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

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(54) **SURGICAL HIP ANTERIOR APPROACH
ARTHROPLASTY DEVICE**

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(73) Assignee: **Smith & Nephew, Inc.**, Memphis, TN
(US)

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

(21) Appl. No.: **29/387,182**

(22) Filed: **Mar. 10, 2011**

Related U.S. Application Data

(63) Continuation of application No. 13/019,635, filed on Feb. 2, 2011, which is a continuation of application No. 12/412,527, filed on Apr. 27, 2009, which is a continuation of application No. 10/991,641, filed on Nov. 18, 2004, now Pat. No. 7,591,821.

(51) **LOC (9) Cl.** **24-02**

(52) **U.S. Cl.** **D24/133**

(58) **Field of Classification Search** D24/133,
D24/140, 155; 606/79, 84
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,029,811	A *	4/1962	Yost	606/67
3,815,599	A	6/1974	Deyerle	
3,955,568	A	5/1976	Neufeld	
4,306,500	A	12/1981	Castanien et al.	
4,306,550	A	12/1981	Forte	
D272,764	S *	2/1984	Dohogne	D24/155
4,457,307	A	7/1984	Stillwell	
4,565,192	A	1/1986	Shapiro	
4,574,794	A	3/1986	Cooke et al.	
4,583,270	A	4/1986	Kenna	
4,587,964	A	5/1986	Walker et al.	
4,703,751	A	11/1987	Pohl	
4,765,328	A	8/1988	Keller et al.	

4,921,493	A	5/1990	Webb et al.
4,938,762	A	7/1990	Wehrli
4,952,213	A	8/1990	Bowman et al.
4,990,149	A	2/1991	Fallin
5,049,149	A	9/1991	Schmidt
5,089,003	A	2/1992	Fallin et al.
5,089,004	A	2/1992	Averill et al.

(Continued)

FOREIGN PATENT DOCUMENTS

DE 2732325 C3 1/1980

(Continued)

OTHER PUBLICATIONS

Multi-Reference 4-in-a Femoral Knee Instrumentation <http://www.zimmer.com/ctl?op=global&action=1&ids=1065&template=MP>
printed on Oct. 13, 2004, 2 pages.

(Continued)

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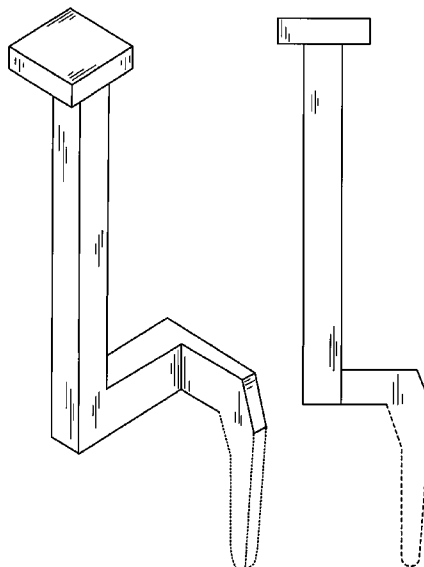
(57) **CLAIM**

The ornamental design for a surgical hip anterior approach arthroplasty device, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a surgical hip anterior approach arthroplasty device showing my new design; FIG. 2 is a left side view of the design of FIG. 1. FIG. 3 is a right side view of the design of FIG. 1. FIG. 4 is a rear view of the design of FIG. 1. FIG. 5 is a front view of the design of FIG. 1. FIG. 6 is a top view of the design of FIG. 1; and, FIG. 7 is a bottom view of the design of FIG. 1. The portion of the article depicted in broken lines forms no part of the claimed design.

1 Claim, 4 Drawing Sheets



U.S. PATENT DOCUMENTS

5,129,909 A 7/1992 Sutherland
 5,190,549 A 3/1993 Miller et al.
 5,190,550 A 3/1993 Miller et al.
 5,261,915 A 11/1993 Durlacher et al.
 5,324,293 A 6/1994 Rehmann
 5,352,230 A 10/1994 Hood
 5,364,401 A 11/1994 Ferrante et al.
 5,443,471 A 8/1995 Swajger
 5,445,642 A 8/1995 McNulty et al.
 5,486,178 A 1/1996 Hodge
 5,569,260 A 10/1996 Petersen
 5,581,892 A 12/1996 Dean
 5,607,431 A 3/1997 Dudasik et al.
 5,676,668 A 10/1997 McCue et al.
 5,681,315 A 10/1997 Szabo
 5,683,395 A 11/1997 Mikhail
 5,683,397 A 11/1997 Vendrely et al.
 5,688,279 A 11/1997 McNulty et al.
 5,693,056 A 12/1997 Carls et al.
 5,704,941 A 1/1998 Jacober et al.
 5,709,689 A 1/1998 Ferrante et al.
 5,810,827 A 9/1998 Haines et al.
 5,810,830 A 9/1998 Noble et al.
 5,897,559 A 4/1999 Masini
 5,919,195 A 7/1999 Wilson et al.
 5,935,128 A 8/1999 Carter et al.
 5,938,665 A 8/1999 Martin
 5,993,455 A 11/1999 Noble
 D433,506 S * 11/2000 Asfora D24/140
 6,187,006 B1 2/2001 Keller
 6,224,605 B1 5/2001 Anderson et al.
 6,258,095 B1 7/2001 Lombardo et al.
 6,273,915 B1 8/2001 Grimes
 D454,952 S * 3/2002 Ku et al. D24/155
 D455,212 S * 4/2002 Albrektsson et al. D24/155
 6,409,768 B1 6/2002 Tepic et al.
 6,554,837 B1 4/2003 Hauri et al.
 6,558,391 B2 5/2003 Axelson et al.
 6,595,997 B2 7/2003 Axelson, Jr. et al.
 6,626,913 B1 9/2003 McKinnon et al.
 6,676,706 B1 1/2004 Mears et al.
 6,685,711 B2 2/2004 Axelson et al.
 6,692,503 B2 2/2004 Foley et al.
 6,695,850 B2 2/2004 Diaz
 7,396,357 B2 7/2008 Tornier et al.
 D598,096 S * 8/2009 Petersen D24/133
 D599,479 S * 9/2009 Petersen D24/133
 D600,346 S * 9/2009 Petersen D24/140
 7,591,821 B2 9/2009 Kelman
 2002/0099446 A1 * 7/2002 MacArthur 623/20.14
 2002/0198531 A1 12/2002 Millard et al.
 2003/0050645 A1 3/2003 Parker et al.
 2003/0069591 A1 4/2003 Carson et al.
 2003/0187449 A1 10/2003 McCleary et al.
 2003/0220698 A1 * 11/2003 Mears et al. 623/22.4
 2004/0010261 A1 1/2004 Hoag et al.
 2004/0127887 A1 7/2004 Zinkel
 2004/0153062 A1 8/2004 McGinley et al.
 2004/0153191 A1 8/2004 Grimm et al.
 2005/0048853 A1 3/2005 Pacha
 2005/0107801 A1 5/2005 Davies et al.
 2005/0171548 A1 8/2005 Kelman
 2005/0181548 A1 8/2005 Yanagisawa et al.
 2005/0216022 A1 9/2005 Lechot et al.

2007/0093897 A1 4/2007 Gerbec et al.
 2007/0233134 A1 10/2007 Bastian et al.
 2007/0293871 A1 12/2007 Ackermann
 2008/0033444 A1 2/2008 Bastian et al.
 2008/0255565 A1 10/2008 Fletcher
 2009/0275948 A1 * 11/2009 Kelman 606/79

FOREIGN PATENT DOCUMENTS

DE 19850980 C2 11/2000
 DE 202008017200 U1 4/2009
 EP 359097 A1 3/1990
 EP 380450 A3 9/1990
 EP 415837 A2 3/1991
 EP 380451 A3 4/1991
 EP 619097 A1 10/1994
 EP 0645127 A1 3/1995
 EP 1566147 A1 8/2005
 FR 2742334 B1 5/1998
 FR 2796261 A1 1/2001
 FR 2854786 A1 11/2004
 JP 4044759 Y2 10/1992
 WO WO0051530 A1 9/2000
 WO WO03026517 A1 4/2003
 WO WO03065906 A3 11/2003
 WO WO03092513 A1 11/2003
 WO WO2004024007 A1 3/2004

OTHER PUBLICATIONS

HSS/HSS.Newsroom: New Knee Replacement Reduces Recovery Time, <http://www.hss.edu/Newsroom/New/Knee/Replacement/Reduces/Recover/Time>, printed on Mar. 5, 2003, 2 pages.
 Mobile Bearing Knee, Genesis II and Profix, Acufex EndoButton CL, Brochure, 3 pages, undated.
 Posterior Reference NexGen System Complete Knee Solution, Multi/Reference™ r/in/1 Femoral Instrumentation, Posterior Reference Surgical Technique for NexGen Cruciate Retaining & Legacy® Posterior Stabilized Knees, Zimmer brochure, pp. 1/16, 1996.
 Xcelerate™ 4/in/1 Ceramic Cutting Blocks Extremely Accurate Cutting with the Potential for Reduced Intraoperative Wear Debris, Stryker Howmedica Osteonics brochure, 2 pages, undated.
 BioRCI/HA Bioabsorbable Screws with Hydroxylapatite, The Innovative Choice for Exceptional Strength and Selection, Smith & Nephew brochure, pp. 3/10, undated.
 Matrix Opti/Fix Plus, Surgical Technique Developed in Conjunction with John M. Cuckler, M.D., University of Alabama, Birmingham, Alabama, Smith & Nephew brochure, pp. 1/36, Dec. 1996.
 Miller, Steve, "Echelon Instrumentation Options," OrthoUpdate, Smith+Nephew, 2 pages, undated.
 "Surgical Technique, Innovations in Minimally Invasive Joint Surgery, Minimally Invasive Hip Replacement Through the Posterior Approach," Smith & Nephew brochure, 20 pages, Oct. 2003.
 "Paralign Hip Instrument MIS Systems," Orthogroup, 4 pages, undated.
 Deirmengian, et al, "A Technique for the Minimally Invasive, Watson-Jones Approach to Total Hip Arthroplasty," Operative Techniques in Orthopaedics, 2006, pp. 126-134.
 Nogler, et al, "A Double Offset Broach Handle for Preparation of the Femoral Cavity in Minimally Invasive Direct Anterior Total Hip Arthroplasty," The Journal of Arthroplasty, vol. 21, No. 8, 2006, pp. 1206-1208.

* cited by examiner

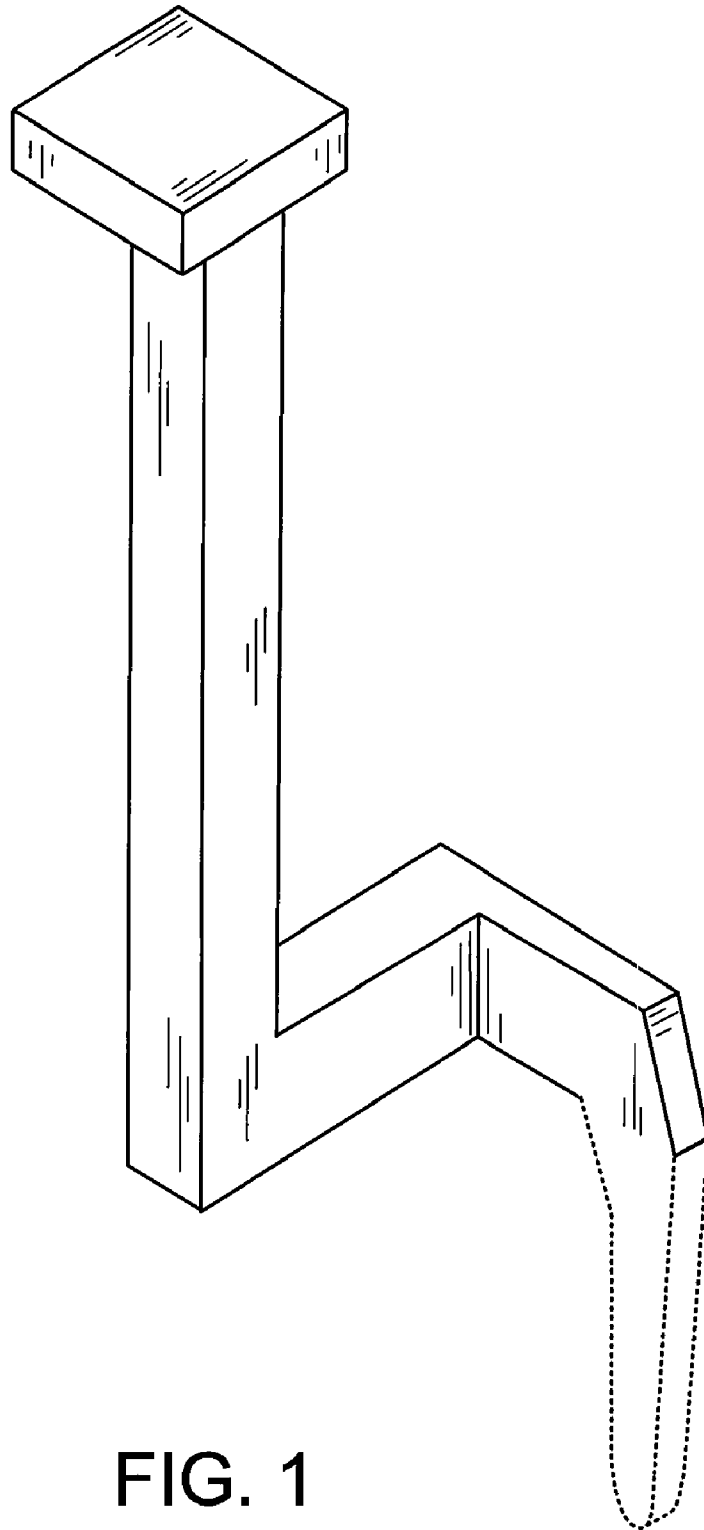


FIG. 1

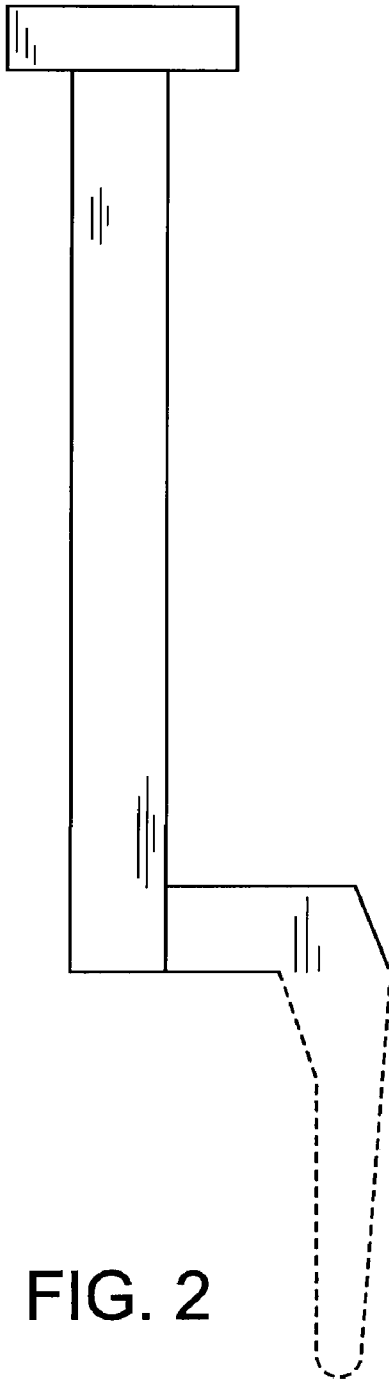


FIG. 2

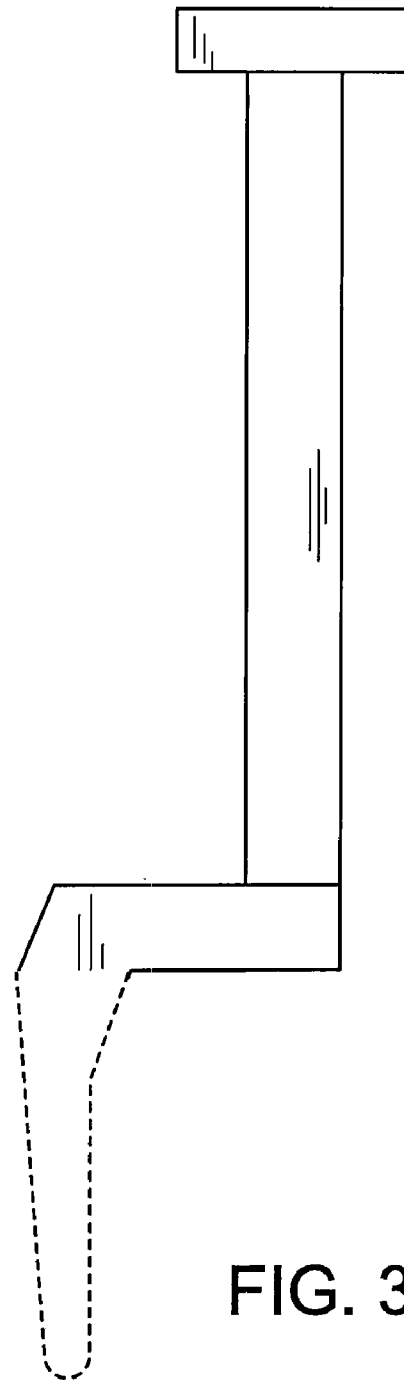
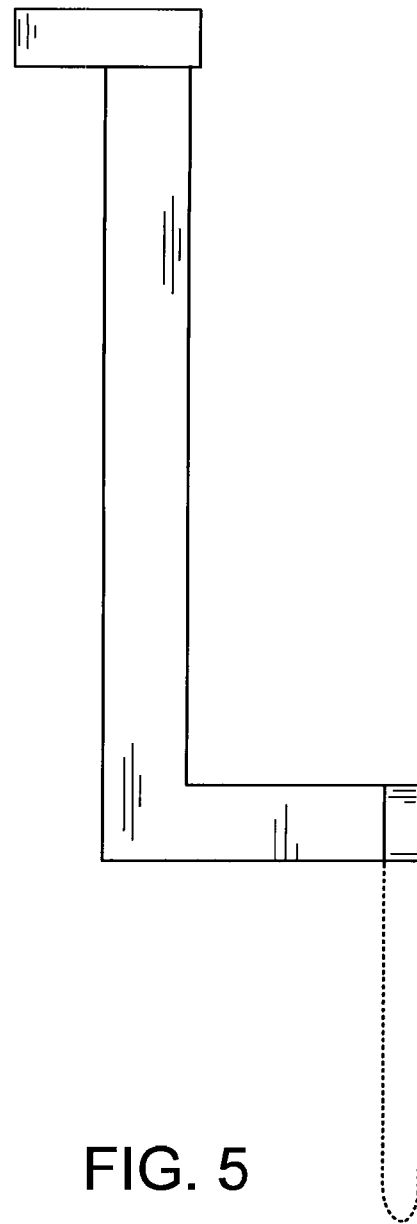
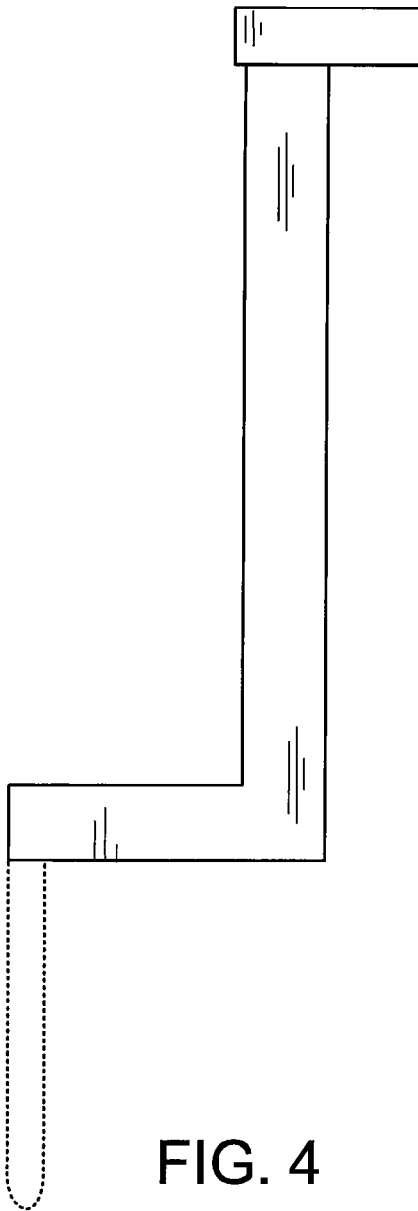


FIG. 3



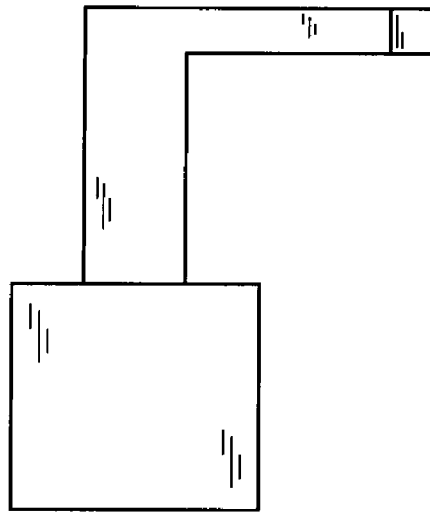


FIG. 6

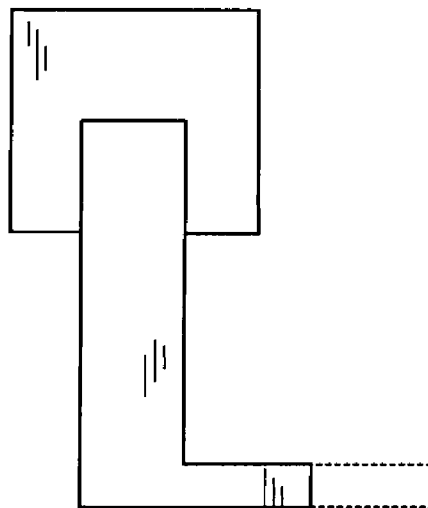


FIG. 7