



US00D341820S

**United States Patent** [19]  
**Itoh**

[11] **Patent Number: Des. 341,820**

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

[54] **HEAT DISSIPATING DEVICE FOR A SEMICONDUCTOR PACKAGE**

4,942,497 7/1990 Mine et al. .... 174/16.3 X  
5,113,315 5/1992 Capp et al. .... 174/16.3 X

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[57] **CLAIM**

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

The ornamental design for a heat dissipating device for a semiconductor package, as shown and described.

[21] **Appl. No.: 933,504**

**DESCRIPTION**

[22] **Filed: Aug. 21, 1992**

FIG. 1 is a front view of an embodiment of the heat dissipating device;

[30] **Foreign Application Priority Data**

Mar. 4, 1992 [JP] Japan ..... 4-6201

FIG. 2 is a top plan view thereof;

[52] **U.S. Cl. .... D13/179**

FIG. 3 is a bottom plan view thereof;

[58] **Field of Search .... D13/179, 182; 437/902; 165/104.33; 257/720; 174/15.2, 16.3; 361/386**

FIG. 4 is a right side view thereof;

FIG. 5 is a perspective view thereof;

FIG. 6 is a sectional view taken along section line 6—6 in FIG. 2;

[56] **References Cited**

**U.S. PATENT DOCUMENTS**

4,079,410 3/1978 Schierz ..... 174/16.3 X  
4,268,850 5/1981 Lazarek et al. .... 174/16.3 X  
4,494,171 1/1985 Bland et al. .... 361/386  
4,546,405 10/1985 Hultmark et al. .... 174/16.3 X

FIG. 7 is a sectional view taken along section line 7—7 in FIG. 2; and,

FIG. 8 is a view of the heat dissipating device shown in FIG. 1 attached to a semiconductor package, the latter being shown by broken lines only as it does not form any part of the claimed design.

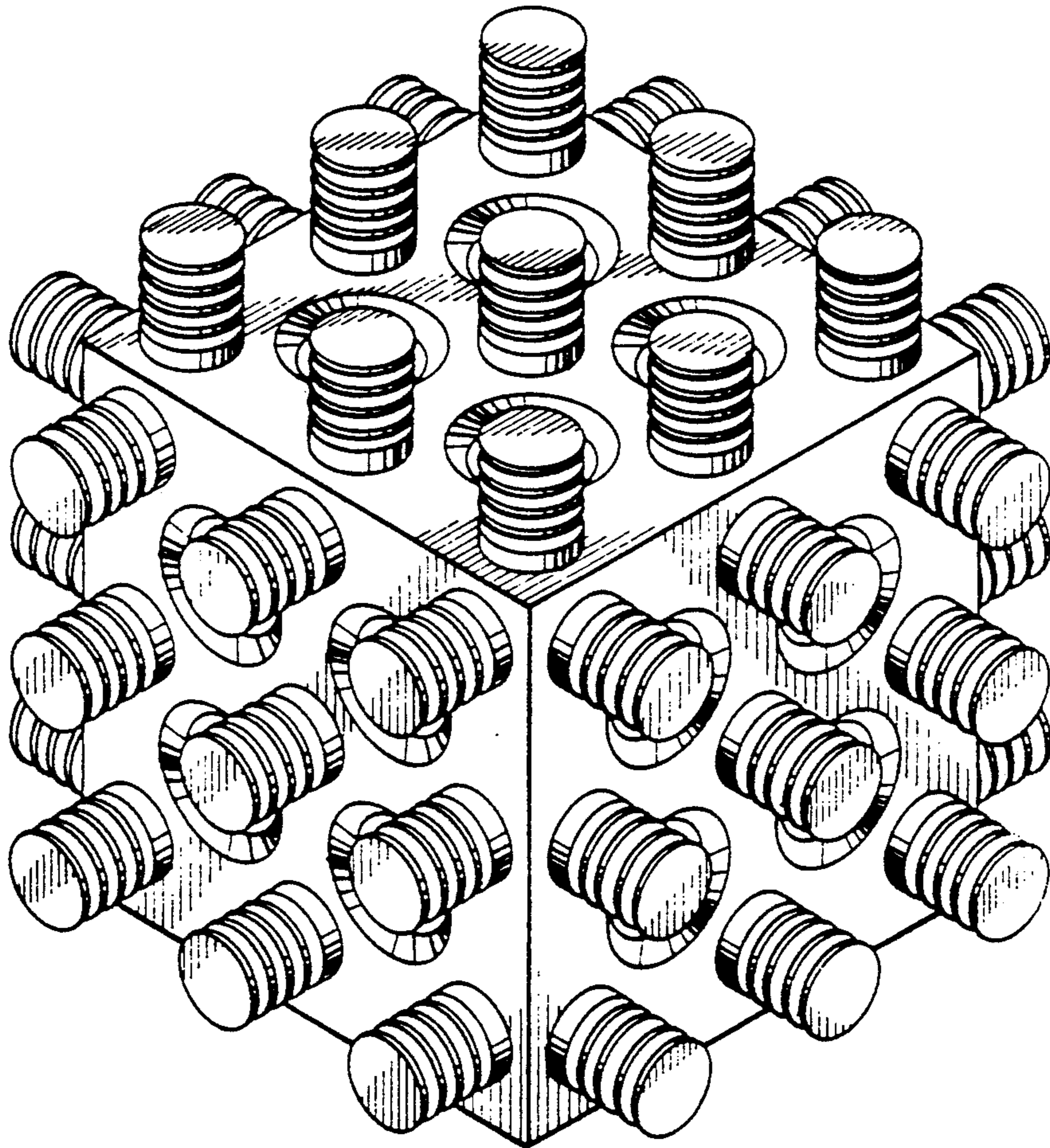


FIG. 1

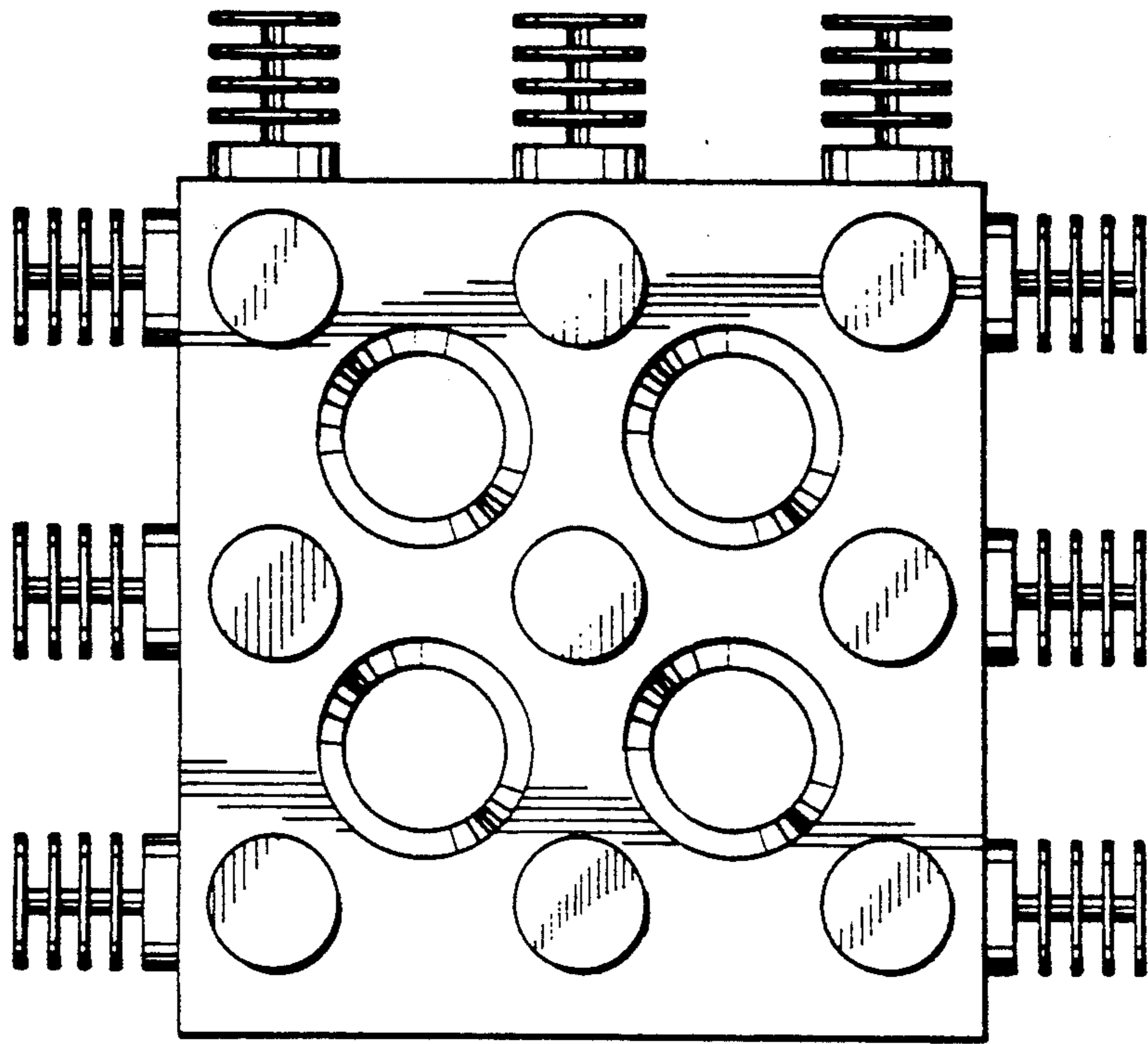


FIG. 4

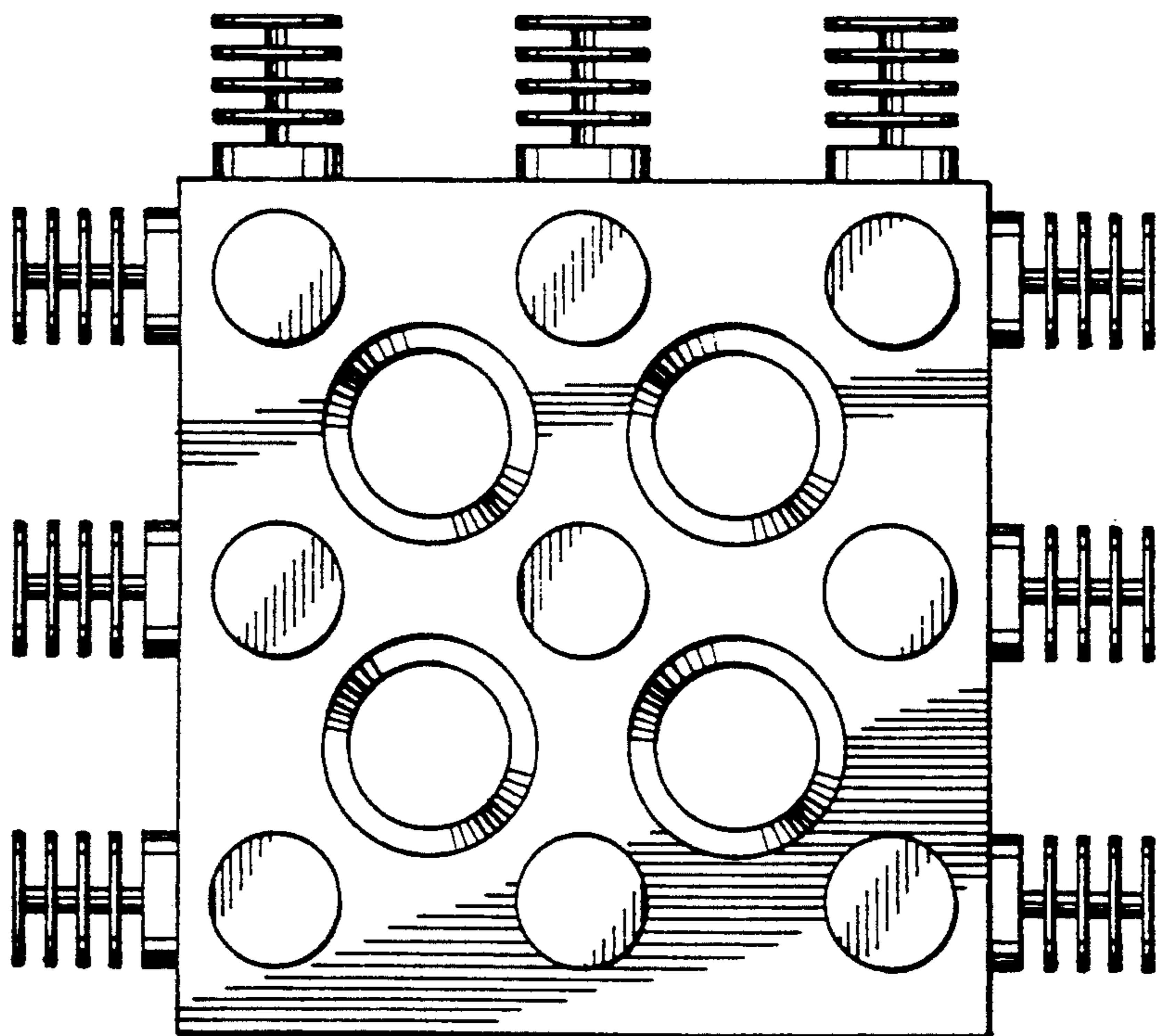


FIG. 2

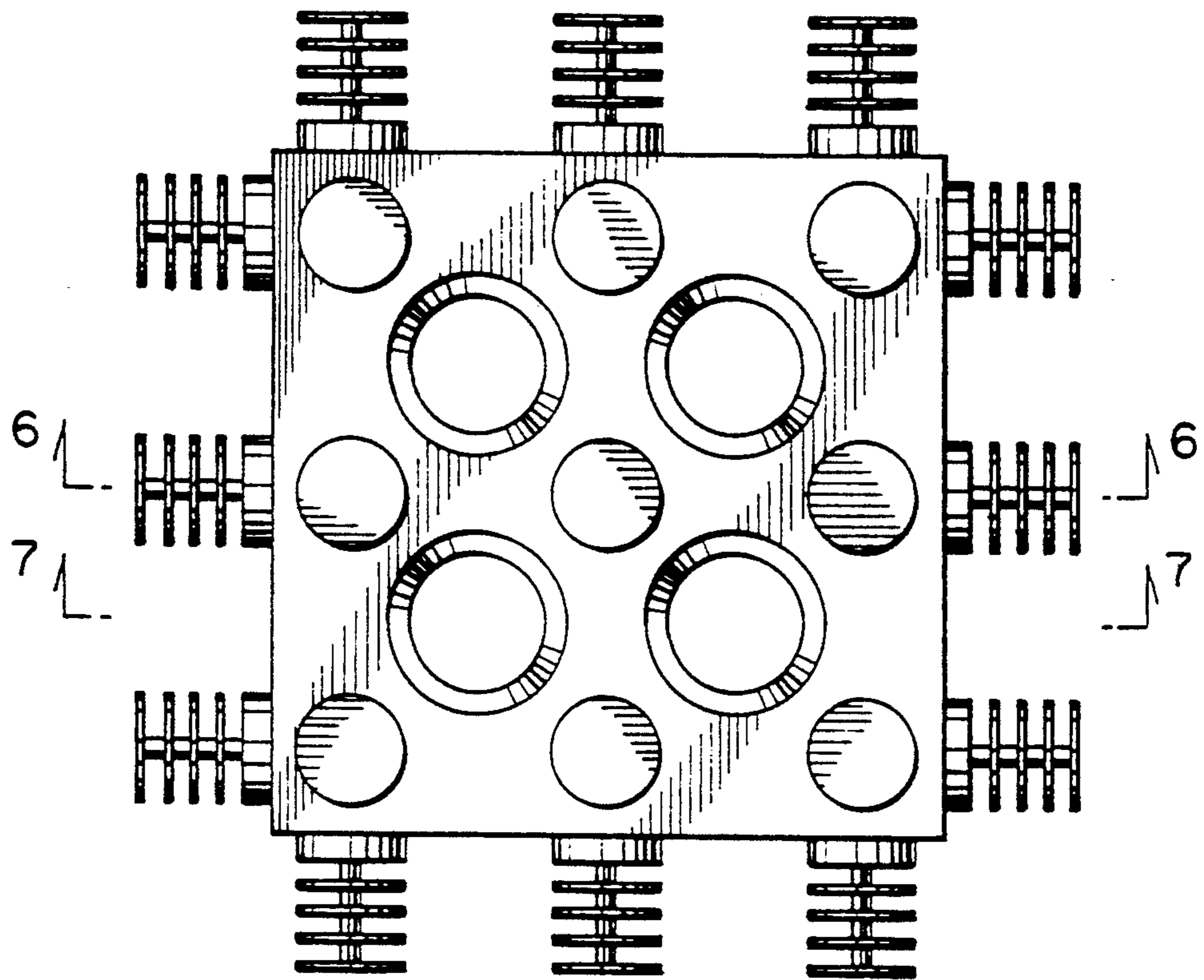


FIG. 3

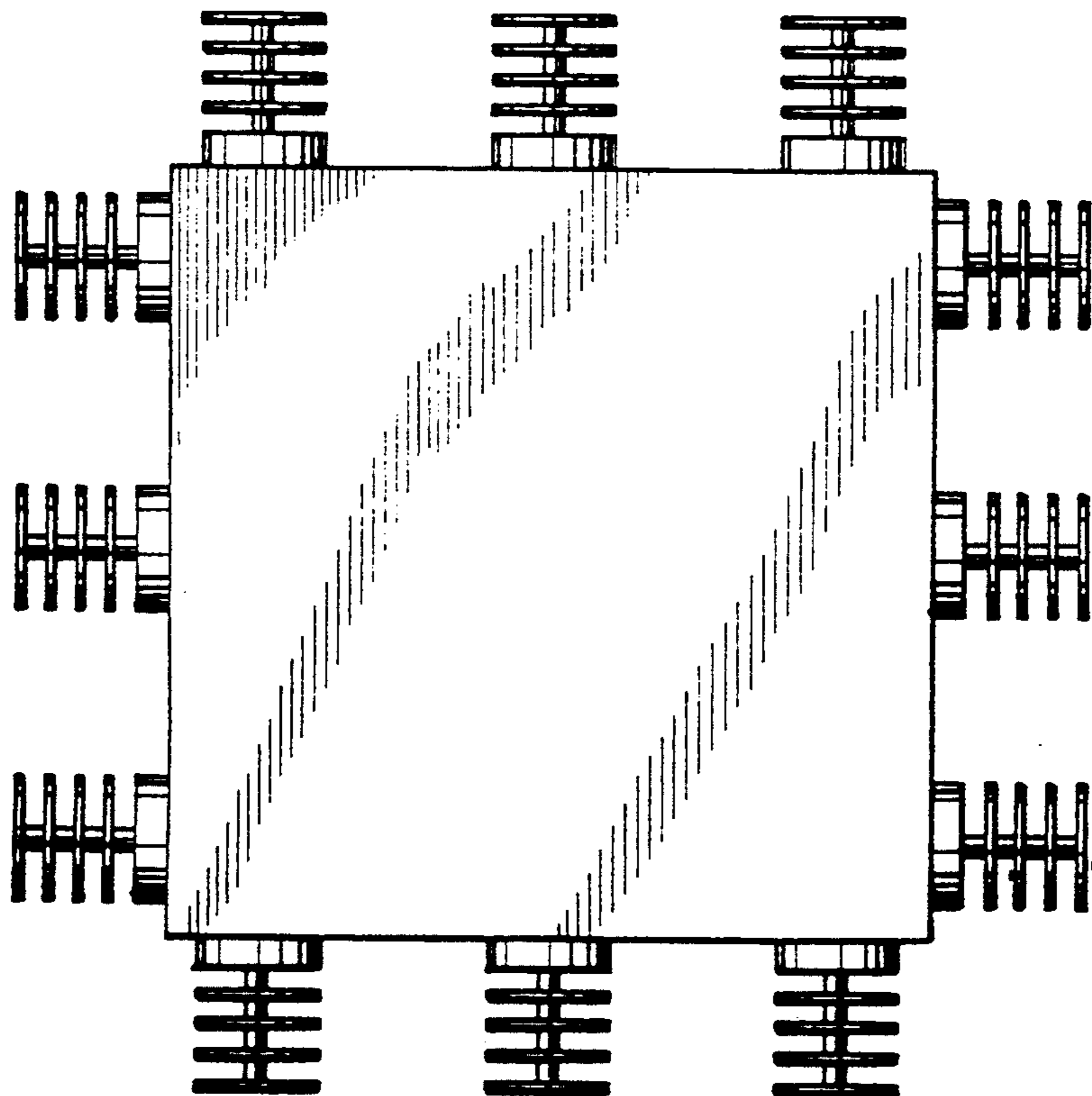


FIG. 5

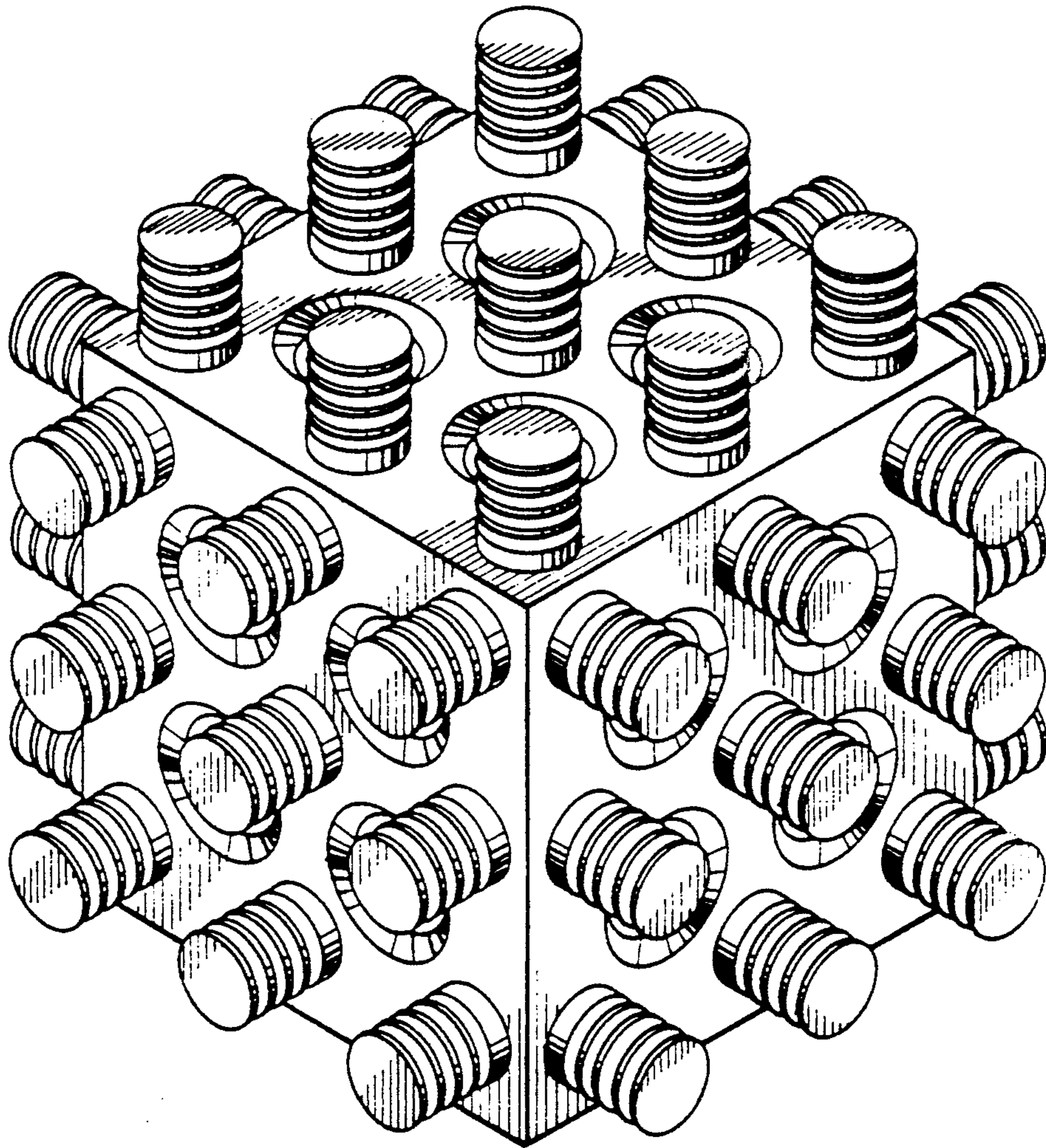


FIG. 6

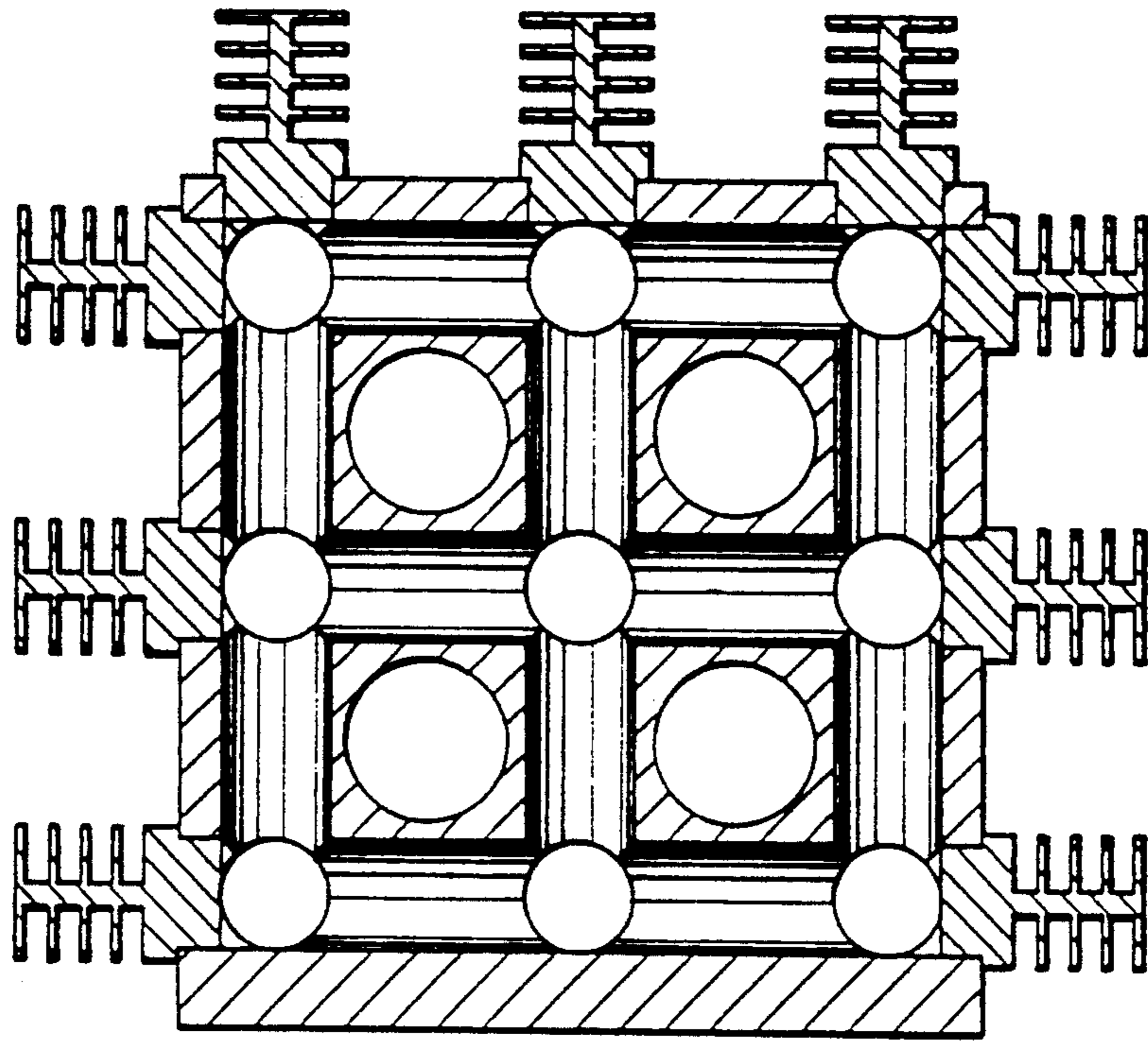


FIG. 7

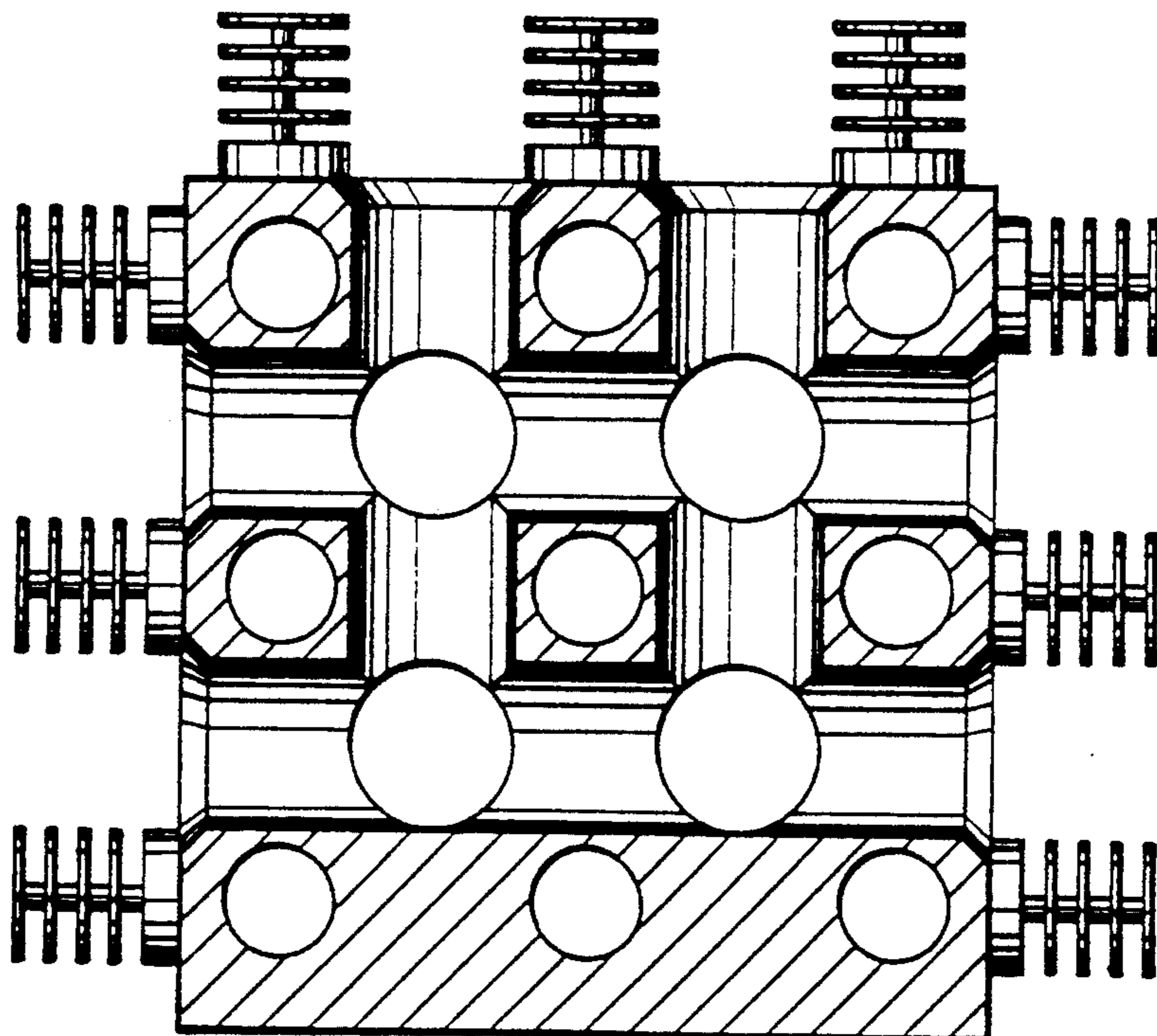


FIG. 8

