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# United States Patent [19]

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Sato et al.

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## [54] SUPPLY AND EXHAUST BLOCK FOR MANIFOLD SOLENOID VALVE

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[\*] Notice: This patent is subject to a terminal disclaimer.

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

[21] Appl. No.: **29/094,749**

[22] Filed: **Oct. 9, 1998**

### [30] Foreign Application Priority Data

Apr. 13, 1998 [JP] Japan ..... 10-10521

[51] LOC (7) Cl. .... **23-01**

[52] U.S. Cl. .... **D23/233**

[58] Field of Search ..... D23/233-237,  
D23/245-248; 137/596.13, 596.16, 625.64,  
884

### [56] References Cited

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#### OTHER PUBLICATIONS

The design of the present application was displayed at IFPEX '97 Exhibition—Oct. 21-24, 1997.

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## [57] CLAIM

The ornamental design for supply and exhaust block for manifold solenoid valve, as shown and described.

## DESCRIPTION

The design of the present application is directed to a supply and exhaust block for a manifold solenoid valve, the supply and exhaust block being positionable on a side end surface of a manifold of a manifold solenoid valve to simultaneously supply and exhaust compressed air to and from a plurality of pilot-operated directional control valves on the manifold through a port provided in the lower half thereof. In addition, in the upper part of the supply and exhaust block, an external, small-diameter pilot port for supplying and exhausting a pilot fluid used to drive each pilot-operated directional control valve is provided and a silencer for arresting sound emitted during the supply and exhaust of the pilot fluid is mounted on the top surface of the supply and exhaust block.

FIG. 1 is a top, front and left side perspective view of supply and exhaust block for manifold solenoid valve embodying our 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;

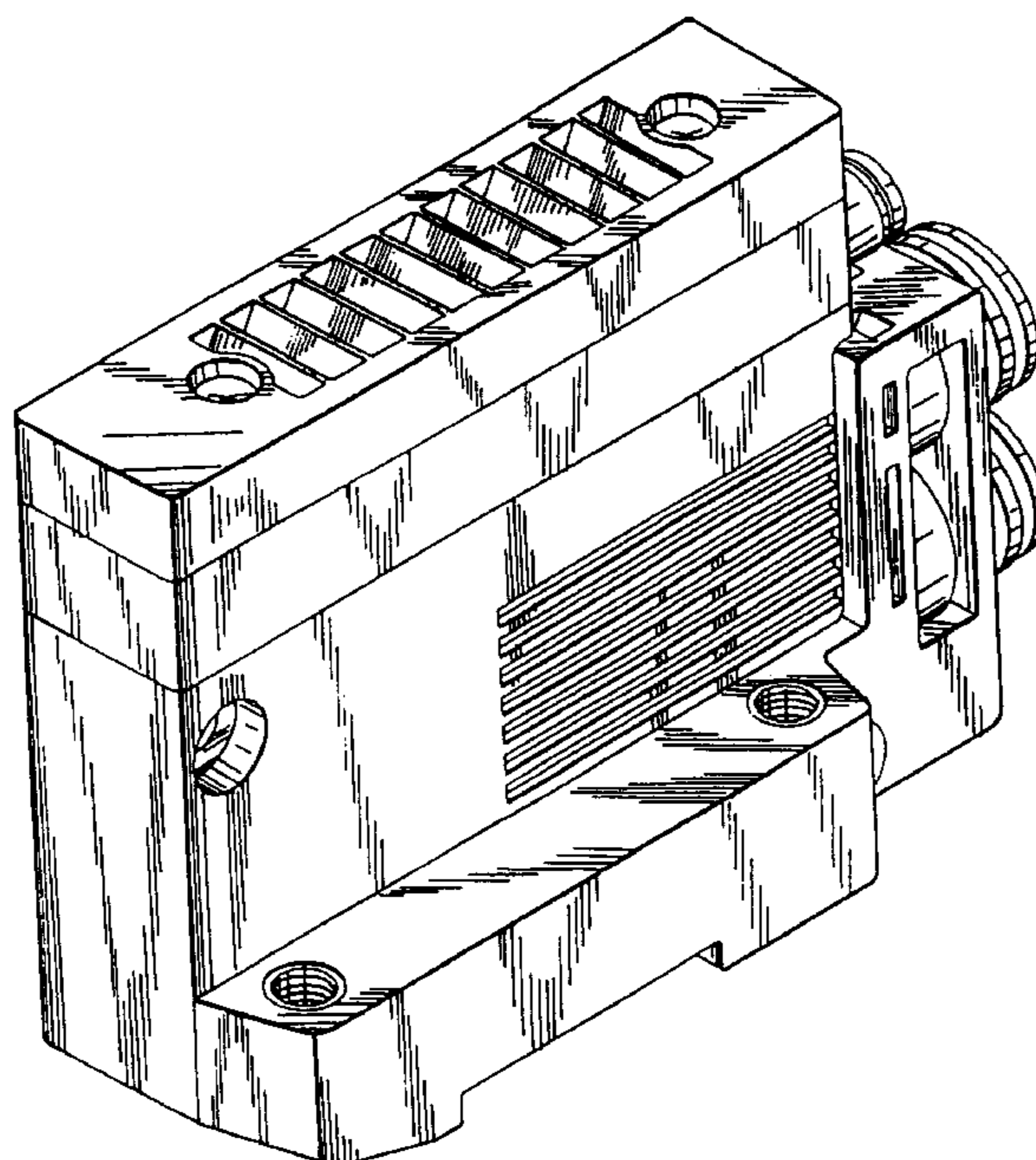
FIG. 6 is a right side elevational view thereof;

FIG. 7 is a left side elevational view thereof;

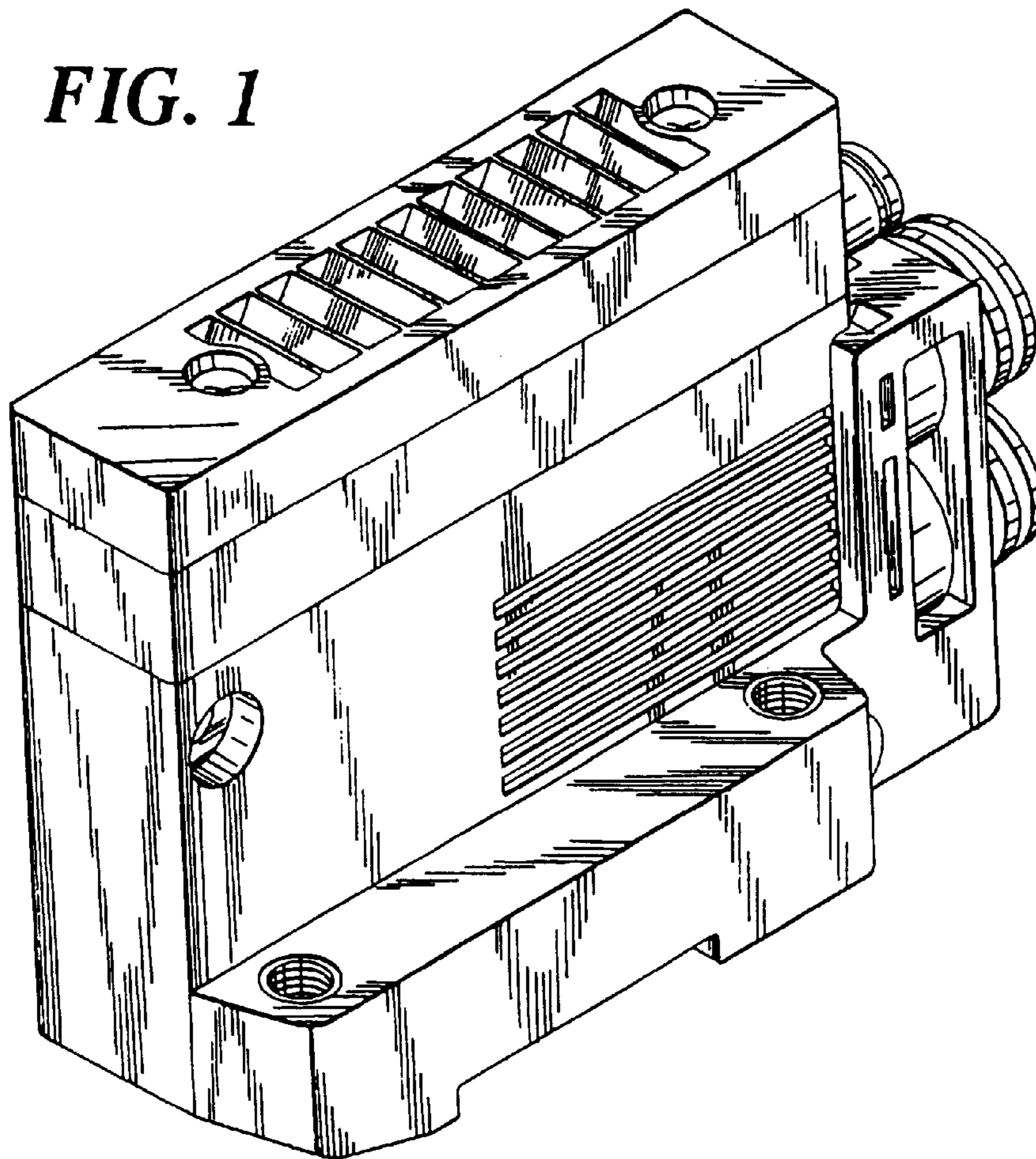
FIG. 8 is a top, front and left side perspective view thereof, shown in use with the solenoid transfer valve which is shown in broken lines and forms no part of the claimed design; and,

FIG. 9 is a bottom, rear and right side perspective view thereof.

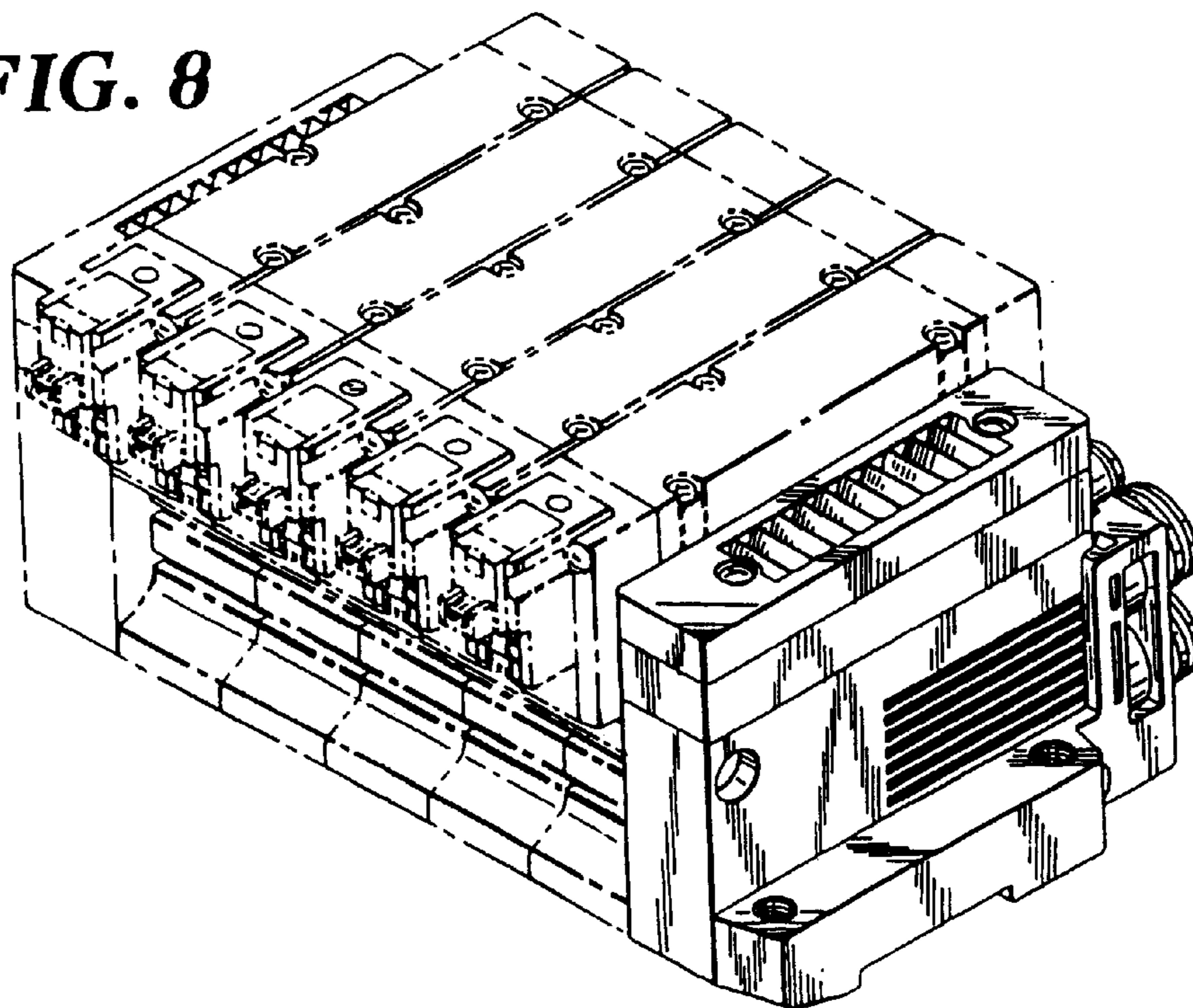
**1 Claim, 3 Drawing Sheets**



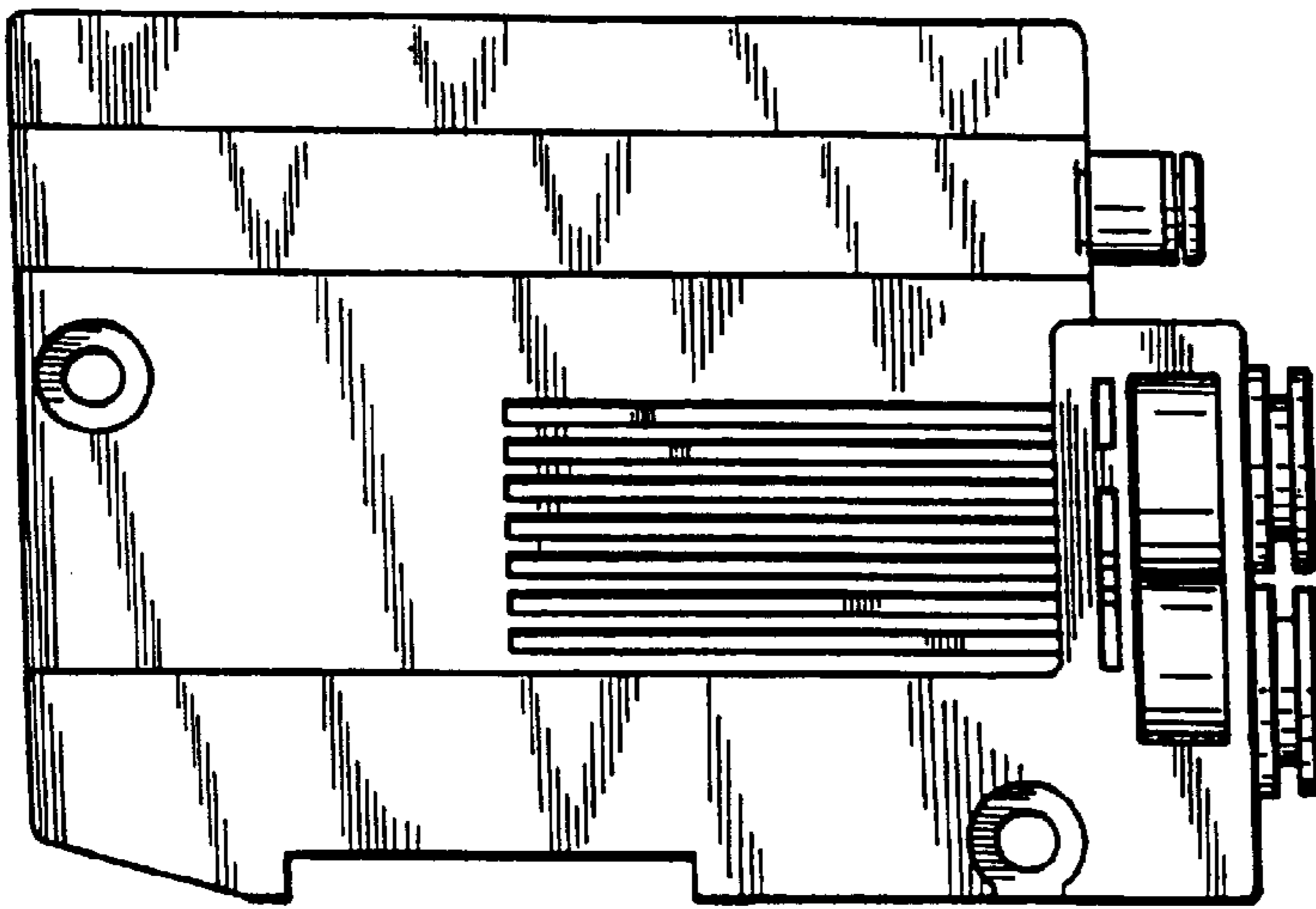
**FIG. 1**



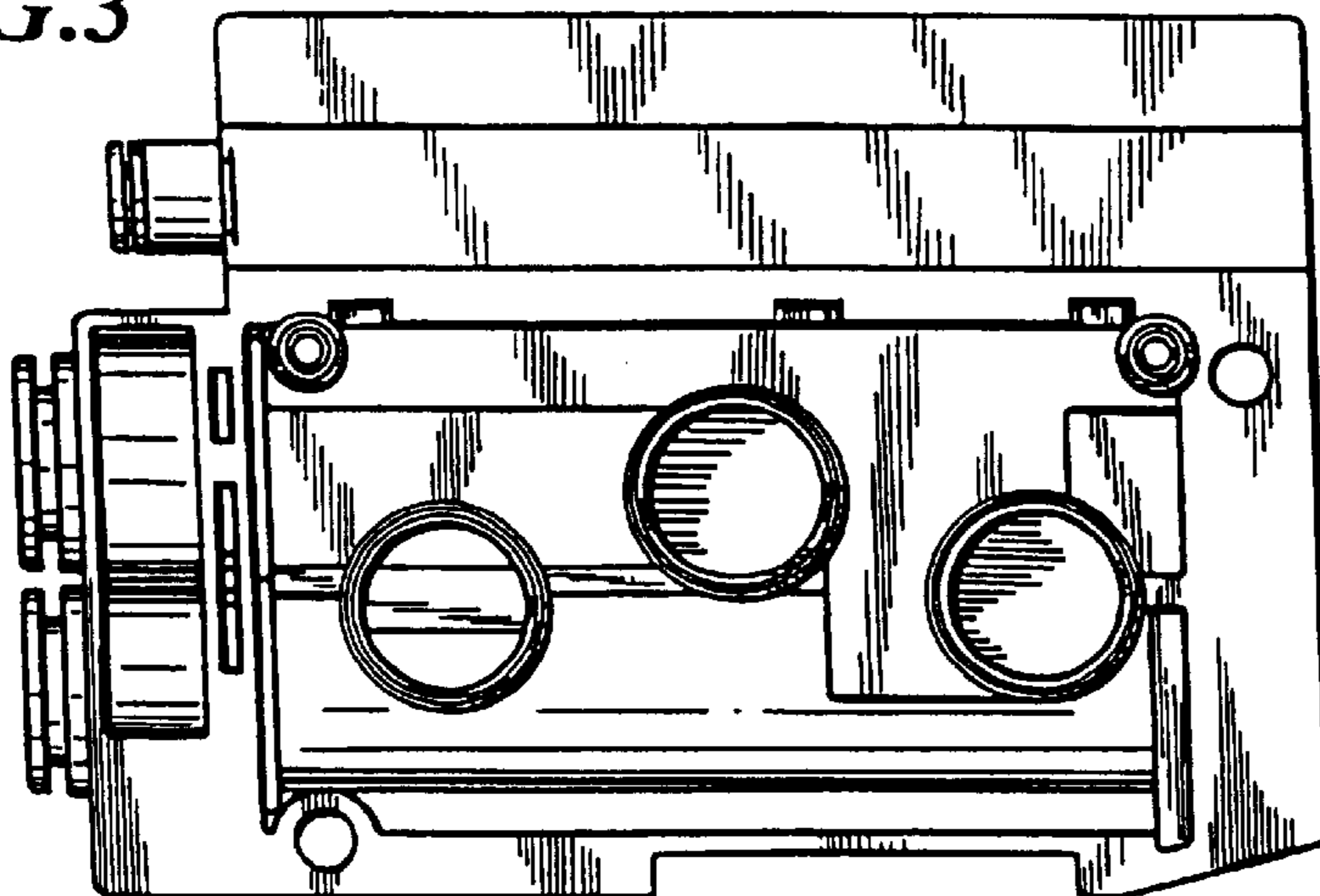
**FIG. 8**



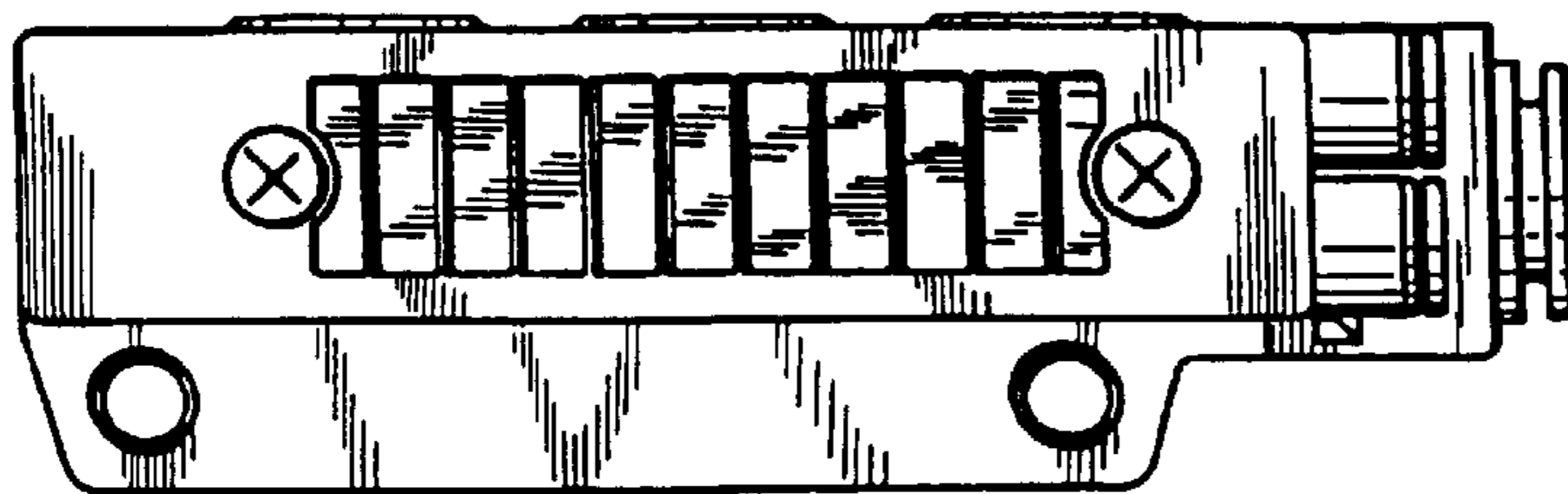
**FIG. 2**



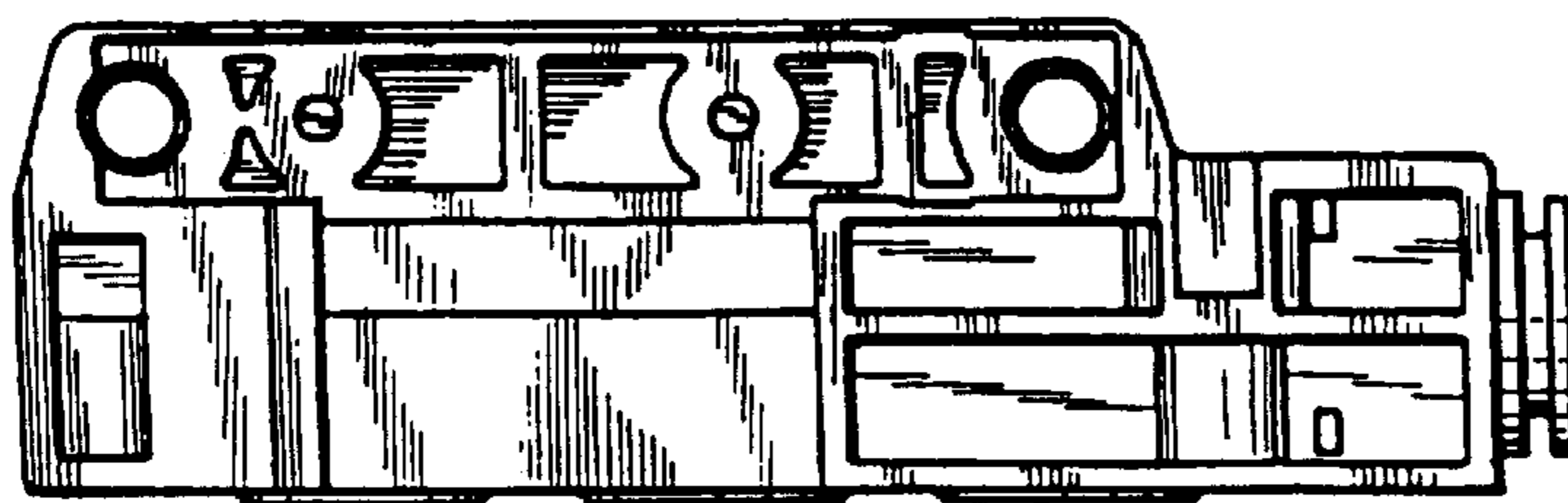
**FIG. 3**



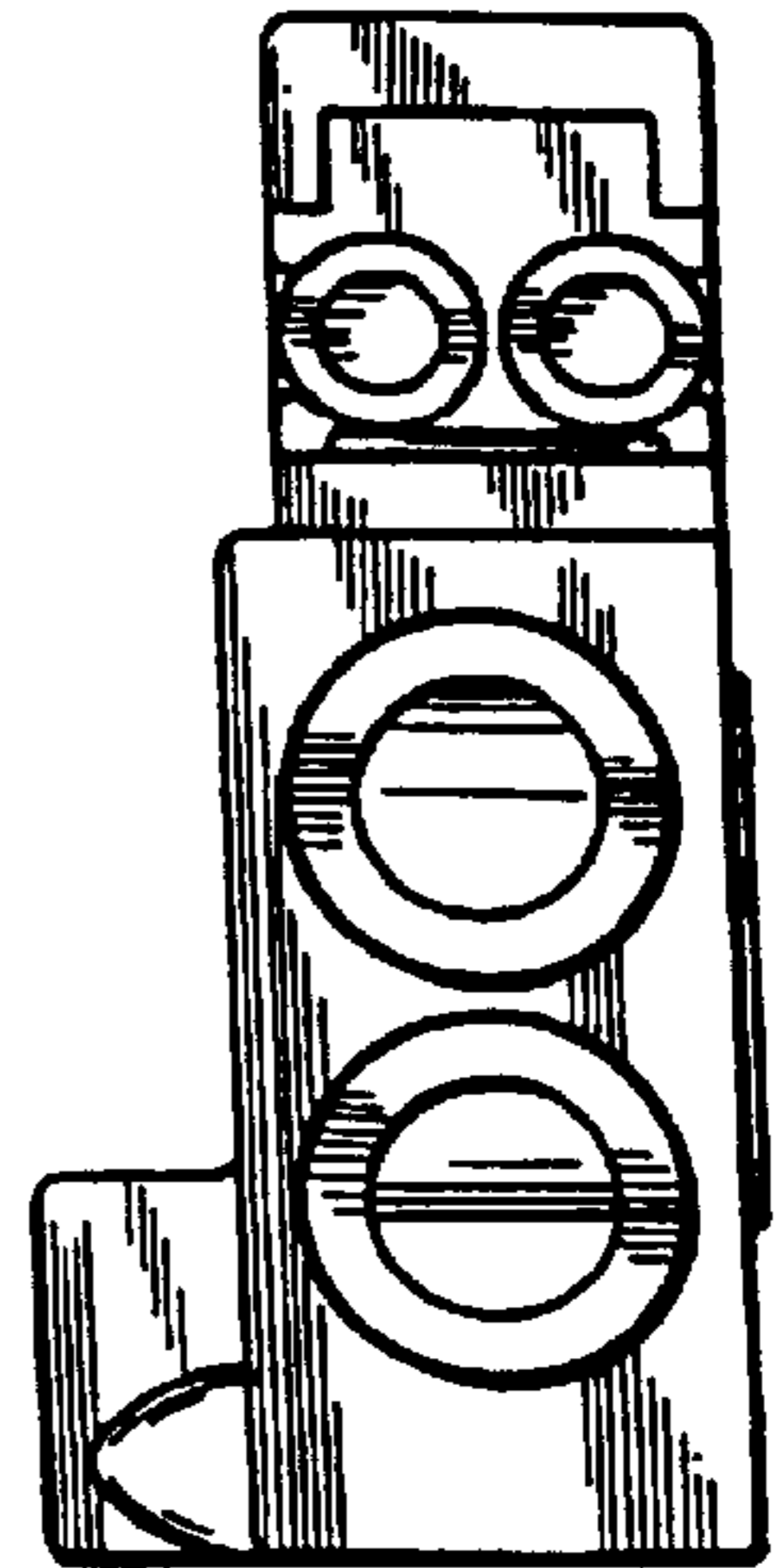
**FIG. 4**



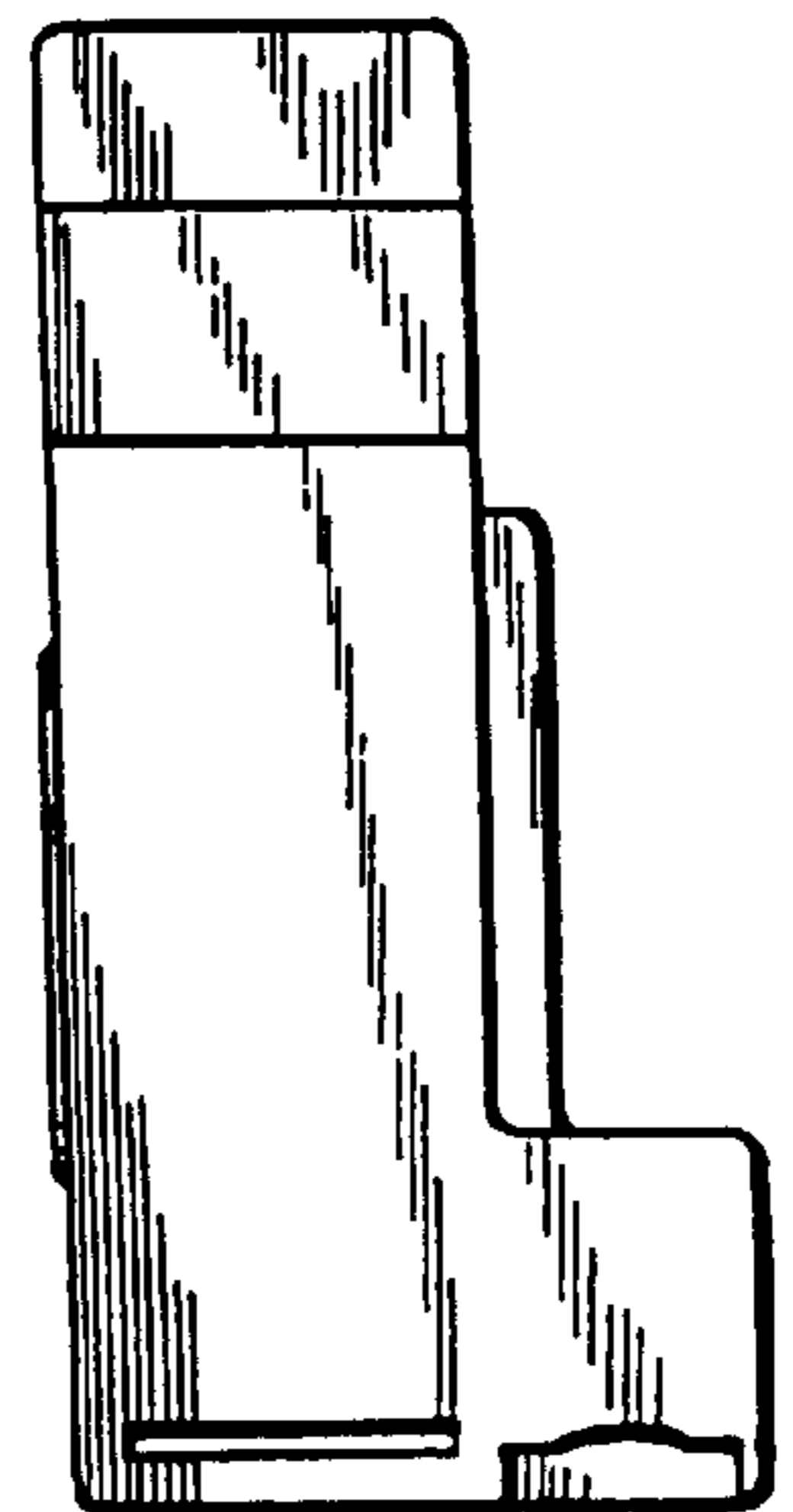
**FIG. 5**

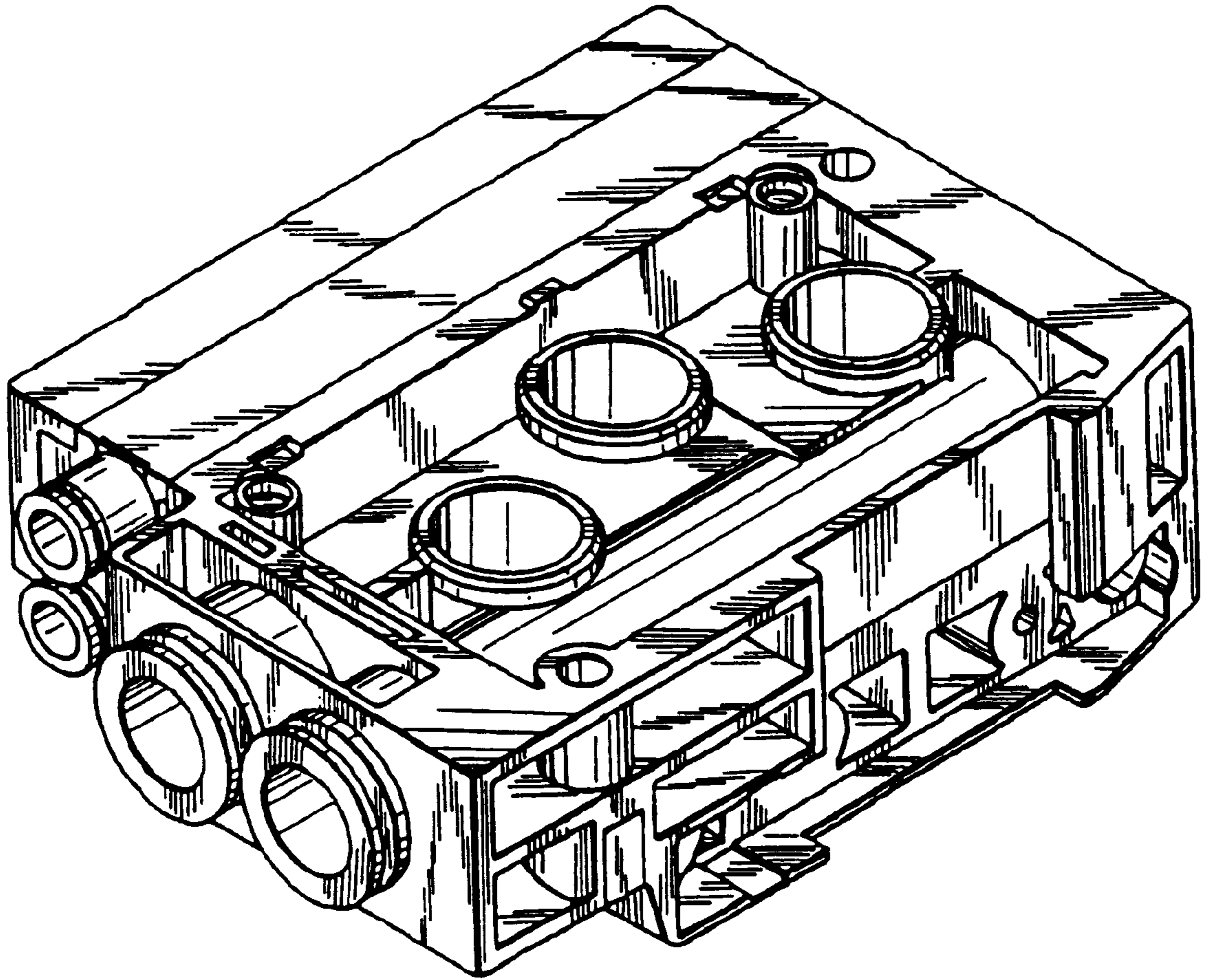


**FIG. 6**



**FIG. 7**





**FIG. 9**