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# United States Patent [19]

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Dowdle et al.

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[54] **APPARATUS AND METHOD FOR CUTTING MAT BOARD**

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[51] Int. Cl.<sup>5</sup> ..... **B23C 3/00; B27C 5/02**

[52] U.S. Cl. .... **409/132; 83/56; 83/100; 144/252 R; 409/137; 409/192; 409/202; 409/203**

[58] **Field of Search** ..... **409/189, 190, 191, 197, 409/132, 136, 137, 192, 202, 203, 205, 217, 232, 233; 83/100, 168, 56, 577; 144/252 R, 365; 408/56, 58, 61**

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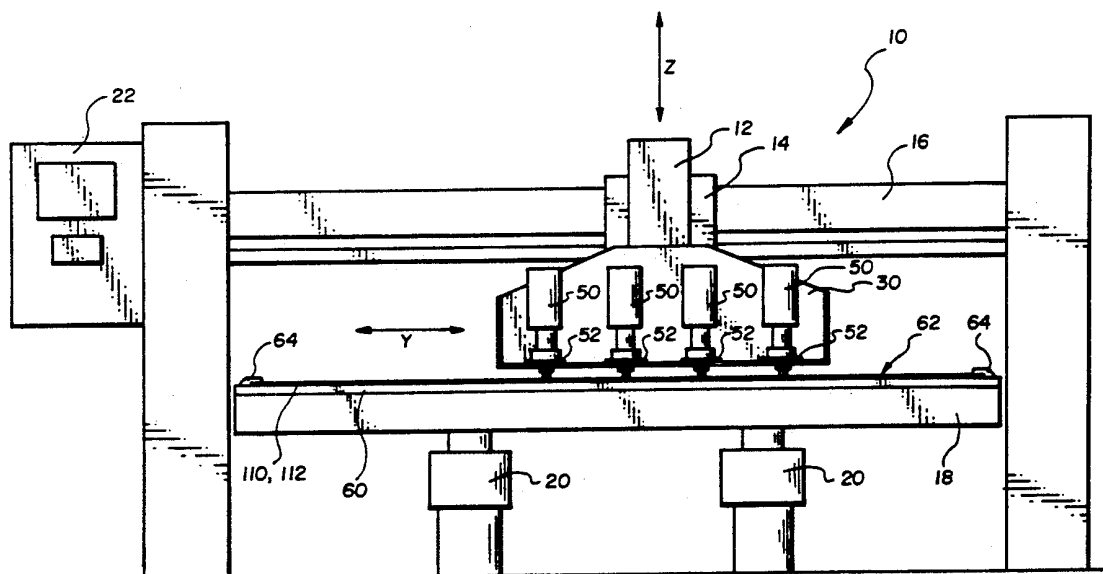
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### [57] ABSTRACT

The present invention relates to a method and apparatus for cutting mat board, and more specifically for cutting apertures including non-linear boundaries in mat board. The preferred embodiment of the apparatus of the present invention includes an automatically controlled rotating cutting tool, preferably with a V-bit for cutting apertures having bevelled boundaries according to a predetermined pattern. The preferred embodiment of the method of the present invention includes stacking first and second mat boards and cutting through said first board into said second, removing said first board into said second, removing said first board, and cutting the same aperture in the same location in said second mat board which has been stacked on a third, uncut mat board.

**24 Claims, 6 Drawing Sheets**



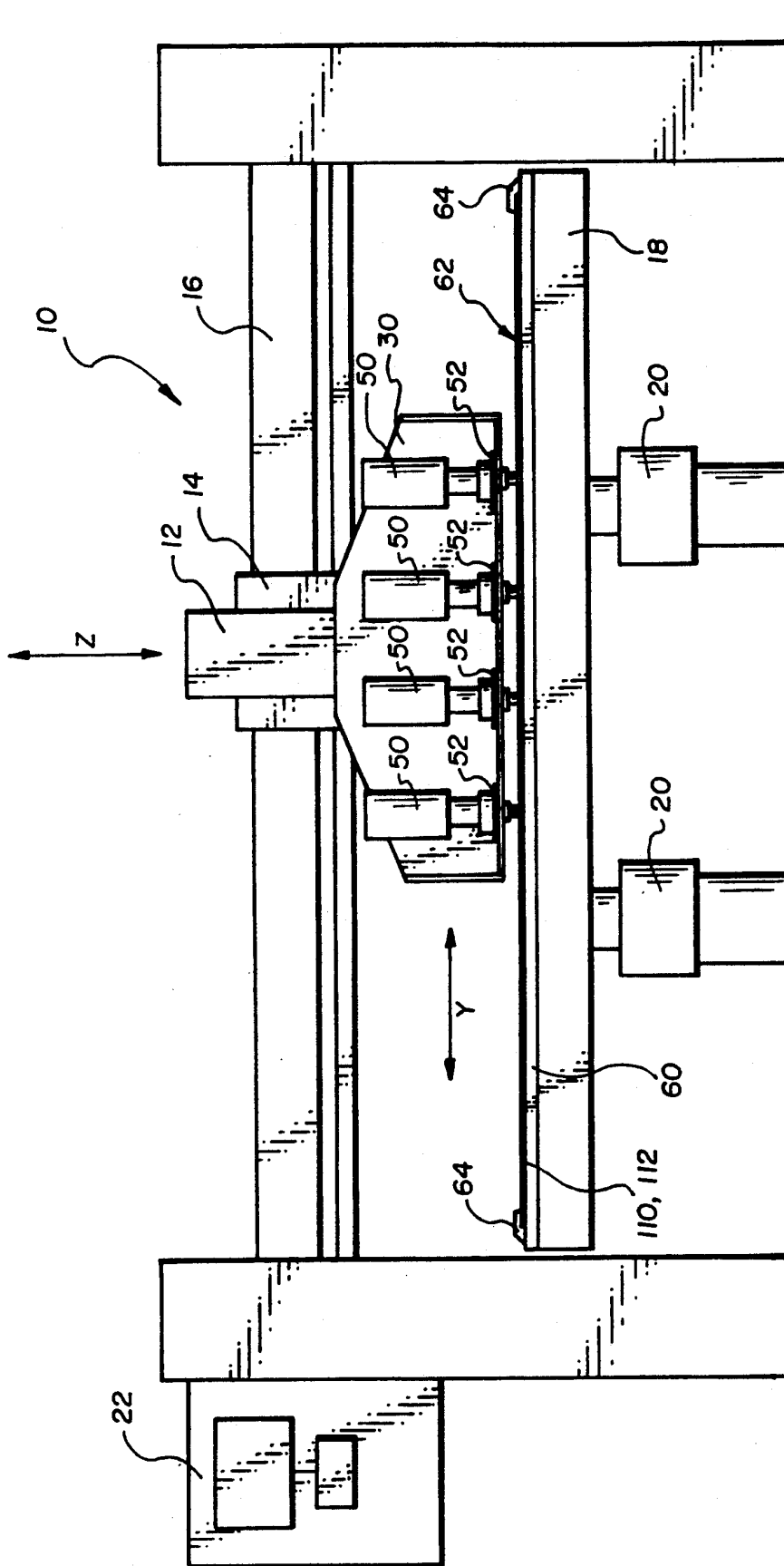


Fig. 1

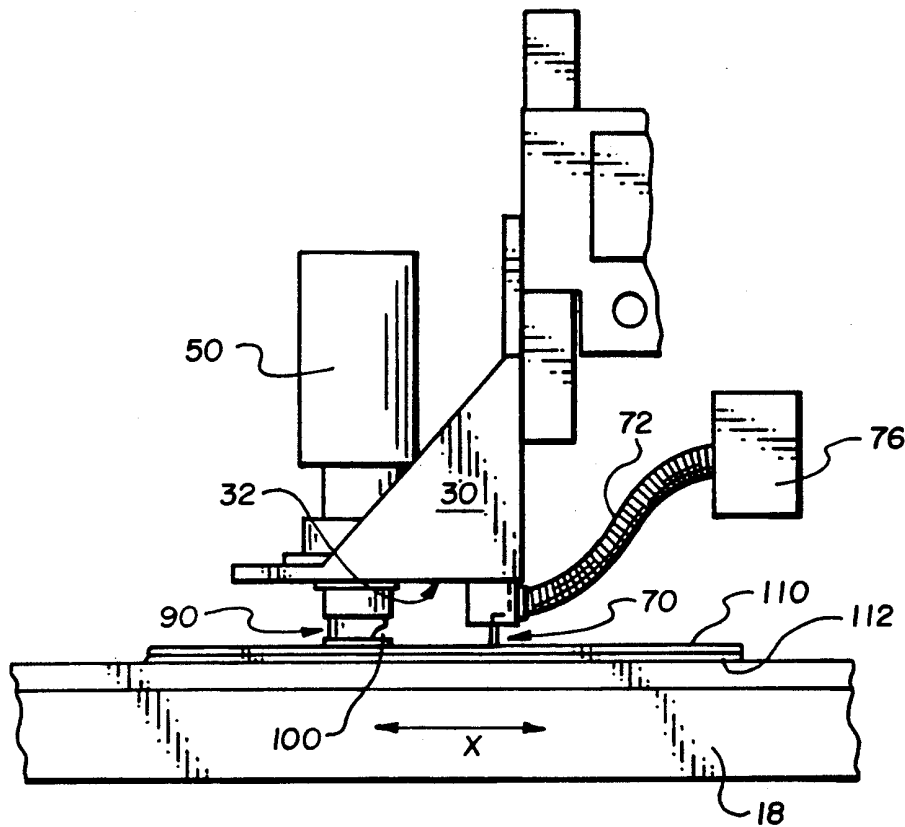


Fig. 2

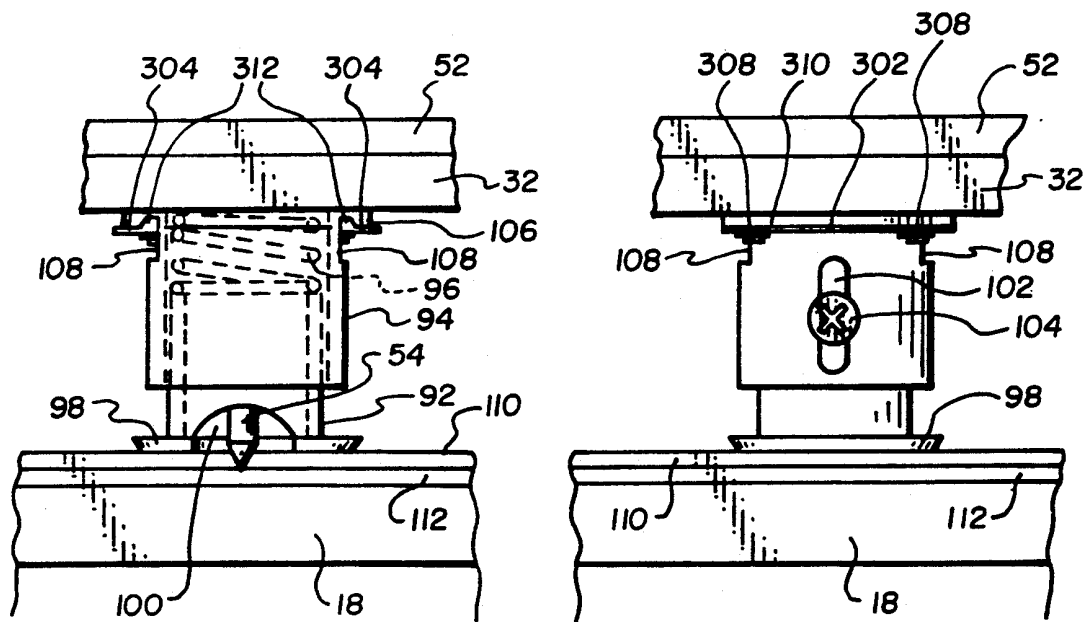


Fig. 3

Fig. 4

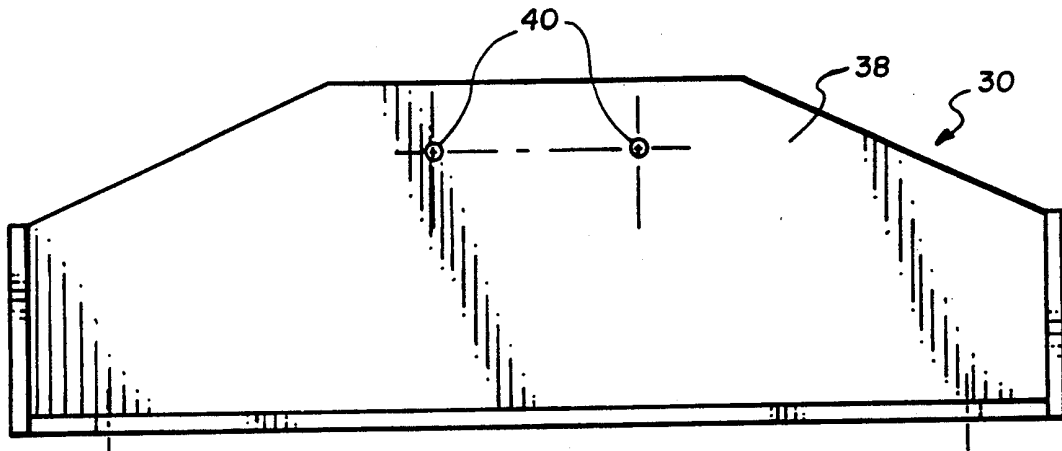


Fig. 5

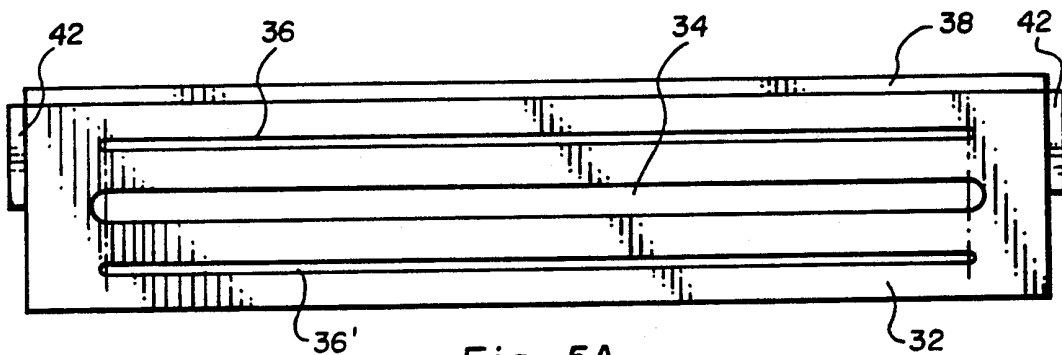


Fig. 5A

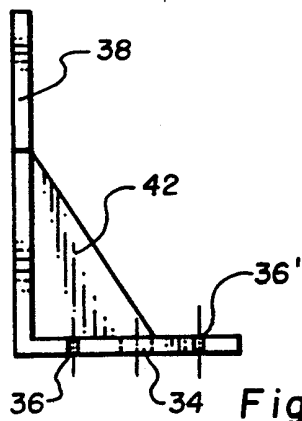


Fig. 5B

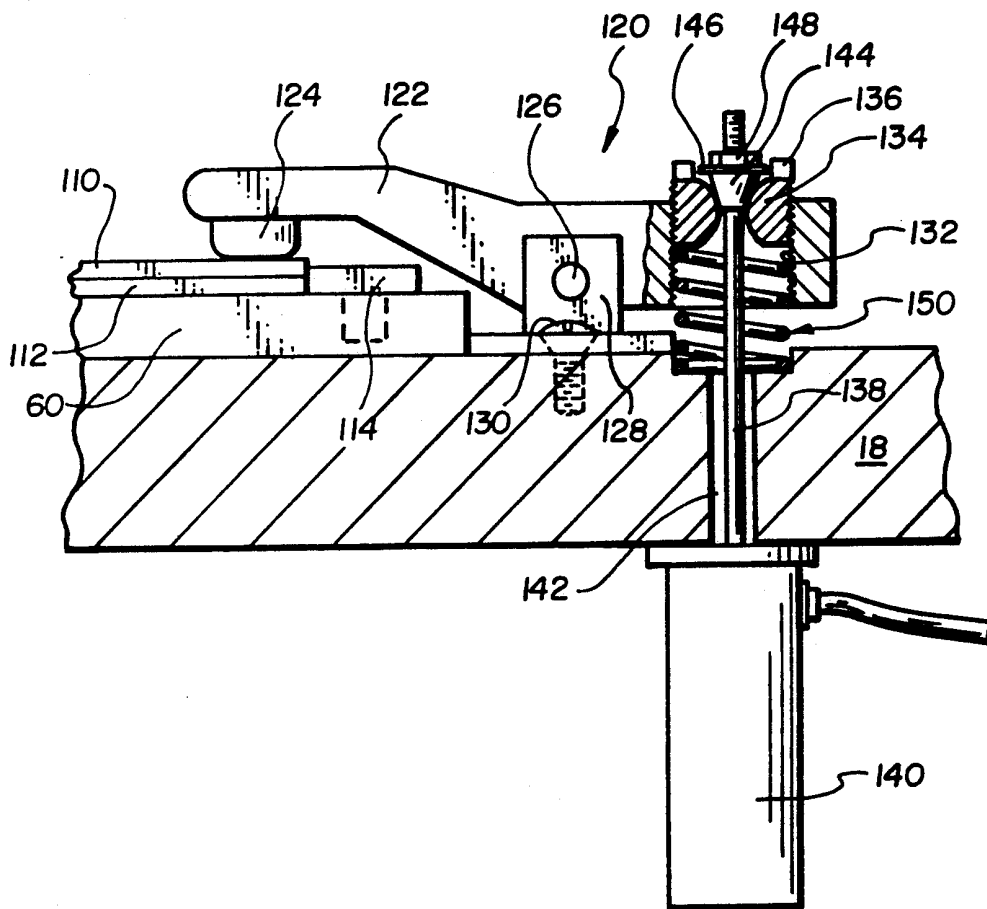


Fig. 6

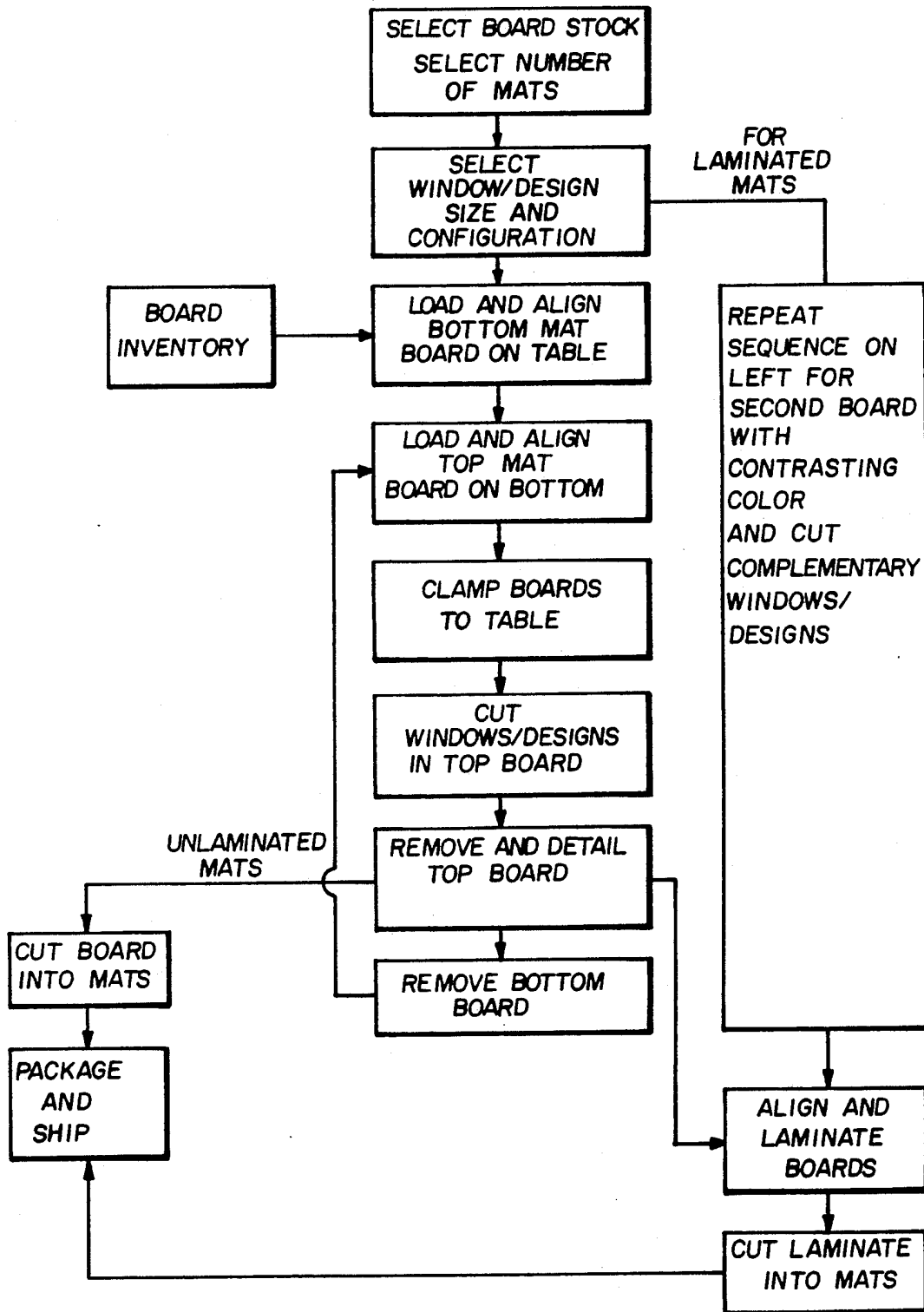


Fig. 7

