0 7328083

NHE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME: UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office

March 02, 2010

THIS IS TO CERTIFY THAT ANNEXED HERETO IS A TRUE COPY FROM THE RECORDS OF THIS OFFICE OF:

U.S. PATENT: 5,860,973 ISSUE DATE: January 19, 1999

> By Authority of the Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office



DOCKET

P. SWAIN

Certifying Officer



MNUV1401356

PX0326-0001



United States Patent [19]

Michelson

[54] TRANSLATERAL SPINAL IMPLANT

- [76] Inventor: Gary Karlin Michelson, 438 Sherman Canal, Venice, Calif. 90291
- [21] Appl. No.: 741,301
- [22] Filed: Oct. 30, 1996

Related U.S. Application Data

- [63] Continuation of Ser. No. 479,596, Jun. 7, 1995, abandoned, which is a continuation-in-part of Ser. No. 394,836, Feb. 27, 1995.
- [51] Int. Cl.⁶ A61B 17/56
- [52] U.S. Cl. 606/61; 606/72

[56] **References Cited**

U.S. PATENT DOCUMENTS

2,677,369	5/1954	Knowles.
3,298,372	1/1967	Feinberg .
3,867,728	2/1975	Stubstad et al
3,875,595	4/1975	Froning.
3,905,047	9/1975	
4,070,514	1/1978	Entherly et al
4,259,072	3/1981	Hirabayashi et al
4,309,777	1/1982	Patil.
4,328,593	5/1982	Sutter 623/18
4,349,921	9/1982	Kuntz 623/17
4,501,269	2/1985	Bagby 623/18
4,535,485	8/1985	Ashman et al.
4,545,374	10/1985	Jacobson .
4,553,273	11/1985	Wu.
4,599,086	7/1986	Doty.
4,636,217	1/1987	Ogilvie et al
4,714,469	12/1987	Kenna.
4,759,766	7/1988	Buettner-Janz et al
4,759,769	7/1988	Hedman et al
4,820,305	4/1989	Harms et al
4,848,327	7/1989	Perdue.
4,863,477	9/1989	Monson.
4,865,603	9/1989	Noiles .
4,877,020	10/19 8 9	Vich.

[11] Patent Number: 5,860,973

[45] Date of Patent: Jan. 19, 1999

4,904,261	2/1990	Dove et al
4,911,718	3/1990	Lee 623/17
4,936,848	6/1990	Bagby .
4,955,908	9/1990	Frey et al.
4,961,740	10/1990	Ray et al
5,015,247	5/1991	Michelson .
5,015,255	5/1991	Kuslich .
5,026,373	6/1991	Ray et al
5,055,104	10/1991	Ray.
5,059,193	10/1991	Kuslich .
5,071,437	12/1991	Steffee .
5,123,926	6/1992	Pisharodi .
5,192,327	3/1993	Brantigan .
5,258,031	11/1993	Salib et al
5,263,953	11/1993	Bagby .
5,306,309	4/1994	Wagner et al
5,397,364	3/1995	Kozak et al.
5,425,772	6/1995	Brantigan .
5,489,308	2/1996	Kuslich et al

FOREIGN PATENT DOCUMENTS

0 260 044	3/1988	European Pat. Off
0 179 695	4/1986	France.

Primary Examiner-Michael Buiz

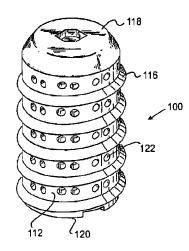
Assistant Examiner—Kevin Truong

Attorney, Agent, or Firm-Lewis Anten, Esq.; Amedeo Ferraro, Esq.

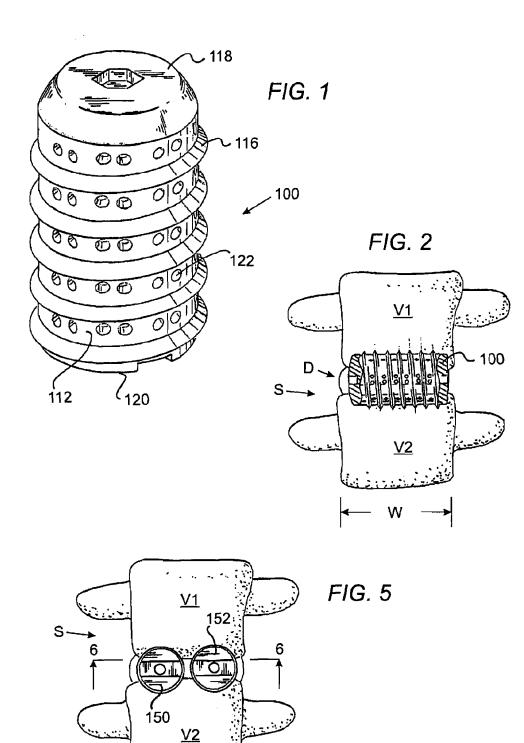
[57] ABSTRACT

An oversized spinal implant for translateral insertion into the disc space between two vertebrae a length that is greater than one half of the transverse width of the vertebrae and is greater than the depth of the vertebrae. The translateral implant of the present invention has a height that is greater than the height of the disc space between two adjacent vertebrae so as to engage both of the vertebrae. The width of the implant need be only slightly less than the depth of the vertebrae themselves. The translateral spinal fusion implant of the present invention has more surface area of contact and thus permits greater stability so as to withstand torque, and in the case of a threaded implant, increases the depth which any threads are able to penetrate the vertebrae.

73 Claims, 8 Drawing Sheets



Copy provided by USPTO from the PIRS Image Database on 03/02/2010

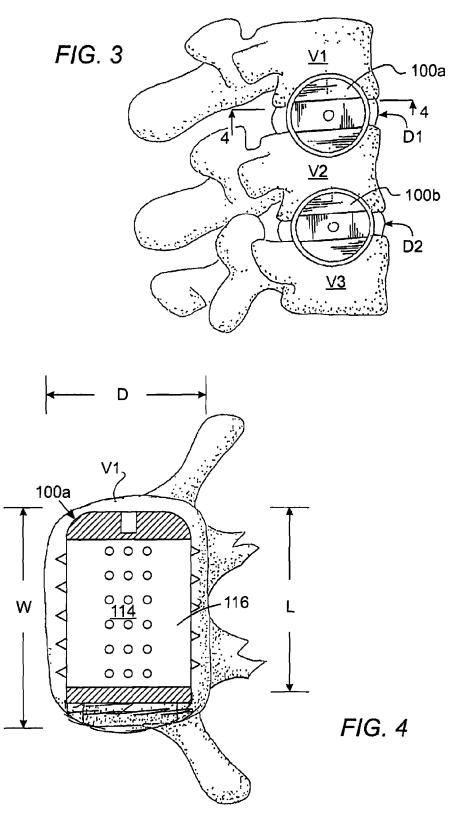


Copy provided by USPTO from the PIRS image Database on 03/02/2010

Α

R

Μ

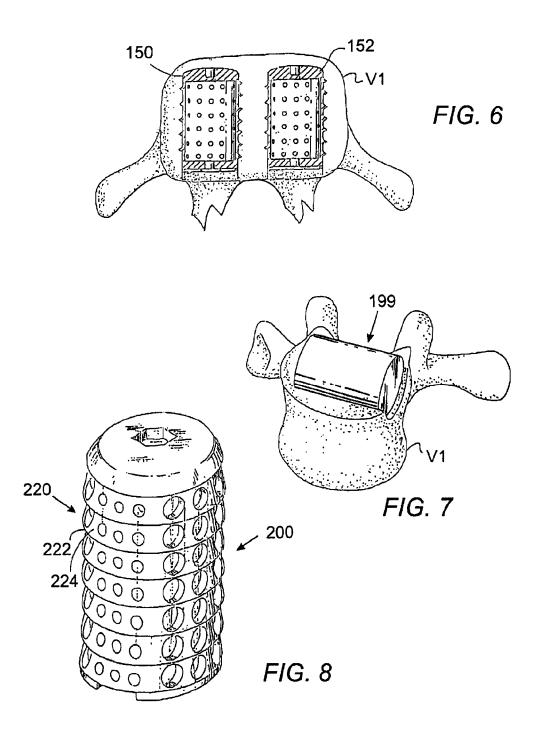


Copy provided by USPTO from the PIRS Image Database on 03/02/2010

Α

R

Μ



Copy provided by USPTO from the PIRS Image Database on 03/02/2010

)

R

М

Α

DOCKET A L A R M



Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.