

United States Patent

Fullerton

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[54] METHOD AND APPARATUS FOR RAPIDLY ENGAGING AND DISENGAGING THREADED COUPLING MEMBERS

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[*] Notice The term of this patent shall not extend beyond the expiration date of Pat. No. 5,378,100.

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Related U.S. Application Data

- [63] Continuation of Ser. No. 47,149, Apr. 16, 1993, Pat. No. 5,378,100
- [51] Int. Cl.⁶ F16B 37/08; F16B 39/36
- [52] U.S. Cl. 411/267; 411/270; 411/433
- [58] Field of Search 411/266, 267, 411/270, 433, 29/525.1

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[57] **ABSTRACT**

A coupling device including a first member provided with external threads and a second member having an opening therein into which the first member is inserted. The second member is provided with a plurality of movably mounted internally threaded elements for receiving the external threads of the first member. A structure is provided whereby the first member may be inserted within the second member by rectilinear sliding movement, after which the first member is rotated into tight engagement with the second member. Release of the first member is accomplished by rotating the first member very slightly in the opposite direction, after which simple manual manipulation of the second member withdraws the threaded elements from engagement permitting the first member to be slidably removed from the second member.

9 Claims, 5 Drawing Sheets

