

US00D627462S

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

(10) **Patent No.:** **US D627,462 S**

(45) **Date of Patent:** **** Nov. 16, 2010**

(54) **KNIFE CHANNEL OF A JAW DEVICE**

(75) Inventor: **Dylan R. Kingsley**, Broomfield, CO
(US)

(73) Assignee: **TYCO Healthcare Group LP**, Boulder,
CO (US)

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

(21) Appl. No.: **29/343,181**

(22) Filed: **Sep. 9, 2009**

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

(52) **U.S. Cl.** **D24/144; D24/143**

(58) **Field of Classification Search** D24/133,
D24/144, 145, 146, 143, 148, 153; 606/42,
606/45, 48, 50-52, 205-208

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D457,959	S	5/2002	Tetzlaff et al.	
D496,997	S	10/2004	Dycus et al.	
7,150,097	B2 *	12/2006	Sremcich et al.	606/51
D535,027	S	1/2007	James et al.	
7,156,846	B2 *	1/2007	Dycus et al.	606/51
D541,418	S	4/2007	Schechter et al.	
D541,938	S	5/2007	Kerr et al.	
7,267,677	B2	9/2007	Johnson et al.	
7,597,693	B2 *	10/2009	Garrison	606/51
7,628,791	B2 *	12/2009	Garrison et al.	606/51
7,722,607	B2 *	5/2010	Dumbauld et al.	606/51
2006/0129146	A1 *	6/2006	Dycus et al.	606/51
2007/0043353	A1 *	2/2007	Dycus et al.	606/51
2007/0078458	A1 *	4/2007	Dumbauld et al.	606/51
2007/0078459	A1 *	4/2007	Johnson et al.	606/51
2007/0106295	A1	5/2007	Garrison et al.	
2007/0179499	A1	8/2007	Garrison	
2008/0021450	A1	1/2008	Couture	
2008/0082100	A1 *	4/2008	Orton et al.	606/52
2008/0294222	A1 *	11/2008	Schechter	607/50
2008/0319442	A1	12/2008	Unger et al.	

2009/0012520	A1	1/2009	Hixson et al.	
2009/0171350	A1	7/2009	Dycus et al.	
2010/0130977	A1 *	5/2010	Garrison et al.	606/51
2010/0145334	A1 *	6/2010	Olson et al.	606/48

FOREIGN PATENT DOCUMENTS

CA 2104423 2/1994

(Continued)

OTHER PUBLICATIONS

Michael Choti, "Abdominoperineal Resection with the LigaSure Vessel Sealing System and LigaSure Atlas 20 cm Open Instrument"; *Innovations That Work*, Jun. 2003.

(Continued)

Primary Examiner—Ian Simmons
Assistant Examiner—Wan Laymon

(57) **CLAIM**

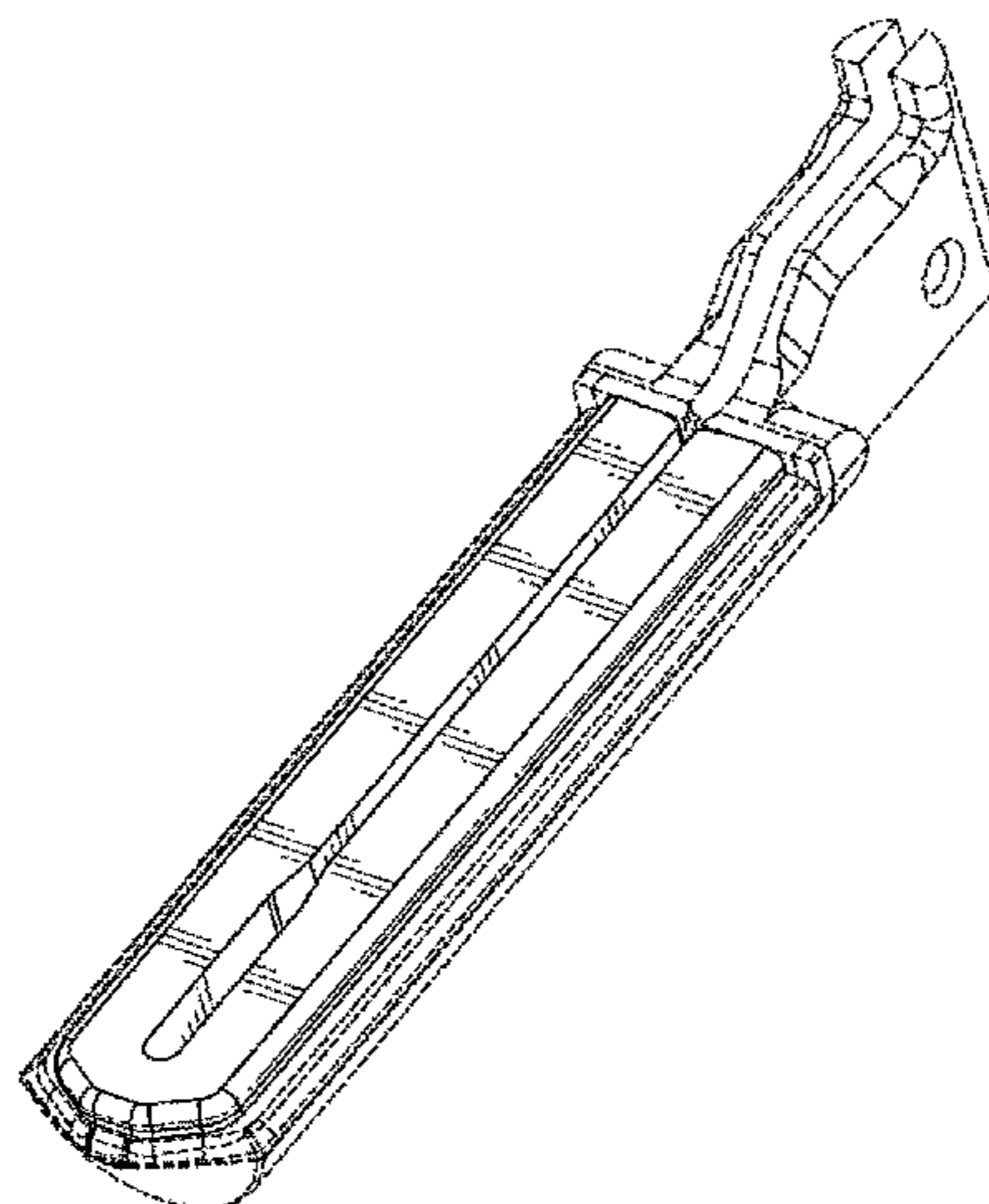
The ornamental design for a knife channel of a jaw device, as shown and described.

DESCRIPTION

FIG. 1 is a top perspective view of a knife channel of a jaw device in accordance with the present design; and, FIG. 2 is a top view of the knife channel of a jaw device of FIG. 1.

The broken line showing portions of the knife channel of a jaw device is included for the purpose of illustrating environmental structure and forms no part of the claimed design.

1 Claim, 2 Drawing Sheets



FOREIGN PATENT DOCUMENTS

DE	2415263	10/1975
DE	2514501	10/1976
DE	2627679	1/1977
DE	3612646	4/1987
DE	8712328	3/1988
DE	4303882	8/1994
DE	4403252	8/1995
DE	19515914	7/1996
DE	29616210	1/1997
DE	19608716	4/1997
DE	19751106	5/1998
DE	19751108	5/1999
DE	19738457	1/2009
EP	1159926	12/2001
EP	1609430	12/2005
EP	1 645 240	4/2006
GB	623316	5/1949
GB	1490585	11/1977
GB	2214430 A	6/1989
GB	2213416 A	8/1989
JP	61-501068	9/1984
JP	65-502328	3/1992
JP	5-5106	1/1993
JP	5-40112	2/1993
JP	06343644	12/1994
JP	07265328	10/1995
JP	08056955	3/1996
JP	08252263	10/1996
JP	09010223	1/1997
JP	11244298	9/1999
JP	2000-342599	12/2000
JP	2000-350732	12/2000
JP	2001-008944	1/2001
JP	2001-029356	2/2001
JP	2001-128990	5/2001
SU	401367	11/1974
WO	WO2005/004735	1/2005

OTHER PUBLICATIONS

Chung et al., "Clinical Experience of Sutureless Closed Hemorrhoidectomy with LigaSure" *Diseases of the Colon & Rectum* vol. 46, No. 1 Jan. 2003.

Carbonell et al., "Comparison of the Gyrus PlasmaKinetic Sealer and the Valleylab LigaSure Device in the Hemostasis of Small, Medium, and Large-Sized Arteries" *Carolinas Laparoscopic and Advanced Surgery Program, Carolinas Medical Center, Charlotte, NC*; Date: Aug. 2003.

Peterson et al. "Comparison of Healing Process Following Ligation with Sutures and Bipolar Vessel Sealing" *Surgical Technology International* (2001).

"Electrosurgery: A Historical Overview" *Innovations in Electrosurgery*; Sales/Product Literature; Dec. 31, 2000.

Johnson et al. "Evaluation of a Bipolar Electrothermal Vessel Sealing Device in Hemorrhoidectomy" *Sales/Product Literature*; Jan. 2004.

E. David Crawford "Evaluation of a New Vessel Sealing Device in Urologic Cancer Surgery" *Sales/Product Literature* 2000.

Johnson et al. "Evaluation of the LigaSure Vessel Sealing System in Hemorrhoidectomy" *American College of Surgeons (ACS) Clinical Congress Poster* (2000).

Muller et al., "Extended Left Hemicolectomy Using the LigaSure Vessel Sealing System" *Innovations That Work*, Sep. 1999.

Kennedy et al. "High-burst-strength, feedback-controlled bipolar vessel sealing" *Surgical Endoscopy* (1998) 12: 876-878.

Carus et al., "Initial Experience With the LigaSure Vessel Sealing System in Abdominal Surgery" *Innovations That Work*, Jun. 2002.

Heniford et al. "Initial Research and Clinical Results with an Electrothermal Bipolar Vessel Sealer" Oct. 1999.

Heniford et al. "Initial Results with an Electrothermal Bipolar Vessel Sealer" *Surgical Endoscopy* (2000) 15:799-801.

Herman et al., "Laparoscopic Intestinal Resection With the LigaSure Vessel Sealing System: A Case Report"; *Innovations That Work*, Feb. 2002.

Koyle et al., "Laparoscopic Palomo Varicocele Ligation in Children and Adolescents" *Pediatric Endosurgery & Innovative Techniques*, vol. 6, No. 1, 2002.

W. Scott Helton, "LigaSure Vessel Sealing System: Revolutionary Hemostasis Product for General Surgery"; *Sales/Product Literature* 1999.

LigaSure Vessel Sealing System, the Seal of Confidence in General, Gynecologic, Urologic, and Laparoscopic Surgery; *Sales/Product Literature*; Apr. 2002.

Joseph Ortenberg "LigaSure System Used in Laparoscopic 1st and 2nd Stage Orchiopexy" *Innovations That Work*, Nov. 2002.

Sigel et al. "The Mechanism of Blood Vessel Closure by High Frequency Electrocoagulation" *Surgery Gynecology & Obstetrics*, Oct. 1965 pp. 823-831.

Sampayan et al., "Multilayer Ultra-High Gradient Insulator Technology" *Discharges and Electrical Insulation in Vacuum*, 1998. Netherlands Aug. 17-21, 1998; vol. 2, pp. 740-743.

Paul G. Horgan, "A Novel Technique for Parenchymal Division During Hepatectomy" *The American Journal of Surgery*, vol. 181, No. 3, Apr. 2001 pp. 236-237.

Olsson et al. "Radical Cystectomy in Females" *Current Surgical Techniques in Urology*, vol. 14, Issue 3, 2001.

Palazzo et al. "Randomized clinical trial of Ligasure versus open haemorrhoidectomy" *British Journal of Surgery* 2002, 89, 154-157.

Levy et al. "Randomized Trial of Suture Versus Electrosurgical Bipolar Vessel Sealing in Vaginal Hysterectomy" *Obstetrics & Gynecology*, vol. 102, No. 1, Jul. 2003.

"Reducing Needlestick Injuries in the Operating Room" *Sales/Product Literature* 2001.

Bergdahl et al. "Studies on Coagulation and the Development of an Automatic Computerized Bipolar Coagulator" *J. Neurosurg*, vol. 75, Jul. 1991, pp. 148-151.

Strasberg et al. "A Phase I Study of the LigaSure Vessel Sealing System in Hepatic Surgery" *Section of HPB Surgery, Washington University School of Medicine, St. Louis MO*, Presented at AHPBA, Feb. 2001.

Sayfan et al. "Sutureless Closed Hemorrhoidectomy: A New Technique" *Annals of Surgery* vol. 234 No. 1 Jul. 2001; pp. 21-24.

Levy et al., "Update on Hysterectomy—New Technologies and Techniques" *OBG Management*, Feb. 2003.

Dulemba et al. "Use of a Bipolar Electrothermal Vessel Sealer in Laparoscopically Assisted Vaginal Hysterectomy" *Sales/Product Literature*; Jan. 2004.

Strasberg et al., "Use of a Bipolar Vessel-Sealing Device for Parenchymal Transection During Liver Surgery" *Journal of Gastrointestinal Surgery*, vol. 6, No. 4, Jul./Aug. 2002 pp. 569-574.

Sengupta et al., "Use of a Computer-Controlled Bipolar Diathermy System in Radical Prostatectomies and Other Open Urological Surgery" *ANZ Journal of Surgery* (2001) 71.9 pp. 538-540.

Rothenberg et al. "Use of the LigaSure Vessel Sealing System in Minimally Invasive Surgery in Children" *Int'l Pediatric Endosurgery Group (IPEG)* 2000.

Crawford et al. "Use of the LigaSure Vessel Sealing System in Urologic Cancer Surgery" *Grand Rounds in Urology* 1999 vol. 1 Issue 4 pp. 10-17.

Craig Johnson, "Use of the LigaSure Vessel Sealing System in Bloodless Hemorrhoidectomy" *Innovations That Work*, Mar. 2000.

Levy et al. "Use of a New Energy-based Vessel Ligation Device During Vaginal Hysterectomy" *Int'l Federation of Gynecology and Obstetrics (FIGO) World Congress* 1999.

Barbara Levy, "Use of a New Vessel Ligation Device During Vaginal Hysterectomy" *FIGO* 2000, Washington, D.C.

E. David Crawford "Use of a Novel Vessel Sealing Technology in Management of the Dorsal Vein Complex" *Sales/Product Literature* 2000.

Jarrett et al., "Use of the LigaSure Vessel Sealing System for Perihilar Vessels in Laparoscopic Nephrectomy" *Sales/Product Literature* 2000.

Crouch et al. "A Velocity-Dependent Model for Needle Insertion in Soft Tissue" *MICCAI* 2005; LNCS 3750 pp. 624-632, Dated: 2005.

- McLellan et al. "Vessel Sealing for Hemostasis During Pelvic Surgery" Int'l Federation of Gynecology and Obstetrics FIGO World Congress 2000, Washington, D.C.
- McLellan et al. "Vessel Sealing For Hemostasis During Gynecologic Surgery" Sales/Product Literature 1999.
- Int'l Search Report EP 98944778.4 dated Oct. 31, 2000.
- Int'l Search Report EP 98957771 dated Aug. 9, 2001.
- Int'l Search Report EP 98958575.7 dated Sep. 20, 2002.
- Int'l Search Report EP 04013772.1 dated Apr. 1, 2005.
- Int'l Search Report EP 04027314.6 dated Mar. 10, 2005.
- Int'l Search Report EP 04027479.7 dated Mar. 8, 2005.
- Int'l Search Report EP 04027705.5 dated Feb. 3, 2005.
- Int'l Search Report EP 04752343.6 dated Jul. 20, 2007.
- Int'l Search Report EP 05002671.5 dated Dec. 22, 2008.
- Int'l Search Report EP 05002674.9 dated Jan. 16, 2009.
- Int'l Search Report EP 05013463.4 dated Oct. 7, 2005.
- Int'l Search Report EP 05013895.7 dated Oct. 21, 2005.
- Int'l Search Report EP 05016399.7 dated Jan. 13, 2006.
- Int'l Search Report EP 05017281.6 dated Nov. 24, 2005.
- Int'l Search Report EP 05019130.3 dated Oct. 27, 2005.
- Int'l Search Report EP 05019429.9 dated May 6, 2008.
- Int'l Search Report EP 05020665.5 dated Feb. 27, 2006.
- Int'l Search Report EP 05020666.3 dated Feb. 27, 2006.
- Int'l Search Report EP 05021197.8 dated Feb. 20, 2006.
- Int'l Search Report EP 05021779.3 dated Feb. 2, 2006.
- Int'l Search Report EP 05021780.1 dated Feb. 23, 2006.
- Int'l Search Report EP 05021937.7 dated Jan. 23, 2006.
- Int'l Search Report—extended- EP 05021937.7 dated Mar. 15, 2006.
- Int'l Search Report EP 05023017.6 dated Feb. 24, 2006.
- Int'l Search Report EP 06002279.5 dated Mar. 30, 2006.
- Int'l Search Report EP 06005185.1 dated May 10, 2006.
- Int'l Search Report EP 06006716.2 dated Aug. 4, 2006.
- Int'l Search Report EP 06008515.6 dated Jan. 8, 2009.
- Int'l Search Report EP 06008779.8 dated Jul. 13, 2006.
- Int'l Search Report EP 06014461.5 dated Oct. 31, 2006.
- Int'l Search Report EP 06020574.7 dated Oct. 2, 2007.
- Int'l Search Report EP 06020583.8 dated Feb. 7, 2007.
- Int'l Search Report EP 06020584.6 dated Feb. 1, 2007.
- Int'l Search Report EP 06020756.0 dated Feb. 16, 2007.
- Int'l Search Report EP 06 024122.1 dated Apr. 16, 2007.
- Int'l Search Report EP 06024123.9 dated Mar. 6, 2007.
- Int'l Search Report EP 07 001480.8 dated Apr. 19, 2007.
- Int'l Search Report EP 07 001488.1 dated Jun. 5, 2007.
- Int'l Search Report EP 07 009026.1 dated Oct. 8, 2007.
- Int'l Search Report Extended- EP 07 009029.5 dated Jul. 20, 2007.
- Int'l Search Report EP 07 009321.6 dated Aug. 28, 2007.
- Int'l Search Report EP 07 010672.9 dated Oct. 16, 2007.
- Int'l Search Report EP 07 013779.9 dated Oct. 26, 2007.
- Int'l Search Report EP 07 014016 dated Jan. 28, 2008.
- Int'l Search Report EP 07 015191.5 dated Jan. 23, 2008.
- Int'l Search Report EP 07 015601.3 dated Jan. 4, 2008.
- Int'l Search Report EP 07 020283.3 dated Feb. 5, 2008.
- Int'l Search Report EP 07 021646.0 dated Jul. 9, 2008.
- Int'l Search Report EP 07 021647.8 dated May 2, 2008.
- Int'l Search Report EP 08 002692.5 dated Dec. 12, 2008.
- Int'l Search Report EP 08 004655.0 dated Jun. 24, 2008.
- Int'l Search Report EP 08 006732.5 dated Jul. 29, 2008.
- Int'l Search Report EP 08 006917.2 dated Jul. 3, 2008.
- Int'l Search Report EP 08 016539.2 dated Jan. 8, 2009.
- Int'l Search Report EP 09 152267.2 dated Jun. 15, 2009.
- Int'l Search Report EP 09 152898.4 dated Jun. 10, 2009.
- Int'l Search Report PCT/US98/18640 dated Jan. 29, 1999.
- Int'l Search Report PCT/US98/23950 dated Jan. 14, 1999.
- Int'l Search Report PCT/US98/24281 dated Feb. 22, 1999.
- Int'l Search Report PCT/US99/24869 dated Feb. 3, 2000.
- Int'l Search Report PCT/US01/11218 dated Aug. 14, 2001.
- Int'l Search Report PCT/US01/11224 dated Nov. 13, 2001.
- Int'l Search Report PCT/US01/11340 dated Aug. 16, 2001.
- Int'l Search Report PCT/US01/11420 dated Oct. 16, 2001.
- Int'l Search Report PCT/US02/01890 dated Jul. 25, 2002.
- Int'l Search Report PCT/US02/11100 dated Jul. 16, 2002.
- Int'l Search Report PCT/US03/28534 dated Dec. 19, 2003.
- Int'l Search Report PCT/US04/03436 dated Mar. 3, 2005.
- Int'l Search Report PCT/US04/13273 dated Dec. 15, 2004.
- Int'l Search Report PCT/US04/15311 dated Jan. 12, 2005.
- Int'l Search Report PCT/US07/021438 dated Apr. 1, 2008.
- Int'l Search Report PCT/US07/021440 dated Apr. 8, 2008.
- Int'l Search Report PCT/US08/61498 dated Sep. 22, 2008.
- Int'l Search Report PCT/US09/032690 dated Jun. 16, 2009.
- U.S. Appl. No. 12/336,970, filed Dec. 17, 2008.
- U.S. Appl. No. 12/195,624, filed Aug. 21, 2008.
- U.S. Appl. No. 12/176,679, filed Jul. 21, 2008.
- U.S. Appl. No. 12/237,515, filed Sep. 25, 2008.
- U.S. Appl. No. 12/204,976, filed Sep. 5, 2008.
- U.S. Appl. No. 12/192,170, filed Aug. 15, 2008.
- U.S. Appl. No. 12/233,157, filed Sep. 18, 2008.
- U.S. Appl. No. 12/237,582, filed Sep. 25, 2008.
- U.S. Appl. No. 12/210,598, filed Sep. 15, 2008.
- U.S. Appl. No. 12/200,154, filed Aug. 28, 2008.
- U.S. Appl. No. 12/211,205, filed Sep. 16, 2008.
- U.S. Appl. No. 12/244,873, filed Oct. 3, 2008.
- U.S. Appl. No. 12/246,553, filed Oct. 7, 2008.
- U.S. Appl. No. 12/248,115, filed Oct. 9, 2008.
- U.S. Appl. No. 12/353,474, filed Jan. 14, 2009.
- U.S. Appl. No. 12/353,470, filed Jan. 14, 2009.
- U.S. Appl. No. 12/352,942, filed Jan. 13, 2009.
- U.S. Appl. No. 12/237,556, filed Sep. 25, 2008.
- U.S. Appl. No. 12/411,542, filed Mar. 26, 2009.
- U.S. Appl. No. 12/248,104, filed Oct. 9, 2008.
- U.S. Appl. No. 12/254,123, filed Oct. 20, 2008.
- U.S. Appl. No. 12/200,246, filed Aug. 28, 2008.
- U.S. Appl. No. 12/200,396, filed Aug. 28, 2008.
- U.S. Appl. No. 12/200,526, filed Aug. 28, 2008.
- U.S. Appl. No. 12/236,666, filed Sep. 24, 2008.
- U.S. Appl. No. 12/192,189, filed Aug. 15, 2008.
- U.S. Appl. No. 12/192,243, filed Aug. 15, 2008.
- U.S. Appl. No. 12/331,643, filed Dec. 10, 2008.
- U.S. Appl. No. 12/353,466, filed Jan. 14, 2009.
- U.S. Appl. No. 12/363,086, filed Jan. 30, 2009.
- U.S. Appl. No. 12/419,729, filed Apr. 7, 2009.

* cited by examiner

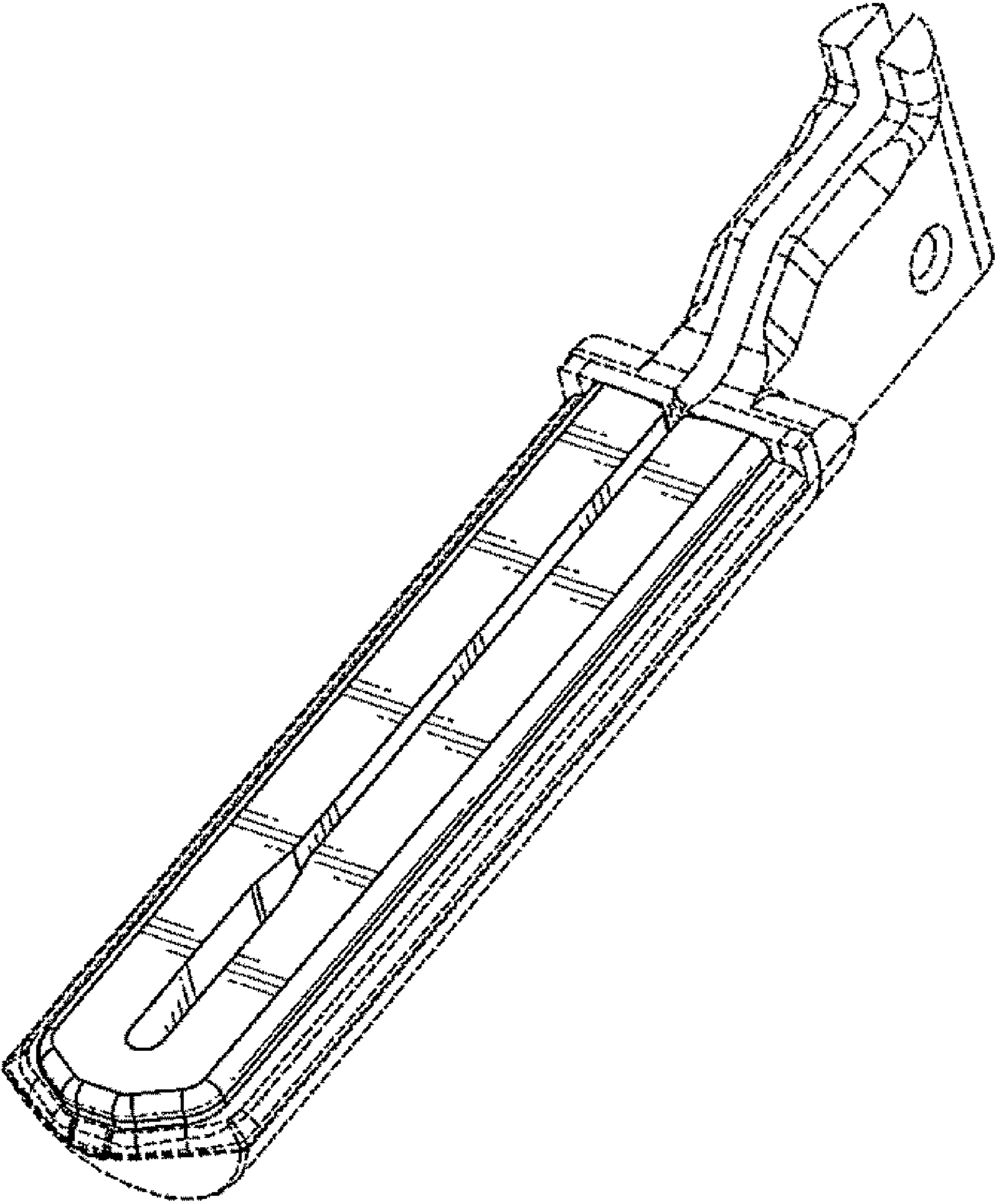


FIG. 1

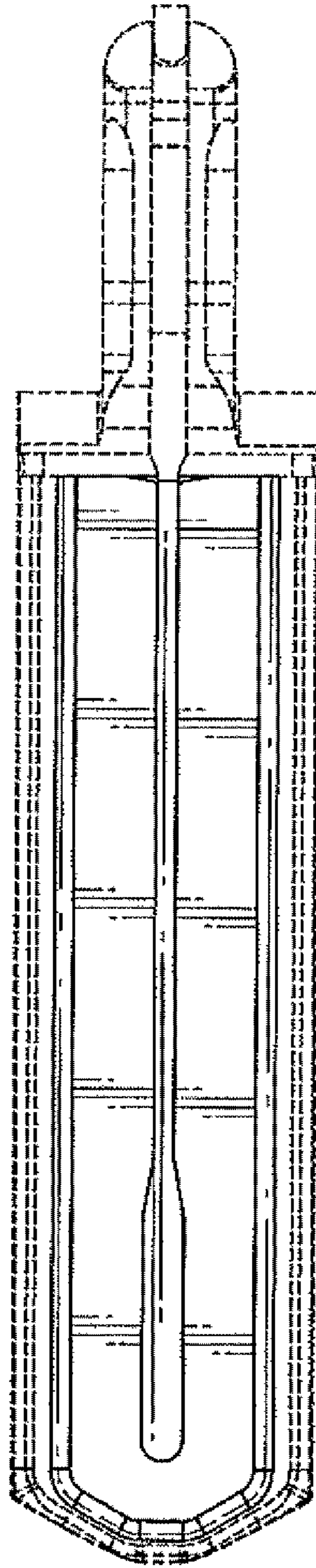


FIG. 2