

# PATENT SPECIFICATION

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## (54) EDGE PROTECTED BOARD

(71) I, MAX MEIER, a citizen of the Federal Republic of Germany of Stecket-Strasse 16, D-7585 Lichtenau-Scherzheim, Federal Republic of Germany, do hereby  
5 declare the invention, for which I pray that a Patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

10 The invention edge protected wood or wooden material boards, the faces of which are provided with a layer of plastics material and which are intended for use in moist  
15 rooms fr out of doors, such as tops of camping and garden tables.

Such table tops are generally cut to measure from larger boards and the cut edges are provided with an edge protection. In known table tops of this construction  
20 the edge protection eventually fails to prevent moisture penetrating beneath it and into the cut surfaces of the board, the table top with then swell under the action of the moisture and become unsightly or even  
25 unusable.

The task underlying the invention is to provide an edge protection which provides a high standard of sealing against entry of  
30 moisture.

To this end the present invention provides a wooden or wooden material board, the faces of which are provided with a layer of plastics material, and the edges of which  
35 are provided with a thermoplastic material edge protection, which has been injection-moulded directly onto the edges in which the edge protection overlaps the layers on the faces of the board along peripheral strips of the layers.

In order to produce a pleasing appearance, the edge protection may have a flange, which projects approximately at right angle to the plane of the board. This flange makes it  
40 easier to handle the board, when the board  
45 is used as a table top and a folding frame

is attached to the table top, the flange defines a hollow space in hich the folded frame can be accommodated when in a collapsed state.

Weak lines can be defined in the edge  
50 protection in a manner such that, with contraction occurring during the hardening of the moulded edge protection, the union between the edge protection and table top  
55 is enhanced.

A device for making boards according to the invention comprises a two-part injection-moulding die which receives, for example, a table top and which comprises,  
60 in the area of the table top edges sealing strips which tightly rest against the faces of the table top and define the limits of entry of moulding material across those  
65 faces. These sealing strips are preferably made of polytetrafluoroethylene. The device solves the problem of edge sealing a table top, which is not truly flat, the flexible  
70 sealing strips withstanding both the injection pressure and the injection temperature. The elasticity of the polytetrafluoroethylene can compensate for any deviation from  
flatness in the table top surface.

Some constructional forms of the invention will be illustrated hereinafter with reference to the drawings, in which:— 75

Fig. 1 shows a top view of a complete table top equipped with the edge protection according to the invention;

Fig. 2 shows a partial section through the table top in the edge area thereof; 80

Fig. 3 shows a partial section, similar to that of Fig. 2, of a different constructional form;

Fig. 4 shows a broken partial section of a constructional form of an injection-moulding  
85 die; and

Fig. 5 shows a partial section, similar to that of Figures 2 and 3, through another constructional form of the table top.

The wooden table top 1 has layers 7 of 90

plastics material and an edge protection 2 injection moulded directly onto its edges. The edge protection 2 has beading-shaped parts 3, 4 which overlaps the layers 7 along peripheral strips of the layer. According to the constructional form shown in Fig. 3, the edge protection 2 comprises a downwardly projecting web or flange 5 which projects approximately at right angles to the plane of the table.

In the constructional form shown in Fig. 2, the table top is made of grown wood, while the table top 6 shown in Fig. 3 is made of pressboard.

In Fig. 4, there is shown an injection-moulding die for the production of a table top as shown in Figures 1 and 2. The injection-moulding die 10 is designed in two parts and comprises a top part 12 and a bottom part 31 on each side of the partition plane 11. Between the top and bottom parts 12 and 13 there is located the peripheral areas of a table top 14, so that there is formed between this latter and the top and bottom parts 12, 13 a moulding cavity 15 into which an injection channel 16. Flexible sealing strips 17 rest tightly against the faces of the table 14. The injection nozzle 18 of a conventional injection-moulding machine engages in the injection channel 16.

The application of a sufficiently high pressure and an appropriate temperature ensure that low-viscosity thermoplastics material reaches to the peripheral region of the table top, causing all the pores to be completely filled and to be reliably sealed against the penetration of any moisture. Furthermore, the beading parts overlapping the table top edges are integrally joined to the table top surface and the thermoplastics material which has penetrated into the edge zone of the table top.

In figure 5, the edge region of the table top 1 is shown in cross section and on a larger scale. The edge 8 of the table top 1 is provided with an edge protection 2, such as has been described with reference to Fig. 2.

In the area of the beading parts 3, 4 the edge protection 2 comprises an accumula-

tion, (beads 19,20) and at the area of the peripheries 21, 22 of the table top 1 weak lines 23, 24. This design of the edge protection 2 brings about an enhanced sealing effect in that, with contraction of the thermoplastics material on cooling, the parts 3, 4 come to rest tightly against the top and bottom faces 7 of the table top 1.

The thermoplastic material of the edge protection 2 selected may be such that it enters into combination with the plastics material layer 7, in that these are glued or merged together.

The invention can be applied not only to table tops of any kind but also to other boards comprising open-pored front faces, such as cover plates for refrigerators, washing machines or the like.

#### WHAT I CLAIM IS:—

1. A wooden or wooden material board, the faces of which are provided with a layer of plastics material and the edges of which are provided with a thermoplastic material edge protection, which has been injection-moulded directly onto the edges in which the edge protection overlaps the layers on the faces of the board along peripheral strips of the layers.

2. A board as claimed in Claim 1 in which the edge protection has a flange which projects approximately at right angles to the plane of the board.

3. A board as claimed in Claim 1 or 2 in which the strips that overlap are shaped as beading.

4. A board as claimed in any preceding claim in which the strips of the edge protection unite with the remainder of the edge protection at narrowed regions causing the formation of weak lines in the edge protection.

5. A board as claimed in Claim 1 substantially as hereinbefore described with reference to Figs. 1 to 3 or in Fig. 5 of the accompanying drawings.

Agents for the Applicants,  
SYDNEY E. McCRAW & CO.,  
Chartered Patent Agents,  
Saxone House,  
52-56 Market Street,  
Manchester M1 1PP.

FIG. 1

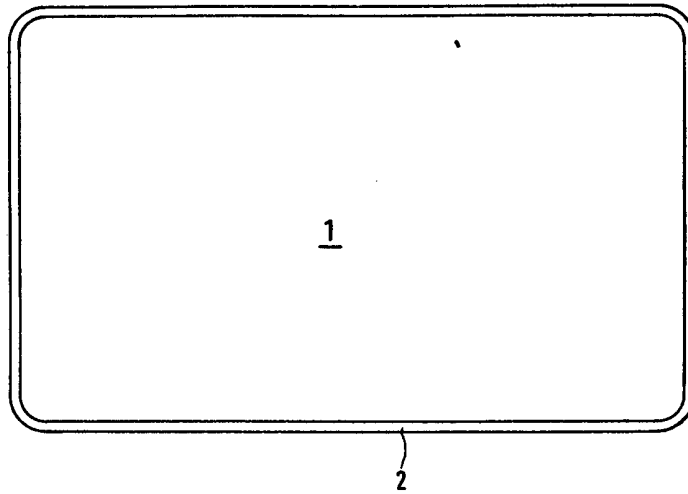


FIG. 2

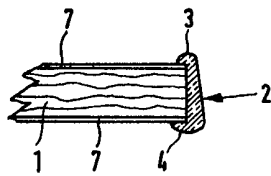
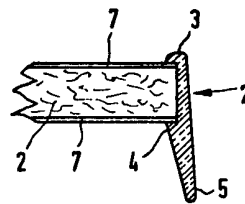
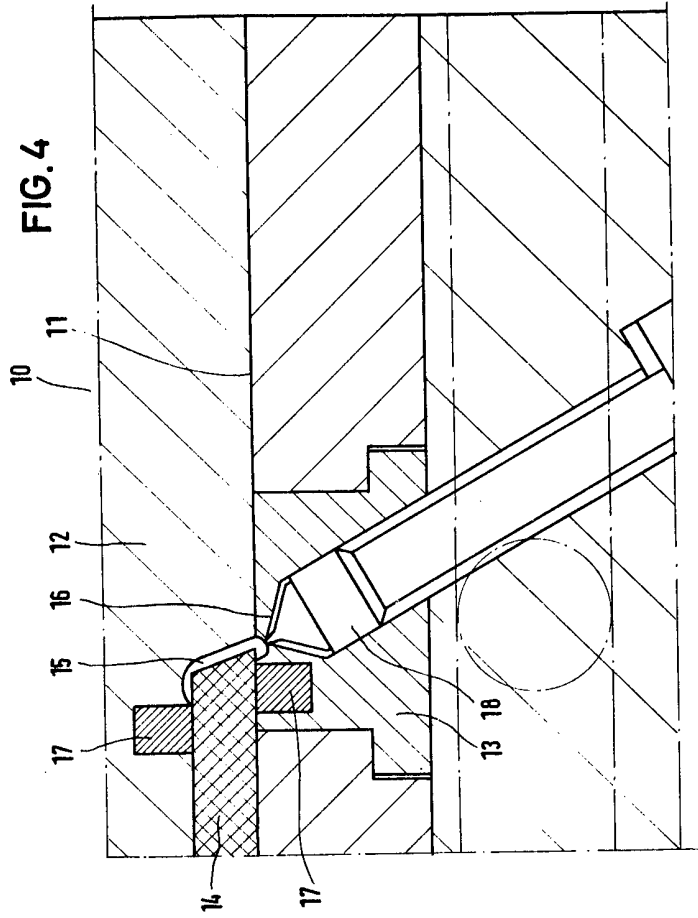


FIG. 3





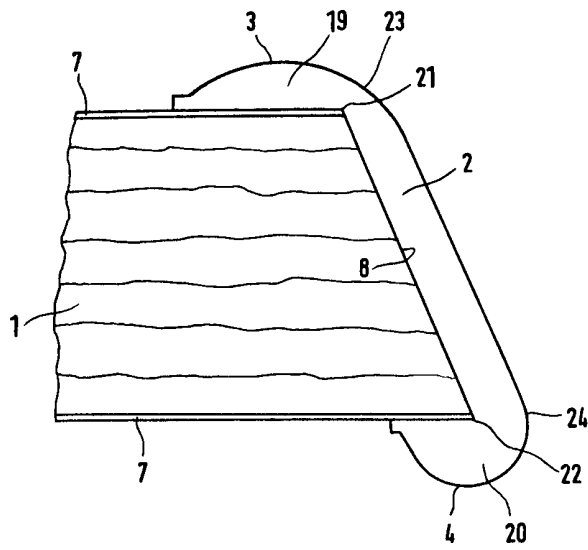


FIG. 5