



US006875239B2

(12) **United States Patent**
Gerbec et al.

(10) **Patent No.:** **US 6,875,239 B2**
(45) **Date of Patent:** **Apr. 5, 2005**

(54) **MODULAR PROSTHESIS FOR REPLACING BONE AND METHOD**

(75) Inventors: **Daniel E. Gerbec**, Logan, UT (US); **T. Wade Fallin**, Hyde Part, UT (US); **Patrick M. White**, Downingtown, PA (US)

(73) Assignee: **Medicinelodge, Inc.**, Logan, UT (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 224 days.

(21) Appl. No.: **10/132,671**

(22) Filed: **Apr. 25, 2002**

(65) **Prior Publication Data**

US 2003/0204266 A1 Oct. 30, 2003

(51) **Int. Cl.**⁷ **A61F 2/38**

(52) **U.S. Cl.** **623/23.15**

(58) **Field of Search** 623/22.11, 23.11-23.38

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,682,265 A	6/1954	Collison
2,785,673 A	3/1957	Anderson
3,806,957 A	4/1974	Shersher
3,848,272 A	11/1974	Noiles
3,875,593 A	4/1975	Shersher
3,906,550 A	9/1975	Rostoker et al.
3,943,576 A	3/1976	Sivash
3,987,499 A	10/1976	Scharbach et al.
4,016,651 A	4/1977	Kawahara et al.
4,051,559 A	10/1977	Pifferi
4,086,701 A	5/1978	Kawahara et al.
4,259,072 A	3/1981	Hirabayashi et al.
4,304,011 A	12/1981	Whelan, III
4,404,691 A	9/1983	Buning et al.
4,520,511 A	6/1985	Gianezio et al.
4,578,081 A	3/1986	Harder et al.
4,619,659 A	10/1986	Witzel

4,624,673 A	11/1986	Meyer
4,676,797 A	6/1987	Anapliotis et al.
4,714,471 A	12/1987	Grunde
4,790,854 A	12/1988	Harder et al.
4,822,366 A	4/1989	Bolesky
4,842,606 A	6/1989	Kranz et al.
4,846,839 A	7/1989	Noiles
4,851,007 A	7/1989	Gray

(Continued)

FOREIGN PATENT DOCUMENTS

DE	32 05 577 A1	10/1982
DE	33 40 767 A1	5/1985
DE	40 31 520 A1	4/1992
EP	0 000 549 A1	2/1979
EP	0 201 407 A1	11/1986
EP	0 283 706 A1	9/1988
EP	0 336 774 A1	10/1989
EP	0 336 774 B1	10/1989
EP	0 359 457 A1	3/1990
EP	0 376 658 A2	7/1990
EP	0 433 121 A1	6/1991
EP	0 495 340 A1	7/1992
EP	0 556 997 A1	8/1993
EP	0 714 645 A1	6/1996
EP	0 714 645 B1	6/1996

(Continued)

Primary Examiner—John J. Wilson
Assistant Examiner—Michael B. Priddy
(74) *Attorney, Agent, or Firm*—Workman Nydegger

(57) **ABSTRACT**

A modular prosthesis for replacing a portion of a bone having an articulating end includes a neck having a bore extending therethrough, a body having a bore extending therethrough, and an elongated stem. A proximal end of the stem is received within the bore of the body and the bore of the neck so that at least a self-locking taper connection or a press fit connection is formed between the stem and each of the neck and the body.

35 Claims, 22 Drawing Sheets

