US00D792585S

(12) United States Design Patent

Miller et al.

(10) Patent No.: US D792,585 S
(45) Date of Patent: ** Jul. 18, 2017

(54) **SENSOR FOR RESPIRATORY CIRCUIT**

(71) Applicant: **Intersurgical AG**, Vaduz (LI)

(72) Inventors: **Andrew Neil Miller**, Wokingham (GB); **Matthew Turner**, Wokingham (GB)

(73) Assignee: **Intersurgical AG**, Vaduz (LI)

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

(21) Appl. No.: **29/541,620**

(22) Filed: **Oct. 6, 2015**

Related U.S. Application Data

(63) Continuation of application No. 29/448,949, filed on Mar. 14, 2013, now Pat. No. Des. 742,507.

(30) **Foreign Application Priority Data**

Jan. 22, 2013 (EM) 002170654

(51) **LOC (10) Cl.** **24-02**

(52) **U.S. Cl.**
USPC **D24/129**

(58) **Field of Classification Search**
USPC D24/127–131, 112–114, 133, 18, 110; 606/181, 185; 604/264, 272, 115, 232, 604/187, 158, 164.08, 192, 263, 163, 181, 604/184, 198, 227; 600/101, 139, 143; 128/200.24, 207.14, 207.15
CPC A61M 2016/0027; A61M 16/16; A61M 16/04; A61M 2205/502; A61M 2205/3306
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,333,826	A *	6/1982	Albertson	F01P 11/06 210/167.01
4,648,628	A *	3/1987	Meadows	F16L 31/02 285/133.11
4,691,976	A *	9/1987	Cowen	H01R 9/0509 29/748
4,738,009	A *	4/1988	Down	H01R 9/0509 29/33 M
D304,079	S	10/1989	McFarlane	
4,926,535	A *	5/1990	Meadows	F16L 31/02 29/450
D329,495	S	9/1992	Kotake	
5,143,476	A *	9/1992	Pruis	F16B 7/042 403/108
6,245,048	B1	6/2001	Fangrow, Jr. et al.	
D449,107	S	10/2001	Madsen et al.	
D483,487	S	12/2003	Harding et al.	

(Continued)

FOREIGN PATENT DOCUMENTS

EP	1 374 940 A2	1/2004
GB	2 272 296 A	5/1994

(Continued)

Primary Examiner — David Muller
Assistant Examiner — Nathan Johnston
(74) *Attorney, Agent, or Firm* — LeClairRyan, a Professional Corporation

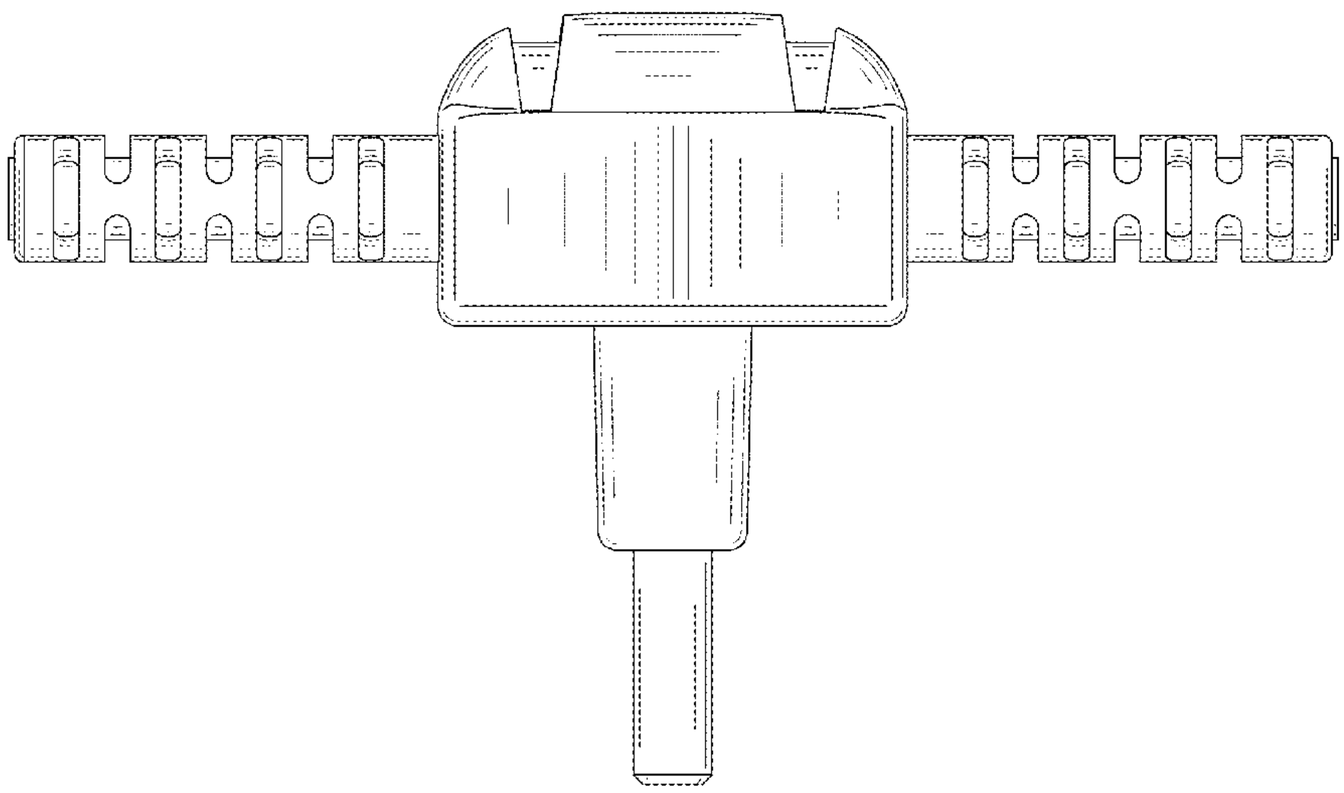
(57) **CLAIM**

The ornamental design for a sensor for respiratory circuit, as shown and described.

DESCRIPTION

FIG. **1** is a front elevation view of a sensor for respiratory circuit, the rear elevation view being a mirror image;
FIG. **2** is a right side elevation view thereof, the left side elevation view being a mirror image;
FIG. **3** is a top plan view thereof;
FIG. **4** is a bottom plan view thereof; and,
FIG. **5** is a perspective view thereof.

1 Claim, 4 Drawing Sheets



(56) **References Cited**

U.S. PATENT DOCUMENTS

D495,417	S	8/2004	Doelling et al.	
D518,573	S *	4/2006	French	D24/113
D519,632	S	4/2006	Bayron et al.	
7,291,131	B2	11/2007	Call	
7,857,008	B2	12/2010	Chen	
7,988,664	B2	8/2011	Fiser et al.	
D672,037	S	12/2012	Miller	
D673,674	S	1/2013	Ho	
D691,717	S	10/2013	McLean et al.	
D742,507	S	11/2015	Miller et al.	
2003/0044249	A1 *	3/2003	Costa	B23G 5/06 408/124
2004/0060558	A1	4/2004	Gradon et al.	
2006/0065475	A1 *	3/2006	Wishinsky	G10K 9/04 181/152
2007/0113912	A1 *	5/2007	Lawrence	B29C 45/1676 138/121
2008/0125753	A1 *	5/2008	Chen	A61M 25/0013 604/528
2009/0282896	A1	11/2009	Tappehorn et al.	
2013/0150807	A1	6/2013	Hamuro et al.	
2014/0207117	A1 *	7/2014	Ueda	A61M 39/02 604/533
2016/0287139	A1 *	10/2016	Luttrell	A61M 16/00

FOREIGN PATENT DOCUMENTS

GB	2 488 244	A	8/2012
JP	2004033788	A	2/2004
WO	2004/108218	A1	12/2004

* cited by examiner

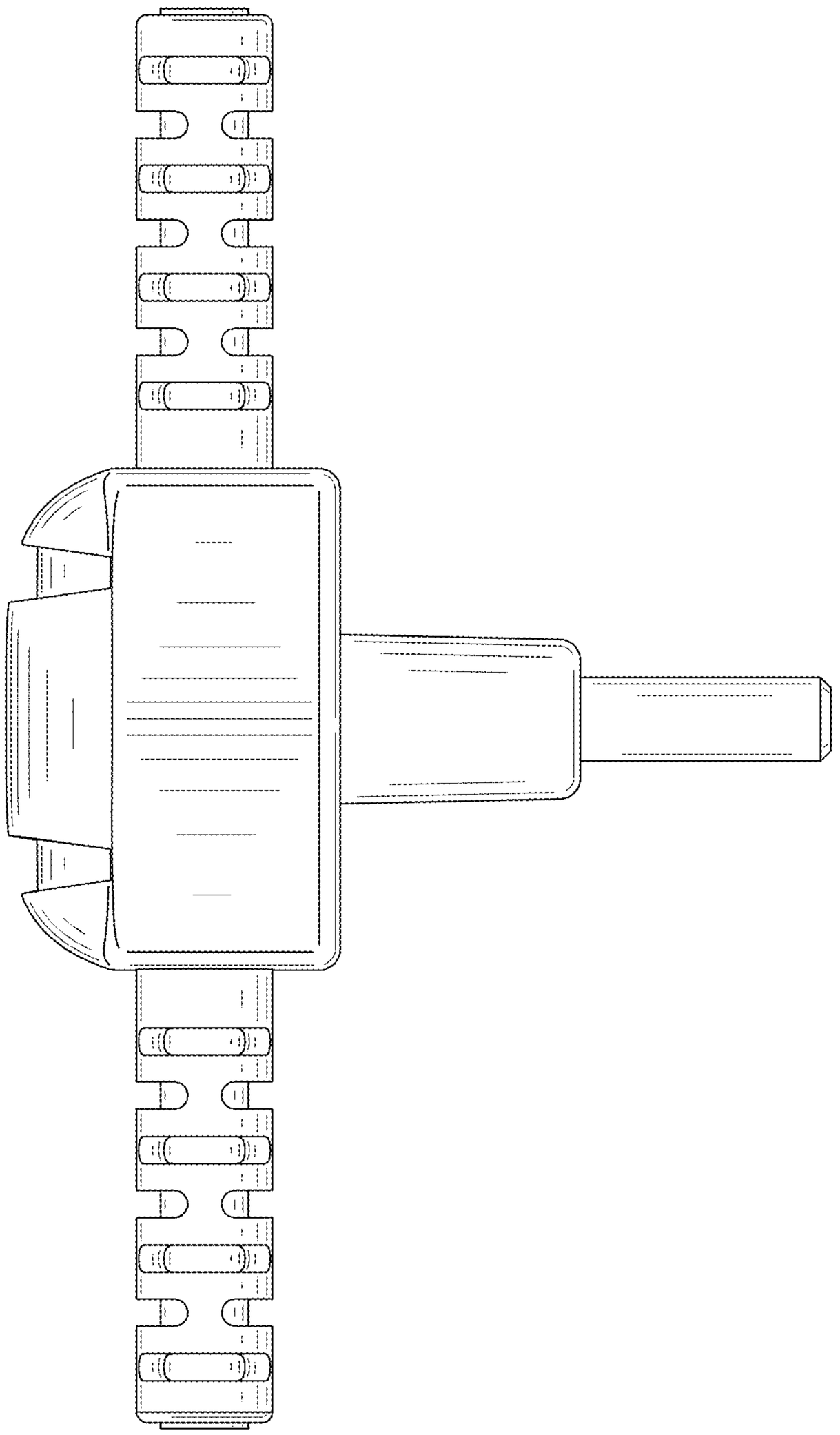


FIG. 1

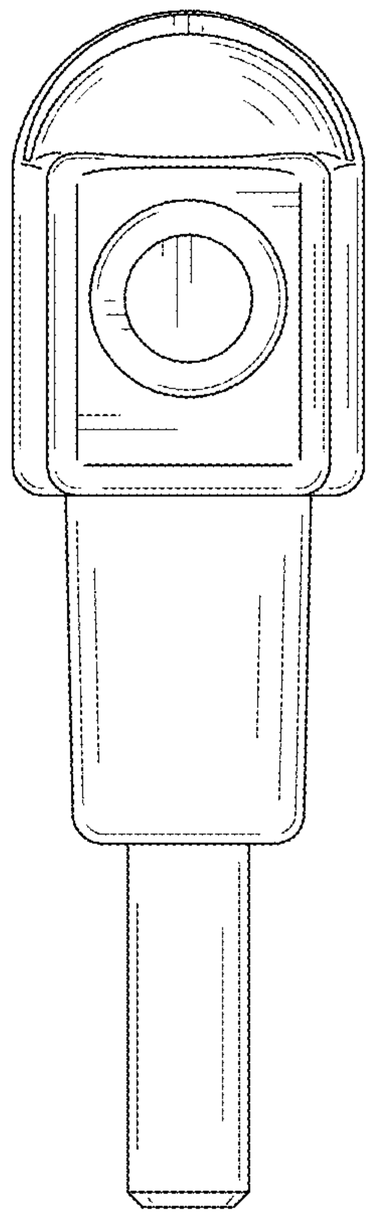


FIG. 2

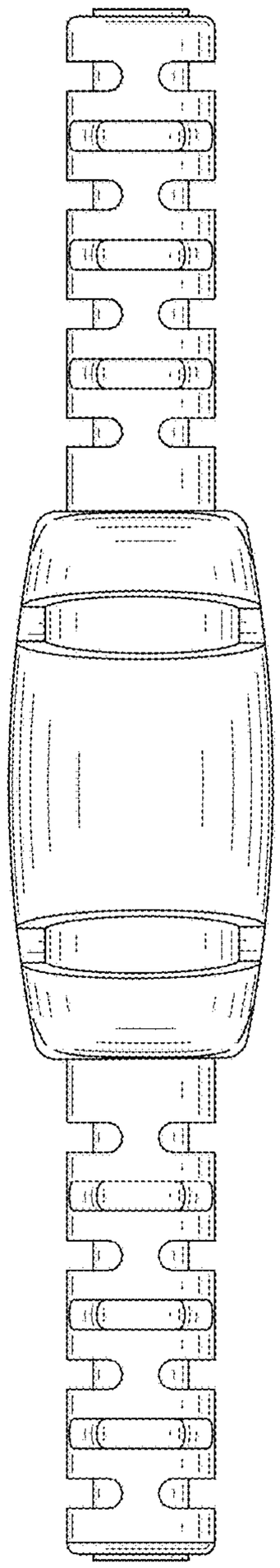


FIG. 3

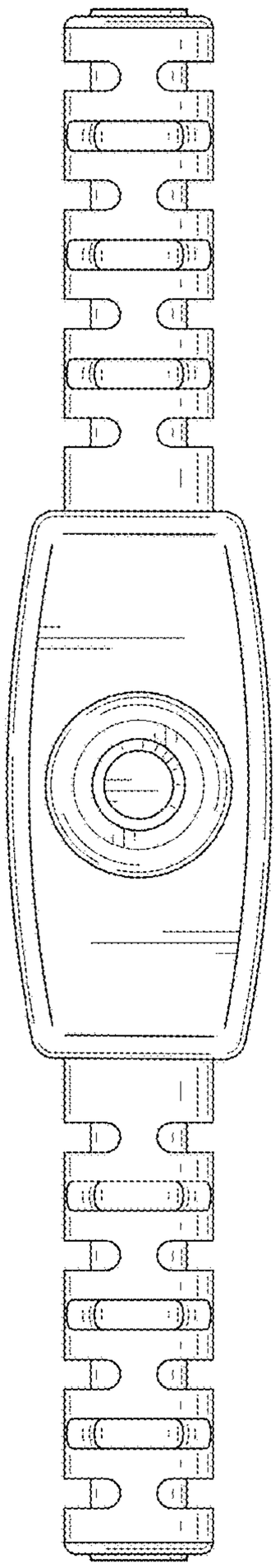


FIG. 4

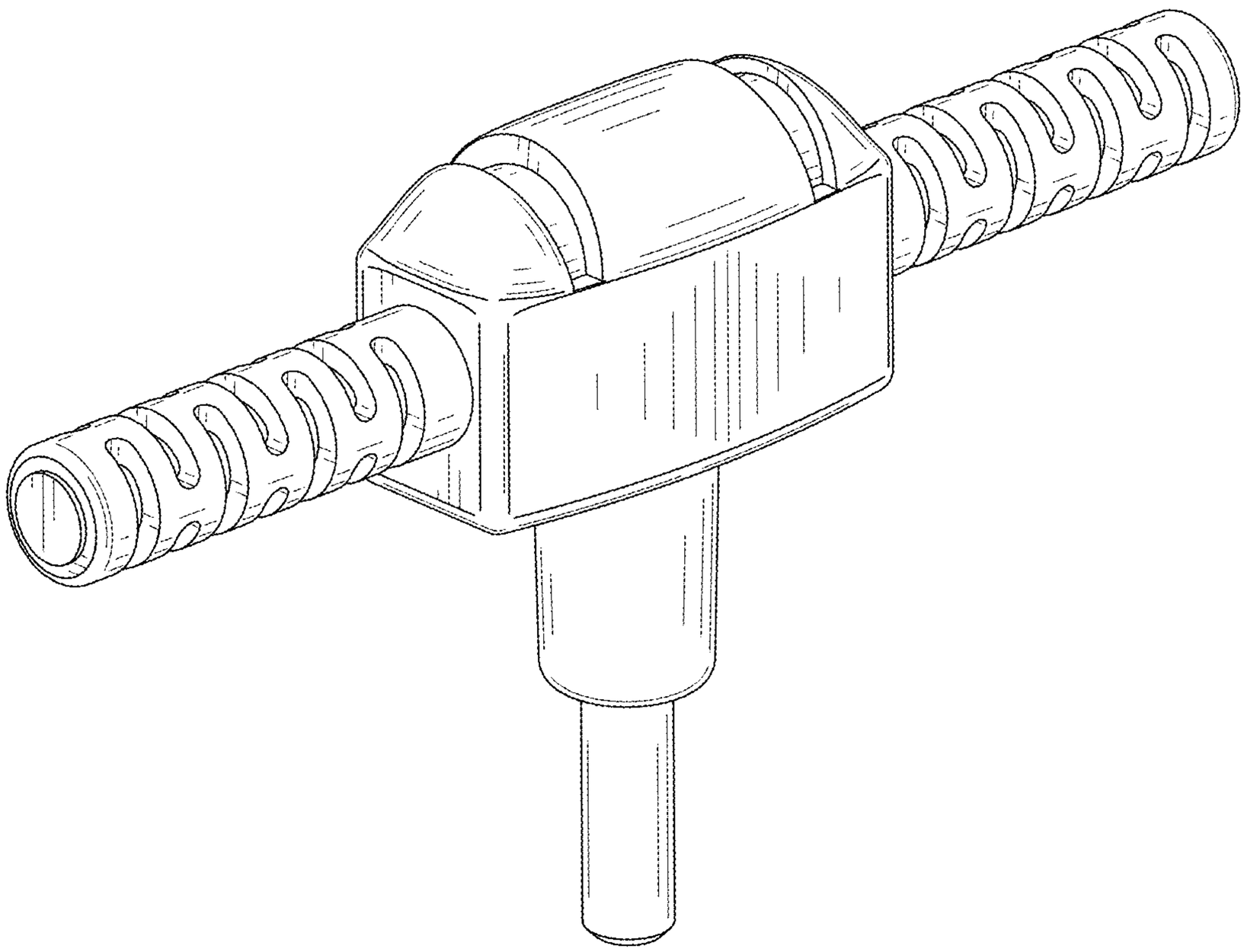


FIG. 5