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Therefore, this

United States Patent

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J. Todd Johnson

Acting Commissioner of Patents and Trademarks

W. M. Person

Attest



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United States Patent [19]
Lin

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[54] **ROTATABLY FASTENING BLIND RIVET**

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[51] **Int. Cl.⁶** **F16B 13/04; F16B 13/06**

[52] **U.S. Cl.** **411/43; 411/38; 411/55**

[58] **Field of Search** **411/34, 37, 38,**
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[56] **References Cited**

U.S. PATENT DOCUMENTS

4,699,552	10/1987	Jeal	411/43
4,950,115	8/1990	Sadri	411/43 X
5,152,648	10/1992	Pratt	411/43
5,238,342	8/1993	Stencel	411/43
5,498,110	3/1996	Stencel et al.	411/43

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[57] **ABSTRACT**

A rotatably fastening blind rivet is provided. The blind rivet includes a tubular rivet body of ductile material and an elongate stem engaged into the rivet body which has a radially enlarged rivet head of hexagon configuration at one end having a serrated surface and a central bore, a threaded inner periphery of predetermined pitch and number of threads in an upper region and a progressively introversion inner periphery in a lower region of the body. The stem includes a cylinder shank of threaded outer periphery engageable with the threads of the rivet body, a breakneck on the top of the shank from which a tensioning rod of hexagon spiral outer periphery extends upward and is slidably engageable with the central bore of the rivet head and a terminal head of stiffness material at a lower end of the shank remote from the rod having serrated surface toward the shank. In installation, the tensioning rod is rotated mechanically or manually to provide proper torque to force the upward movement of the terminal head which in turn presses the tubular body to be radially deformed to become a blind head against a workpiece.

1 Claim, 5 Drawing Sheets

