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(12) **United States Design Patent** (10) **Patent No.:** **US D926,983 S**  
**Corbin et al.** (45) **Date of Patent:** **\*\* Aug. 3, 2021**

(54) **SPINAL FASTENER WITH SERRATED THREAD**

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

(21) Appl. No.: **29/745,523**

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**Related U.S. Application Data**

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(51) **LOC (13) Cl.** ..... **24-03**

(52) **U.S. Cl.**  
USPC ..... **D24/155**

(58) **Field of Classification Search**  
USPC ..... D24/155  
CPC ..... A61B 17/7037; A61B 17/7032; A61B 17/7291; A61B 17/8605; A61B 17/864;  
(Continued)

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

2,135,637 A 11/1938 Gade  
2,200,227 A 5/1940 Olson  
3,083,609 A 4/1963 Lovisek  
(Continued)

**FOREIGN PATENT DOCUMENTS**

EP 0714643 A1 6/1996  
EP 2668925 A1 12/2013  
(Continued)

**OTHER PUBLICATIONS**

Documents cited or considered relevant in Original Search from the Australian Patent Office for Application No. 2017245342 dated Feb. 20, 2018.

(Continued)

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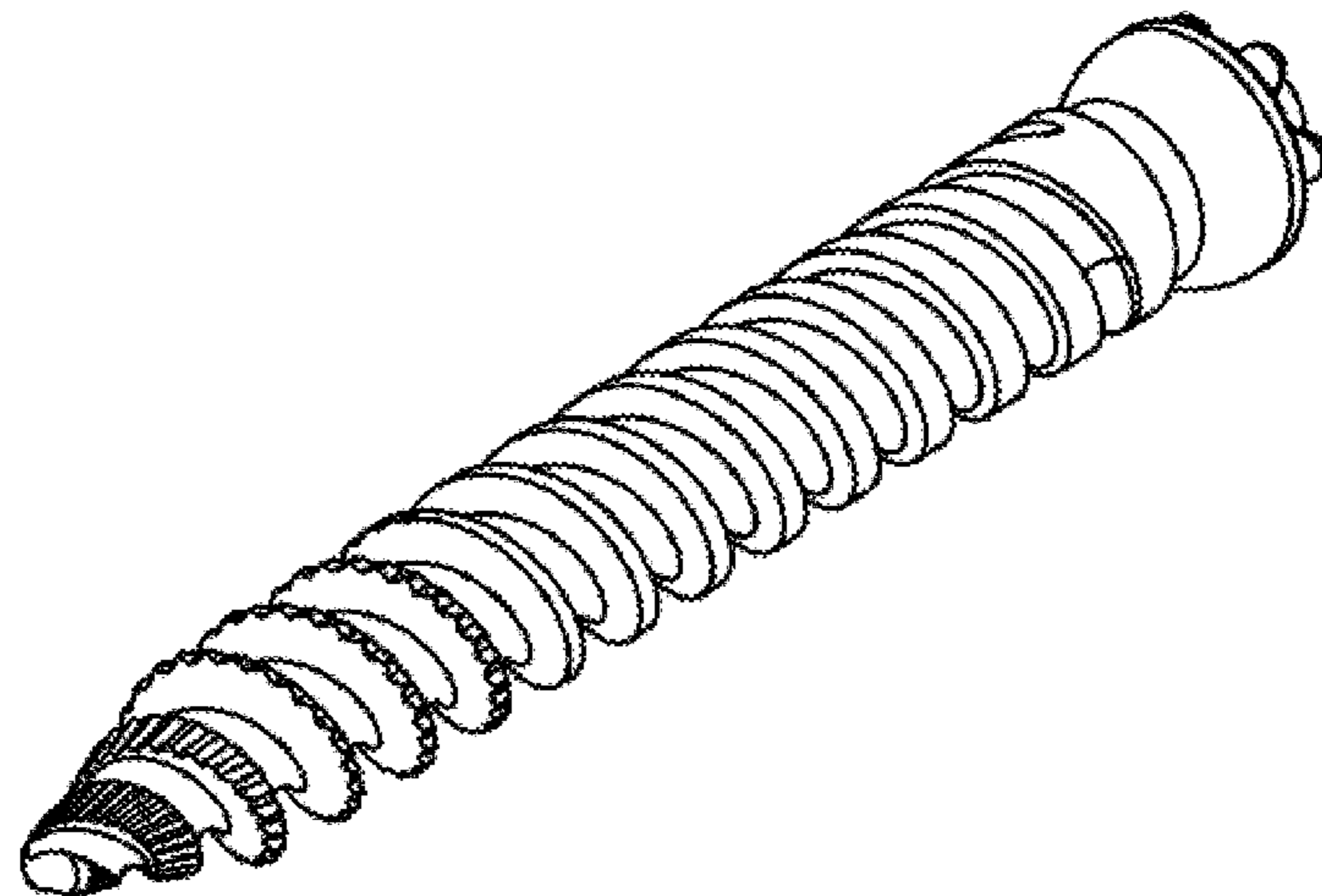
(57) **CLAIM**

The ornamental design for a spinal fastener with serrated thread, as shown and described.

**DESCRIPTION**

FIG. 1 is a front perspective view of a spinal fastener with serrated thread according to a first embodiment of our design;  
FIG. 2 is a back perspective view thereof;  
FIG. 3 is a front view thereof;  
FIG. 4 is a right side view thereof;  
FIG. 5 is a back view thereof;  
FIG. 6 is a left side view thereof;  
FIG. 7 is a top view thereof;  
FIG. 8 is a bottom view thereof;  
FIG. 9 is a front perspective view of a spinal fastener with serrated thread according to a second embodiment of our design;  
FIG. 10 is a back perspective view thereof;  
FIG. 11 is a front view thereof;  
FIG. 12 is a right side view thereof;  
FIG. 13 is a back view thereof;  
FIG. 14 is a left side view thereof;  
FIG. 15 is a top view thereof; and,  
FIG. 16 is a bottom view thereof.

**1 Claim, 10 Drawing Sheets**



(58) **Field of Classification Search**  
 CPC . A61B 17/8685; A61B 17/70; A61B 17/7011;  
 A61B 17/7035; A61B 17/7082  
 See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,858,942	A	1/1975	Humlong	
4,468,200	A	8/1984	Munch	
4,516,893	A	5/1985	Barth	
4,637,767	A	1/1987	Yaotani et al.	
4,842,467	A	6/1989	Armstrong	
4,863,383	A	9/1989	Grafelmann	
5,044,853	A	9/1991	Dicke	
5,110,245	A	5/1992	Hiroyuki	
5,427,527	A	6/1995	Niznick et al.	
5,460,467	A	10/1995	Dessouroux	
5,716,358	A	2/1998	Ochoa et al.	
5,827,030	A	10/1998	Dicke	
5,897,280	A	4/1999	Dicke	
6,056,491	A	5/2000	Hsu	
6,086,302	A	7/2000	Gerhard	
6,152,666	A	11/2000	Walther et al.	
6,254,327	B1	7/2001	Chen	
6,296,642	B1	10/2001	Morrison et al.	
6,386,877	B1	5/2002	Sutter	
6,679,701	B1	1/2004	Blacklock	
6,926,484	B2	8/2005	Kram et al.	
7,087,057	B2	8/2006	Konieczynski et al.	
7,160,073	B2	1/2007	Mizuno et al.	
7,163,366	B2	1/2007	Chen	
7,273,373	B2	9/2007	Horiuchi	
7,677,851	B2	3/2010	Desai et al.	
7,798,756	B2	9/2010	Chang	
7,806,693	B2	10/2010	Hurson	
8,221,119	B1	7/2012	Valen	
8,267,966	B2	9/2012	McCormack et al.	
8,360,702	B2	1/2013	Yu	
8,372,152	B2	2/2013	Kirschman	
8,518,090	B2	8/2013	Huebner et al.	
8,635,894	B2	1/2014	Christ	
8,904,622	B2	12/2014	Kochheiser	
9,572,599	B1 *	2/2017	Casey ..... A61B 17/7034	
10,039,572	B2 *	8/2018	Harris ..... A61B 17/7037	
D857,898	S *	8/2019	Loftus ..... D24/155	
D898,196	S *	10/2020	Corbin ..... D24/155	
2003/0031528	A1	2/2003	Kram et al.	
2004/0101381	A1	5/2004	Kram et al.	
2004/0220575	A1	11/2004	Biedermann et al.	
2006/0155277	A1 *	7/2006	Metz-Stavenhagen ..... A61B 17/7037 606/278	

2008/0014556	A1	1/2008	Neumeyer	
2008/0038693	A1	2/2008	Hansson	
2008/0166201	A1	7/2008	Desai et al.	
2008/0249579	A1	10/2008	Taylor	
2008/0269809	A1	10/2008	Garamszegi	
2011/0060373	A1 *	3/2011	Russell ..... A61B 17/8057 606/304	
2011/0087288	A1	4/2011	Stevenson et al.	
2011/0190830	A1 *	8/2011	Biedermann ..... A61B 17/8685 606/305	
2012/0083847	A1	4/2012	Huebner et al.	
2012/0158137	A1	6/2012	Pinczewski	
2013/0006364	A1	1/2013	McCormack et al.	
2013/0053901	A1	2/2013	Cormier et al.	
2014/0025124	A1	1/2014	Champagne et al.	
2014/0058460	A1	2/2014	Reed	
2014/0094859	A1	4/2014	Reed	
2014/0236245	A1 *	8/2014	Hainard ..... A61B 17/8057 606/291	
2014/0277193	A1	9/2014	Mobasser et al.	
2015/0272646	A1 *	10/2015	Russell ..... A61B 17/8695 606/304	
2015/0282844	A1 *	10/2015	Vedula ..... A61B 17/8625 606/305	
2016/0015483	A1	1/2016	Kumar et al.	
2016/0213413	A1 *	7/2016	Hientzsch ..... A61B 17/864	
2016/0310182	A1 *	10/2016	Sixto ..... C22F 1/183	
2016/0310187	A1	10/2016	Leibinger et al.	
2018/0146987	A1	5/2018	Corbin et al.	
2018/0368898	A1 *	12/2018	DiVincenzo ..... A61B 17/8635	

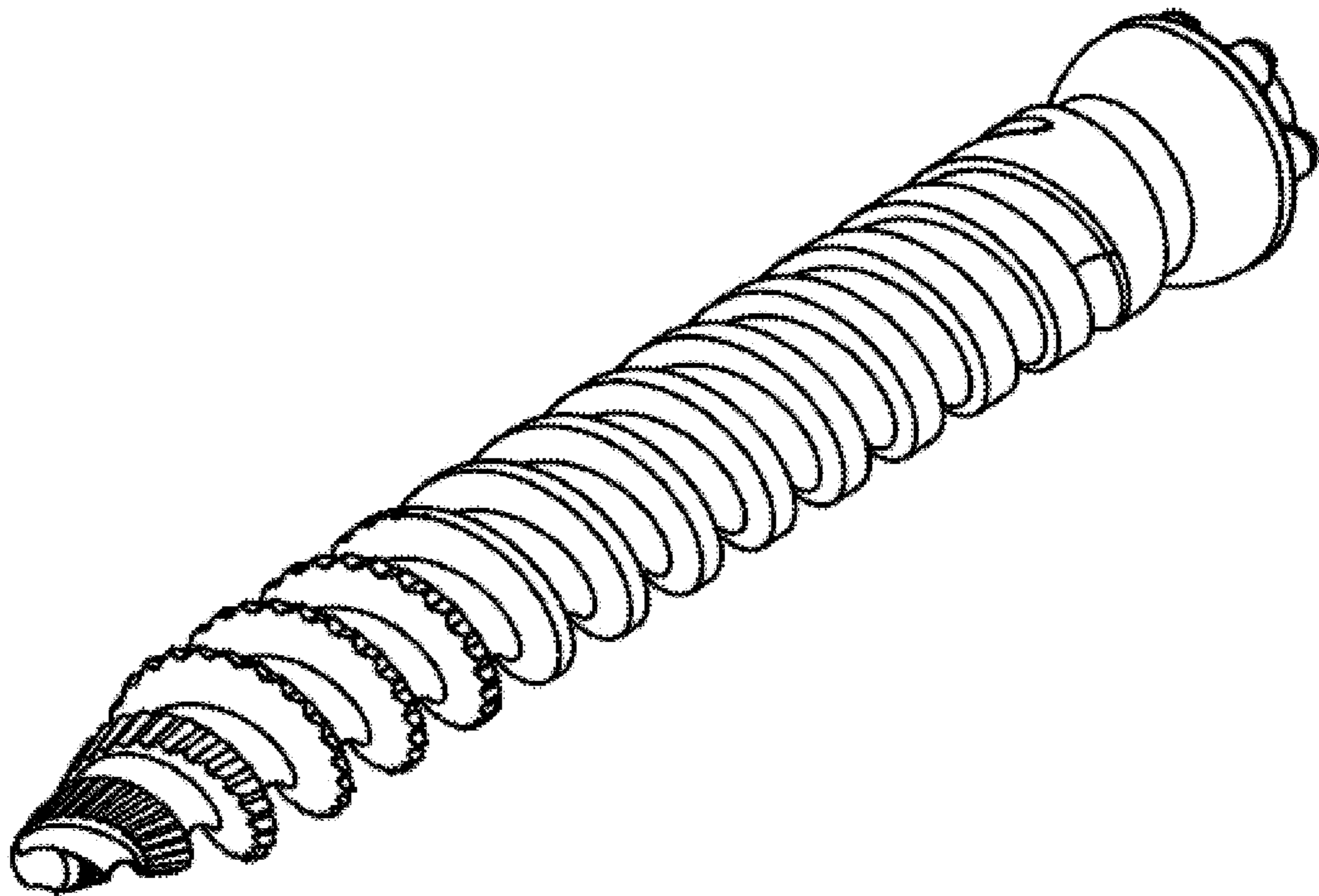
FOREIGN PATENT DOCUMENTS

FR	2788215	A1	7/2000	
JP	H08238256	A	9/1996	
JP	2004329883	A	11/2004	
JP	2005127487	A	5/2005	
JP	2011500292	A	1/2011	
JP	2011244906	A	12/2011	
JP	2014508550	A	4/2014	
JP	2014529446	A	11/2014	
JP	2015531282	A	11/2015	
JP	6596056	B2	10/2019	
WO	2016006598	A1	1/2016	

OTHER PUBLICATIONS

European Search Report for EP Application No. 17200878.1 dated  
 Apr. 17, 2018.

\* cited by examiner



**FIG. 1**



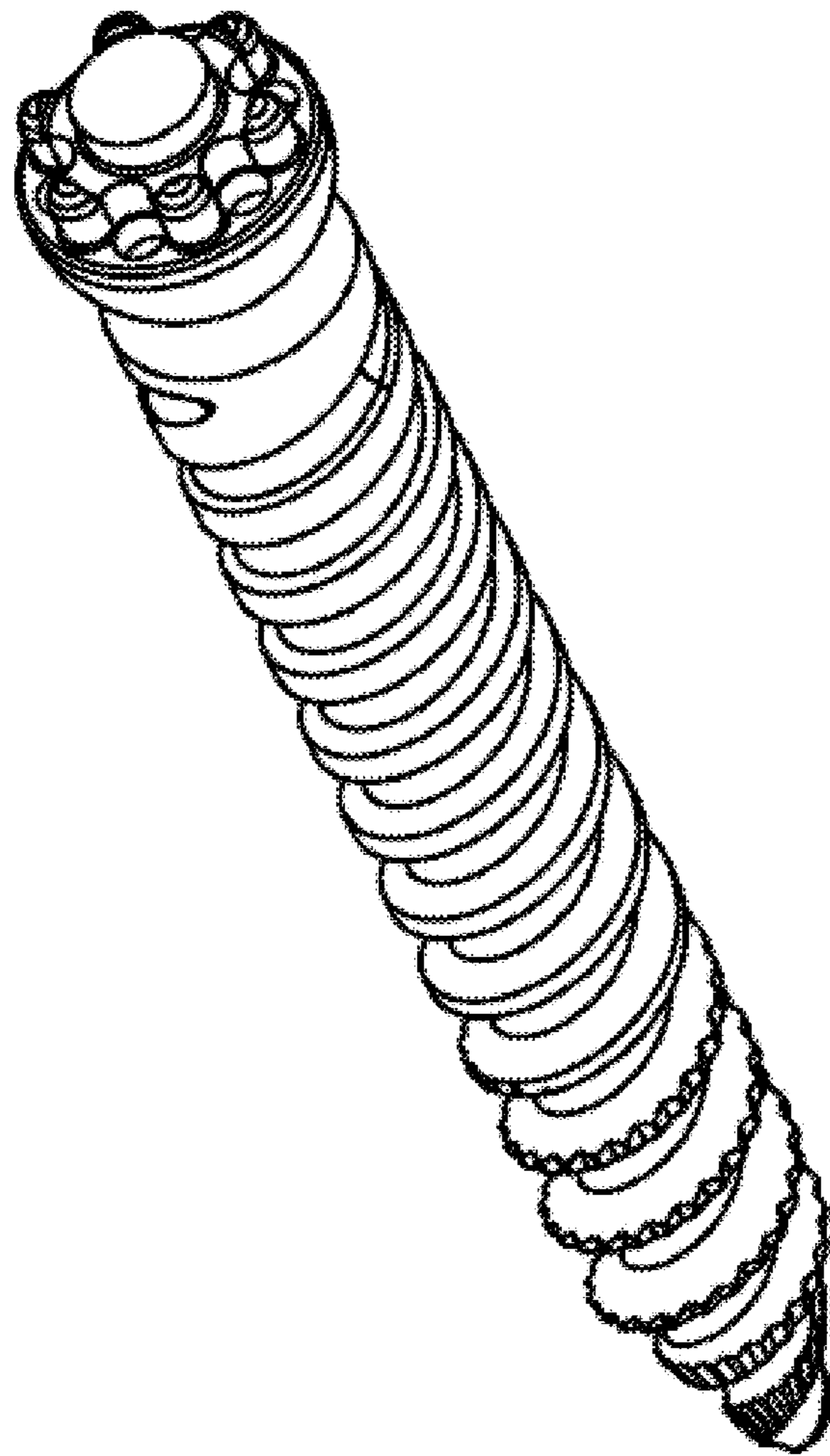
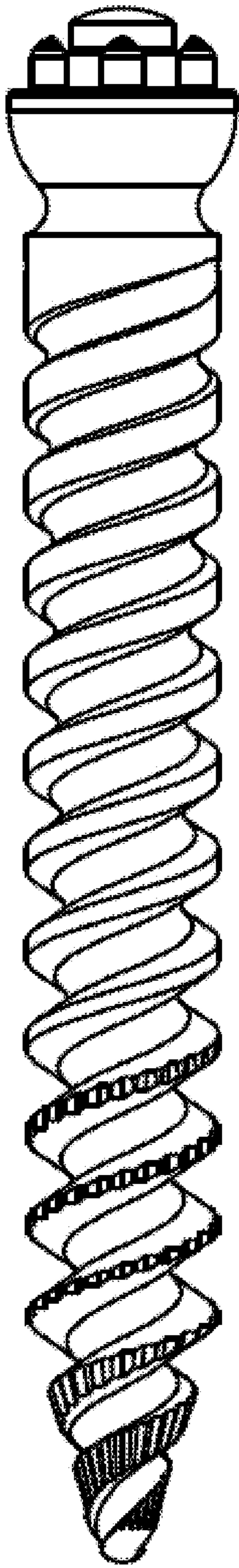
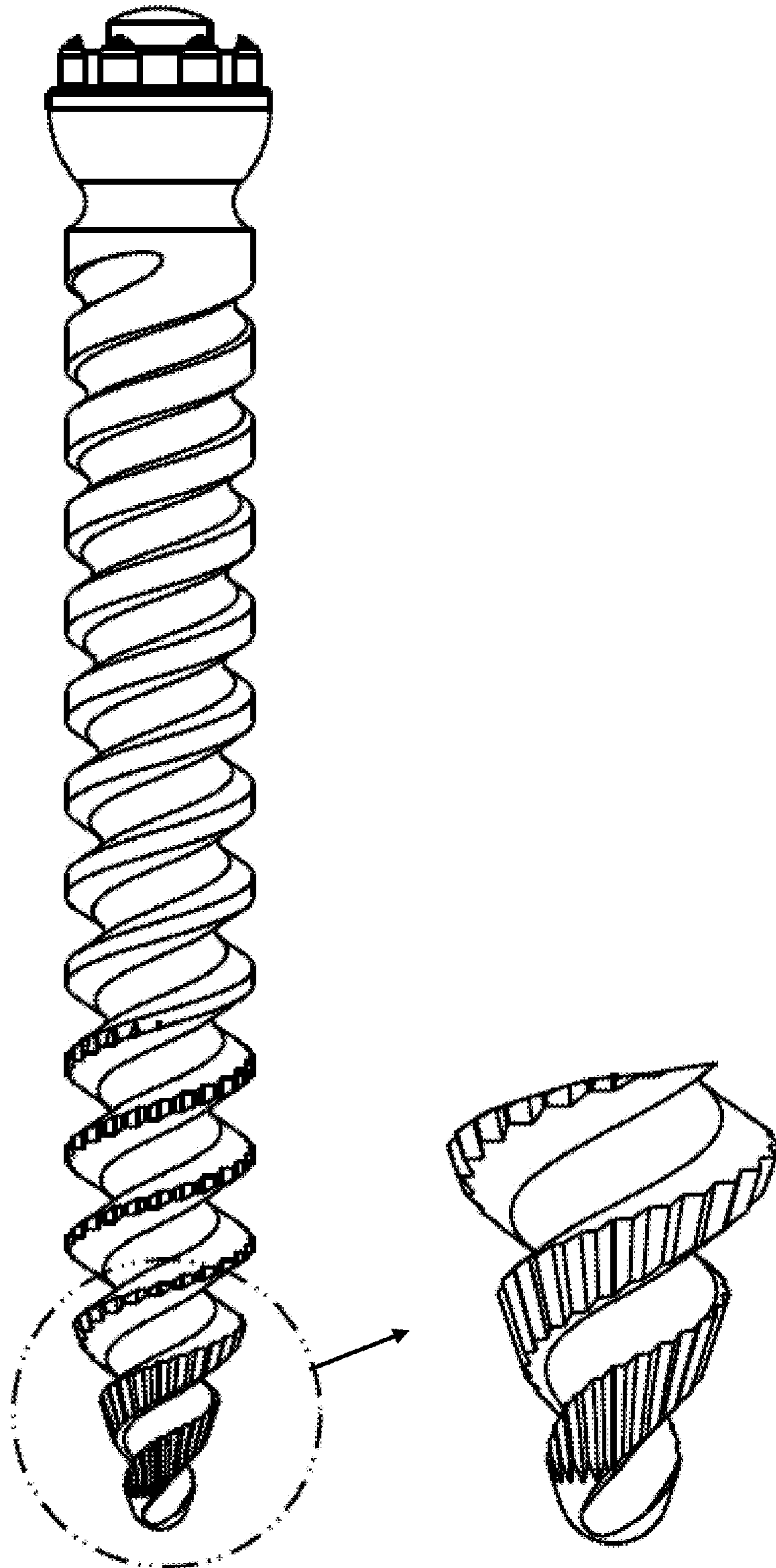


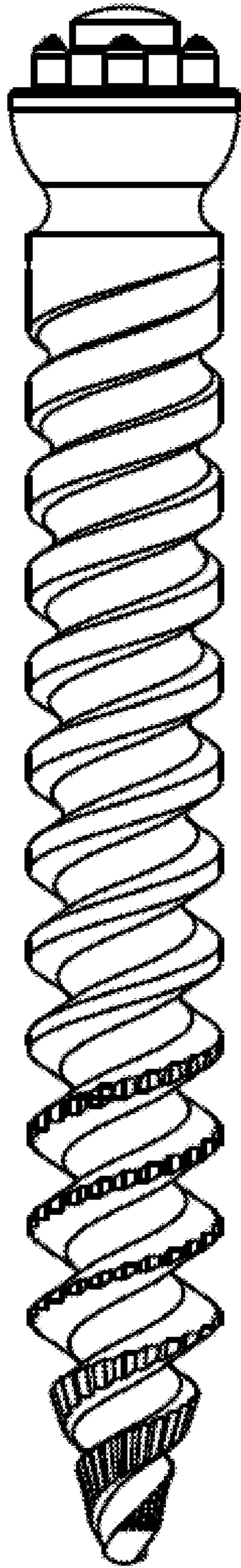
FIG. 2



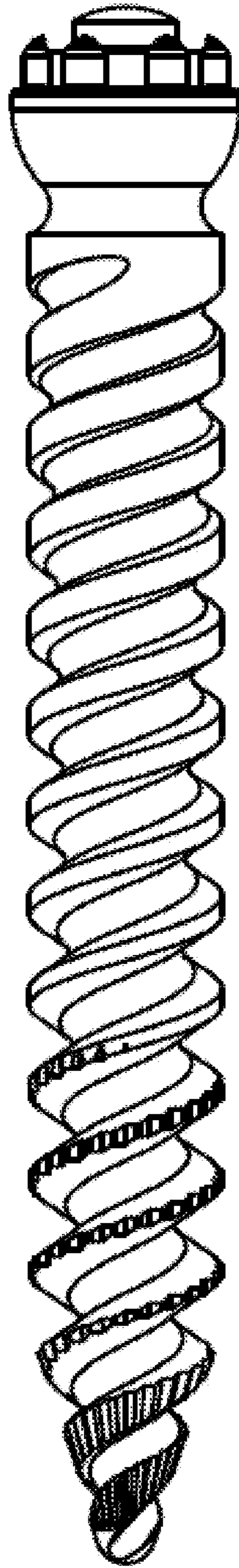
**FIG. 3**



**FIG. 4**



**FIG. 5**



**FIG. 6**

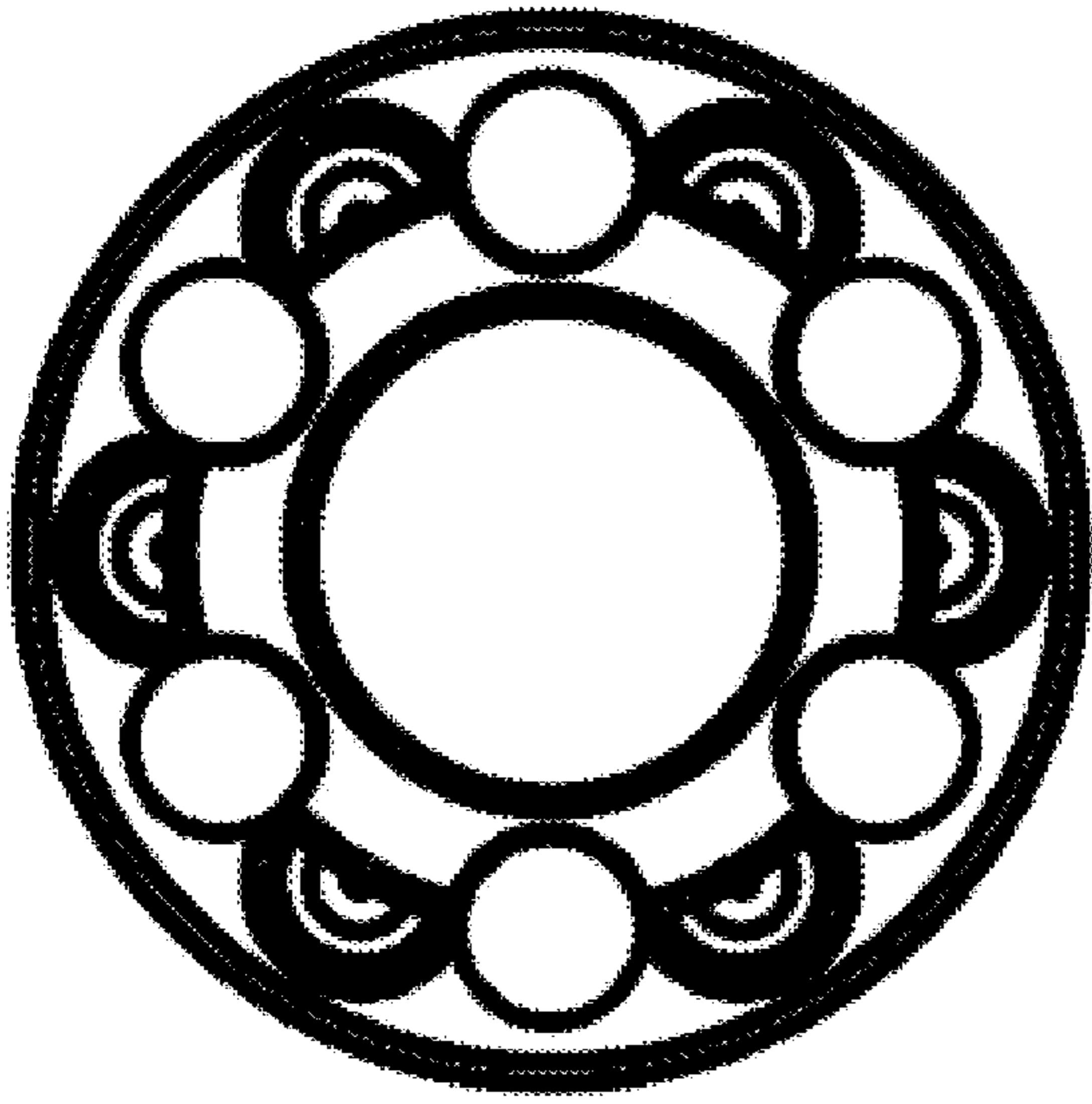


FIG. 7

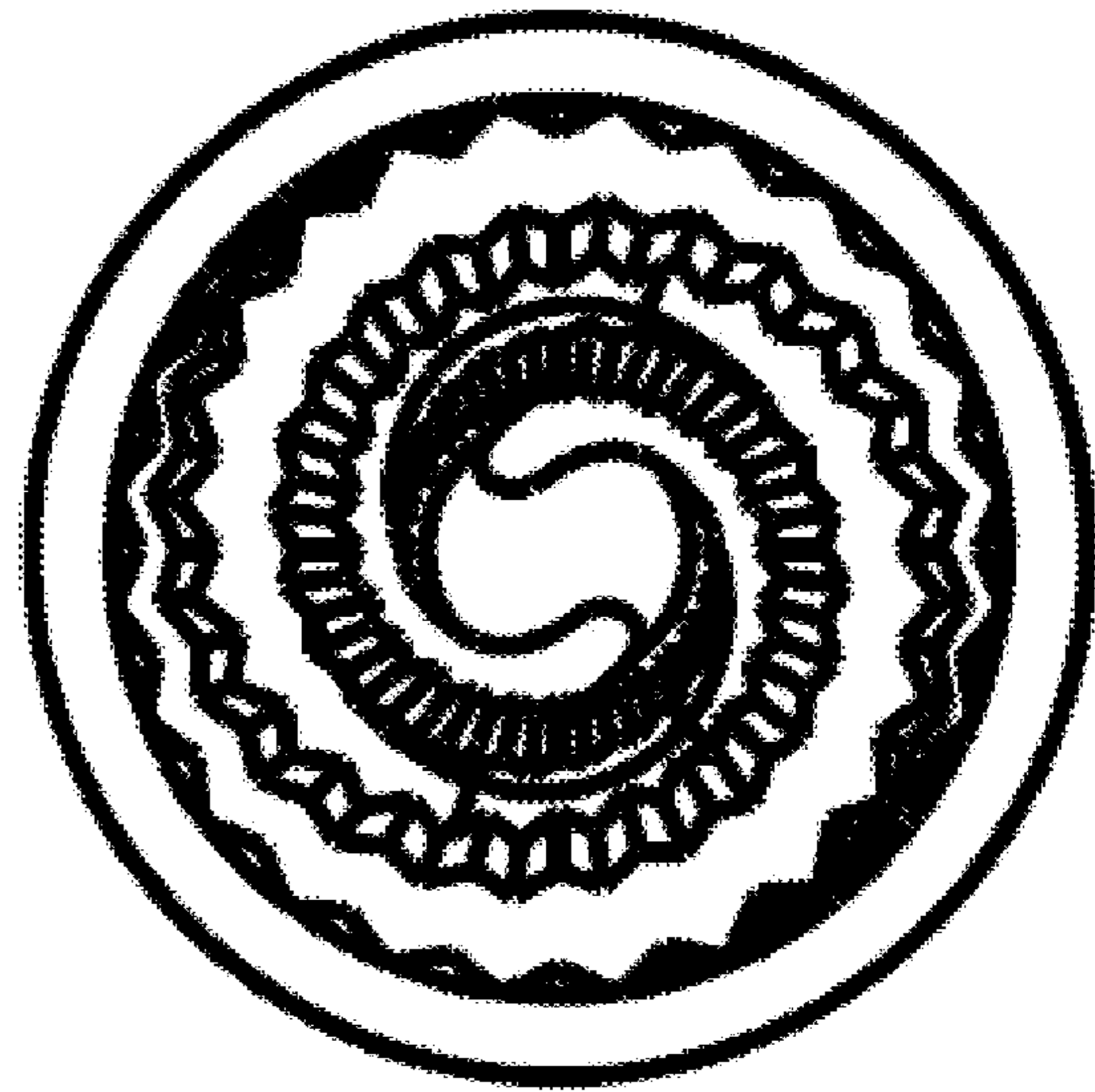


FIG. 8



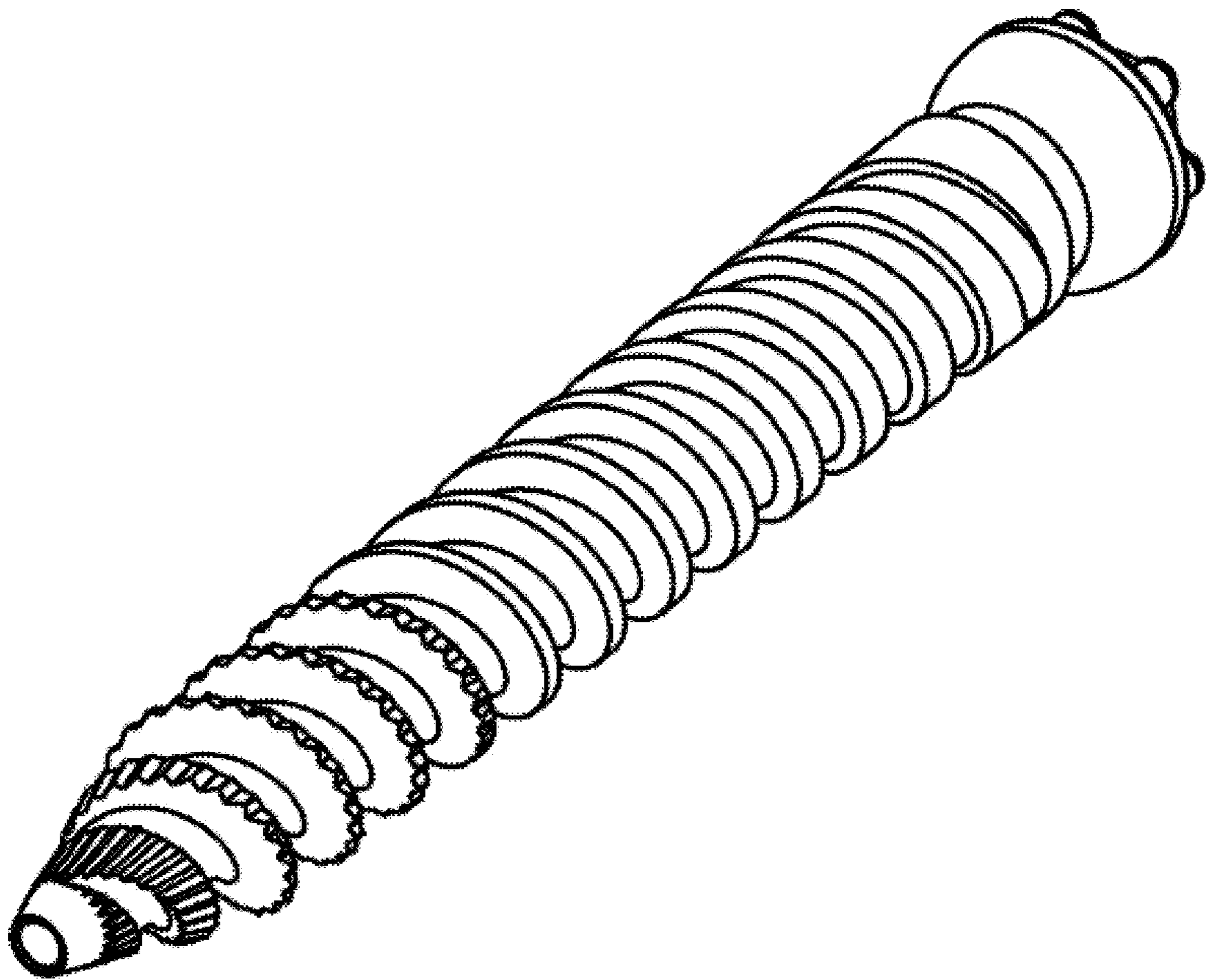
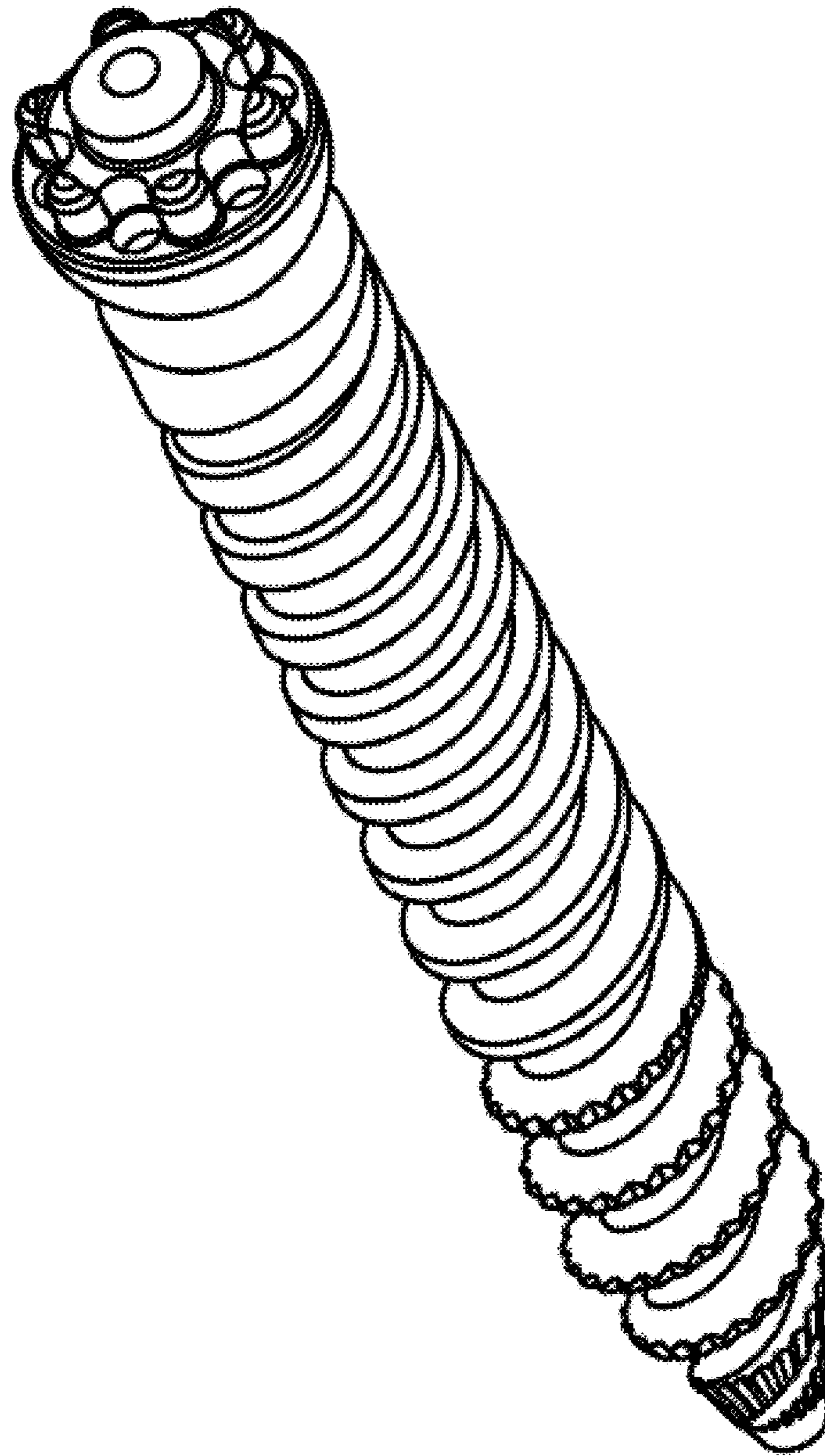


FIG. 9





**FIG. 10**

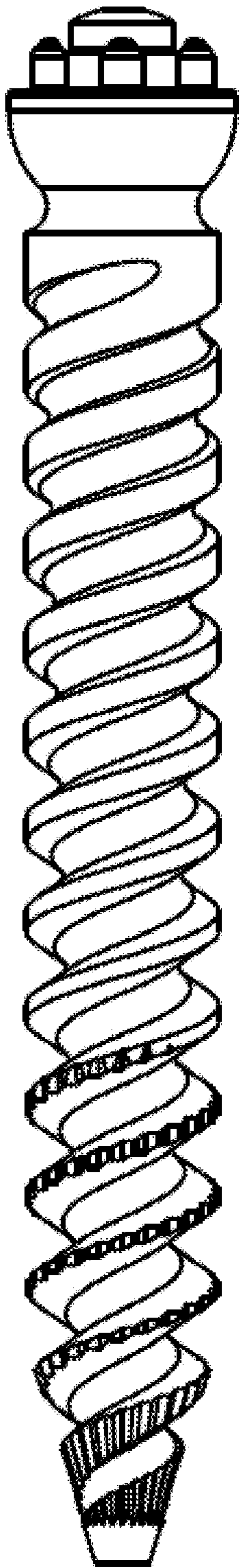


FIG. 11

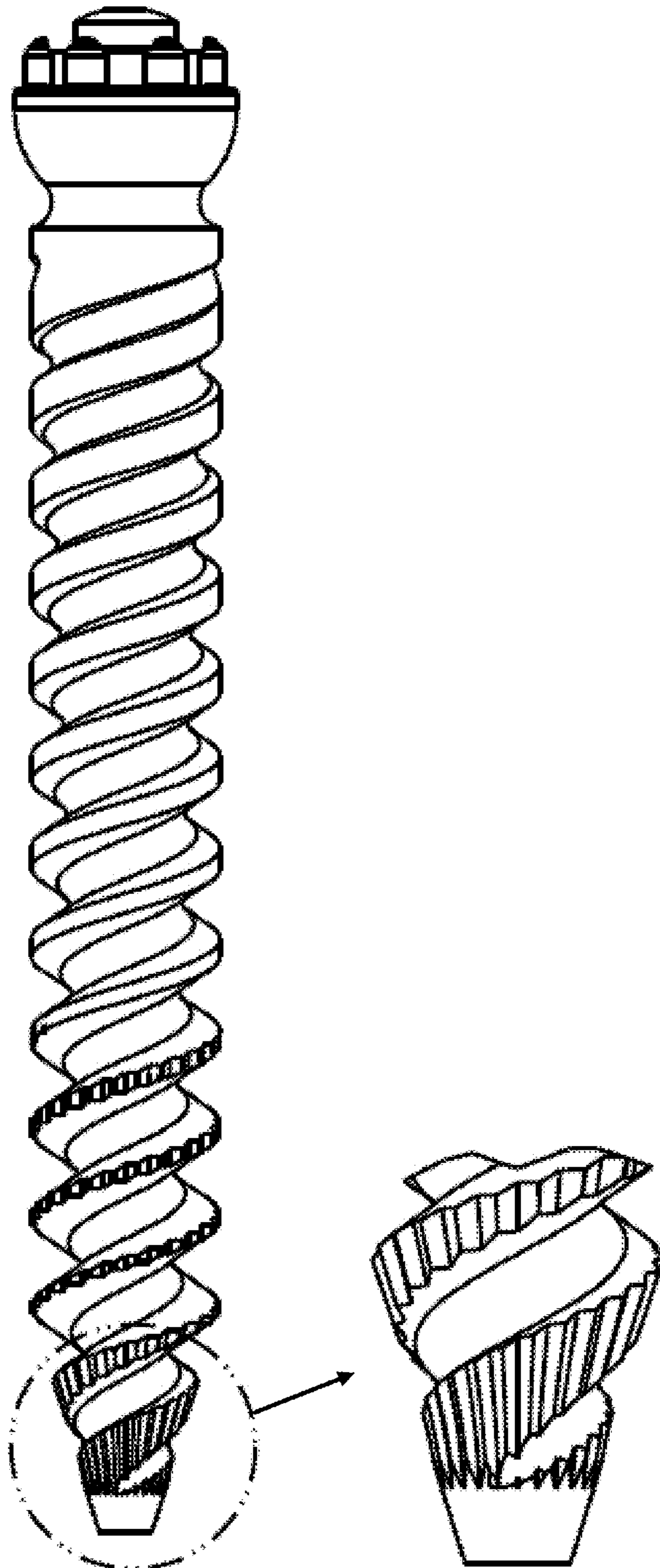
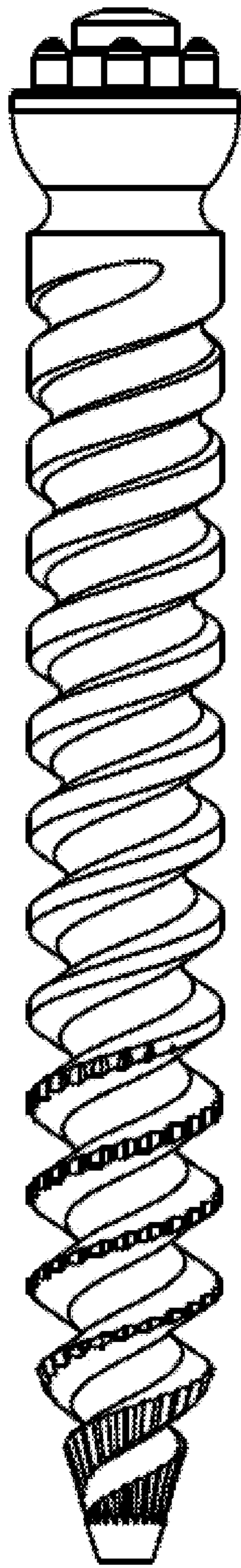
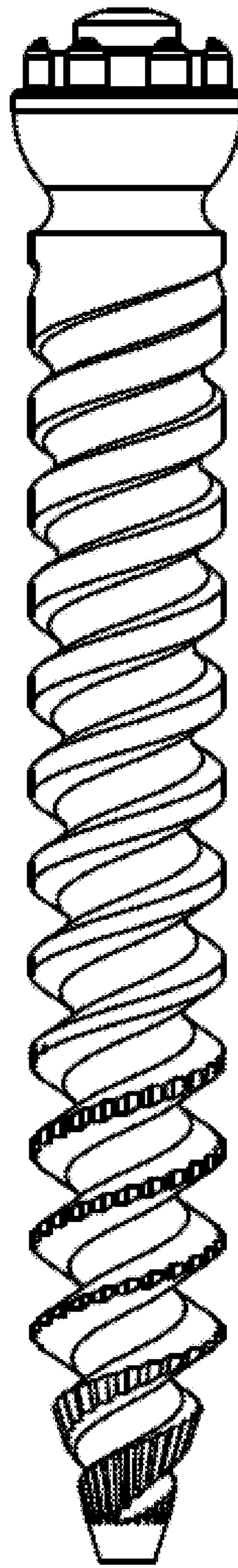


FIG. 12



**FIG. 13**



**FIG. 14**



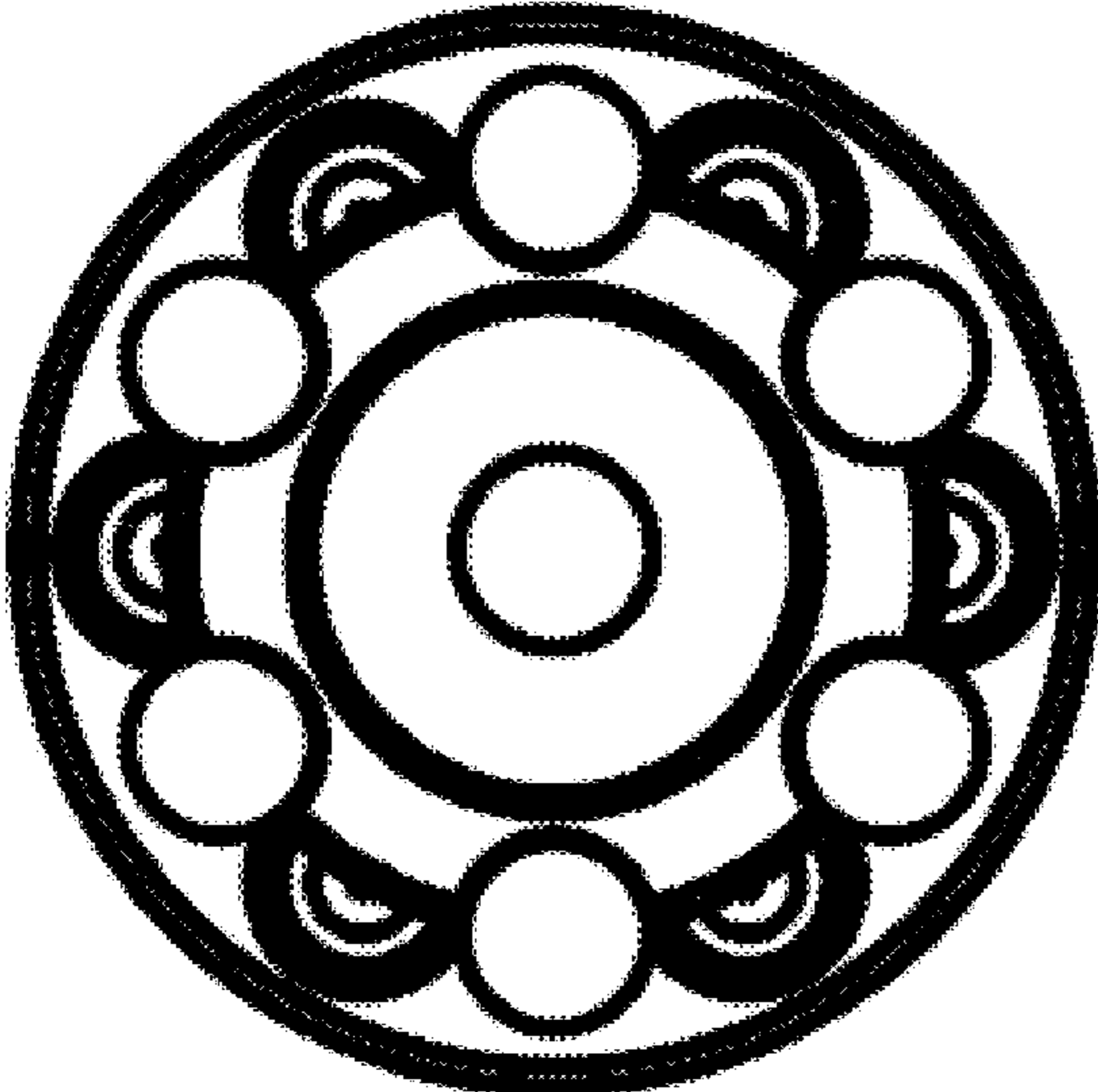


FIG. 15

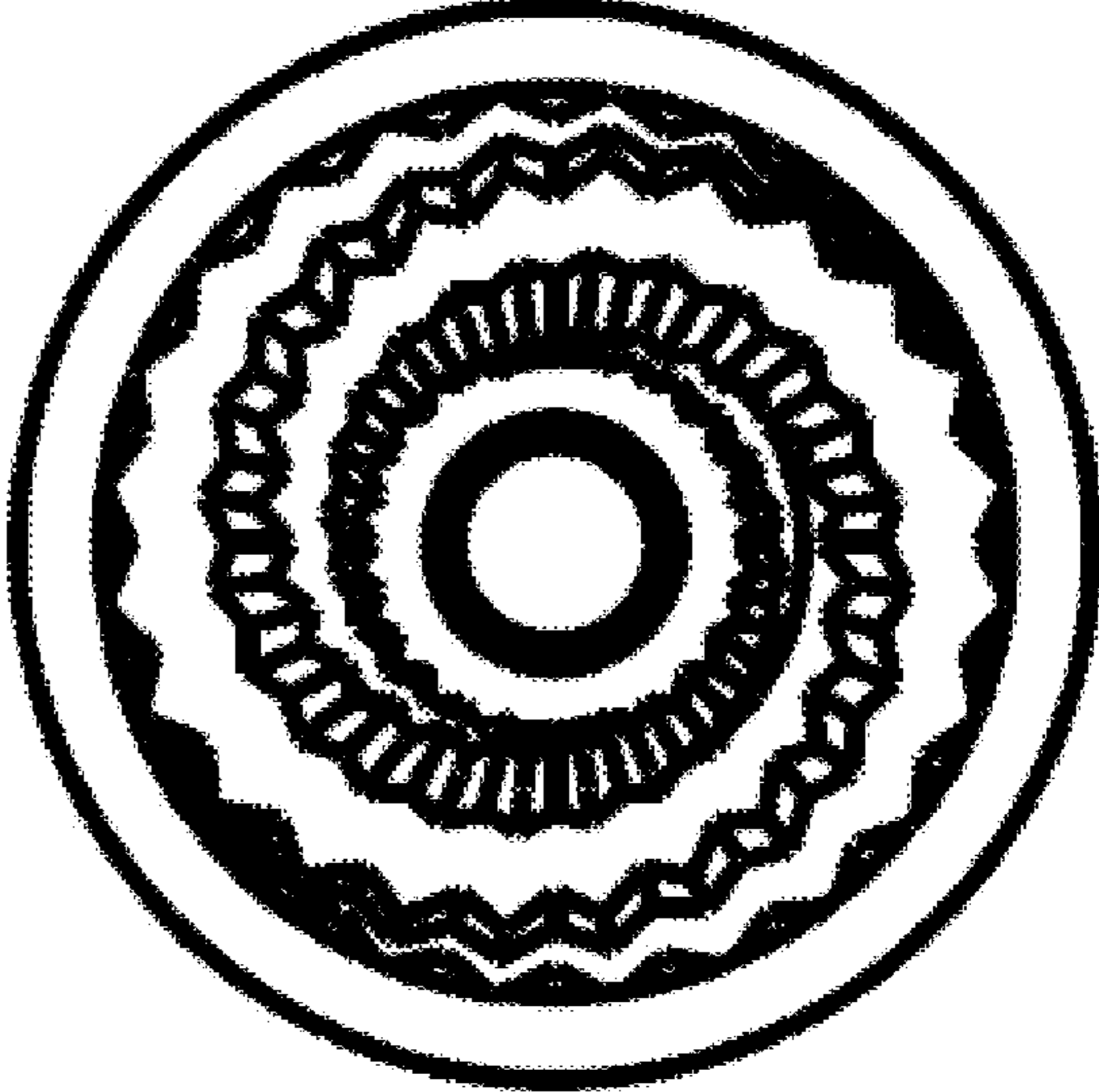


FIG. 16