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United States Patent [19]
Moody

[11] **Patent Number:** 5,445,104[45] **Date of Patent:** Aug. 29, 1995[54] **APPARATUS FOR THE STORAGE OF CYLINDRICAL OBJECTS**

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[73] Assignee: The United States of America as represented by the Secretary of the Navy, Washington, D.C.

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211/60.1; 414/281; 414/910[58] Field of Search 114/316, 238, 239;
89/34, 45; 294/67.3, 81.5; 414/910, 911, 281,
745.1; 244/137.1; 211/60.1, 70.4[56] **References Cited****U.S. PATENT DOCUMENTS**

2,789,470	4/1957	Bronson 89/1.7
3,552,587	1/1971	Warren 294/81.5
4,184,801	1/1980	Nicoloff et al. 414/608
4,685,412	8/1987	Harris 114/238

4,700,653	10/1987	Harris et al. 114/316
4,960,211	10/1990	Bailey 211/60.1
5,065,688	11/1991	Moody 114/238

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[57] **ABSTRACT**

A support system for submarine weapons. Fore and aft support structures include a plurality of vertically oriented channels spaced to engage rollers on the ends of the saddles that engage and support a weapon on diametrically opposed sides of the weapon. Locking structures position the ends of the saddle in the supporting structure. A crane mechanism can selectively engage the saddles and elevate the weapon into the crane for transport to a loading structure. Upon use of a column of weapons, the saddles can be stored horizontally allowing other operations in the storage space between the support structures.

19 Claims, 8 Drawing Sheets

