



US00D740417S

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

(10) **Patent No.:** **US D740,417 S**  
(45) **Date of Patent:** **\*\* Oct. 6, 2015**

- (54) **SUTURE ANCHOR**
- (71) Applicant: **Dunamis, LLC**, Greenville, AL (US)
- (72) Inventor: **Prithviraj Chavan**, Greenville, AL (US)
- (73) Assignee: **Dunamis, LLC**, Greenville, AL (US)
- (\*\*) Term: **14 Years**

|             |         |                  |
|-------------|---------|------------------|
| 5,607,432 A | 3/1997  | Fucci            |
| 5,615,770 A | 4/1997  | Applebaum et al. |
| 5,645,588 A | 7/1997  | Graf et al.      |
| 5,662,658 A | 9/1997  | Wenstrom, Jr.    |
| 5,667,513 A | 9/1997  | Torrie et al.    |
| 5,690,676 A | 11/1997 | DiPoto et al.    |
| 5,693,060 A | 12/1997 | Martin           |
| 5,718,717 A | 2/1998  | Bonutti          |
| 5,733,307 A | 3/1998  | Dinsdale         |

(Continued)

- (21) Appl. No.: **29/498,900**
- (22) Filed: **Aug. 8, 2014**
- (51) **LOC (10) Cl.** ..... **24-02**
- (52) **U.S. Cl.**  
USPC ..... **D24/145**
- (58) **Field of Classification Search**  
USPC ..... D24/145, 146, 138; D8/356, 360;  
D15/139; D12/215; D22/145; 606/232,  
606/60, 62, 67, 79, 82, 104, 144, 147  
CPC ..... A61B 2017/0409; A61B 2017/0414;  
A61B 2017/0424; A61B 2017/0462; A61B  
2017/0441; A61B 2017/0445; A61B  
2017/0446; A61B 2017/044; A61B 2017/0401  
See application file for complete search history.

**FOREIGN PATENT DOCUMENTS**

EP 1 101 459 A2 5/2001

**OTHER PUBLICATIONS**

Arthrex, Inc., "Arthrex is Reaching New Heights in Rotator Cuff Repair," c2007, 3 pages.

(Continued)

*Primary Examiner* — Wan Laymon  
*Assistant Examiner* — Mark Booker  
(74) *Attorney, Agent, or Firm* — Angela Holt; Bradley Arant  
Boult Cummings LLP

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

|             |         |                    |
|-------------|---------|--------------------|
| 5,037,422 A | 8/1991  | Hayhurst et al.    |
| 5,067,956 A | 11/1991 | Buford, III et al. |
| 5,100,417 A | 3/1992  | Cerier et al.      |
| 5,224,946 A | 7/1993  | Hayhurst et al.    |
| 5,258,016 A | 11/1993 | DiPoto et al.      |
| 5,306,301 A | 4/1994  | Graf et al.        |
| 5,380,334 A | 1/1995  | Torrie et al.      |
| D359,557 S  | 6/1995  | Hayes              |
| 5,527,343 A | 6/1996  | Bonutti            |
| 5,584,836 A | 12/1996 | Ballintyn et al.   |
| 5,601,557 A | 2/1997  | Hayhurst           |
| 5,601,558 A | 2/1997  | Torrie et al.      |

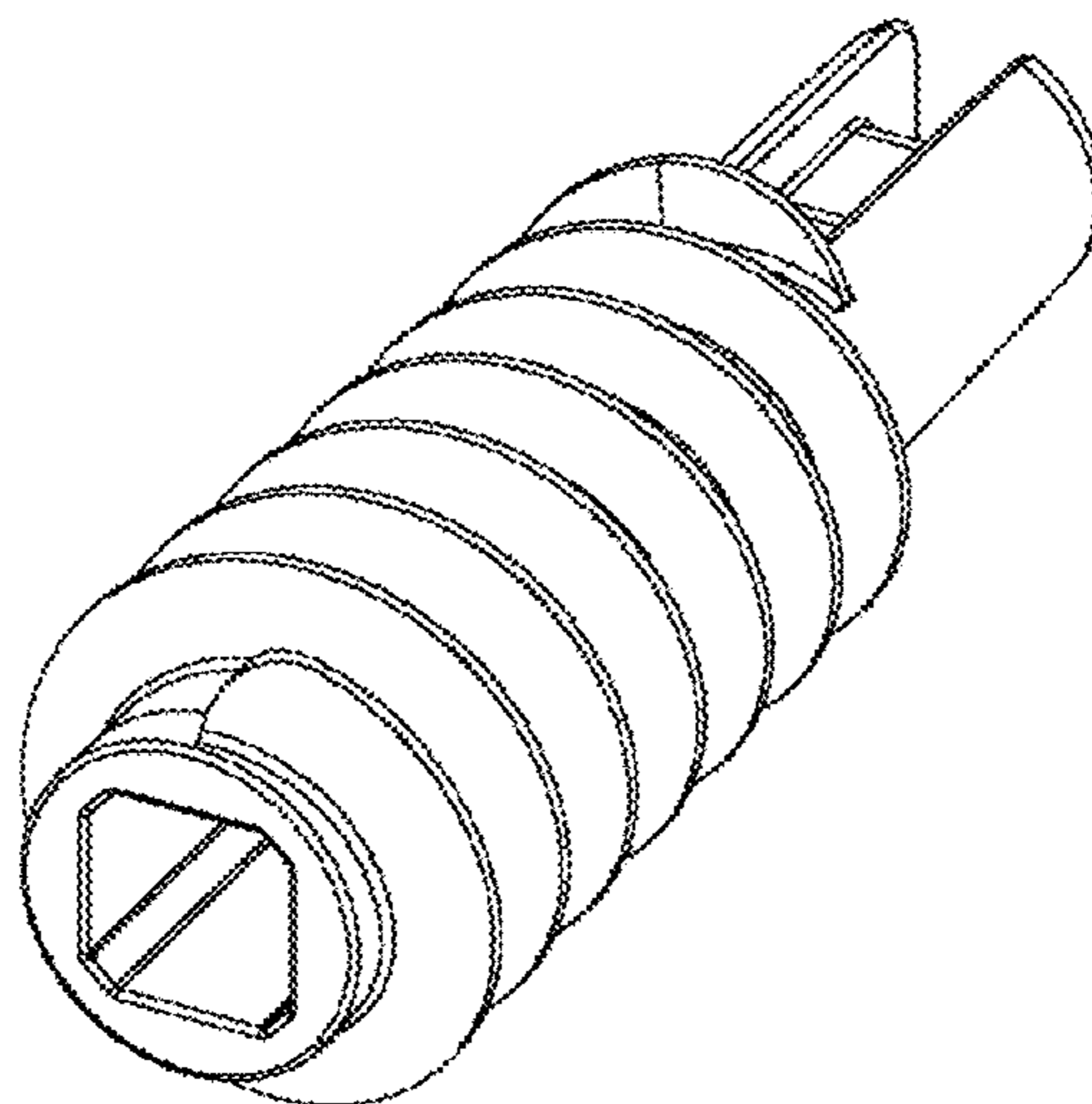
**CLAIM**

(57) The ornamental design for a suture anchor, as shown and described.

**DESCRIPTION**

FIG. 1 is a front perspective view of a suture anchor.  
FIG. 2 is a front side plan view of the suture anchor of FIG. 1.  
FIG. 3 is a top plan view of the suture anchor of FIG. 1.  
FIG. 4 is a bottom plan view of the suture anchor of FIG. 1.  
FIG. 5 is a left side plan view of the suture anchor of FIG. 1;  
and,  
FIG. 6 is a right side plan view of the suture anchor of FIG. 1.

**1 Claim, 2 Drawing Sheets**



(56)

References Cited

U.S. PATENT DOCUMENTS

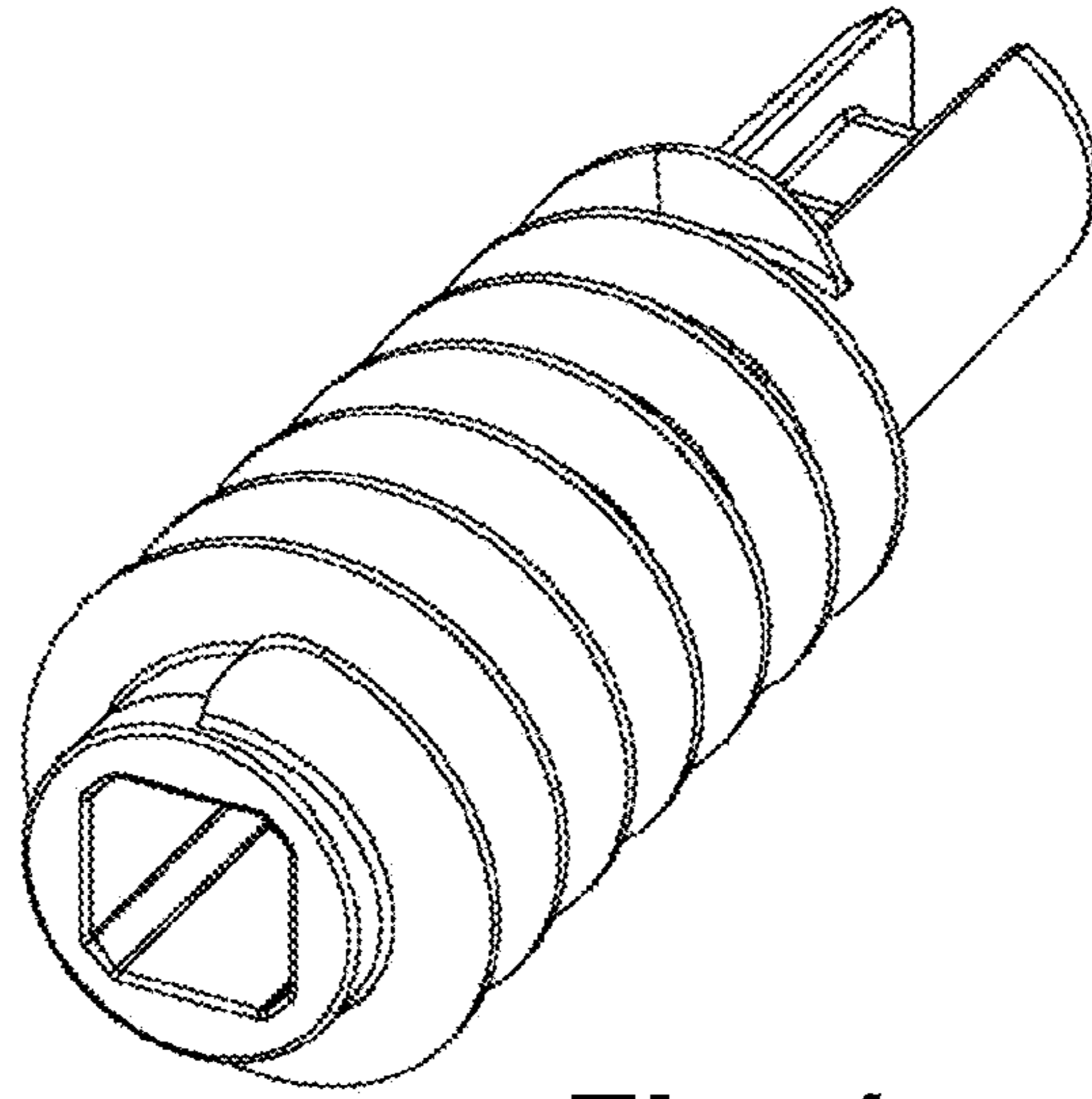
5,741,281 A 4/1998 Martin  
 5,769,894 A 6/1998 Ferragamo  
 5,782,862 A 7/1998 Bonutti  
 5,814,072 A 9/1998 Bonutti  
 5,921,986 A 7/1999 Bonutti  
 5,935,149 A 8/1999 Ek  
 5,951,559 A 9/1999 Burkhart  
 5,957,953 A 9/1999 DiPoto et al.  
 5,964,783 A 10/1999 Grafton et al.  
 5,980,558 A 11/1999 Wiley  
 5,980,559 A 11/1999 Bonutti  
 5,993,451 A 11/1999 Burkhart  
 6,086,591 A 7/2000 Bojarski  
 6,146,406 A 11/2000 Shluzas et al.  
 6,214,031 B1 4/2001 Schmieding et al.  
 6,231,606 B1 5/2001 Graf et al.  
 6,273,890 B1 8/2001 Frazier  
 6,336,940 B1 1/2002 Graf et al.  
 6,508,830 B2 1/2003 Steiner  
 6,565,573 B1 5/2003 Ferrante et al.  
 6,569,187 B1 5/2003 Bonutti et al.  
 6,641,597 B2 11/2003 Burkhart et al.  
 6,652,563 B2 11/2003 Dreyfuss  
 6,656,183 B2 12/2003 Colleran et al.  
 6,685,728 B2 \* 2/2004 Sinnott et al. .... 606/232  
 6,702,821 B2 3/2004 Bonutti  
 6,716,234 B2 4/2004 Grafton et al.  
 6,932,834 B2 8/2005 Lizardi et al.  
 6,953,479 B2 10/2005 Carson et al.  
 6,986,781 B2 1/2006 Smith  
 6,991,636 B2 1/2006 Rose  
 6,994,719 B2 2/2006 Grafton  
 7,029,490 B2 4/2006 Grafton et al.  
 7,087,073 B2 8/2006 Bonutti  
 7,226,469 B2 6/2007 Benavitz et al.  
 7,309,337 B2 12/2007 Colleran et al.  
 7,329,272 B2 2/2008 Burkhart et al.  
 7,331,982 B1 2/2008 Kaiser et al.  
 D587,807 S 3/2009 Wolf et al.  
 7,530,990 B2 5/2009 Perriello et al.  
 7,585,311 B2 9/2009 Green et al.  
 7,713,285 B1 5/2010 Stone et al.  
 D622,847 S \* 8/2010 Berberich ..... D24/145  
 7,780,701 B1 8/2010 Meridew et al.  
 D625,817 S \* 10/2010 Rinner ..... D24/145  
 D626,230 S \* 10/2010 Rinner ..... D24/145  
 7,806,896 B1 10/2010 Bonutti  
 D628,292 S \* 11/2010 Berberich ..... D24/145  
 7,828,820 B2 11/2010 Stone et al.  
 7,867,251 B2 1/2011 Colleran et al.

7,883,509 B2 2/2011 Ferrante et al.  
 7,883,528 B2 \* 2/2011 Grafton et al. .... 606/232  
 7,883,529 B2 \* 2/2011 Sinnott et al. .... 606/232  
 7,905,905 B2 \* 3/2011 Cragg et al. .... 606/246  
 7,976,565 B1 7/2011 Meridew  
 8,029,536 B2 10/2011 Sorensen et al.  
 8,105,326 B2 1/2012 Ferrante et al.  
 8,123,806 B1 2/2012 Hoof  
 8,147,514 B2 4/2012 Bonutti  
 8,206,446 B1 6/2012 Montgomery  
 8,231,674 B2 7/2012 Albertorio et al.  
 8,298,234 B2 10/2012 Ferrante et al.  
 8,403,957 B2 \* 3/2013 Martinek et al. .... 606/232  
 8,579,940 B2 \* 11/2013 Dreyfuss et al. .... 606/232  
 8,597,328 B2 \* 12/2013 Cauldwell et al. .... 606/232  
 8,858,596 B2 \* 10/2014 Robison ..... 606/232  
 8,882,801 B2 \* 11/2014 DiMatteo et al. .... 606/232  
 9,023,082 B2 \* 5/2015 Wolf ..... 606/232  
 2003/0144696 A1 \* 7/2003 Sinnott et al. .... 606/232  
 2004/0093032 A1 \* 5/2004 Sinnott et al. .... 606/232  
 2005/0070905 A1 3/2005 Donnelly et al.  
 2005/0222619 A1 \* 10/2005 Dreyfuss et al. .... 606/232  
 2007/0213730 A1 \* 9/2007 Martinek et al. .... 606/72  
 2008/0147063 A1 \* 6/2008 Cauldwell et al. .... 606/60  
 2008/0243184 A1 \* 10/2008 Martinek et al. .... 606/232  
 2009/0076544 A1 \* 3/2009 DiMatteo et al. .... 606/232  
 2009/0099598 A1 \* 4/2009 McDevitt et al. .... 606/232  
 2009/0105768 A1 \* 4/2009 Cragg et al. .... 606/301  
 2009/0149883 A1 6/2009 Brunsvold  
 2009/0192546 A1 \* 7/2009 Schmieding et al. .... 606/232  
 2010/0179592 A1 \* 7/2010 Martinek et al. .... 606/232  
 2010/0185238 A1 \* 7/2010 Cauldwell et al. .... 606/232  
 2012/0078298 A1 \* 3/2012 Sklar ..... 606/232  
 2012/0083840 A1 \* 4/2012 DiMatteo et al. .... 606/232  
 2013/0006302 A1 \* 1/2013 Paulk et al. .... 606/232  
 2013/0079818 A1 3/2013 Lizardi et al.  
 2013/0085528 A1 4/2013 DiMatteo et al.  
 2013/0158596 A1 6/2013 Miller et al.  
 2013/0158597 A1 6/2013 Hernandez  
 2013/0158598 A1 6/2013 Lizardi  
 2013/0158599 A1 6/2013 Hester et al.  
 2013/0184748 A1 7/2013 Sojka et al.  
 2013/0245685 A1 9/2013 Contiliano et al.  
 2014/0074164 A1 \* 3/2014 Dreyfuss et al. .... 606/232  
 2014/0277129 A1 \* 9/2014 Arai et al. .... 606/232  
 2014/0277130 A1 \* 9/2014 Housman ..... 606/232  
 2015/0112384 A1 \* 4/2015 Hirotsuka et al. .... 606/232

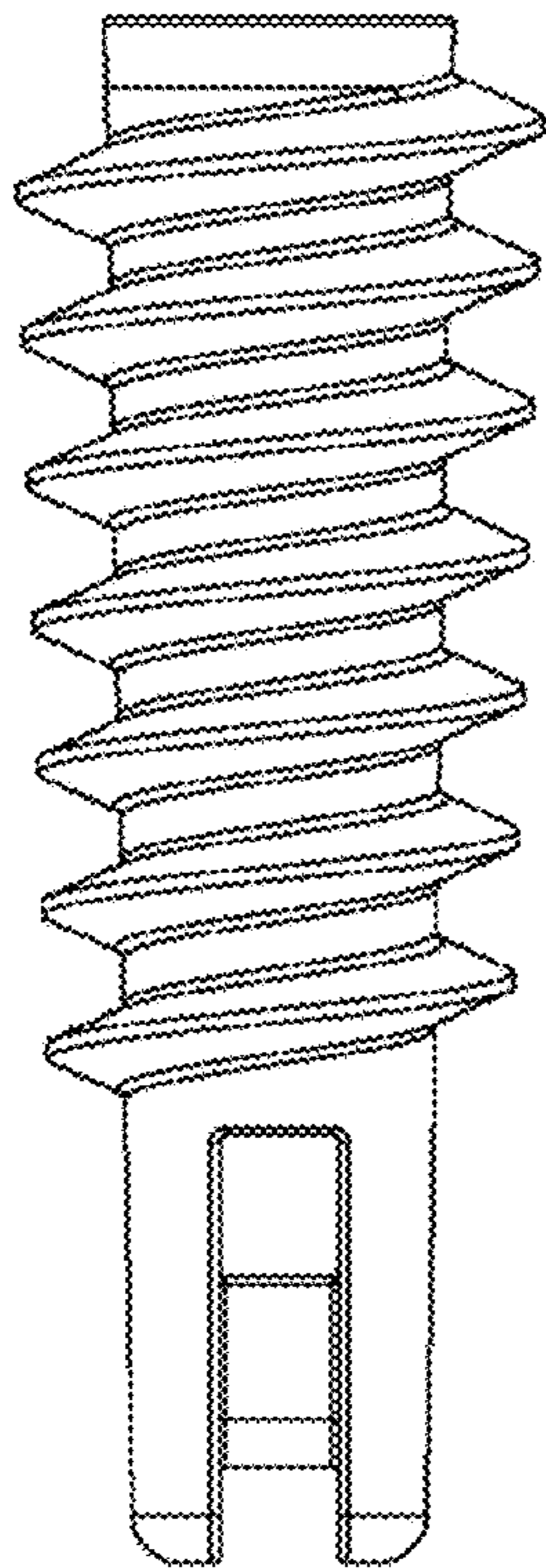
OTHER PUBLICATIONS

Smith & Nephew, Inc., "Bioraptor Knotless Suture Anchor Arthroscopic Shoulder Instability Repair," Feb. 2010, 8 pages.

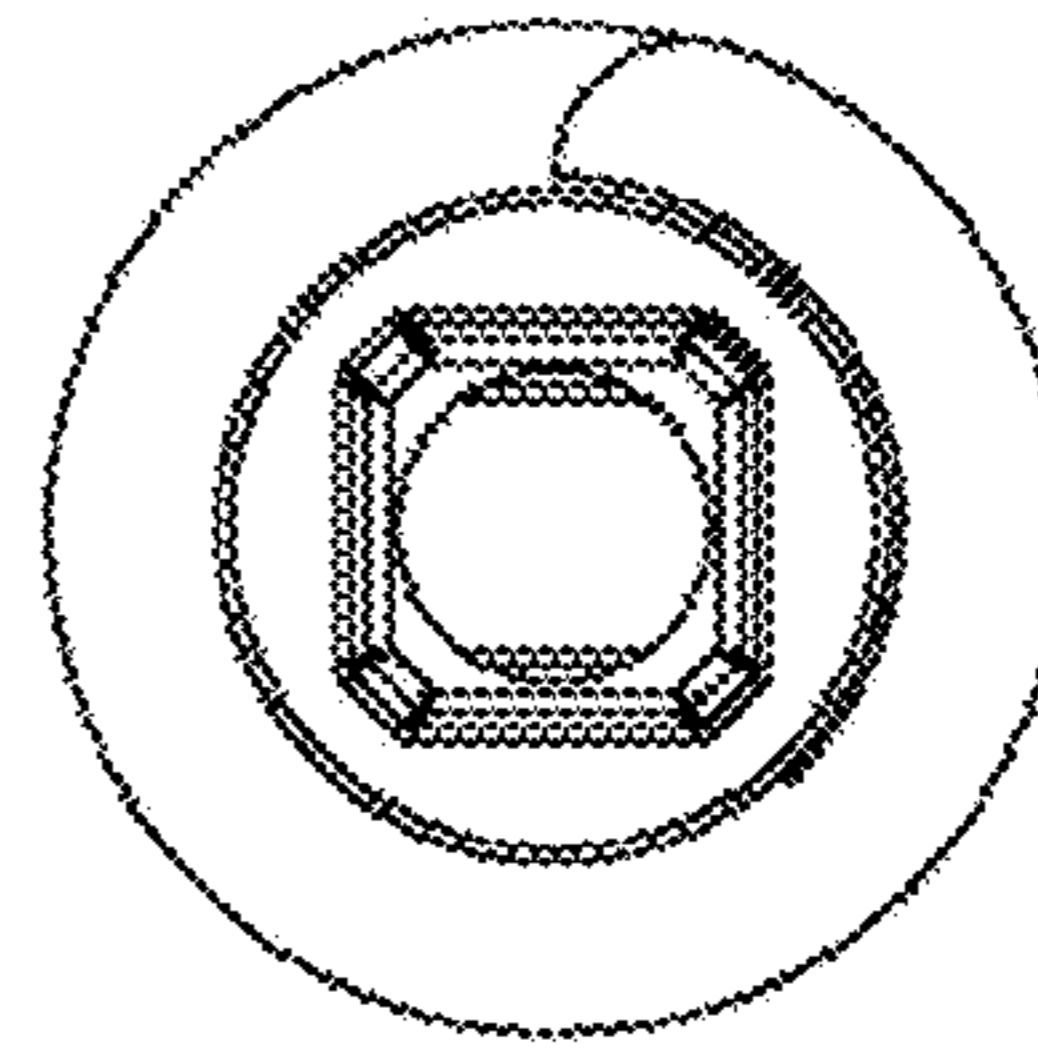
\* cited by examiner



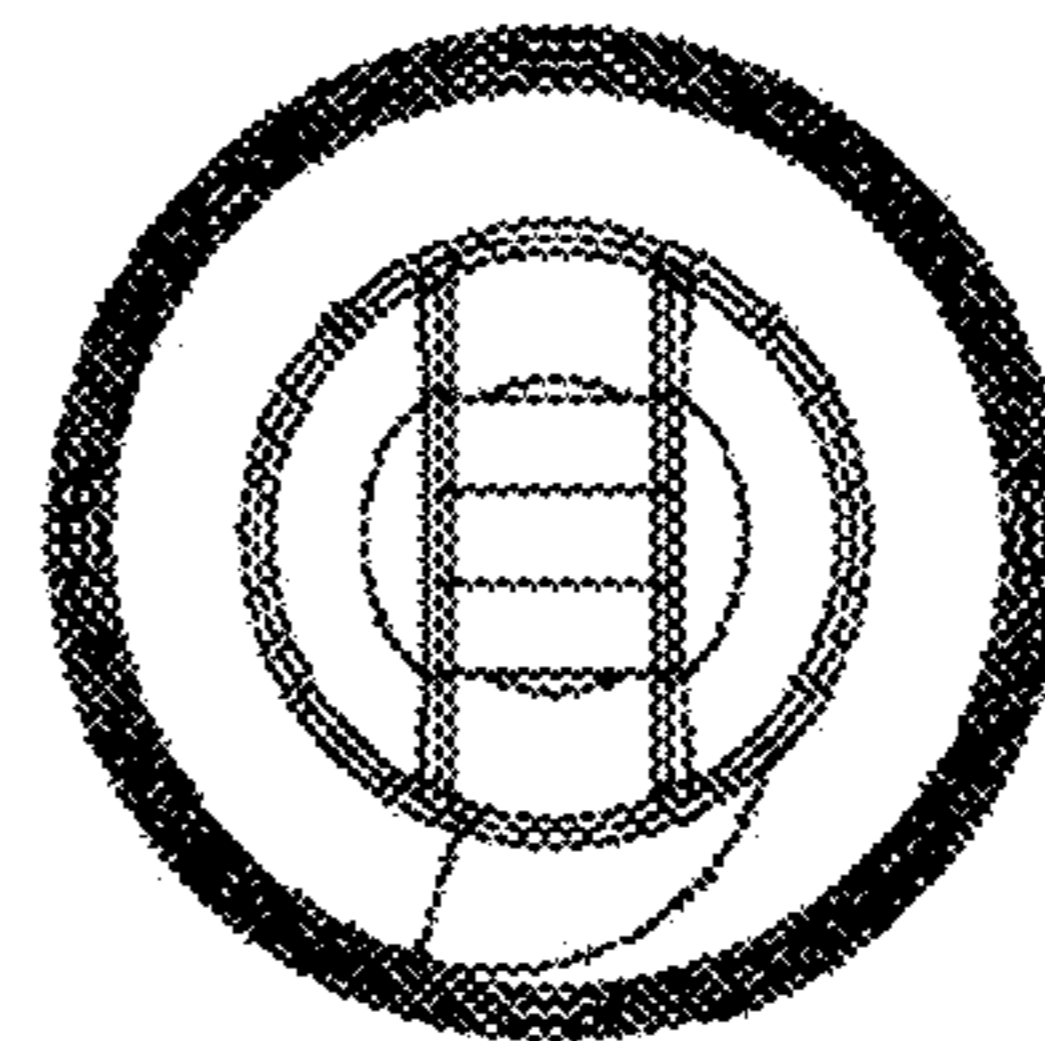
**Fig. 1**



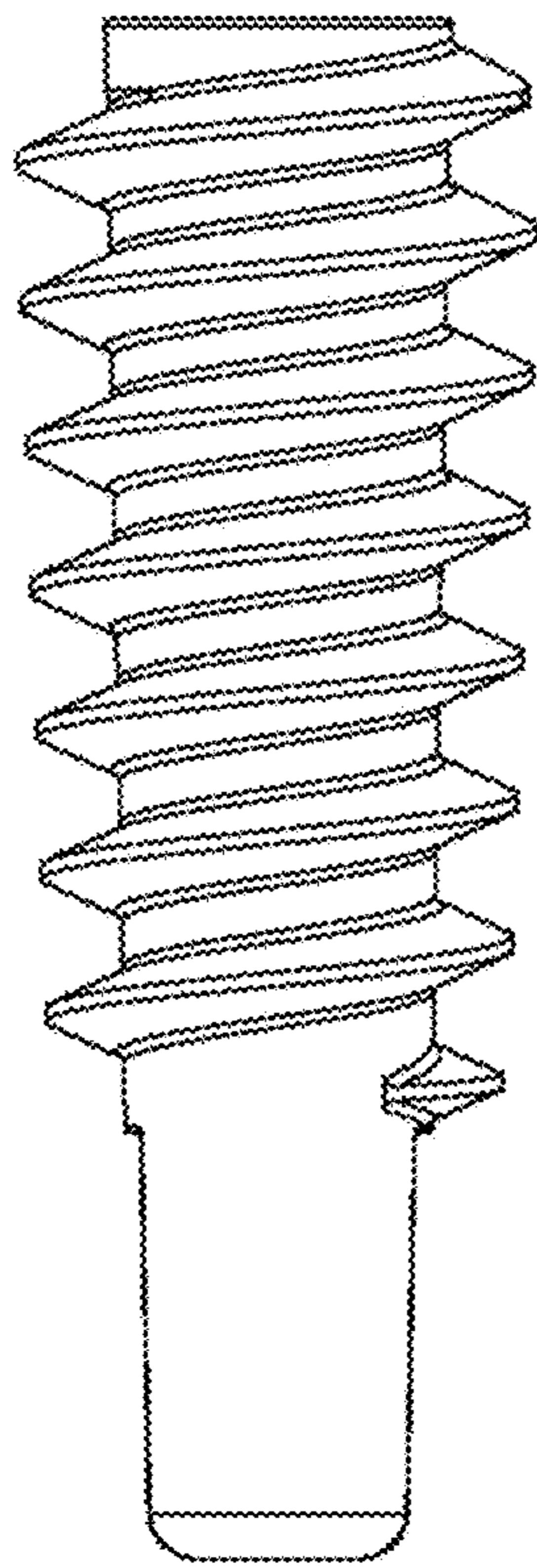
**Fig. 2**



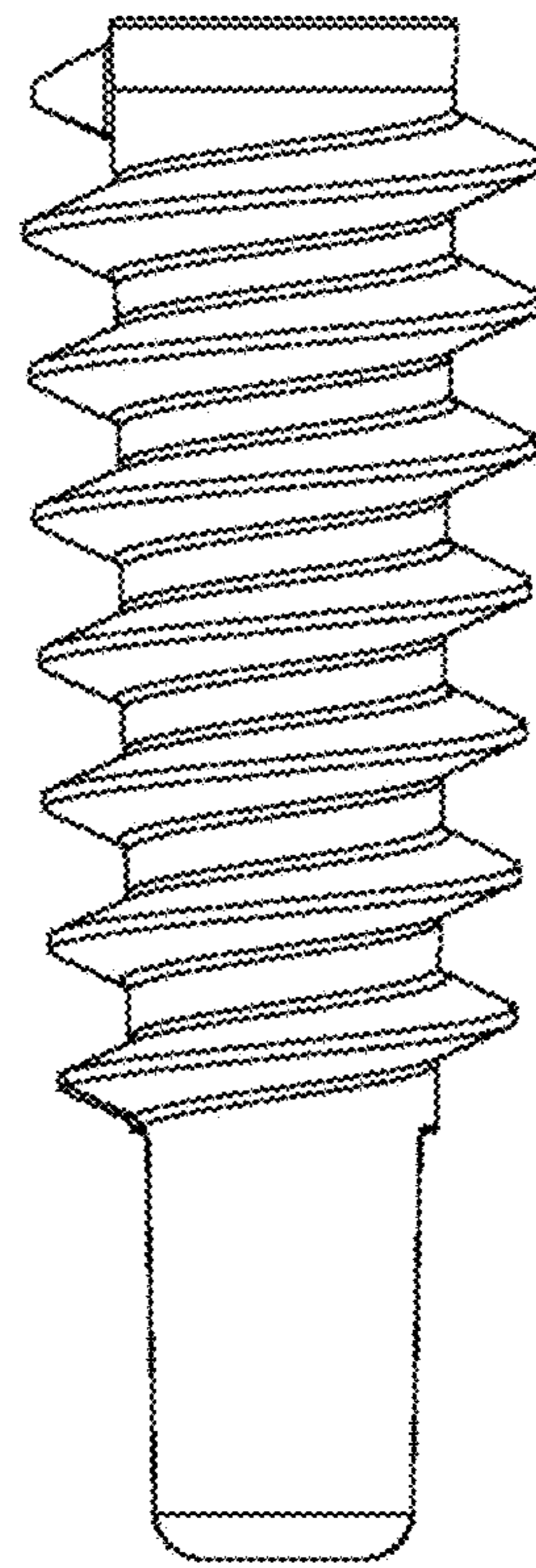
**Fig. 3**



**Fig. 4**



**Fig. 5**



**Fig. 6**