



US00D683461S

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

(10) **Patent No.:** **US D683,461 S**
(45) **Date of Patent:** **** May 28, 2013**

(54) **HINGE COUPLING**

5,098,432 A 3/1992 Wagenknecht
5,152,280 A 10/1992 Danieli
5,304,177 A 4/1994 Pennig

(75) Inventors: **Beat Mürner**, Reichenbach (CH); **Axel Bernhard Cremer**, Lommiswil (CH);
Adam Busch, Olten (CH); **Robert Dominik**, Lausanne (CH)

(Continued)

FOREIGN PATENT DOCUMENTS

(73) Assignee: **Stryker Trauma SA** (CH)

CH 657899 A5 9/1986
DE 518329 C 2/1931

(Continued)

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

OTHER PUBLICATIONS

(21) Appl. No.: **29/394,179**

<http://www.smith-nephew.com/us/professional/products/all-products/jet-x/> searched RMS Jan. 15, 2013.*

(22) Filed: **Jun. 14, 2011**

(Continued)

(30) **Foreign Application Priority Data**

Dec. 14, 2010 (WO) 577 932 301

Primary Examiner — Robert M Spear
Assistant Examiner — Rhea Shields

(51) **LOC (9) Cl.** **24-03**

(74) *Attorney, Agent, or Firm* — Lerner, David, Littenberg, Krumholz & Mentlik, LLP

(52) **U.S. Cl.**
USPC **D24/171**

(57) **CLAIM**

(58) **Field of Classification Search**
USPC D24/143, 170, 164, 171, 172, 185,
D24/234, 221, 190, 186, 183, 188, 150; 606/54,
606/56, 57, 59
See application file for complete search history.

The ornamental design for the hinge coupling, as shown and described.

DESCRIPTION

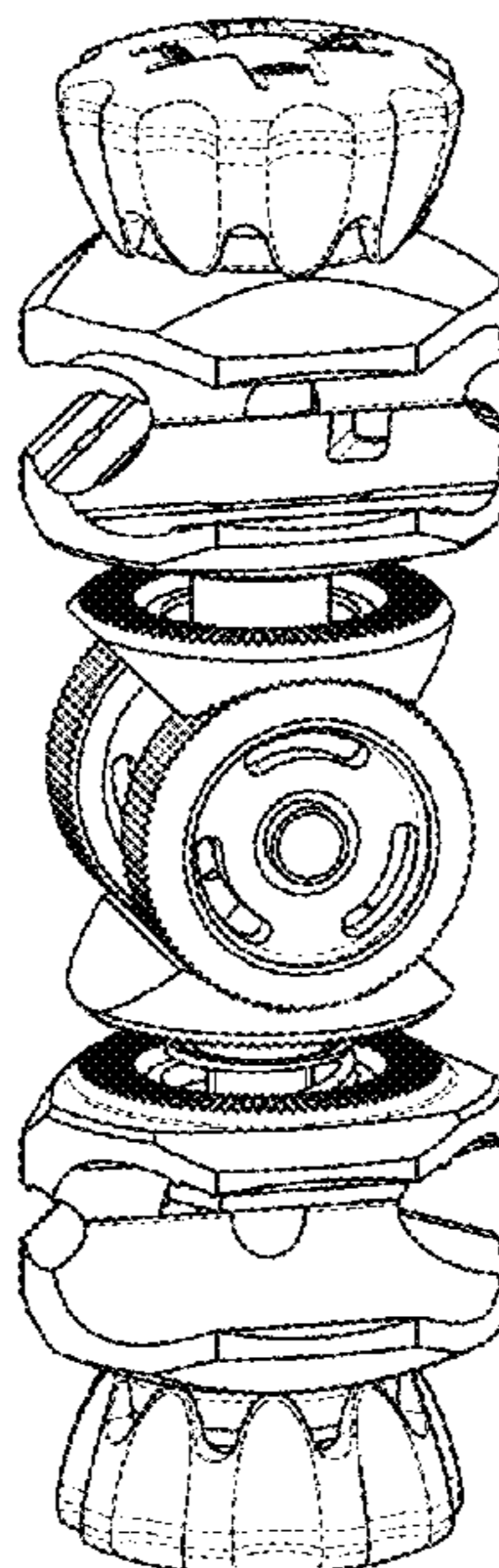
(56) **References Cited**

U.S. PATENT DOCUMENTS

2,250,417 A 7/1941 Ettinger
D228,970 S 10/1973 Cohen
D237,631 S 11/1975 Katzman
D255,713 S 7/1980 Sturges
D282,962 S 3/1986 Gerber
D283,725 S 5/1986 Mahoney
4,620,533 A 11/1986 Mears
4,662,365 A 5/1987 Gotzen et al.
D301,496 S 6/1989 Yonesawa et al.
5,071,437 A 12/1991 Steffee

FIG. 1 is a perspective view of a hinge coupling, in accordance with one embodiment of the present invention.
FIG. 2 is a front view of the hinge coupling shown in FIG. 1.
FIG. 3 is a left side view of the hinge coupling shown in FIG. 1.
FIG. 4 is a back view of the hinge coupling shown in FIG. 1.
FIG. 5 is a right side view of the hinge coupling shown in FIG. 1.
FIG. 6 is a top view of the hinge coupling shown in FIG. 1; and,
FIG. 7 is a bottom view of the hinge coupling shown in FIG. 1.

1 Claim, 6 Drawing Sheets



US D683,461 S

U.S. PATENT DOCUMENTS

5,376,091 A 12/1994 Hotchkiss et al.
 5,429,637 A 7/1995 Hardy
 5,443,465 A 8/1995 Pennig
 5,630,815 A 5/1997 Pohl et al.
 D380,262 S 6/1997 Van Funderburk et al.
 5,662,648 A 9/1997 Faccioli et al.
 5,746,741 A 5/1998 Kraus et al.
 5,752,954 A 5/1998 Mata et al.
 5,827,282 A 10/1998 Pennig
 5,846,245 A 12/1998 McCarthy et al.
 5,891,144 A 4/1999 Mata et al.
 5,921,985 A 7/1999 Ross, Jr. et al.
 6,019,769 A 2/2000 McCarthy et al.
 6,024,745 A 2/2000 Faccioli et al.
 6,080,153 A 6/2000 Mata et al.
 D429,334 S 8/2000 Solem
 6,217,577 B1 4/2001 Hofmann
 6,308,598 B1 10/2001 O'Neil
 D455,831 S 4/2002 Koros et al.
 6,386,786 B1 5/2002 Perlman et al.
 6,409,729 B1 6/2002 Martinelli et al.
 6,482,206 B2 11/2002 Schoenefeld
 6,520,962 B1 2/2003 Taylor et al.
 6,565,564 B2 5/2003 Hoffman et al.
 6,613,049 B2 9/2003 Winquist et al.
 6,616,664 B2 9/2003 Walulik et al.
 6,652,523 B1 11/2003 Evrard et al.
 D483,642 S 12/2003 Lin
 6,702,814 B2 3/2004 Walulik et al.
 D493,225 S 7/2004 Varga et al.
 D494,274 S 8/2004 Varga et al.
 D501,555 S 2/2005 Varga et al.
 6,916,319 B2 7/2005 Munting
 7,004,943 B2 2/2006 Ferrante et al.
 7,048,735 B2 5/2006 Ferrante et al.
 D526,410 S 8/2006 Phillips et al.
 D532,277 S 11/2006 Shih
 D537,939 S 3/2007 Phillips et al.
 7,261,713 B2 8/2007 Langmaid et al.
 D551,763 S 9/2007 Phillips et al.
 7,282,052 B2 10/2007 Mullaney
 D556,899 S 12/2007 Veliss et al.
 D558,337 S 12/2007 Jones et al.
 7,449,023 B2 11/2008 Walulik et al.
 7,479,142 B2 1/2009 Weiner et al.
 7,491,008 B2 2/2009 Thomke et al.
 7,527,626 B2 5/2009 Lutz et al.
 7,562,855 B2 7/2009 Oetlinger
 7,588,571 B2 9/2009 Olsen
 7,618,417 B2 11/2009 Thomke et al.
 D607,102 S 12/2009 Robinson
 7,749,224 B2 7/2010 Cresina et al.
 7,806,623 B2 10/2010 Thomke et al.
 D632,791 S 2/2011 Murner
 D633,206 S 2/2011 Murner
 D633,207 S 2/2011 Murner
 D633,208 S 2/2011 Murner

8,172,840 B2 5/2012 Murner et al.
 D663,030 S * 7/2012 Murner et al. D24/143
 2001/0049526 A1 12/2001 Venturini et al.
 2002/0037193 A1 3/2002 Gibbons et al.
 2002/0077629 A1 6/2002 Hoffman et al.
 2003/0199738 A1 10/2003 Yager
 2004/0044344 A1 3/2004 Winquist et al.
 2004/0059331 A1 3/2004 Mullaney
 2005/0203520 A1 9/2005 Volzow
 2005/0240265 A1 10/2005 Kuiper et al.
 2006/0025703 A1 2/2006 Miles et al.
 2006/0039750 A1 2/2006 Thomke et al.
 2006/0052785 A1 3/2006 Augustino et al.
 2006/0155276 A1 7/2006 Walulik et al.
 2006/0167453 A1 7/2006 Hoffmann-Clair et al.
 2006/0287652 A1 12/2006 Lessig et al.
 2007/0038217 A1 * 2/2007 Brown et al. 606/57
 2007/0123856 A1 5/2007 Deffenbaugh et al.
 2007/0198012 A1 8/2007 Thomke et al.
 2007/0233061 A1 10/2007 Lehmann et al.
 2008/0065068 A1 3/2008 Thomke et al.
 2008/0215053 A1 9/2008 Thomke et al.
 2008/0306527 A1 12/2008 Winslow et al.
 2008/0306528 A1 12/2008 Winslow et al.
 2009/0018541 A1 1/2009 Lavi
 2009/0088751 A1 4/2009 Mullaney
 2009/0099565 A1 4/2009 Weiner et al.
 2009/0299368 A1 12/2009 Bauer
 2009/0306661 A1 12/2009 Thomke et al.
 2009/0326532 A1 * 12/2009 Schulze 606/56
 2010/0298827 A1 * 11/2010 Cremer et al. 606/54
 2011/0066151 A1 3/2011 Murner et al.
 2011/0087226 A1 4/2011 Murner et al.
 2012/0004659 A1 1/2012 Miller et al.
 2012/0150181 A1 6/2012 Dorawa et al.
 2012/0150182 A1 * 6/2012 Dominik et al. 606/59
 2012/0150183 A1 * 6/2012 Dorawa et al. 606/59

FOREIGN PATENT DOCUMENTS

DE	10246418	A1	4/2004
EP	314021	A2	5/1989
EP	0700664	A1	3/1996
EP	2250968	A1 *	11/2010
FR	2787697	A1	6/2000
JP	2003325058	A	11/2003
WO	0156486	A1	8/2001
WO	2006116307		11/2006
WO	2007001945	A1	1/2007

OTHER PUBLICATIONS

<http://emedicine.medscape.com/article/1982758-overview> searched
 RMS Jan. 15, 2013.*
 European Search Report for EP 10194943.6 dated Feb. 23, 2011.
 European Search report for EP 10194944.4 dated Feb. 23, 2011.
 European Search Report for EP 10194945.1 dated Feb. 25, 2011.

* cited by examiner

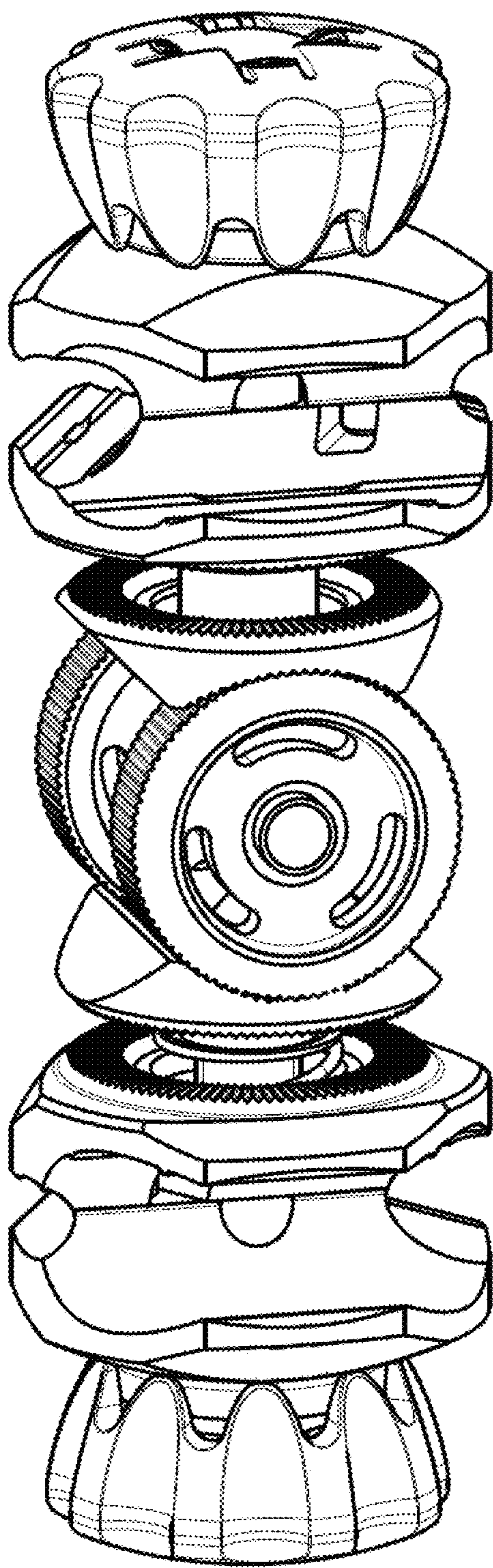


Fig. 1

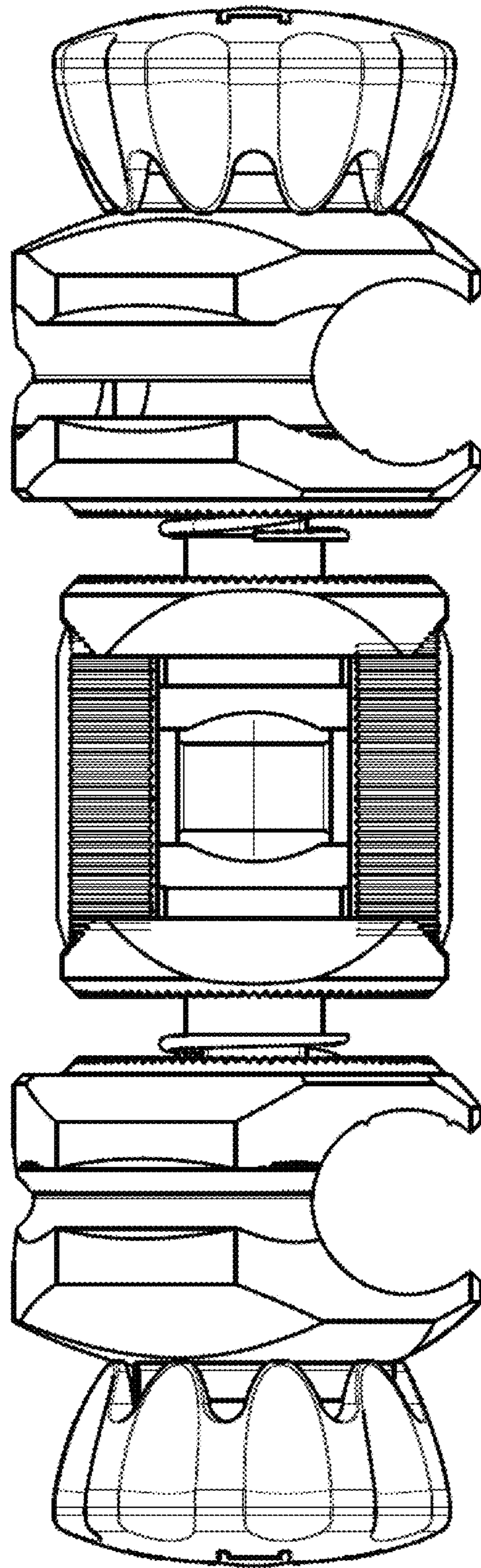


Fig. 2

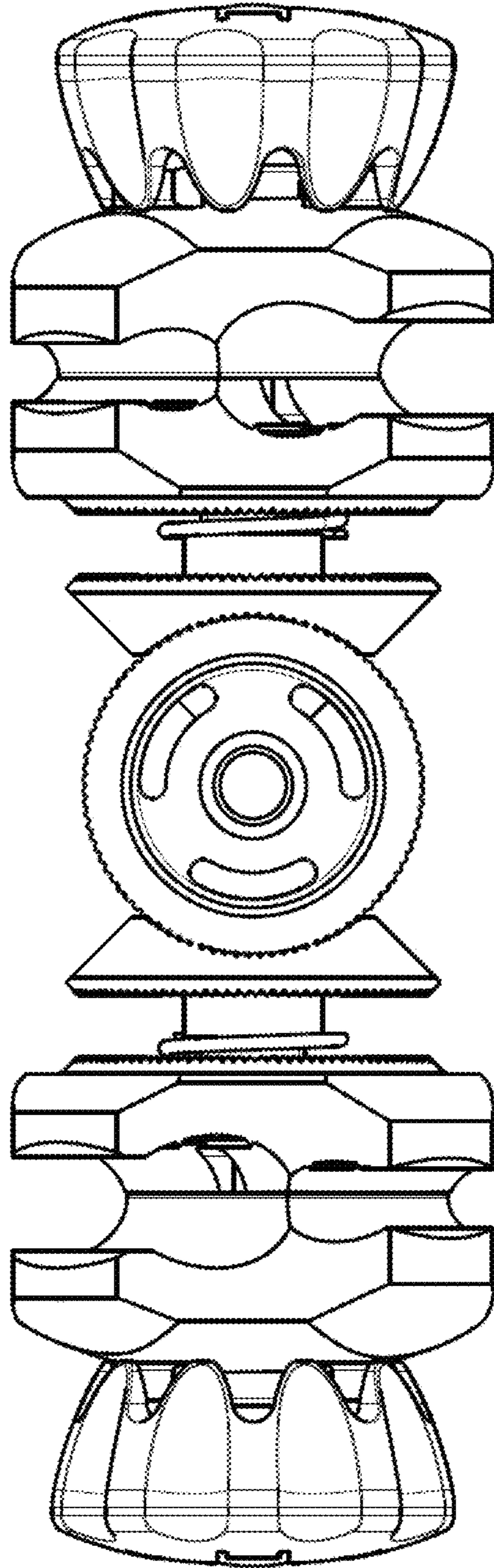


Fig. 3

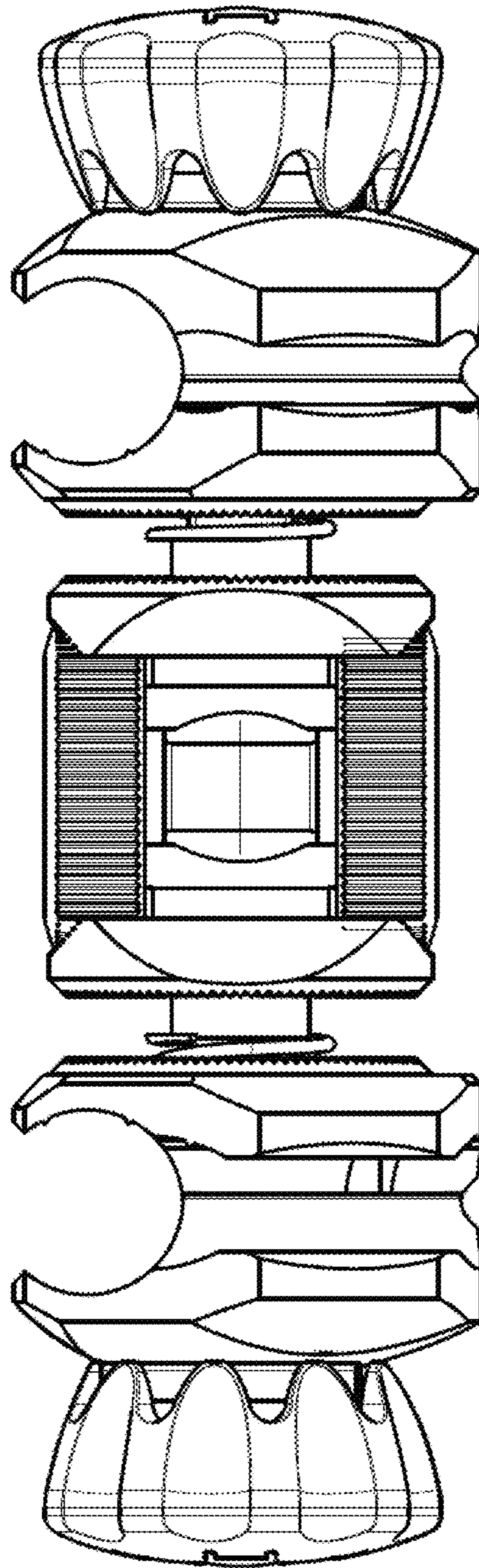


Fig. 4

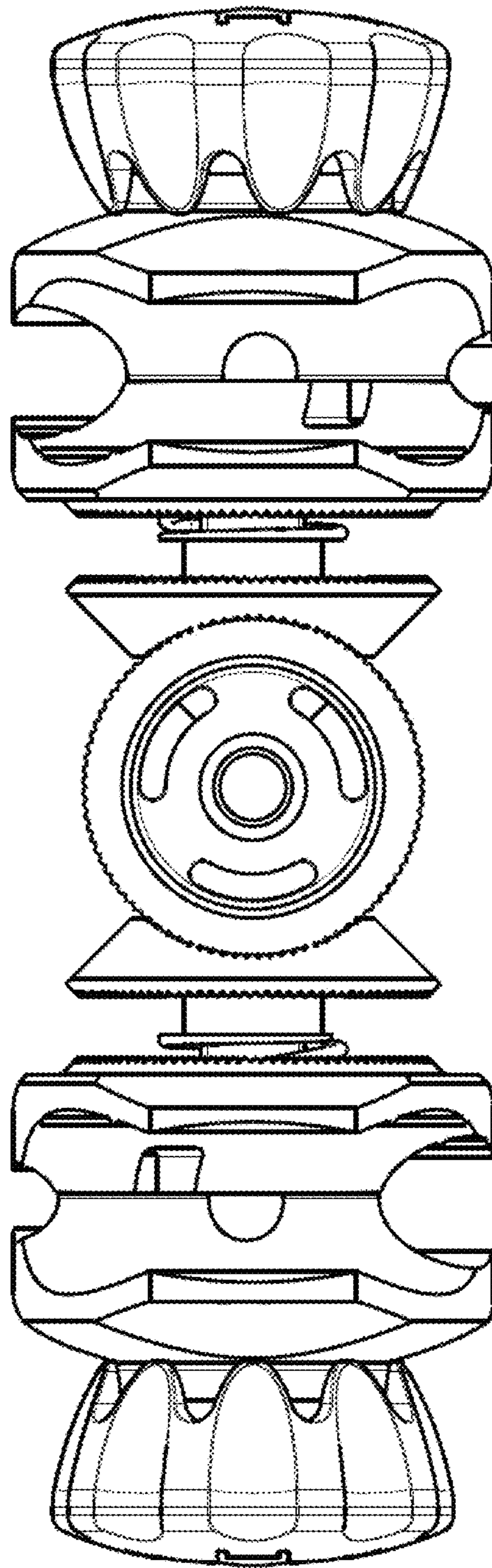


Fig. 5

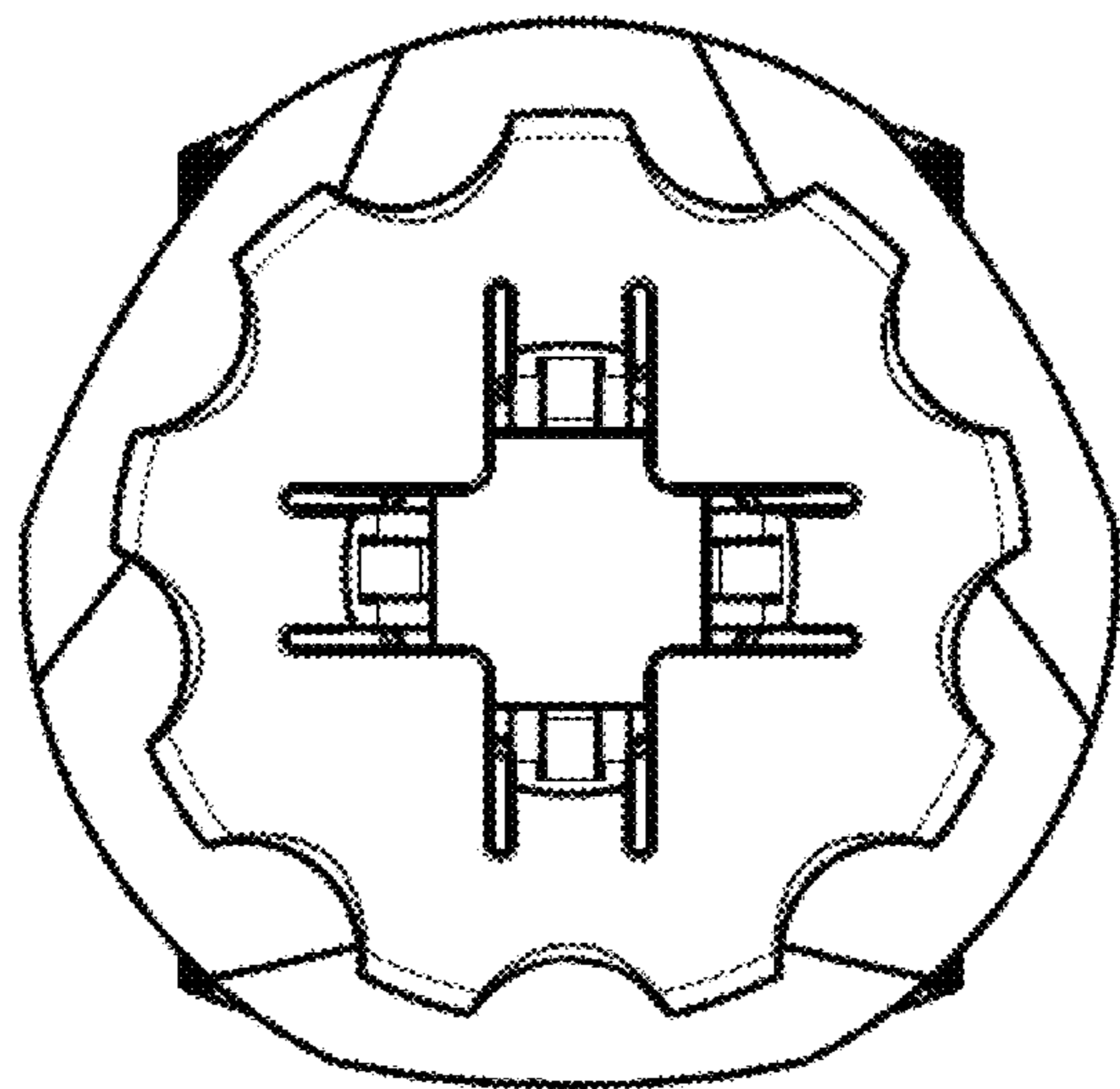


Fig. 6

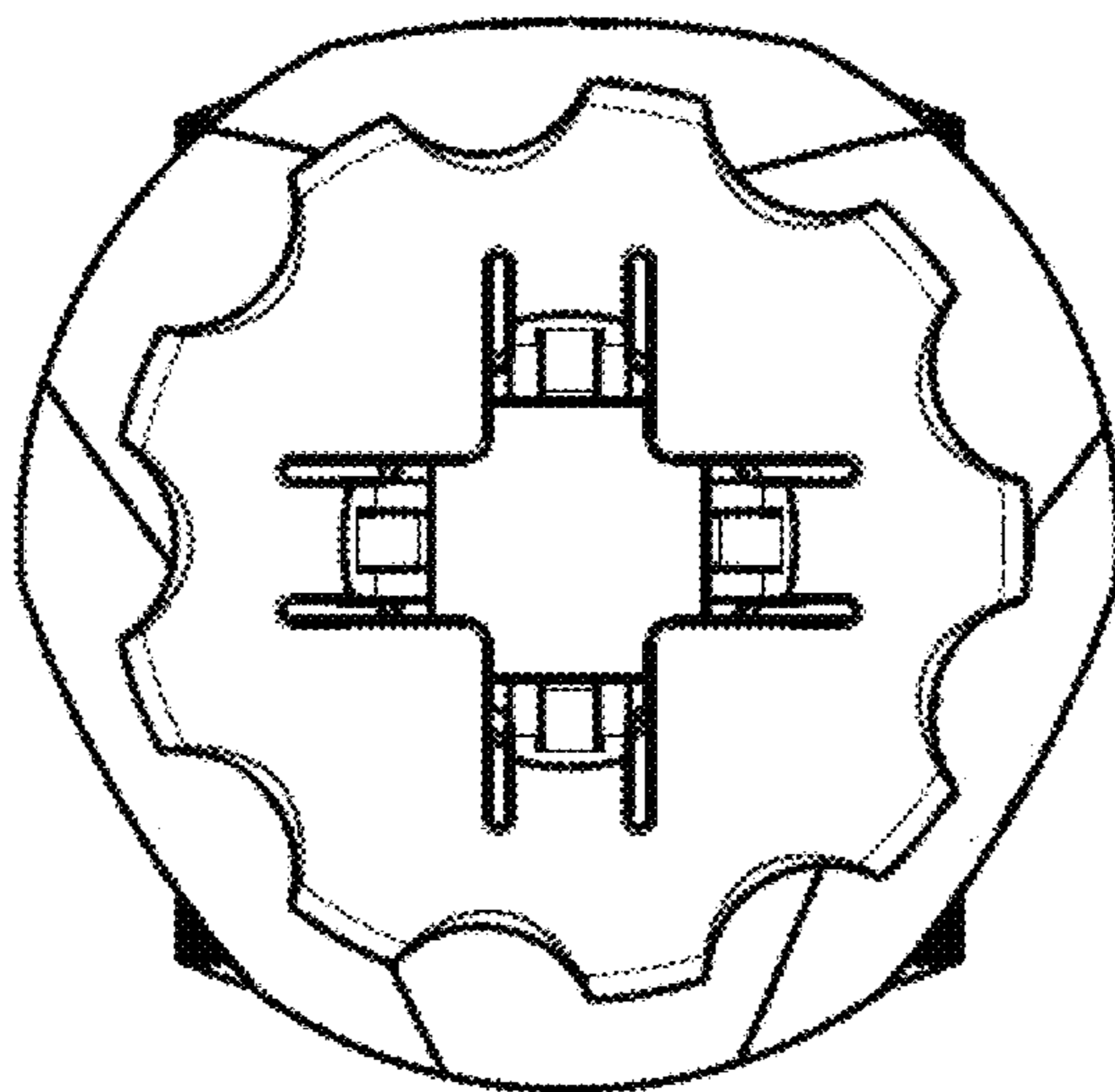


Fig. 7