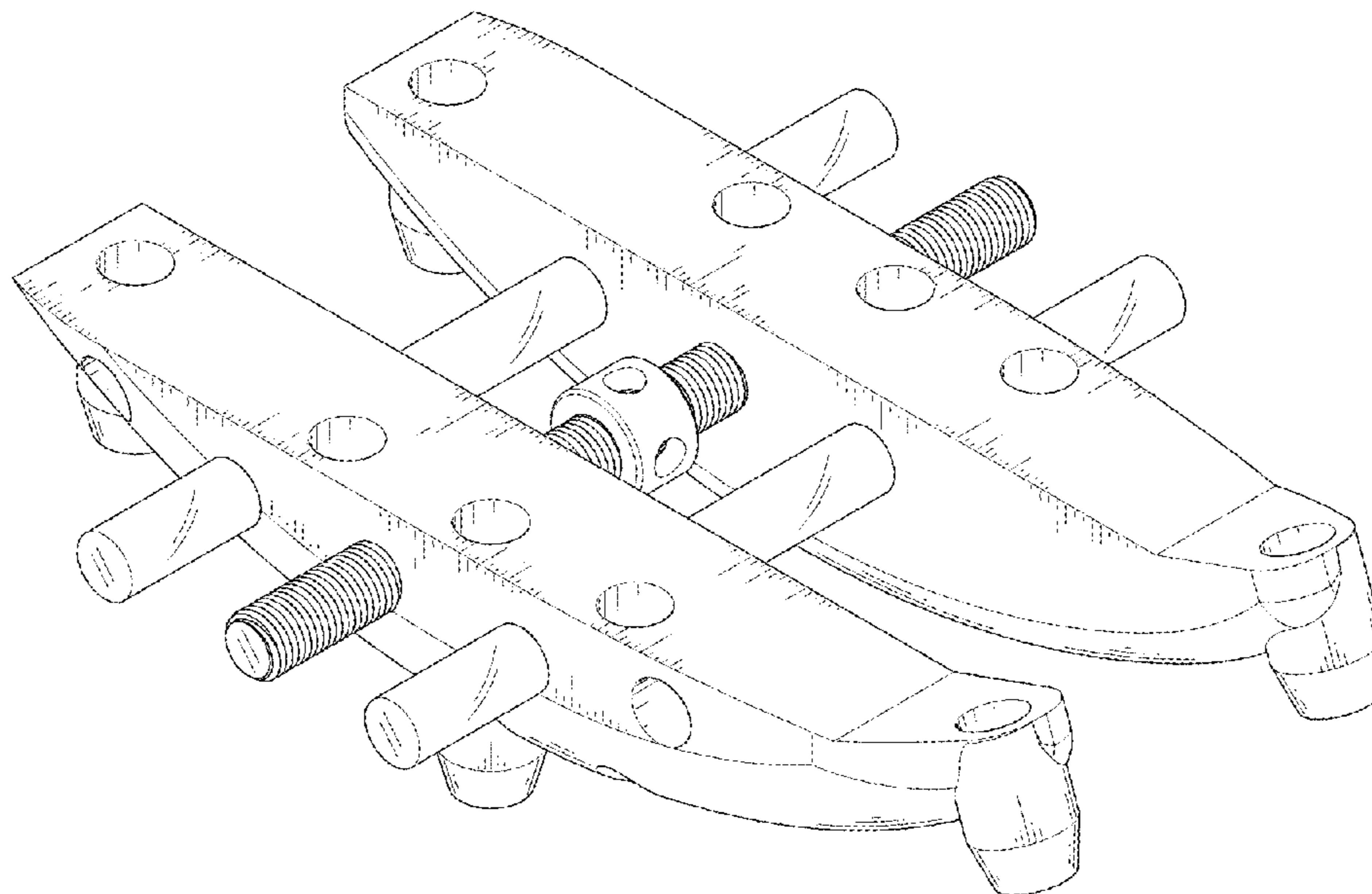
FIG. 11 is a left side view thereof;

FIG. 12 is a right side view thereof;

FIG. 13 is a top plan view thereof; and,

FIG. 14 is a bottom plan view thereof.

**1 Claim, 10 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

2007/0218416 A1\* 9/2007 Keles ..... A61C 7/10  
433/7  
2007/0275341 A1\* 11/2007 Hanks ..... A61C 7/10  
433/7  
2008/0171300 A1\* 7/2008 Forster ..... A61C 7/10  
433/7  
2009/0081602 A1\* 3/2009 Ayan ..... A61B 17/8872  
433/7  
2010/0112507 A1\* 5/2010 Ehrenberger ..... A61C 7/10  
433/7  
2011/0207071 A1\* 8/2011 Ayan ..... A61B 17/8872  
433/3  
2015/0024333 A1\* 1/2015 Montalban ..... A61C 7/10  
433/7  
2016/0008098 A1\* 1/2016 Dolfi ..... A61C 7/10  
433/7  
2017/0354482 A1\* 12/2017 Kim ..... A61C 7/10  
2018/0368945 A1\* 12/2018 Moon ..... A61C 7/10  
2020/0345458 A1\* 11/2020 Scommegna ..... A61C 7/303

\* cited by examiner

FIG. 1

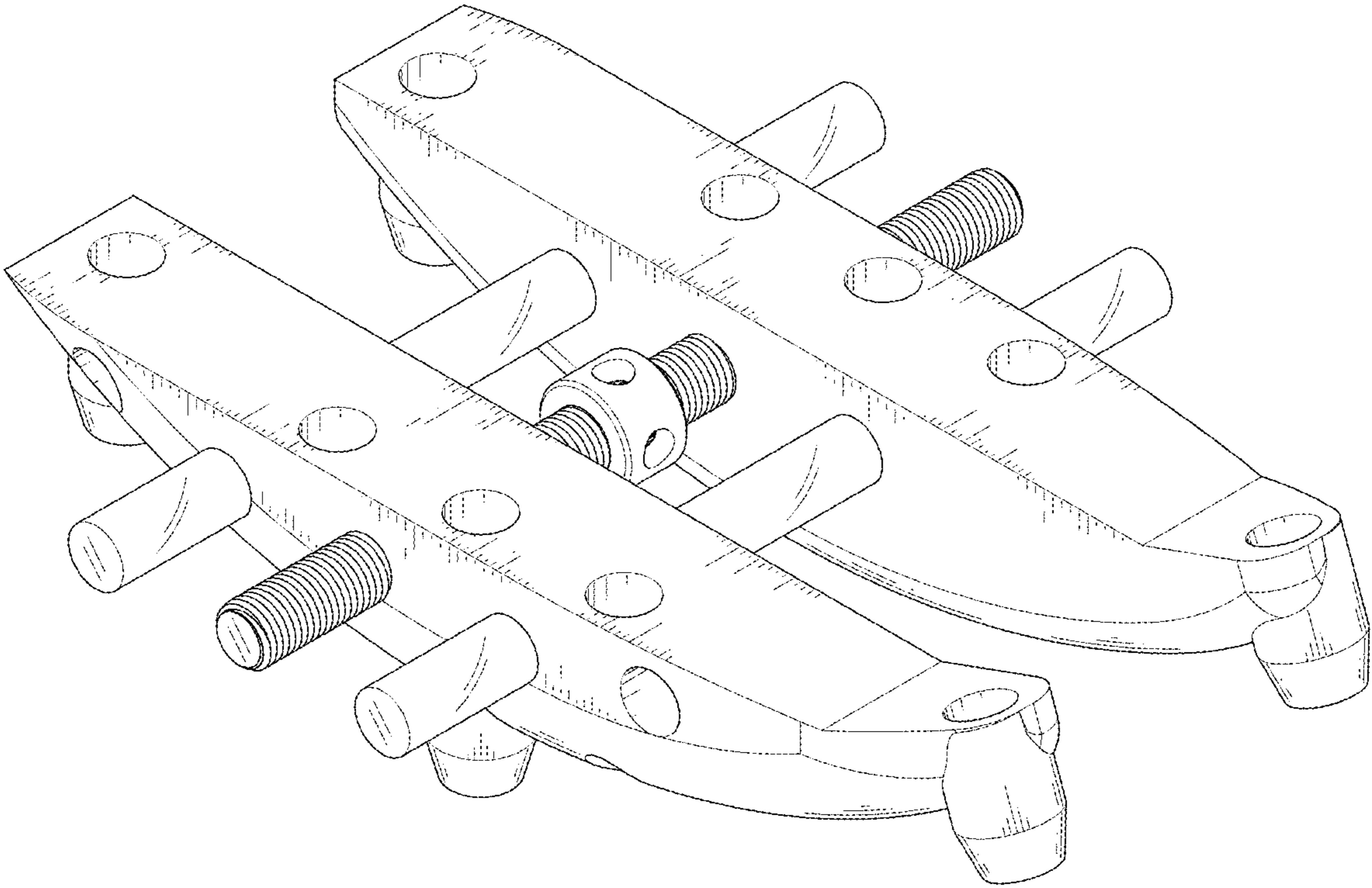


FIG. 2

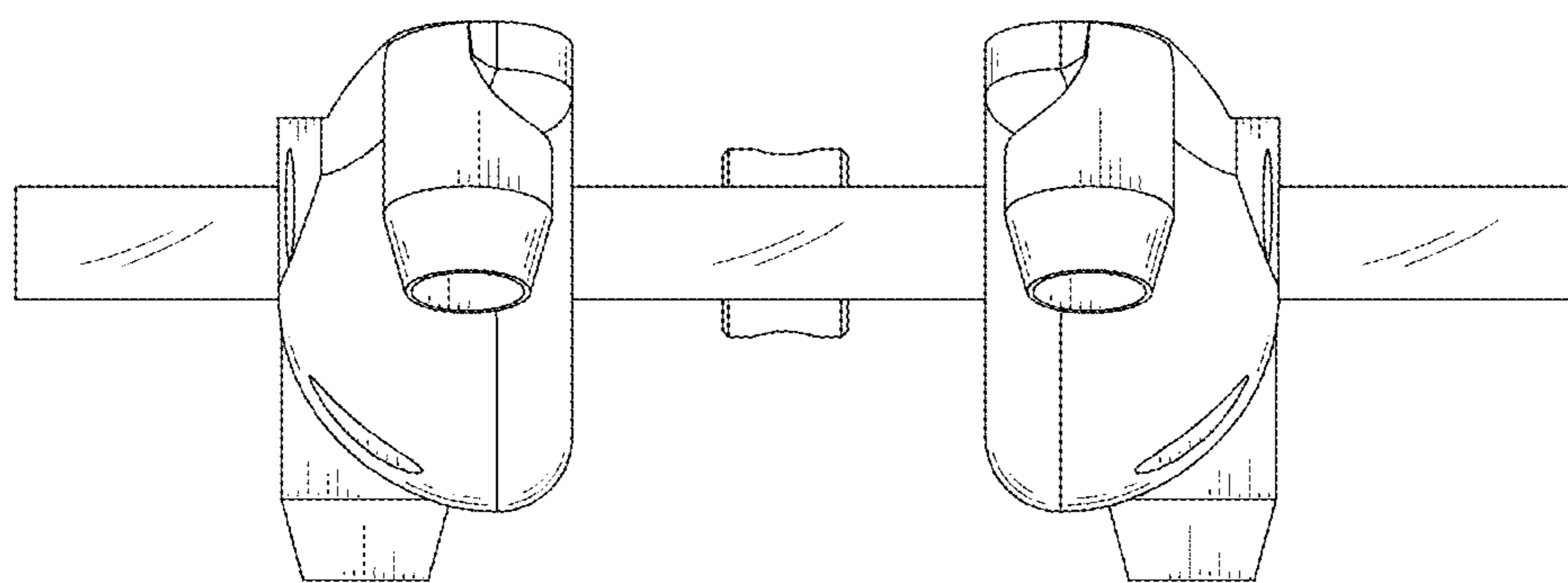


FIG. 3

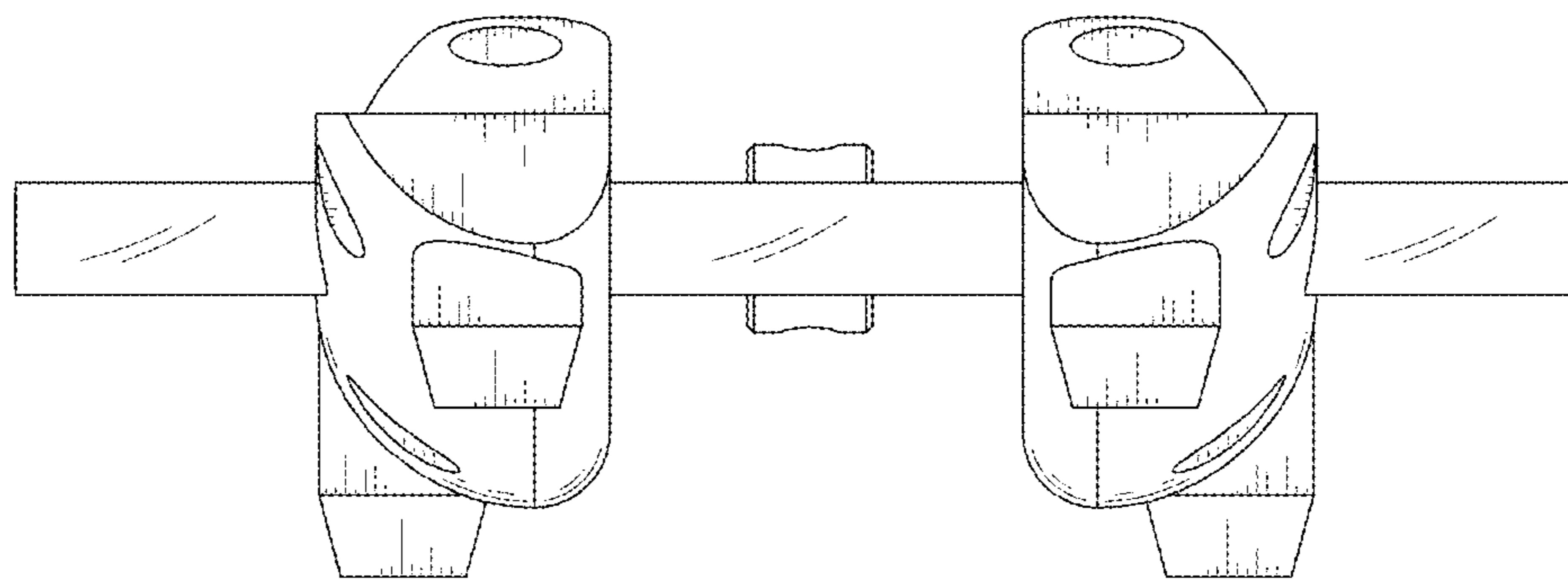


FIG. 4

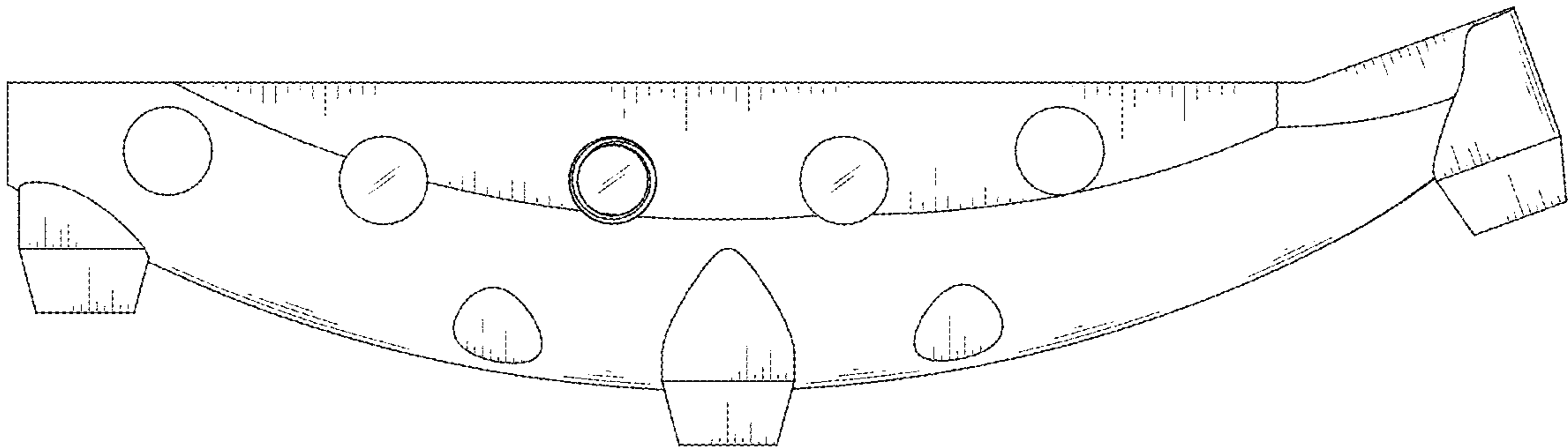


FIG. 5

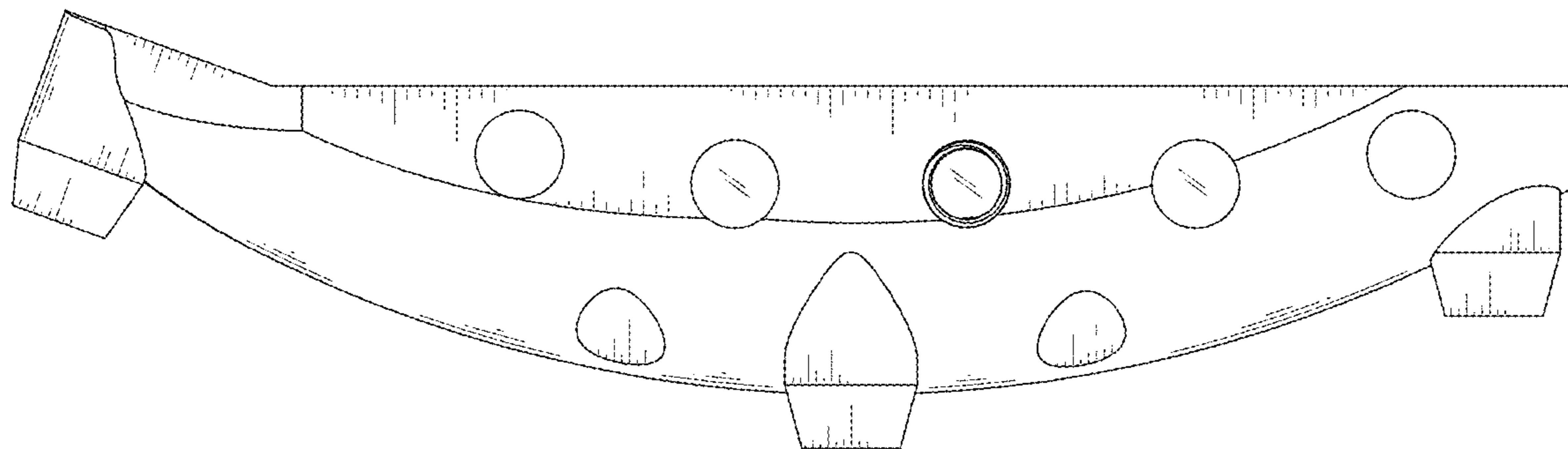


FIG. 6

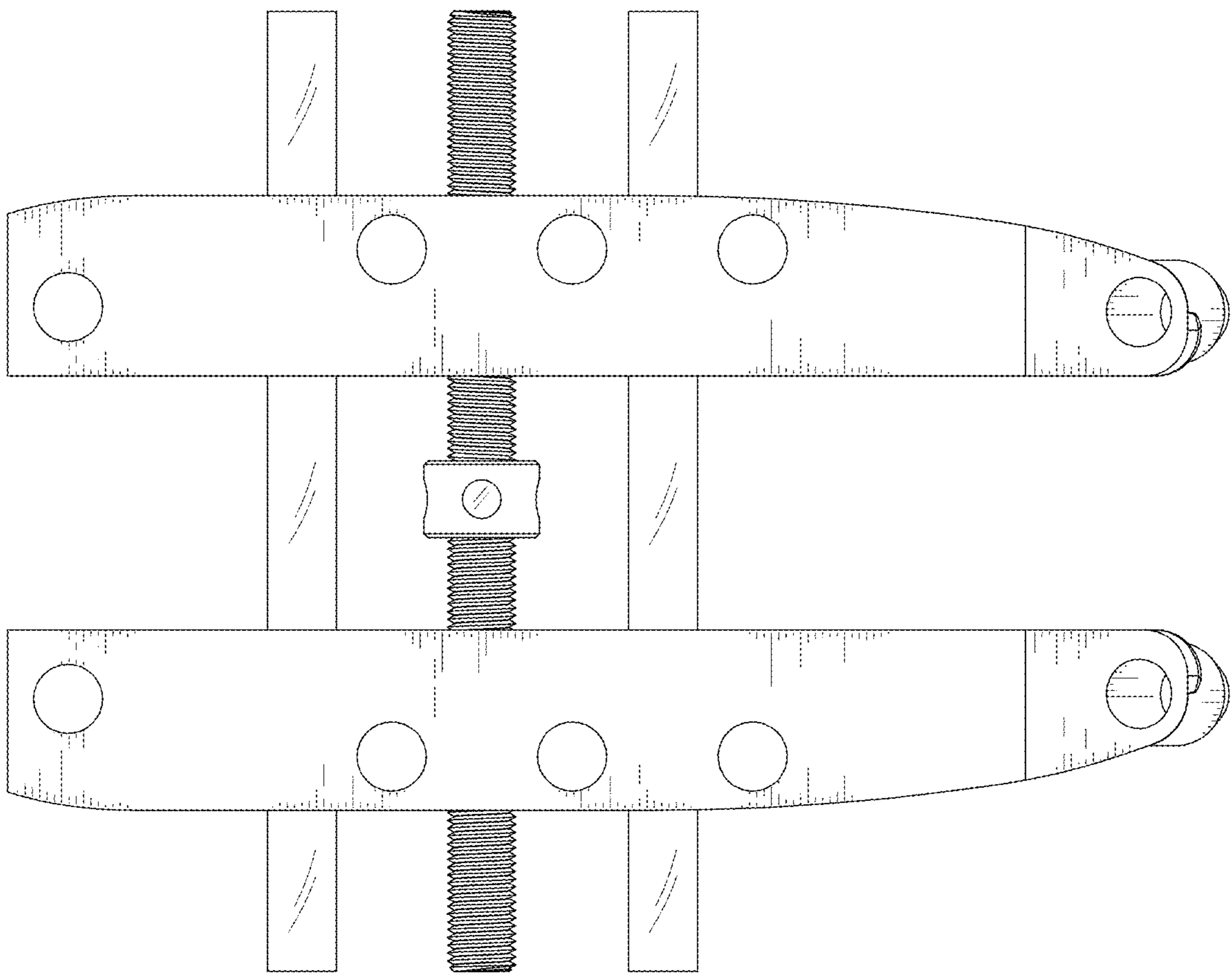


FIG. 7

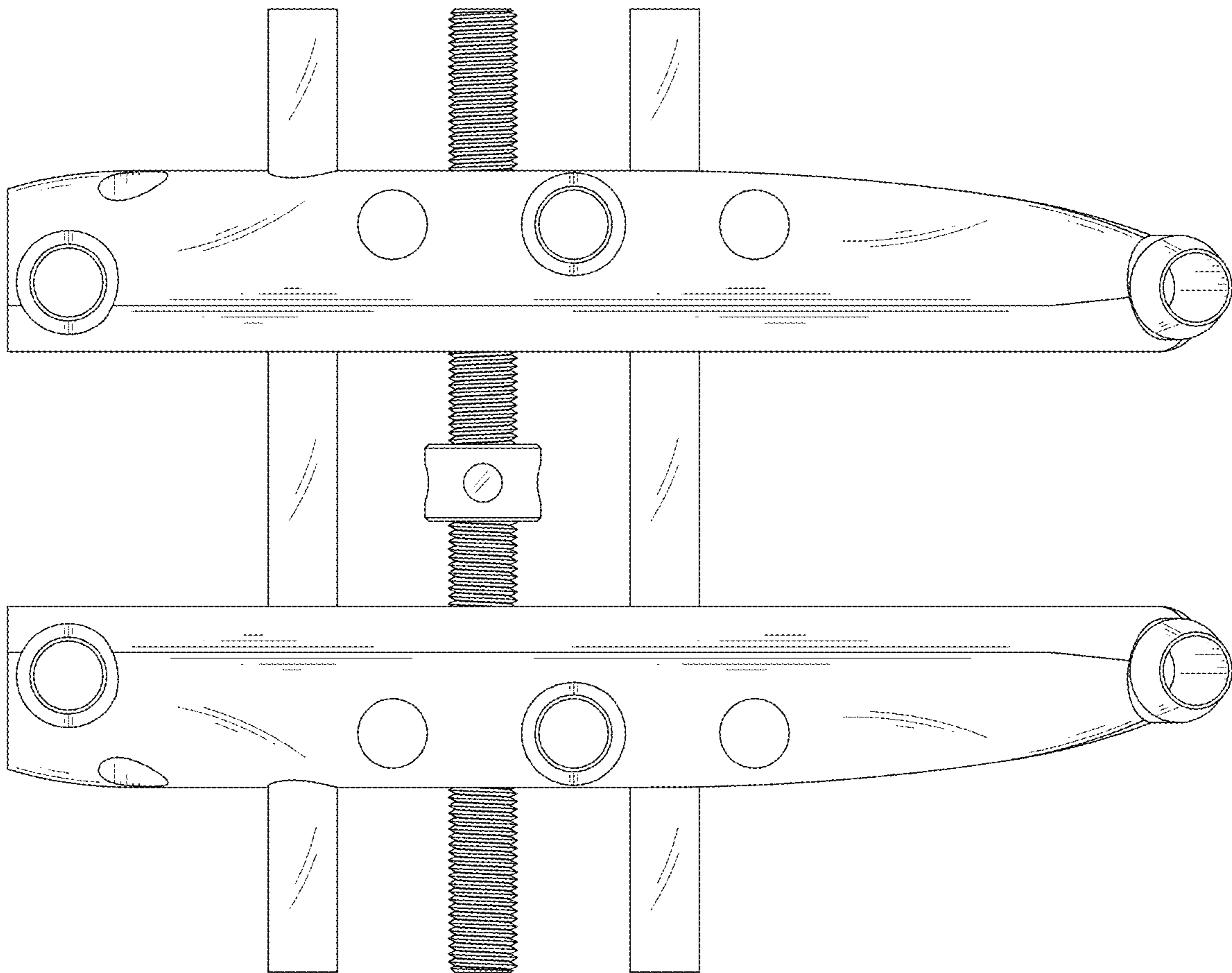


FIG. 8

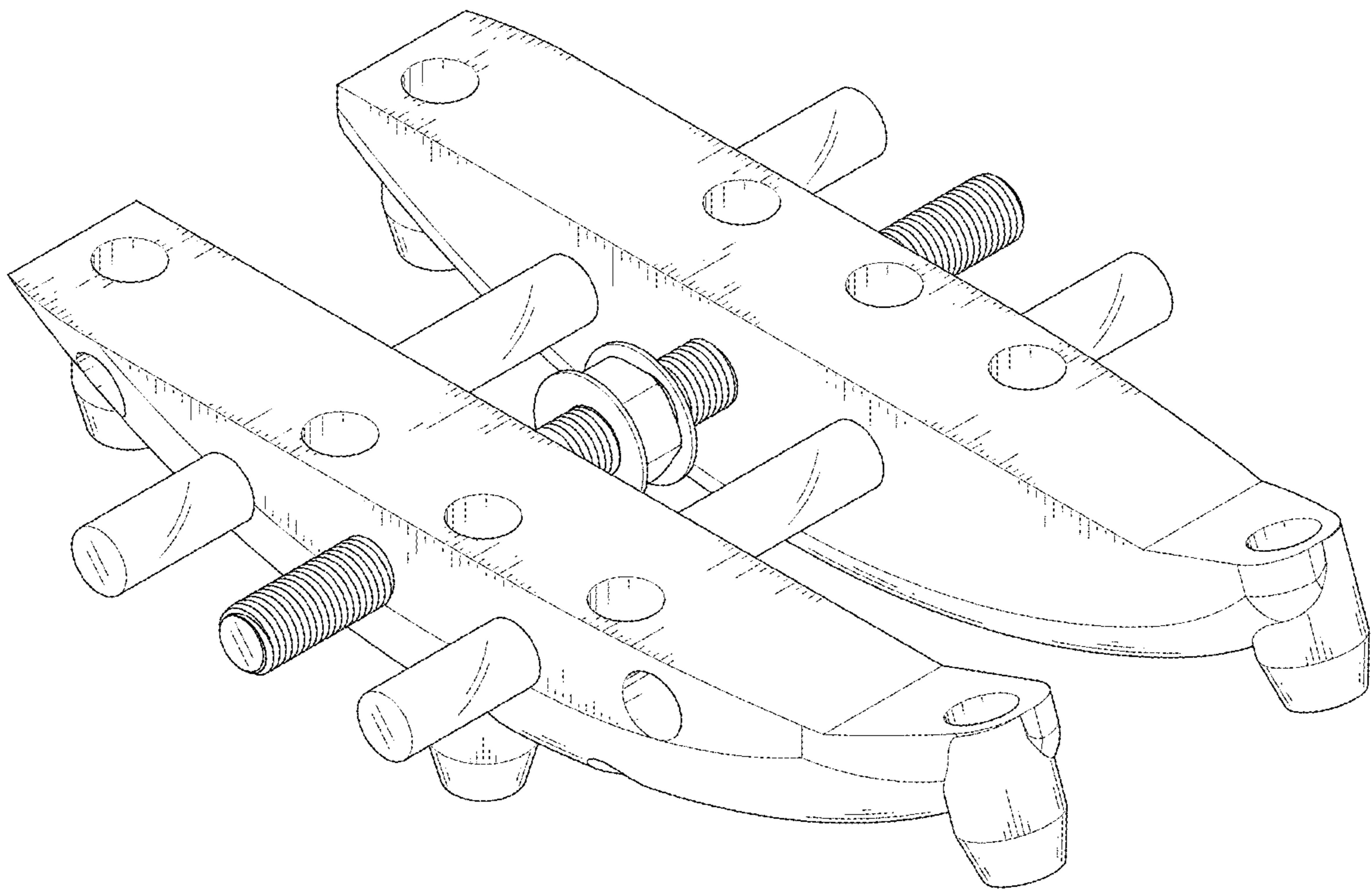




FIG. 9

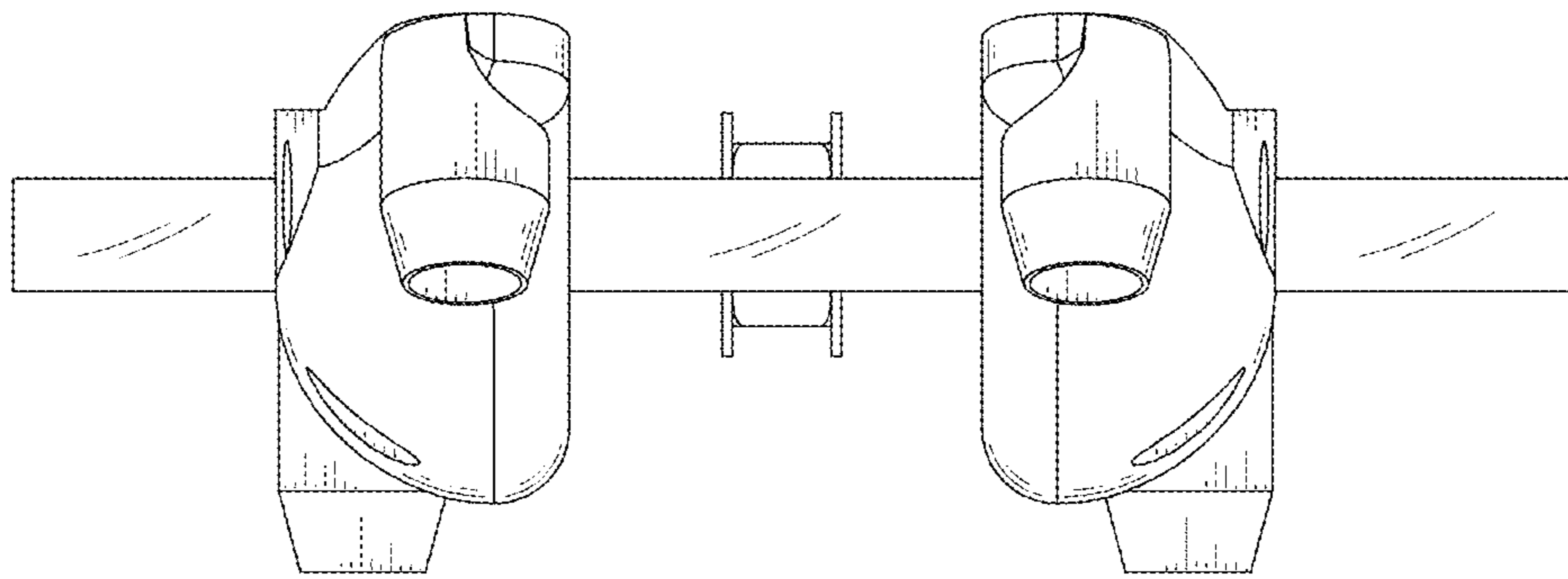


FIG. 10

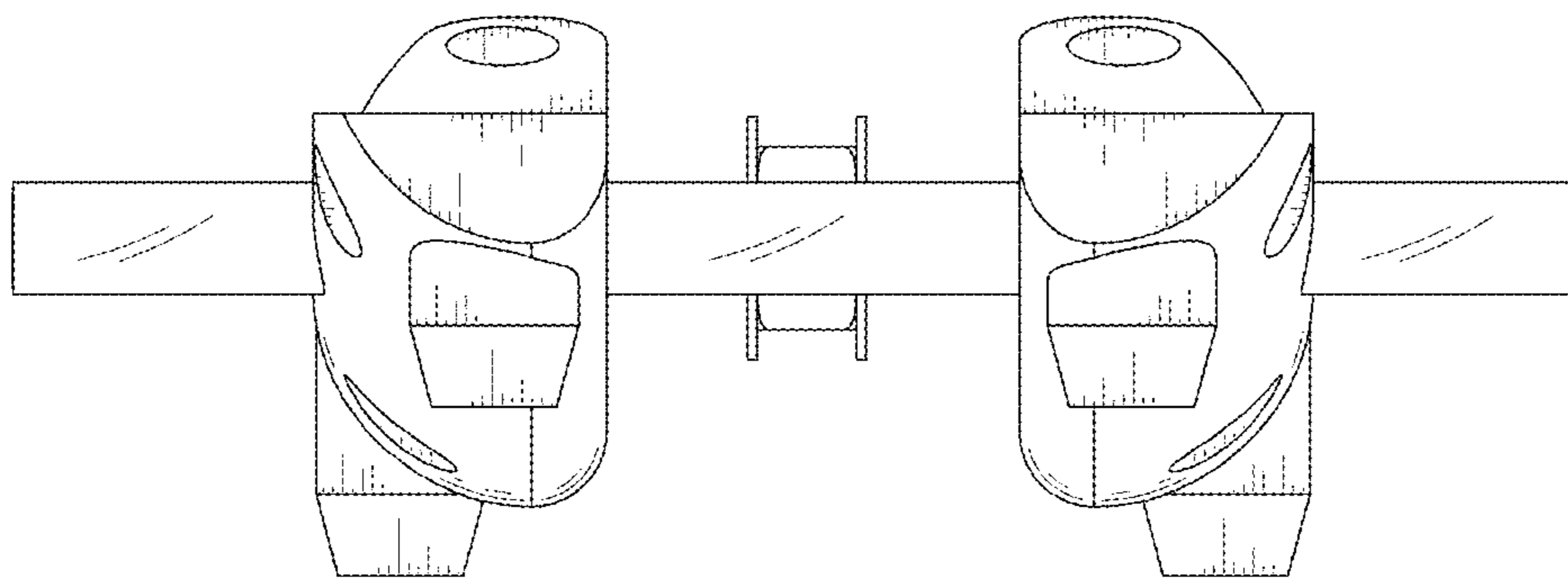


FIG. 11

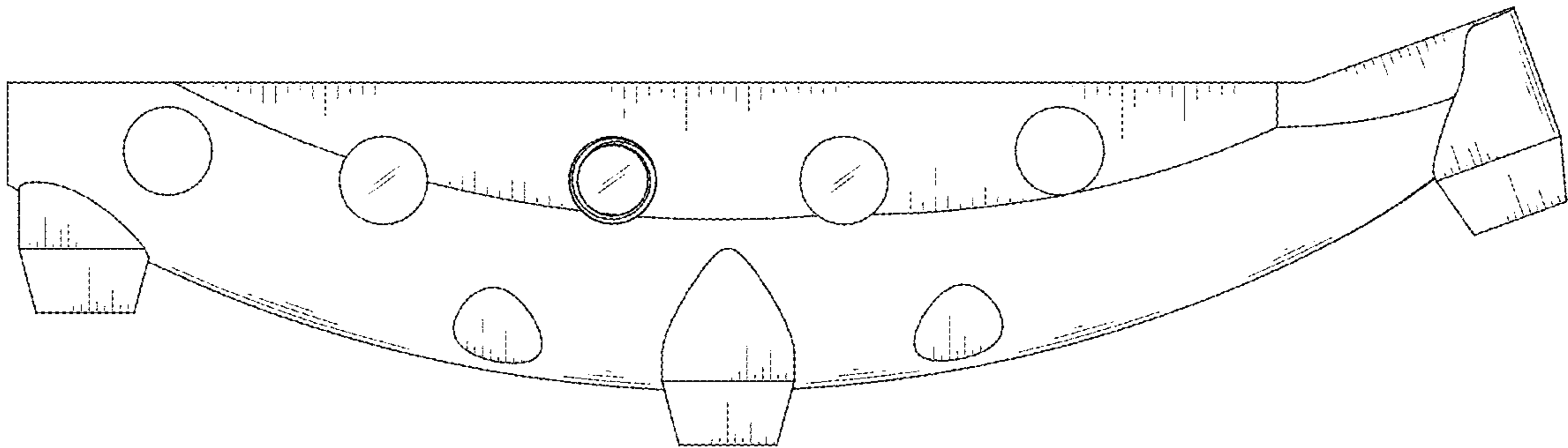


FIG. 12

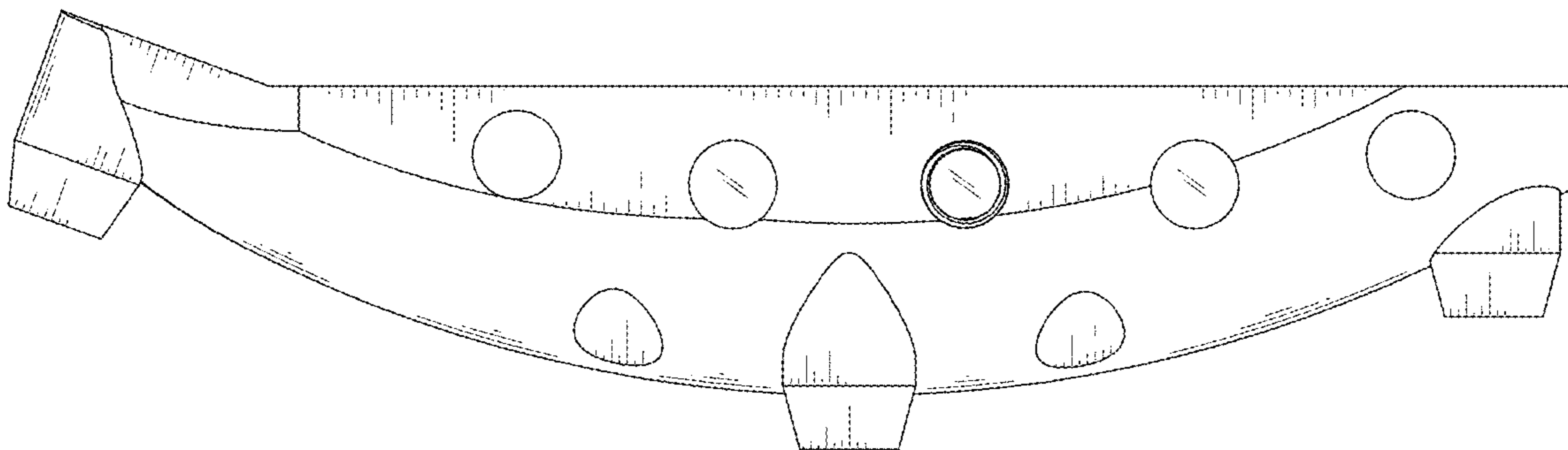


FIG. 13

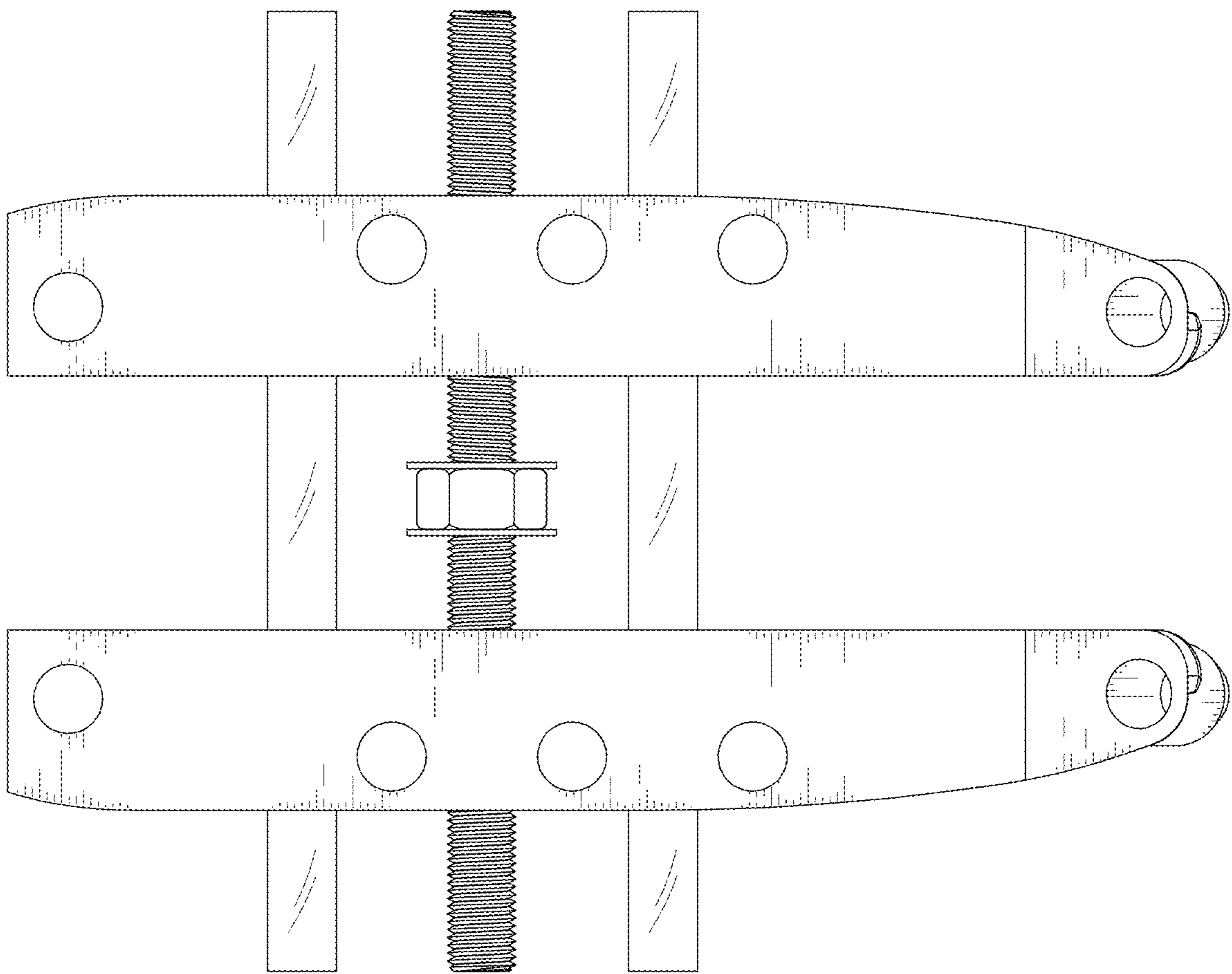


FIG. 14

