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# United States Patent [19]

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**Henneberger**

[45] Date of Patent: **\*\* Mar. 30, 1993**

[54] **GUIDING TROUGH, 90° HORIZONTAL ELBOW FOR OPTICAL FIBERS**

[75] Inventor: **Roy Henneberger, Eagan, Minn.**

[73] Assignee: **ADC Telecommunications, Inc., Minneapolis, Minn.**

[\*] Notice: The portion of the term of this patent subsequent to Jul. 14, 2006 has been disclaimed.

[\*\*] Term: **14 Years**

[21] Appl. No.: **387,892**

[22] Filed: **Jul. 31, 1989**

[52] U.S. Cl. .... **D13/155**

[58] Field of Search ..... **D13/152,-155; D30/131; D23/267, 200, 393; D34/28; 248/49, 58, 68.1; 174/21 JS, 35 C, 48, 68.1, 68.3, 69, 72 A, 84 R, 101; 138/155, 156, 157, 177, DIG. 11; 350/96.16, 96.23, 96.3**

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[57] **CLAIM**

The ornamental design for a guiding trough, 90° horizontal elbow for optical fibers, as shown and described.

**DESCRIPTION**

FIG. 1 is a top, front and right side perspective view of a guiding trough, 90° horizontal elbow for optical fibers showing my new design;  
FIG. 2 is a front elevational view thereof;  
FIG. 3 is a rear elevational view thereof;  
FIG. 4 is a top plan view thereof;  
FIG. 5 is a bottom plan view thereof;  
FIG. 6 is a right side elevational view thereof; and,  
FIG. 7 is a left side elevational view thereof.

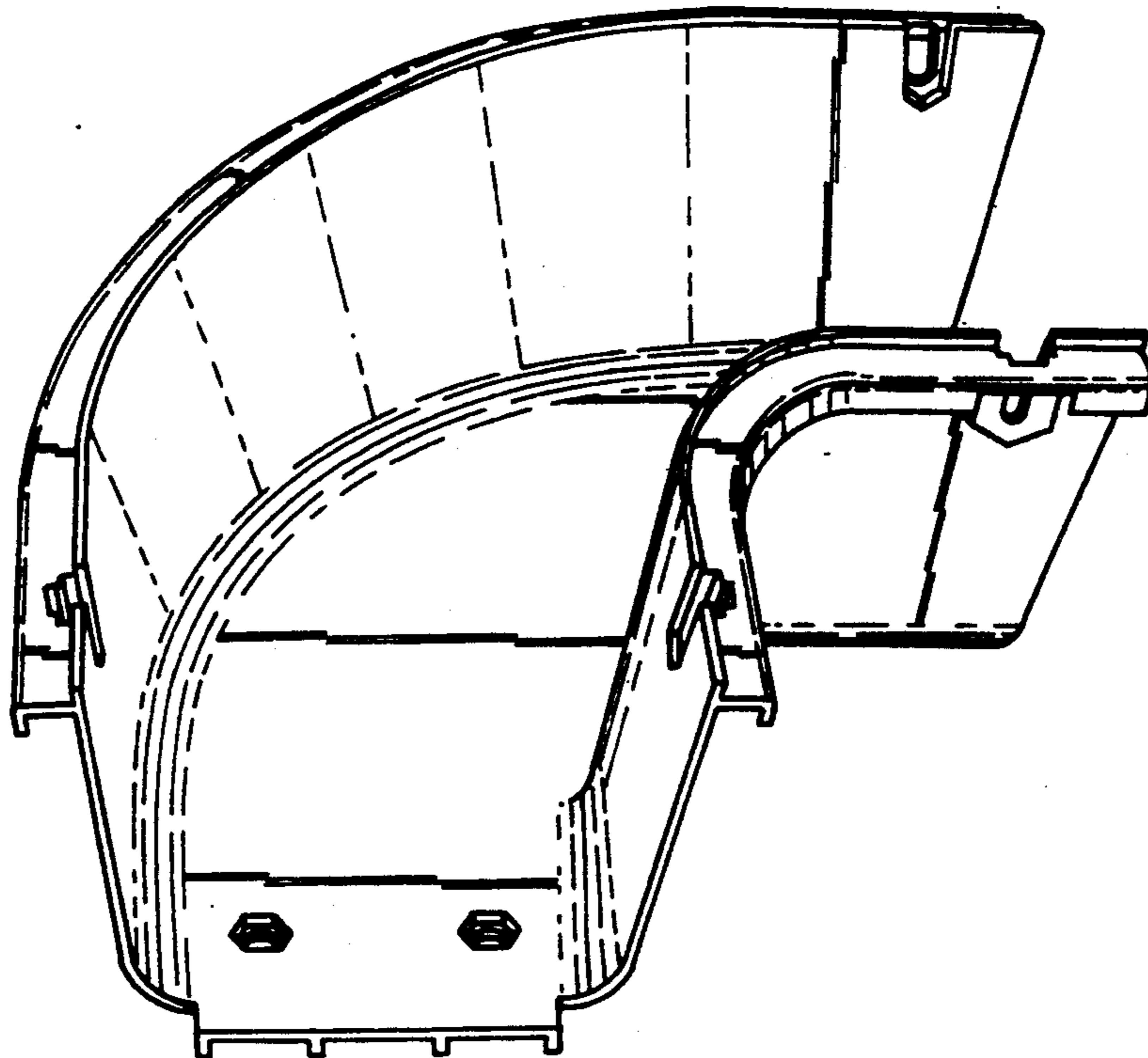


FIG.1

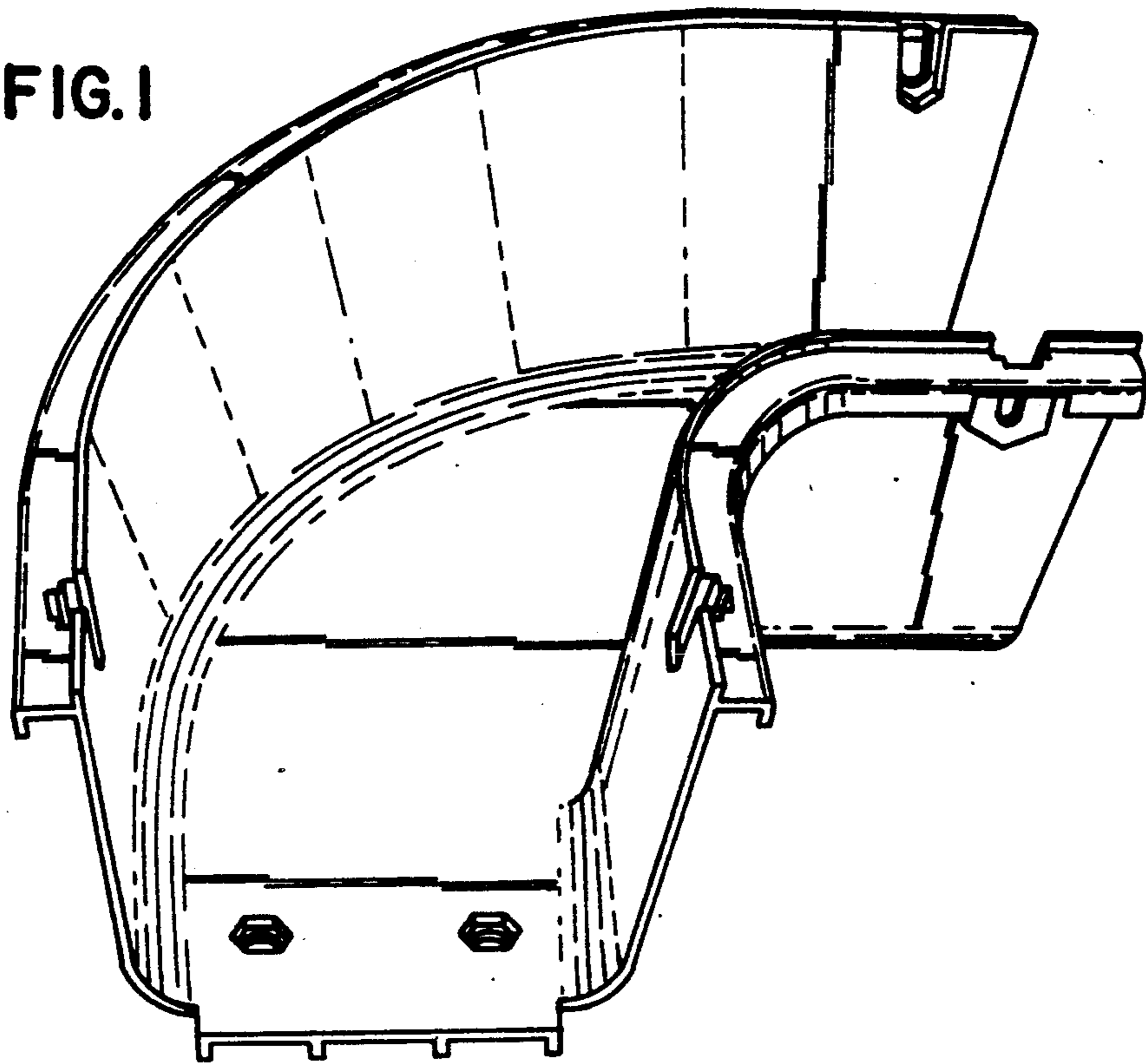


FIG.2

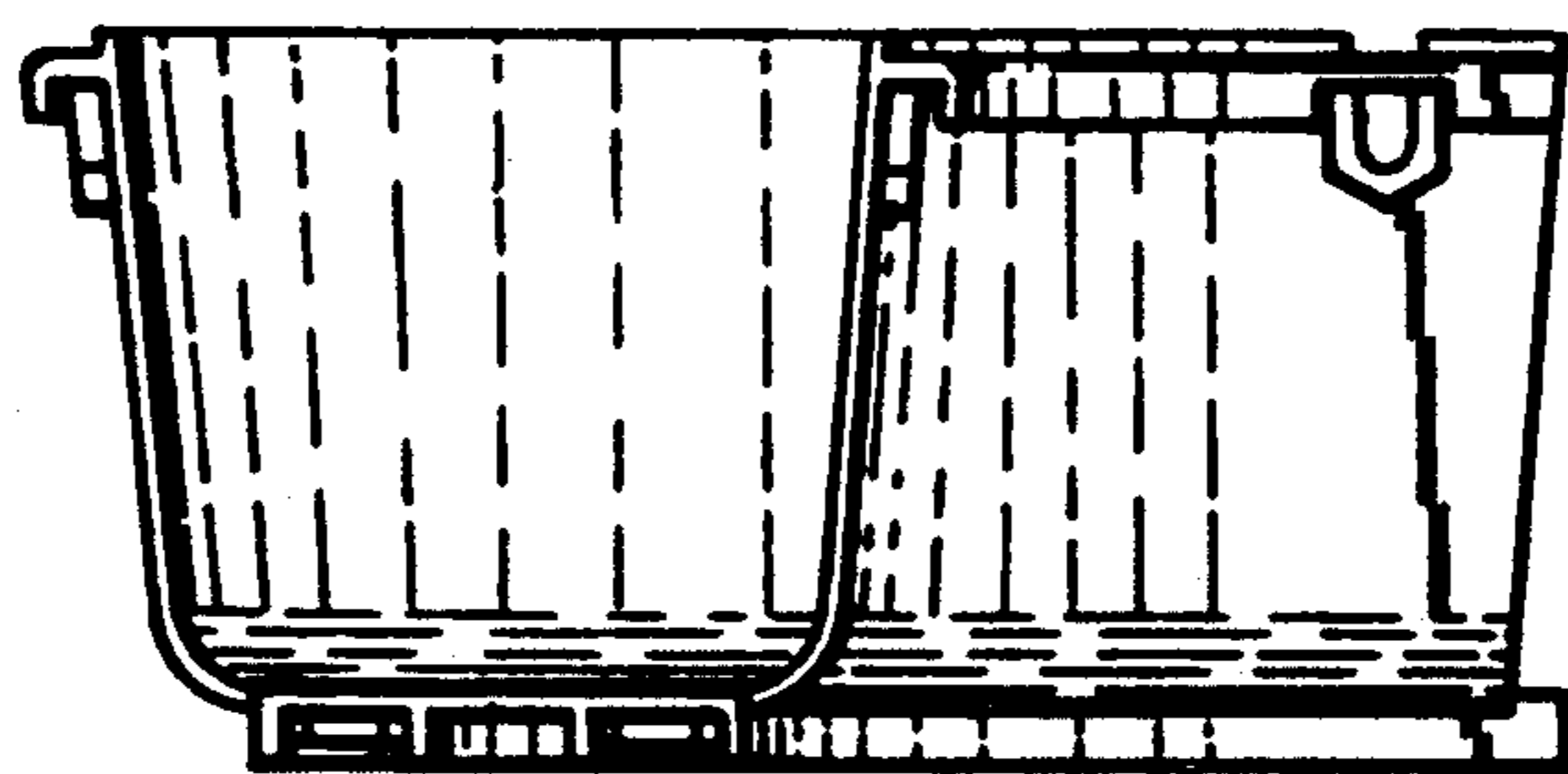


FIG.3

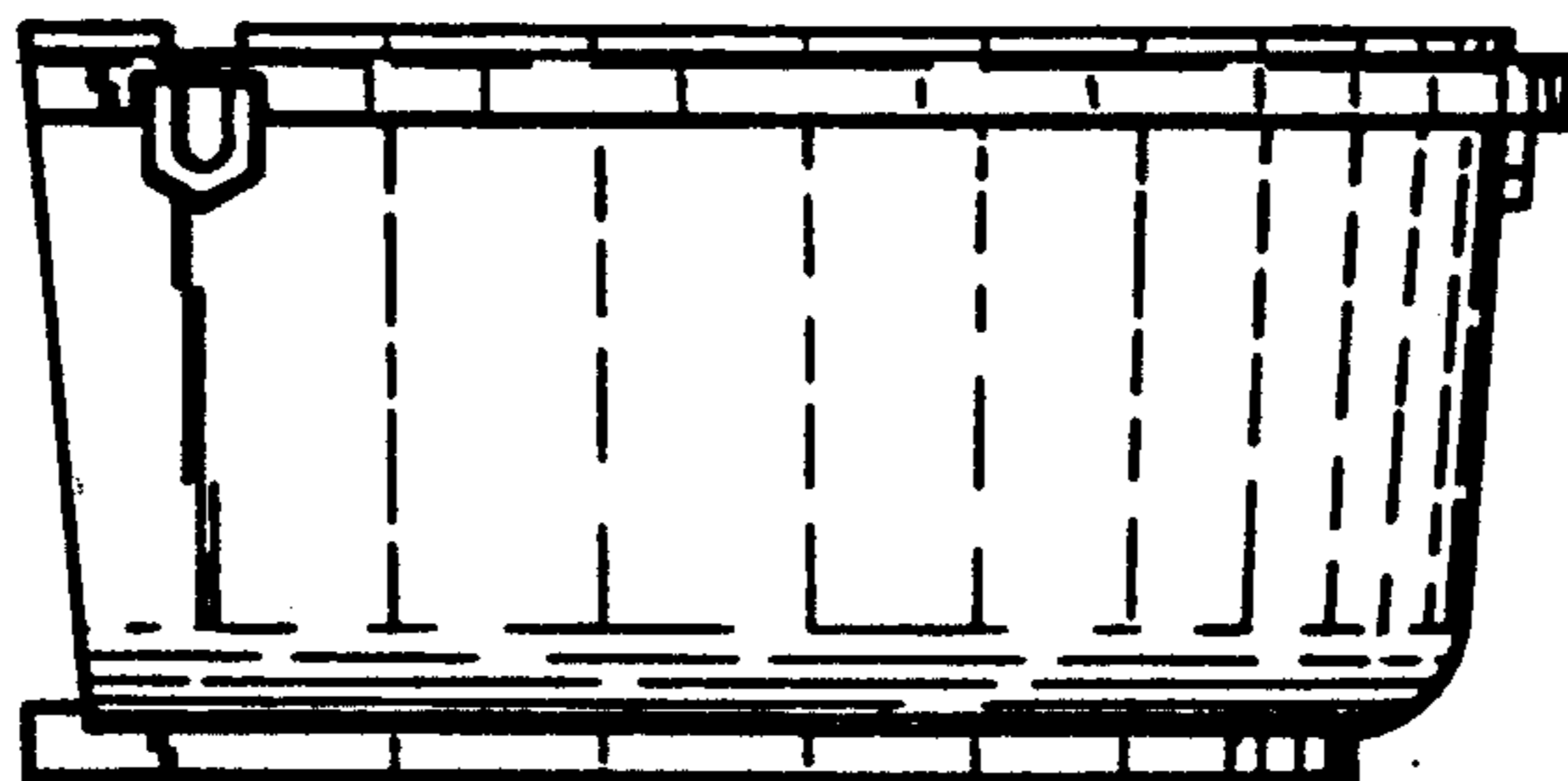


FIG.4

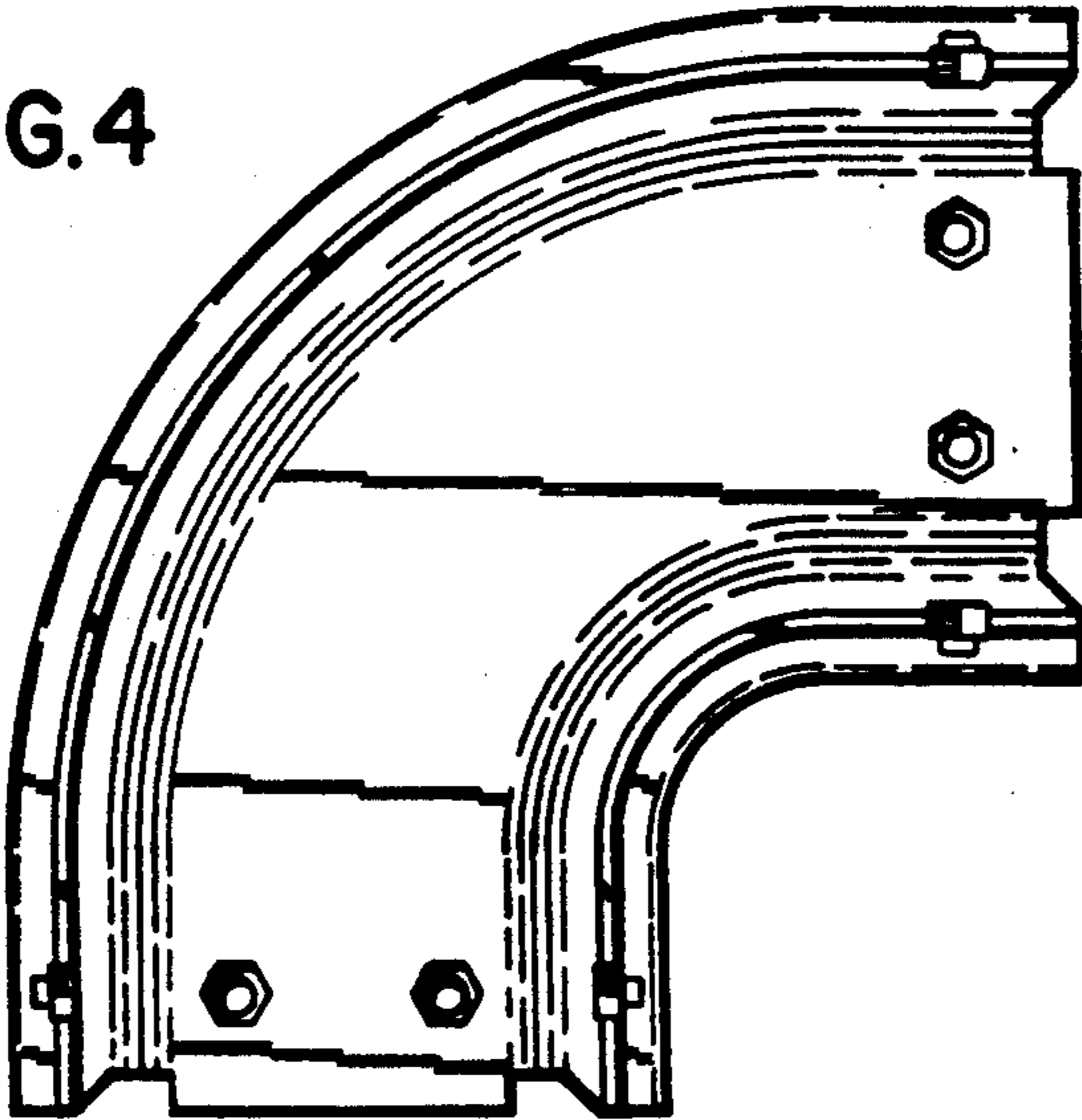


FIG.5

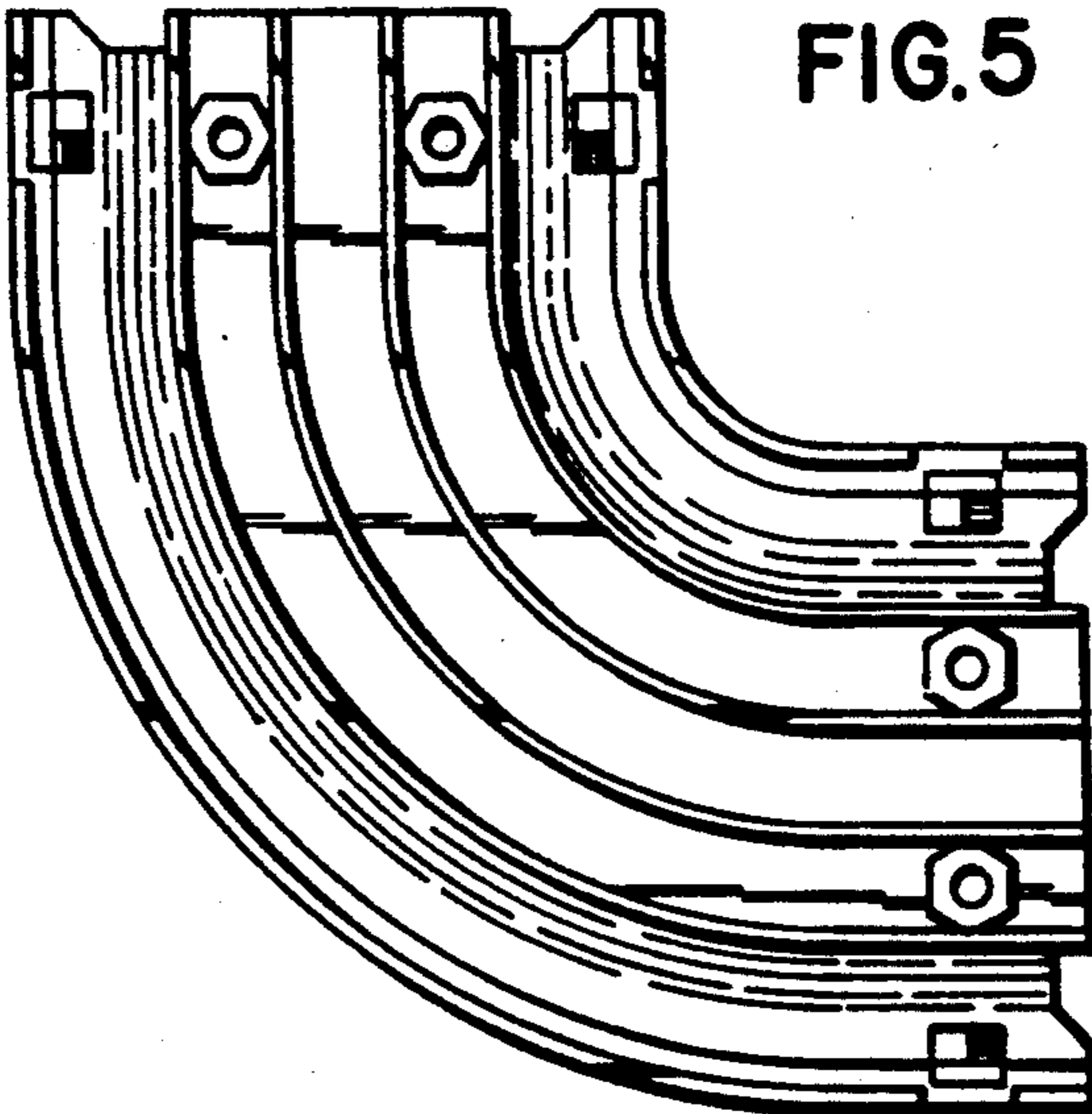


FIG.6

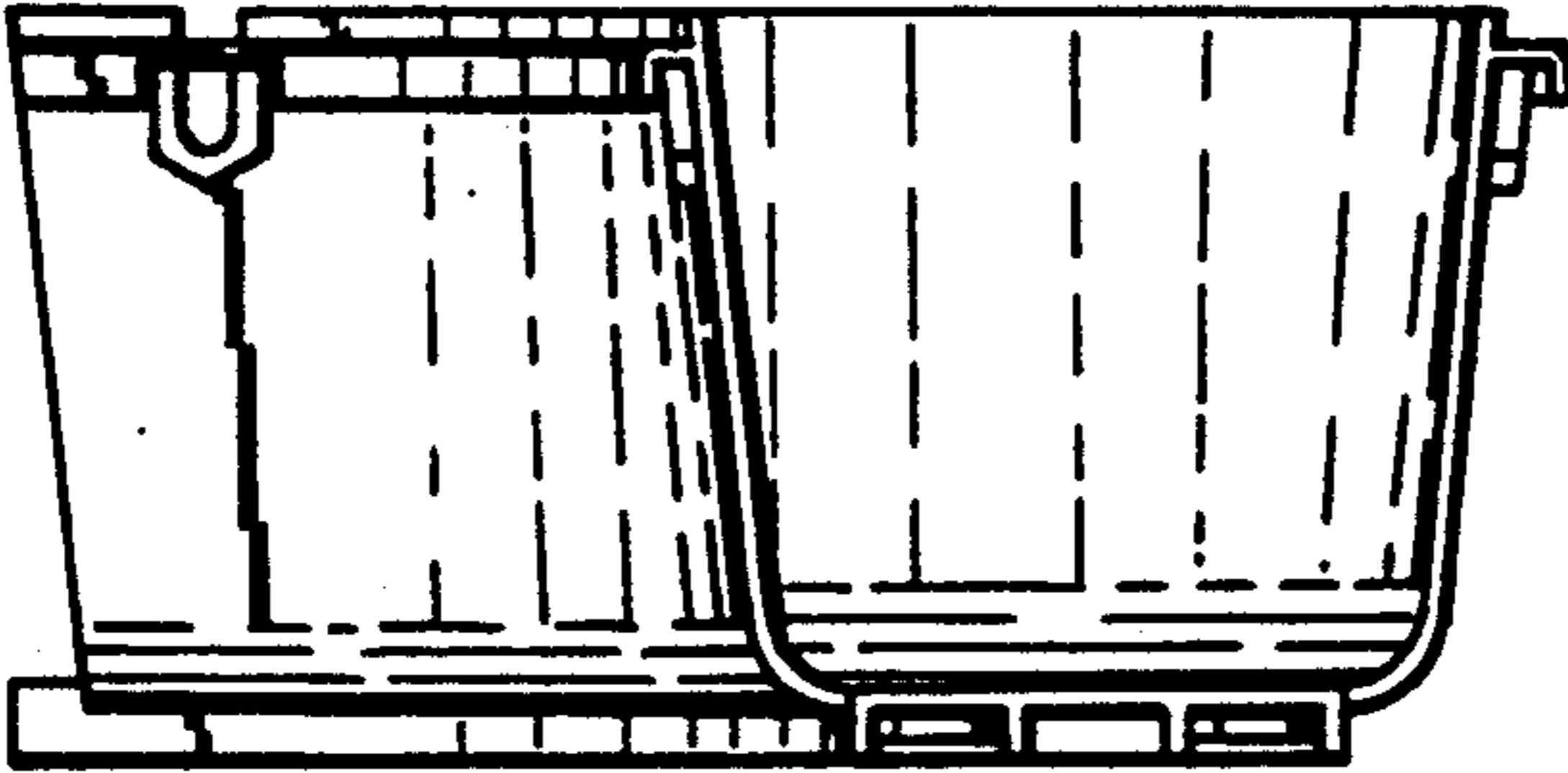


FIG.7

