

1 BIELEN, LAMPE & THOEMING
2 Charles L. Thoeming (State Bar No. 153504)
3 Theodore J. Bielen, Jr. (State Bar No. 56395)
4 1390 Willow Pass Road, Suite 1020
5 Concord, CA 94520
6 Telephone: (925)288.9720
7 Facsimile: (925)288.9731
8 hadvbaxen@earthlink.net

9 Attorneys for Plaintiff

10 **MIZUHO Orthopedic Systems, Inc.**

FILED

MAR - 8 2013

RICHARD W. WIEKING
CLERK, U.S. DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
OAKLAND

E-filing

11 **UNITED STATES DISTRICT COURT**
12 **NORTHERN DISTRICT OF CALIFORNIA**

13 **MIZUHO ORTHOPEDIC SYSTEMS,**
14 **INC.,** a Delaware Corporation

15 Plaintiff,

16 vs.

17 **STERIS CORPORATION,** a Delaware
18 Corporation,

19 Defendant.

Case No.

C13-1077

NC

INFRINGEMENT OF U. S. LETTERS
PATENT NO. 7,824,353

ADR

(Demand for Jury Trial)

20 **COMPLAINT**

21 I. MIZUHO Orthopedic Systems, Inc. ("Plaintiff"), for Complaint against Defendant Steris
22 Corporation ("Steris" or the "Defendant") hereby alleges as follows:

23 **PARTIES**

24 2. Plaintiff MIZUHO Orthopedic Systems, Inc. is a corporation organized and existing
25 under the laws of the State of Delaware, with its principal place of business at 3003 I Ahern
26 Avenue, Union City, California 94587.

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free
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ORIGINAL

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2 3. Upon information and belief, Steris Corporation is a corporation organized and existing
3 under the laws of the State of Delaware, with its principal place of business located at 5960
4 Heisley Road, Mentor Ohio 44060. According to records filed with the California Secretary of
5 State, Defendant is authorized to conduct business in California, and Defendant's agent for
6 service of process is C T Corporation System, 818 W. Seventh Street, Los Angeles, California
7 90017.
8

9 **NATURE OF THE ACTION**

10 4. This is a civil action for the infringement of United States Patent No. 7,824,353 (the
11 "353 Patent") (attached as Exhibit A) entitled "Surgical Support for Femur" under the patent
12 laws of the United States, 35 U.S.C. § 1, et seq.
13

14 5. Plaintiff is the lawful assignee of all right, title and interest in and to the '353 Patent.
15

16 **JURISDICTION AND VENUE**

17 6. This Court has original jurisdiction over the subject matter of this Complaint under 28
18 U.S.C. § 1338(a) because this action arises under the patent laws of the United States, including
19 35 U.S.C. § 271, et seq.

20 7. Upon information and belief, the Defendant is subject to personal jurisdiction by this
21 Court. The Defendant has committed such purposeful acts and/or transactions in the State of
22 California that it reasonably knew and/or expected that it could be haled into a California court
23 as a future consequence of such activity.

24 8. Venue in this district is proper under 28 U.S.C. §§ 1400(b) and 1391(b) and (c), because
25 the Defendant is subject to personal jurisdiction in this district and has committed acts of
26 infringement in this district. Upon information and belief, the Defendant makes, uses, and/or
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2 sells, offers for sale, and/or imports infringing products within the Northern District of
3 California, has a continuing presence within the Northern District of California, and has the
4 requisite minimum contacts with the Northern District of California such that this venue is a
5 fair and reasonable one. Upon information and belief, the Defendant has transacted and, at the
6 time of the filing of this Complaint, continues to transact business within the Northern District
7 of California.
8

9 **INTRADISTRICT ASSIGNMENT**

10 9. In accordance with Civil Local Rule 3-2 and its exceptions, assignment to any Division in
11 this District is appropriate.
12

13 **COUNT I**

14 **(Defendant's Infringement of the '353 Patent)**

15 10. Paragraphs 1 through 9 are incorporated by reference as if fully restated herein.

16 11. Defendant makes, uses, sells, offers to sell and/or imports into the United States for
17 subsequent sale or use products, services, methods or processes that directly and/or indirectly
18 infringe, literally and/or under the doctrine of equivalents, or which employ systems,
19 components and/or processes that make use of systems or processes that directly and/or
20 indirectly infringe, literally and/or under the doctrine of equivalents, one or more of the claims
21 of the '353 Patent. Such devices are medical devices including but not limited to a femur hook
22 which supports a femur bone during surgical procedures and sold as a portion of the STERIS
23 OT 1000 Series Orthopedic Surgical Table.
24

25 12. Defendant actively, knowingly, and intentionally induced, and continues to actively,
26 knowingly, and intentionally induce, infringement of the '353 Patent by making, using, offering
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2 for sale, importing, and selling infringing medical devices, as well as by contracting with others
3 to use, market, sell, offer to sell, and import infringing medical devices, all with knowledge of
4 the '353 Patent and its claims; with knowledge that their customers and end users will use,
5 market, sell, offer to sell, and import infringing medical devices; and with the knowledge and the
6 specific intent to encourage and facilitate those infringing sales and uses of infringing medical
7 devices through the creation and dissemination of promotional and marketing materials,
8 instructional materials, product manuals, and technical materials.
9

10 13. Defendant has also contributed to the infringement by others, including the end users of
11 infringing medical devices, and continues to contribute to infringement by others, by selling,
12 offering to sell, and importing the infringing medical devices into the United States, knowing that
13 those products constitute a material part of the inventions of the '353 Patent, knowing those
14 products to be especially made or adapted to infringe the '353 Patent, and knowing that those
15 products are not staple articles or commodities of commerce suitable for substantial non-
16 infringing use.
17
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19 14. Defendant has had knowledge of and notice of the '353 Patent and its infringement since
20 at least, and through, the filing and service of this Complaint. Moreover, by way of prosecution
21 of the patent application maturing into the '353 Patent, the Defendant had notice of the
22 invention covered by the claims of the '353 Patent prior to the filing of the Complaint. Despite
23 this knowledge and notice, the Defendant continues to commit tortious conduct by way of
24 patent infringement. Accordingly, the Defendant has willfully infringed the '353 Patent.
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26 15. Defendant has been and continues to be infringing one or more of the claims of the '353
27 Patent through the aforesaid acts.
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2 16. Plaintiff is entitled: 1) to preliminary and permanent injunctive relief under 35 U.S.C. §
3 283, against such infringement; 2) to recover damages under 35 U.S.C. § 284 adequate to
4 compensate for the infringement, including enhanced damages for the Defendant's willful
5 infringement; and 3) to recovery of reasonable attorneys' fees under 35 U.S.C. § 285 as this is
6 an exceptional case.
7

8 PRAYER FOR RELIEF

9 WHEREFORE, Plaintiff, respectfully requests the following relief:

- 10 a) A judgment that United States Patent No. 7,824,353 is valid and enforceable;
11
12 b) A judgment that the Defendant has infringed the '353 Patent;
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14 c) A judgment that Plaintiff be awarded all appropriate damages (including enhanced
15 damages for willful infringement) under 35 U.S.C. § 284 for the Defendant's past
16 infringement, and any continuing or future infringement of the '353 Patent, up until
17 the date such judgment is entered, including pre and post judgment interest, costs,
18 and disbursements as justified under 35 U.S.C. § 284 and, if necessary, to adequately
19 compensate Plaintiffs for Defendant's infringement, an accounting;
20
21 d) A judgment and order permanently restraining and enjoining Defendant, its officers,
22 directors, principals, employees, servants, agents, affiliates, franchisees, subsidiaries,
23 others controlled by Defendant, and all persons or entities in active concert or
24 participation with any of them, from further infringing the '353 Patent;
25
26 e) A judgment that this case be declared exceptional within the meaning of 35 U.S.C.
27 § 285 and that Plaintiff be awarded its reasonable attorneys' fees against the
28 Defendant incurred in prosecuting this action;

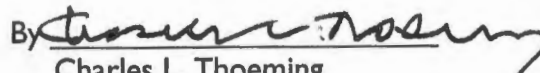
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- 2 f) A judgment that Plaintiff be awarded costs and expenses that it incurs in prosecuting
- 3 this action; and
- 4 g) A judgment that Plaintiff be awarded such further relief at law or in equity as the Court
- 5 deems just and proper.
- 6

7 **DEMAND FOR JURY TRIAL**

- 8 I. Plaintiff hereby demands trial by jury on all claims and issues so triable.

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10 DATED: March 8, 2013.

Bielen, Lampe & Thoeming, P.A.

11 By 
12 Charles L. Thoeming
13 Attorneys for MIZUHO Orthopedic Systems, Inc.

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(12) **United States Patent**
Matta

(10) **Patent No.:** **US 7,824,353 B2**
(45) **Date of Patent:** **Nov. 2, 2010**

(54) **SURGICAL SUPPORT FOR FEMUR**

(76) **Inventor:** **Joel M. Matta**, 30031 Ahern Ave.,
Union City, CA (US) 94587-1234

(*) **Notice:** Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 589 days.

(21) **Appl. No.:** **10/930,809**

(22) **Filed:** **Sep. 1, 2004**

(65) **Prior Publication Data**
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(51) **Int. Cl.**
A61F 5/00 (2006.01)
A61B 1/32 (2006.01)

(52) **U.S. Cl.** **602/35; 600/201**

(58) **Field of Classification Search** 128/845-846,
128/869, 882, 877-879; 248/302-304, 692;
5/624, 648; 600/206, 208, 201, 215, 210;
294/26, 19.1, 82.1; 606/276, 246
See application file for complete search history.

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Primary Examiner—Patricia M Bianco

Assistant Examiner—Tarla R Patel

(74) *Attorney, Agent, or Firm*—Theodore J. Bielen, Jr.

(57) **ABSTRACT**

A surgical support for a femur utilizing a shaft having a proximal portion and a distal portion. The shaft lies along an axis which is coincident with a first plane. A hook connects to the shaft through an intermediate portion and lies in a second plane which intersects the first plane. The hook includes a flattened portion for support of the femur.

5 Claims, 3 Drawing Sheets

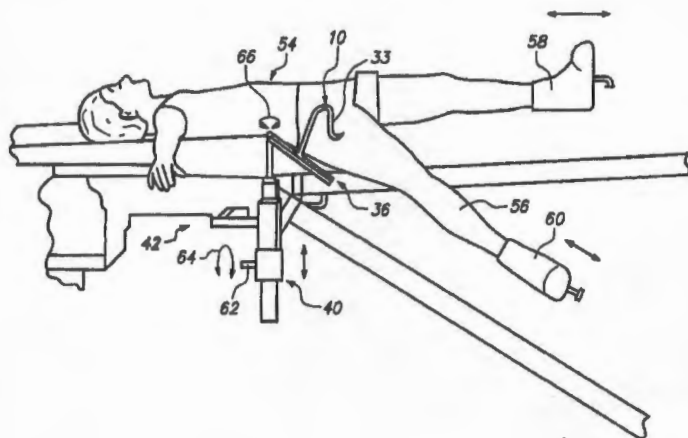
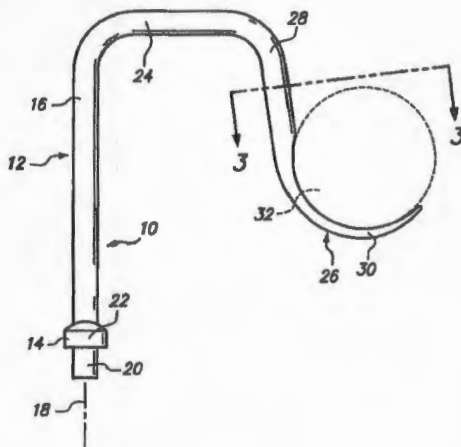


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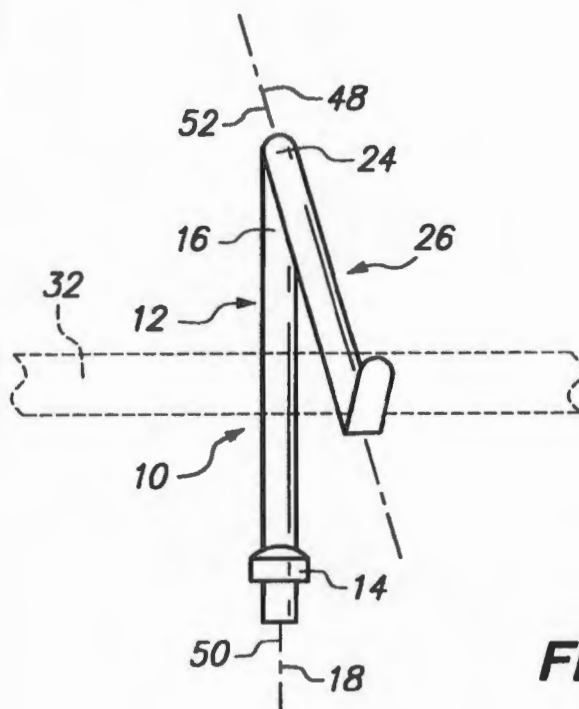
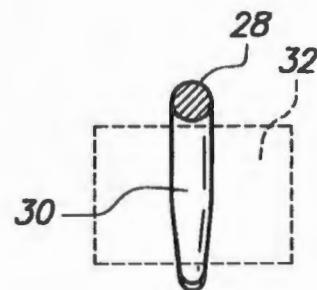
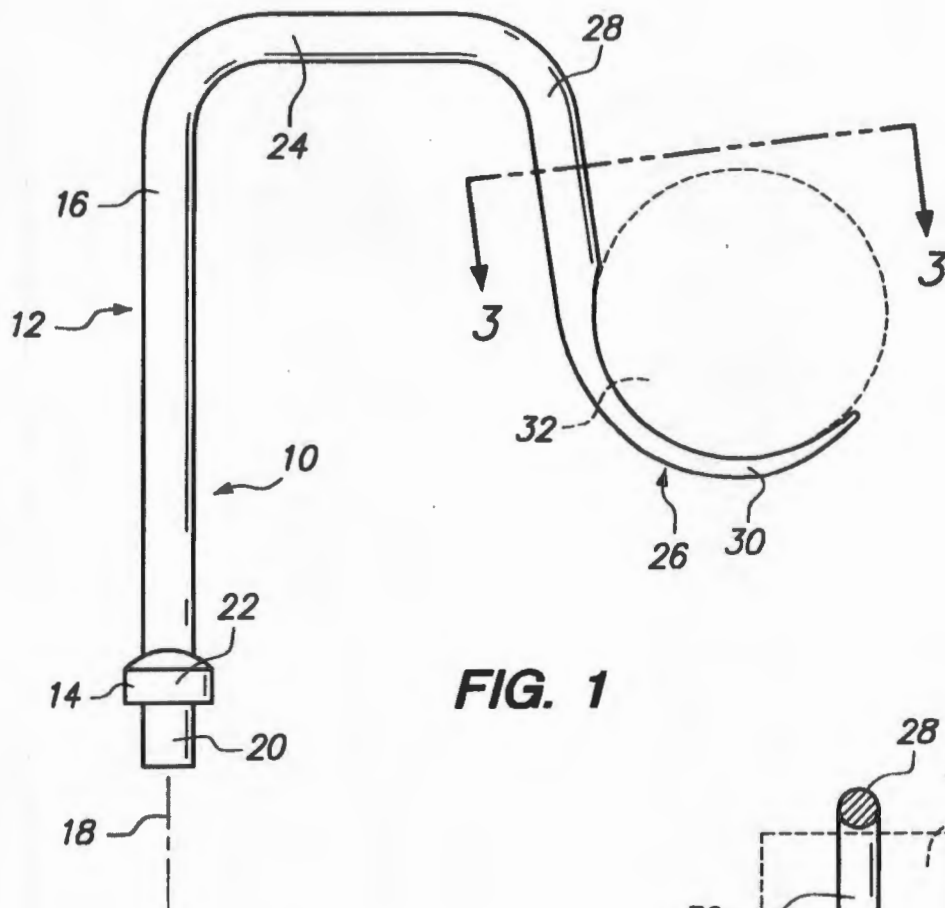


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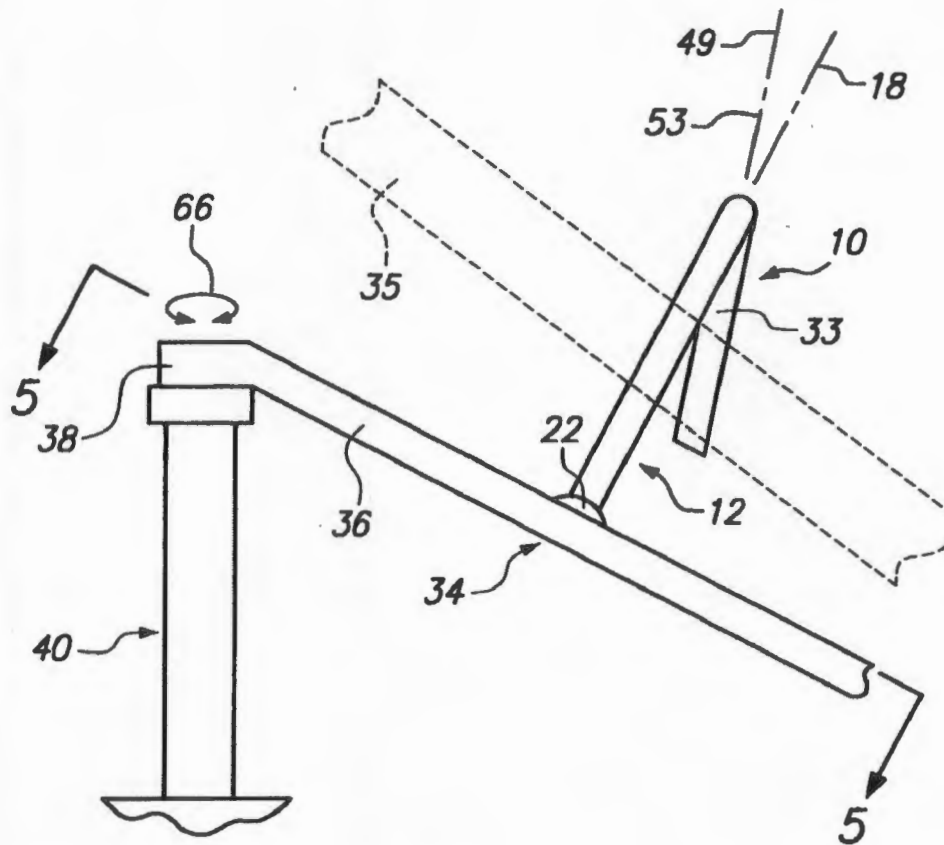


FIG. 4

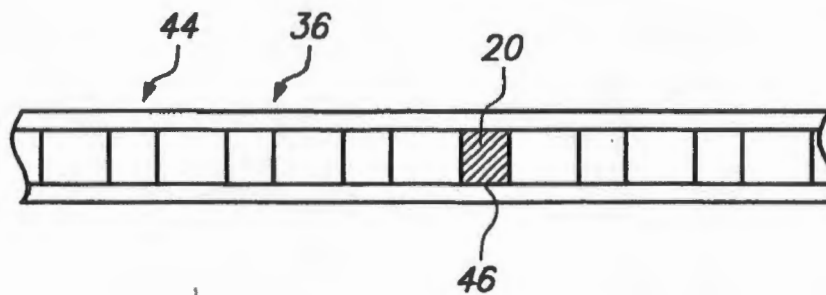


FIG. 5

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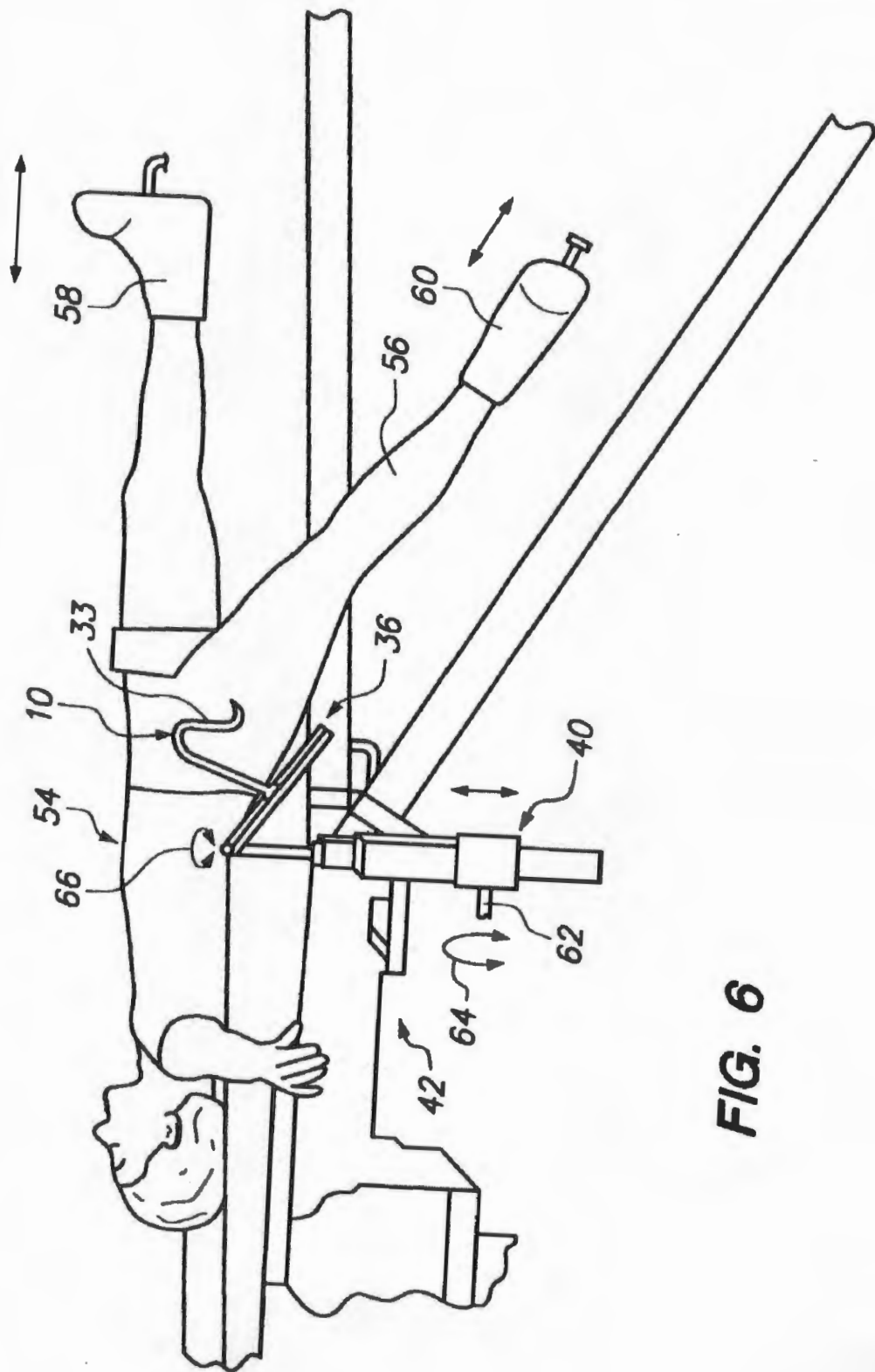


FIG. 6

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SURGICAL SUPPORT FOR FEMUR**BACKGROUND OF THE INVENTION**

The present invention relates to a novel and useful surgical support for a femur.

Recent advances in surgery focus on minimally invasive techniques, which generally, reduce the size of the incision and eliminate the detachment or severing of muscles.

In this regard, minimally invasive hip replacement surgery utilizes entry at the anterior of the patient's leg. By following such approach, the surgeon may accomplish a hip replacement by utilizing a four inch incision rather than a ten inch incision in the prior technique. Also, muscles within the leg are not damaged, resulting in fast recovery of the patient and eliminating muscle detachment during the post operative time.

Anterior approach hip replacement techniques still require access to the acetabulum which must be cleared prior to the insertion of the artificial femur head. In addition, proper manipulation and positioning of the femur is essential in carrying out the anterior approach hip replacement surgery.

A support for a femur during surgical techniques such as hip replacement would be a notable advance in the medical field.

BRIEF SUMMARY OF THE INVENTION

In accordance with the present invention a novel and useful support for a femur during surgical procedures is herein provided.

The support of the present invention utilizes a shaft possessing a proximal portion and a distal portion. At least a part of the shaft lies along an axis which coincides with a first plane. The shaft may terminate in an end fitting which allows the shaft to be mounted on a jack associated with a surgical table.

A hook is also employed in the present invention and lies in a second plane. The first and second planes intersect one another. That is to say, the hook is connected to the shaft by an intermediate portion and is angulated to properly position the femur and allow the surgeon to effect hip replacement without the femur obstructing access to the acetabulum of the hip. Hooks may be oppositely angled relative to the shaft to accommodate the right or left femur of a patient.

A base member is also employed for positioning the shaft relative to the surgical table. The base member may be fastened to the table or separately supported. In certain aspects of the present invention the base member may take the form of a bracket having a plurality of openings. Each opening in the bracket is capable of accommodating a portion of the shaft, namely the end portion of the shaft in most cases. The base member may be connected to a jack associated with the surgical table.

It may be apparent that a novel and useful support for a femur bone during a surgical procedure has been hereinabove described.

It is therefore an object of the present invention to provide a support for a femur bone during a surgical procedure which adequately supports the femur and provides the surgeon with access to anatomical portions of the hip in order to effect artificial hip replacement.

Another object of the present invention is to provide a support for a femur bone during a surgical procedure which is compatible with surgical tables used in surgery.

Another object of the present invention is to provide a support for a femur bone during a surgical procedure which

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allows the practicing of non-invasive hip replacement surgery and permits fast recovery of patients having such surgery.

A further object of the present invention is to provide a support for a femur bone during a surgical procedure which supports the femur and which is adjustable in conjunction with a bracket as well as other components found on conventional surgical tables.

Another object of the present invention is to provide a support for a femur bone during a surgical procedure which is easily engageable with the femur and disengageable when not required during the surgical procedure.

The invention possesses other objects and advantages especially as concerns particular characteristics and features thereof which will become apparent as the specification continues.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING

FIG. 1 is a side elevational view of the support of the present invention showing a femur in phantom.

FIG. 2 is a front elevational view of a left handed support for a left leg of the present invention with a femur depicted in phantom.

FIG. 3 is a sectional view taken along line 3-3 of FIG. 1.

FIG. 4 is a rear elevational view of a right handed support for a right leg of the present invention located in a bracket connected to a jack, partially shown.

FIG. 5 is a partial sectional view taken along line 5-5 of FIG. 4.

FIG. 6 is a schematic view indicating the positioning of the support of the present invention using a right-handed hook with a conventional surgical table partially depicted, with a patient in the supine position prior to hip replacement surgery.

For a better understanding of the invention reference is made to the following detailed description of the preferred embodiments thereof which should be referenced to the prior described drawings.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS OF THE INVENTION

Various aspects of the present invention will evolve from the following detailed description of the preferred embodiments thereof which should be referenced to the hereinbefore delineated drawings.

The preferred embodiment of the invention is depicted as a whole in the drawings by reference character 10. With reference to FIGS. 1-3, support 10 includes as one of its elements a shaft 12. Shaft 12 possesses a proximal portion 14 and a distal portion 16. Shaft 12, or at least a portion of shaft 12, lies along axis 18. Shaft 12 may be formed of any rigid material such as metal, composites, and the like. Proximal portion 14 of shaft 12 includes a rectangular solid end 20 and a cap 22, the purpose of which will be discussed hereinafter.

The distal portion 16 of shaft 12 leads to an intermediate or spanning portion 24 and is formed of the same material as shaft 12. Intermediate portion 24 terminates in a rounded hook 26 a left-handed version. It should be realized that hook 26 may be squared or otherwise angulated. Hook 26 is formed with a tubular end 28 and a flattened curved section 30. Femur 32 is depicted in FIGS. 1 and 2 as lying within the flattened portion 30 of hook 26. The shaft 12, intermediate portion 24, and hook 26 form a continuous or one-piece member.

Referring now to FIG. 4, it may be observed that support 10, having a right-handed hook 33 holding left femur 35 is also provided with a base member 34. Base member 34 may

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take the form of a bracket 36 which includes an end portion 38 that connects to a jack 40 which is part of a conventional surgical table 42 shown in FIG. 6. With reference to FIG. 5, it may be apparent that bracket 36 includes a plurality of opening 44 each of which is intended to fit rectangular solid end 20 of support shaft 12. Cap 22 serves to limit the penetration of rectangular solid end 20 of shaft 12 into any one of the plurality of openings 44 of bracket 46. It should be noted that end 20 of bracket 12 lies in opening 46 within bracket 36. With reference to FIGS. 2 and 4, it should be seen that end 48 of hook 26 and the end of hook 33 lie along axes 48 and 49, respectively, which are not parallel or coincident with axis 18. In fact, axis 18 lies in a plane 50, while axes 48 and 49 lie in planes 52 and 53. Planes 50 and 52, and planes 50 and 53, intersect one another. Such angular orientation between hooks 26 or 33 and shaft 12 provides the proper angle to left femur 32 and right femur 35, respectively, which are supported by hooks 26 or 33 during hip surgery.

With reference to FIG. 6, anesthetized patient 54 is shown in place on surgical table 42 a position ready for anterior approach hip surgery on the hip associated with right leg 56. Traction boots 58 and 60 are employed and are used to provide traction through a mechanism of table 42, not shown completely in FIG. 6. In this regard, a surgical table known as the PRO fx manufactured by Orthopedic Systems, Inc. of Union City, Calif. would suffice in this regard. Surgical table jack 40 is able to raise and lower support 10 connected to bracket 36. The raising and lowering of jack 40 takes place through a rotatable shaft 62, partially shown, the motion of which is indicated by directional arrow 64. Bracket 36 is also capable of rotating relative to jack 40 such that the surgeon performing non-invasive hip surgery possesses complete control of the positioning of support 10 relative to femur 35, shown in phantom on FIGS. 1-4, within right leg 56.

In operation, the user places support 10 on base member 34 in the form of bracket 36 in the preferred embodiment. Such mounting is accomplished by the placement of end 20 of shaft 12 of support 10 within any of the plurality of openings 44 of bracket 36. At the proper time after an incision is made in patient 54, FIG. 6, hook 26 or 33 enters the wound at the hip region of patient 54 and supports right femur 32 or left femur 35, respectively. Typical jack 40, in combination with support 10, is able to properly angle and support left femur 35 such that the surgeon is capable of gaining unrestricted access to the acetabulum and other portions of the hip in order to accomplish an artificial hip replacement for a patient 54, FIG. 4. When support 10 is no longer needed, support 10, including

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hook 26 or 33, is swung from the wound in patient 54 and moved outwardly by the rotation of bracket 36 relative to typical jack 40, directional arrow 66. Support 10 may then be removed or left in this position as surgery progresses and is finished.

While in the foregoing, embodiments of the present invention have been set forth in considerable detail for the purposes of making a complete disclosure of the invention, it may be apparent to those of skill in the art that numerous changes may be made in such detail without departing from the spirit and principles of the invention.

What is claimed is:

1. A device intended for directly contacting and supporting a femur bone within a wound of a subject during a surgical procedure, comprising:

- a. a shaft, said shaft possessing a proximal portion and distal portion, at least a portion of said shaft lying along a first axis which coincides with a first plane;
- b. a hook, said hook including an end, said hook end lying along a second axis which coincides with a second plane, the first and second planes intersecting one another, said hook further possessing a free tip configured and intended to enter the wound of the subject, said hook further intended for directly contacting the femur;
- c. an intermediate portion connecting said shaft and said hook, said intermediate portion extending laterally from said shaft axis, said shaft, said hook end, said hook free tip, and said shaft, hook, and intermediate portion forming a one-piece member without articulation, said intermediate portion and said hook lying apart from said axis of said shaft and a base member; said base member including a bracket having a plurality of openings spaced from each other along said bracket, each of said openings accommodate a portion of said shaft.

2. The support of claim 1 in which said shaft, said hook end, said hook free tip, and intermediate portion one-piece member without articulation comprises a one-piece tubular member without articulation.

3. The support of claim 1 in which said one-piece member without articulation comprises a rigid body.

4. The support of claim 1 in which said hook free tip includes a flattened portion.

5. The support of claim 1 in which said shaft includes an end portion configured to fit in any of said spaced openings of said bracket.

* * * * *

EXHIBIT "A"

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