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**Iizuka et al.**

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(54) **PIEZOELECTRIC VIBRATION DEVICE**

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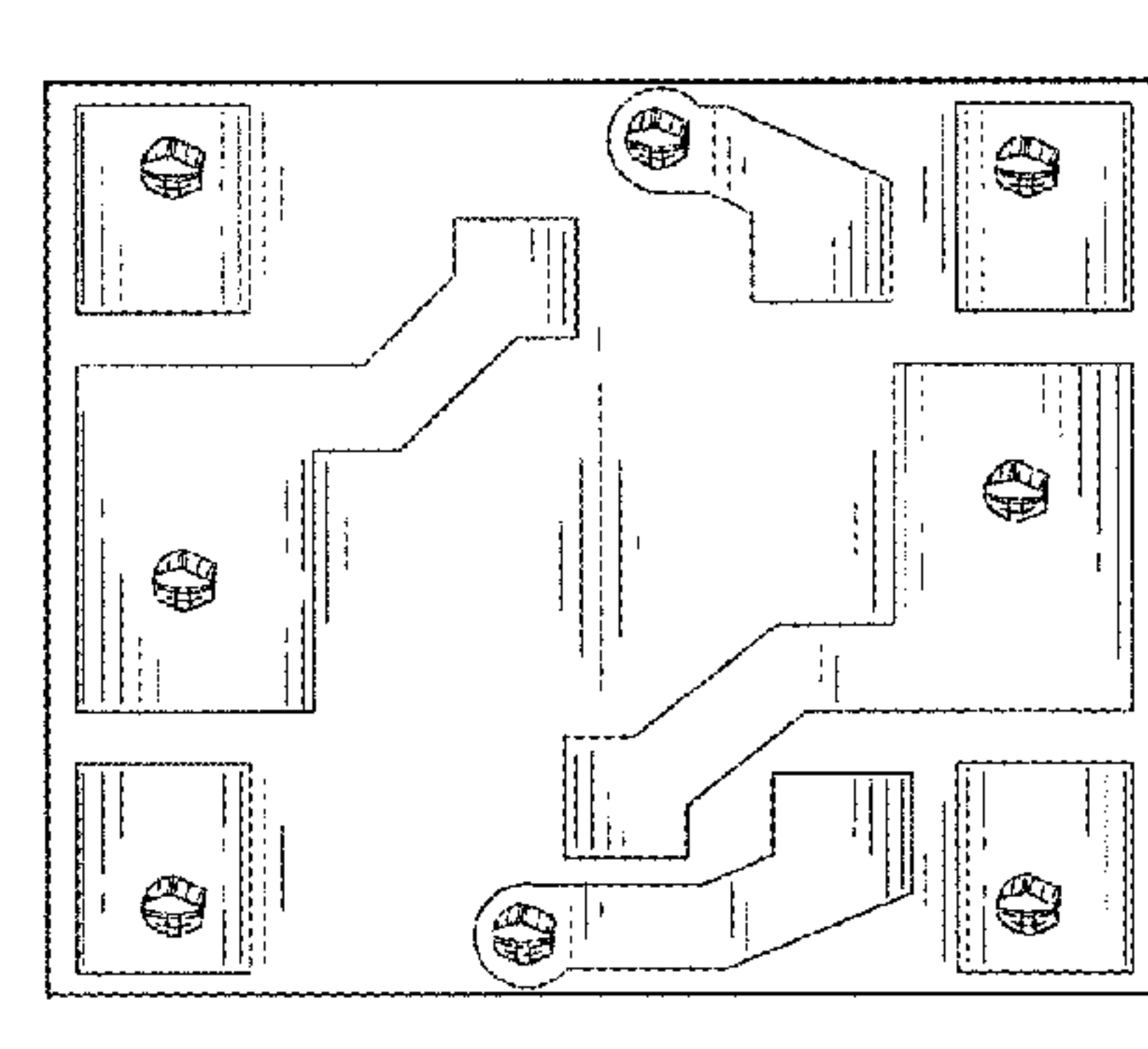
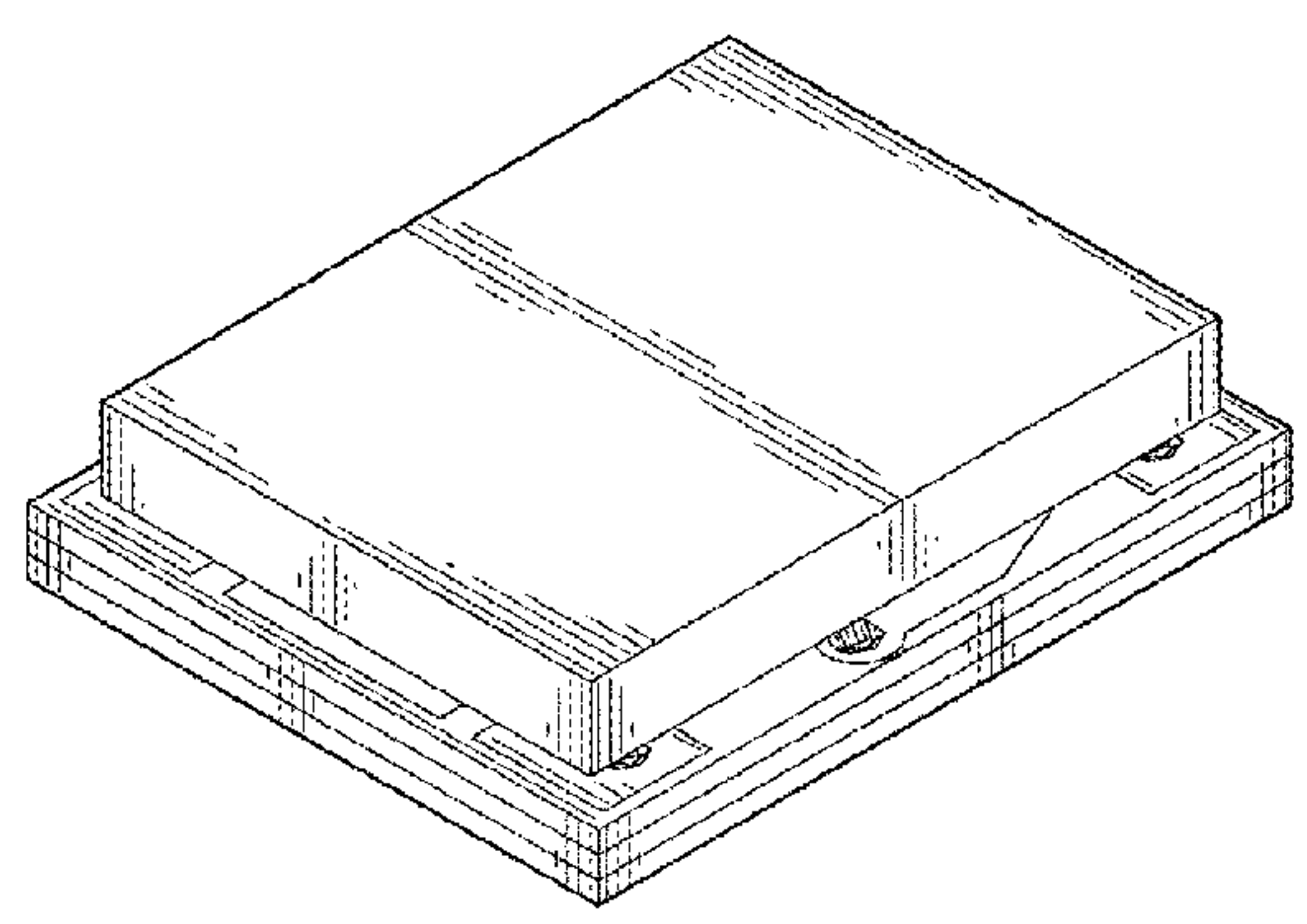
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USPC ..... **D14/435; D13/184**

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CPC ..... G06K 19/06196; G06K 19/072; G06K 19/0721; G06K 19/0722; G06K 19/0723; G06K 19/0724; G06K 19/0725; G06K 19/0726; G06K 19/0727; G06K 19/0728; G06K 19/073; G06K 19/07309; G06K 19/077; G06K 19/07701; G06K 19/07715; G06K 19/0772; G06K 19/07724; G06K 19/07726; G06K 19/07728; G06F 21/77-21/80; G06F 21/85-21/88; G06F 21/00; G06Q 20/3229; G06Q 20/34; G06Q 20/341; G06Q 20/346; G06Q 20/349; G06Q 20/3563; G06Q 20/3567; G06Q 20/357; G06Q 20/3576; H05K 5/026; H05K 5/0256; H05K 5/0265; H05K 5/0269; H05K 5/0273; H05K 5/0278; H05K 5/0282; H05K 5/0286; H05K 5/0291; H05K 5/0295; H05K 5/03; H05K 5/04; H05K 5/06; H05K 5/061; H05K 5/062; H05K 5/063; H05K 5/064; H05K 5/065; H05K 5/066; H05K 5/067; H05K 5/068; H05K 5/069; H05K 7/00; H05K 7/005; H05K 7/02; H05K 7/023; H05K 7/026; H05K 7/04; H05K 7/10; H05K 7/1418; H05K 7/142; H05K 7/1427-7/1439; H05K 7/1461; H05K 7/1464-7/1474; H05K 7/1479; H05K 7/1481; H05K 7/1485-7/1488; H05K 2201/09745; H05K 2201/09754; H05K 2201/09763; H05K 2201/09772; H05K 2201/098; H05K 2201/09818; H05K 2201/10; H05K 2201/10007; H04N 2201/216; H01L 2924/09701; H01L 2924/00014; H01L 2924/3025; H01L 2924/00; H01L 2224/48091; H01L 2224/48227; H01L 2224/73265; H03H 9/1021; H03H 9/0547; H03H 9/21; H03H 9/215; H03H 9/1014; H03H 9/1035; H03H 9/19; H03H 9/0542; H03H 9/0552; H03H 9/17; H03H 9/0509; H03H 9/08; H03H 9/1071; H03H 9/059; H03H 9/02984; H03H 9/02897; H03H 9/15; H03H 9/172; H03H





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 H03B 1/02; H03B 2200/0014; H03D 1/00;  
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 H03D 3/001-3/005; H03D 3/12-3/16; H03D  
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See application file for complete search history.

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(57)

CLAIM

We claim the ornamental design for a piezoelectric vibration device, as shown and described.

DESCRIPTION

FIG. 1 is a top perspective view of a first embodiment of a piezoelectric vibration device of the present invention;  
FIG. 2 is a top view thereof;  
FIG. 3 is a bottom view thereof;  
FIG. 4 is a front view thereof;  
FIG. 5 is a rear view thereof;  
FIG. 6 is a first side view thereof;  
FIG. 7 is a second side view thereof;  
FIG. 8 is a top view of the piezoelectric vibration device of FIG. 1, shown with the upper IC component and connecting bumps removed;  
FIG. 9 is a cross-section view of the piezoelectric vibration device taken along line 9-9 of FIG. 3;  
FIG. 10 is a cross-section view of the piezoelectric vibration device taken along line 10-10 of FIG. 3; and,  
FIG. 11 is a cross-section view of the piezoelectric vibration device taken along line 11-11 of FIG. 3.

1 Claim, 6 Drawing Sheets



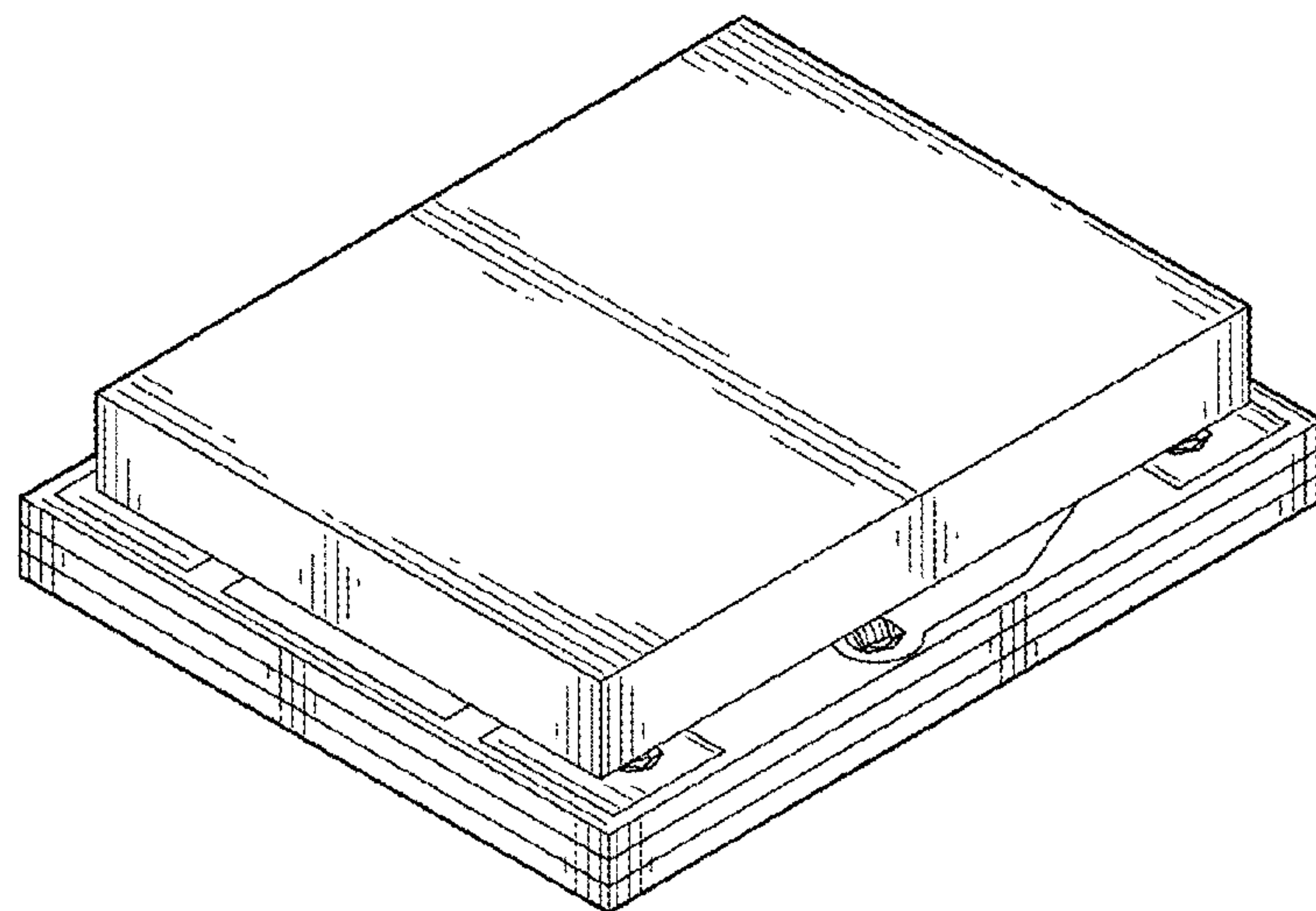


FIG. 1

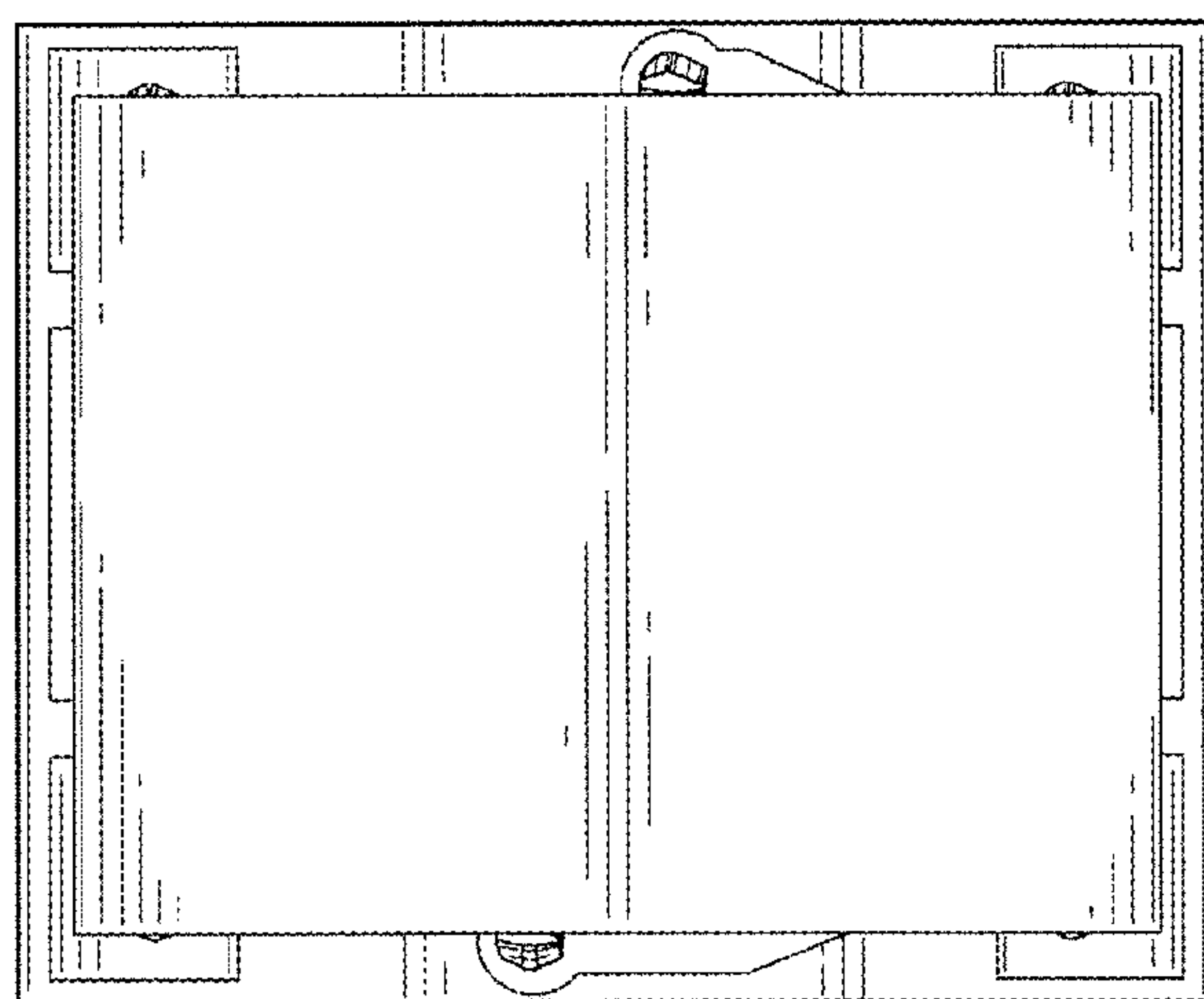


FIG. 2

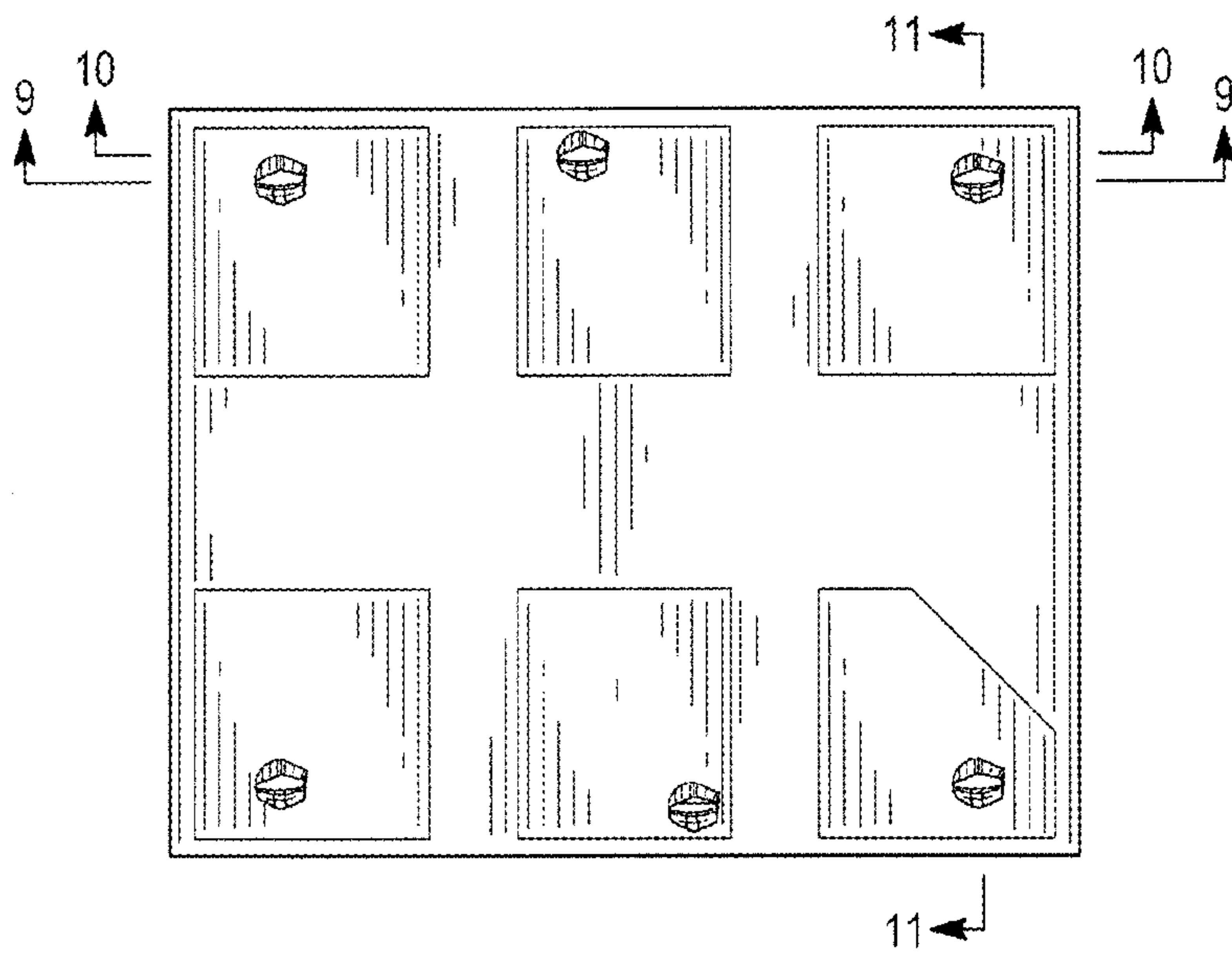


FIG. 3

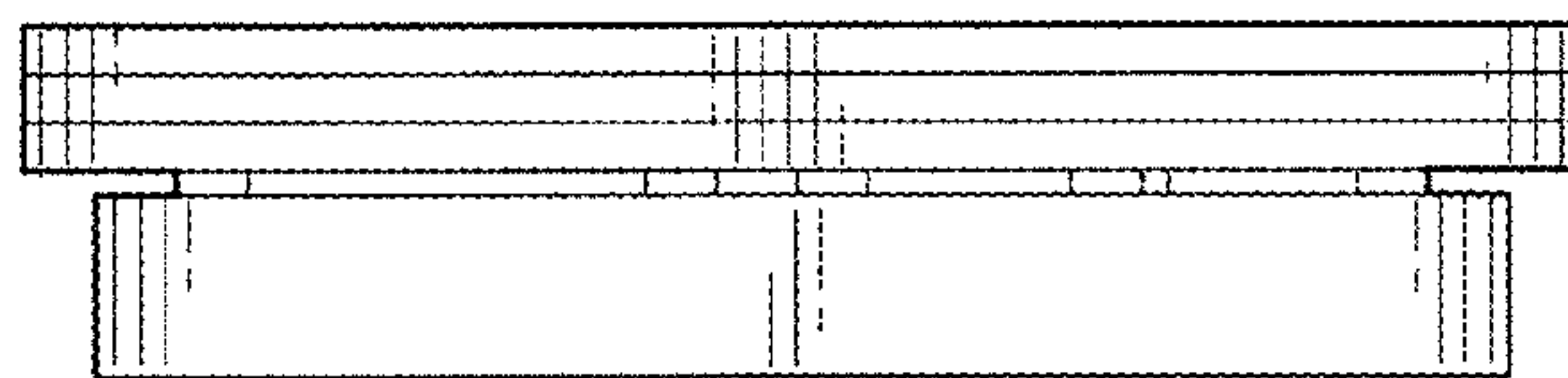


FIG. 4

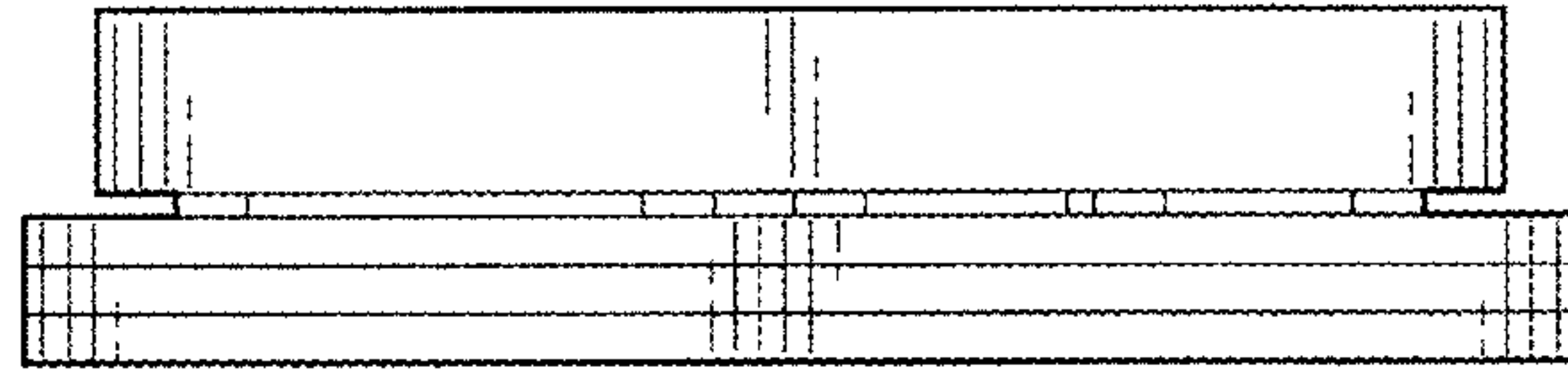


FIG. 5

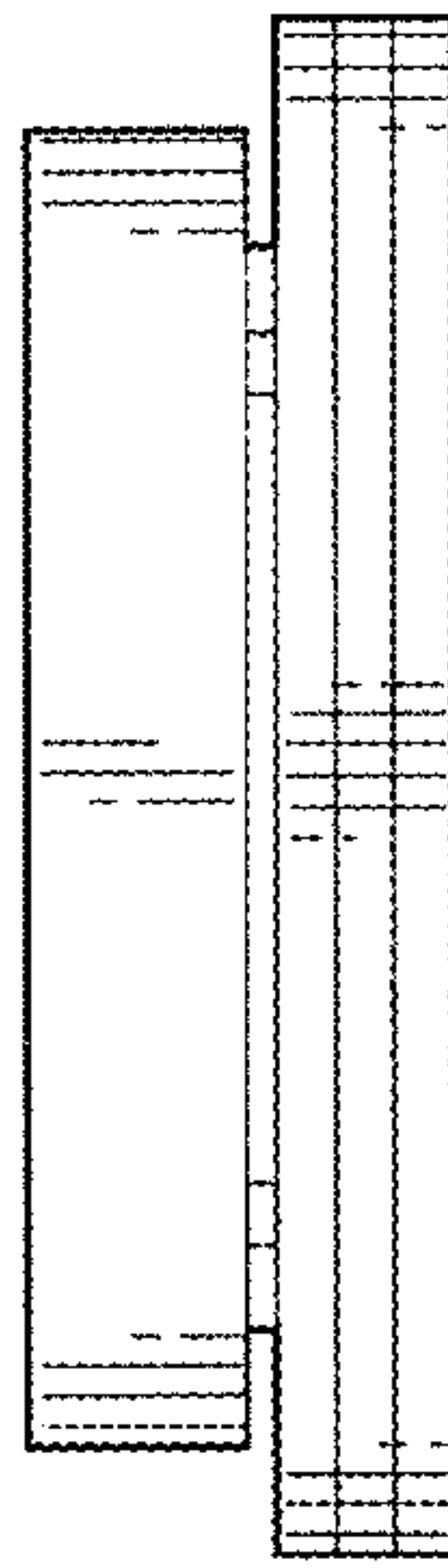


FIG. 6

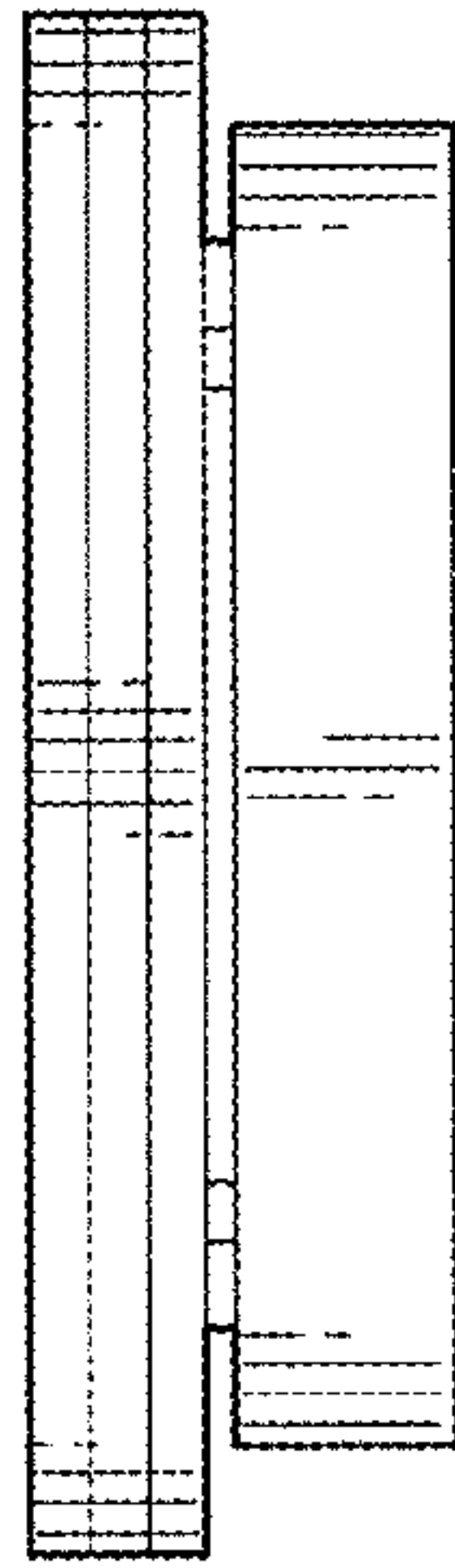


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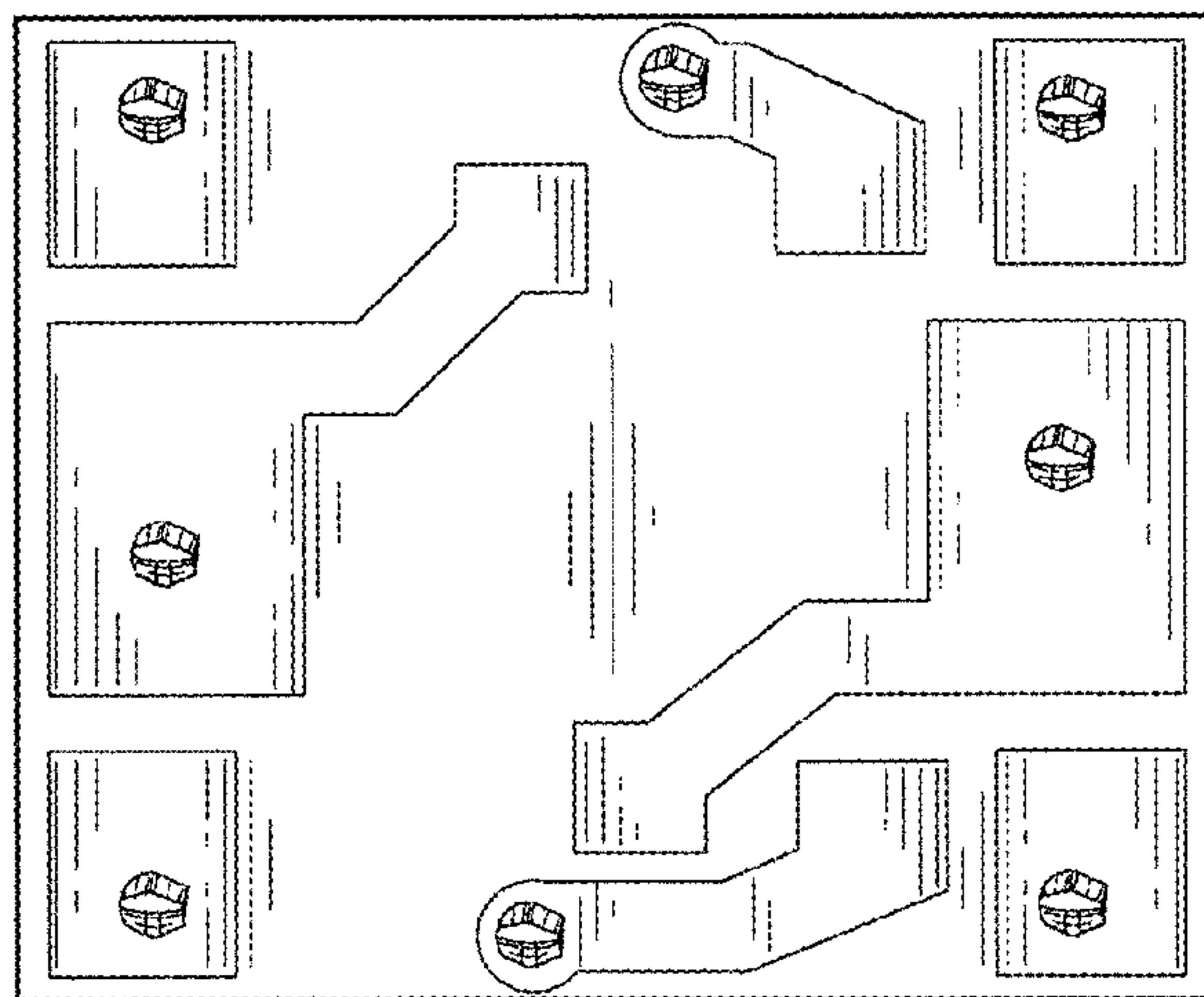


FIG. 8

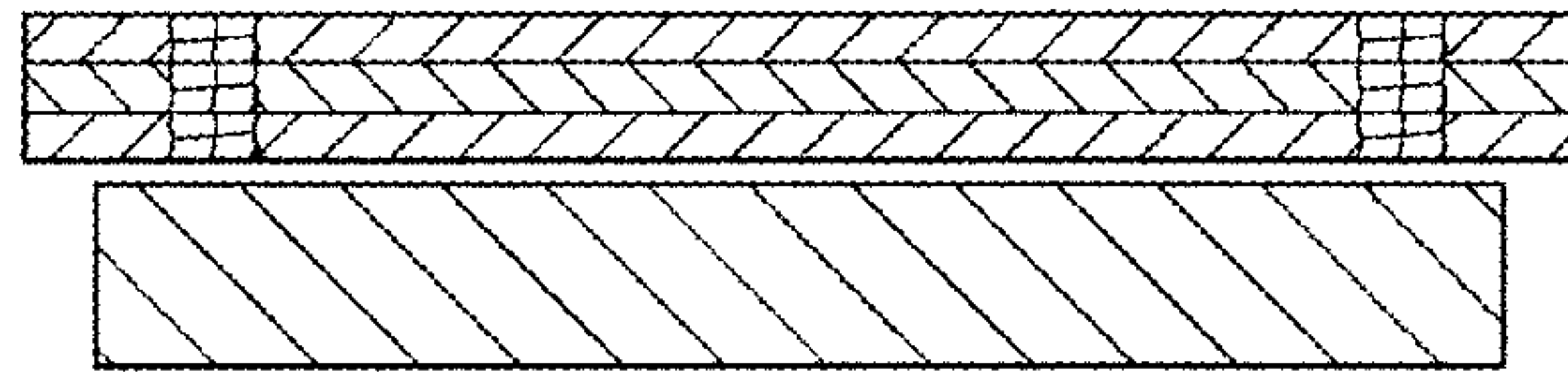


FIG. 9



FIG. 10



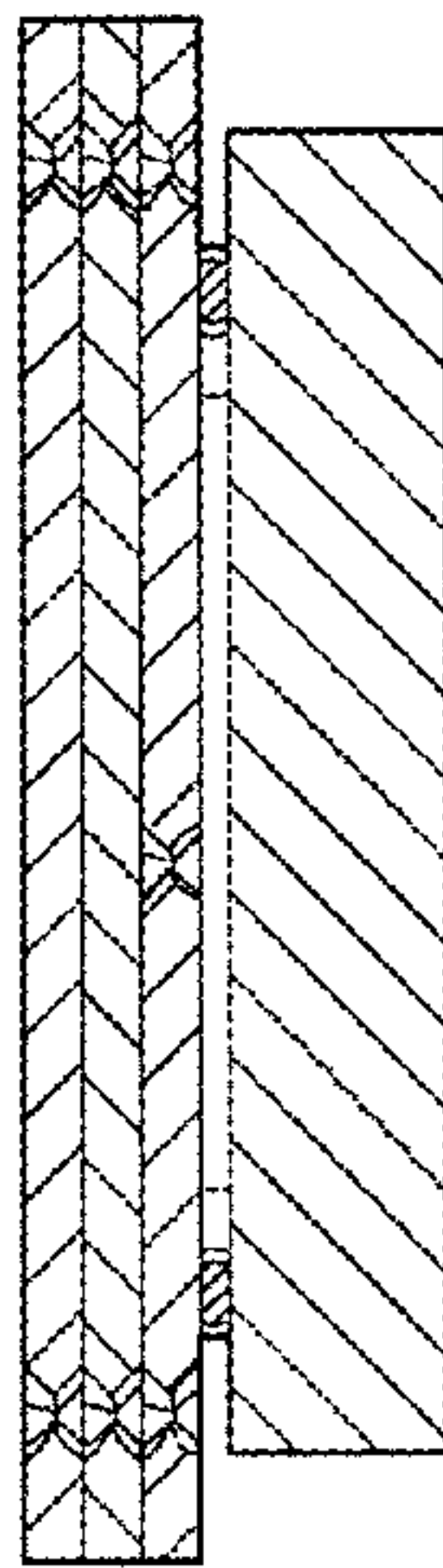


FIG. 11