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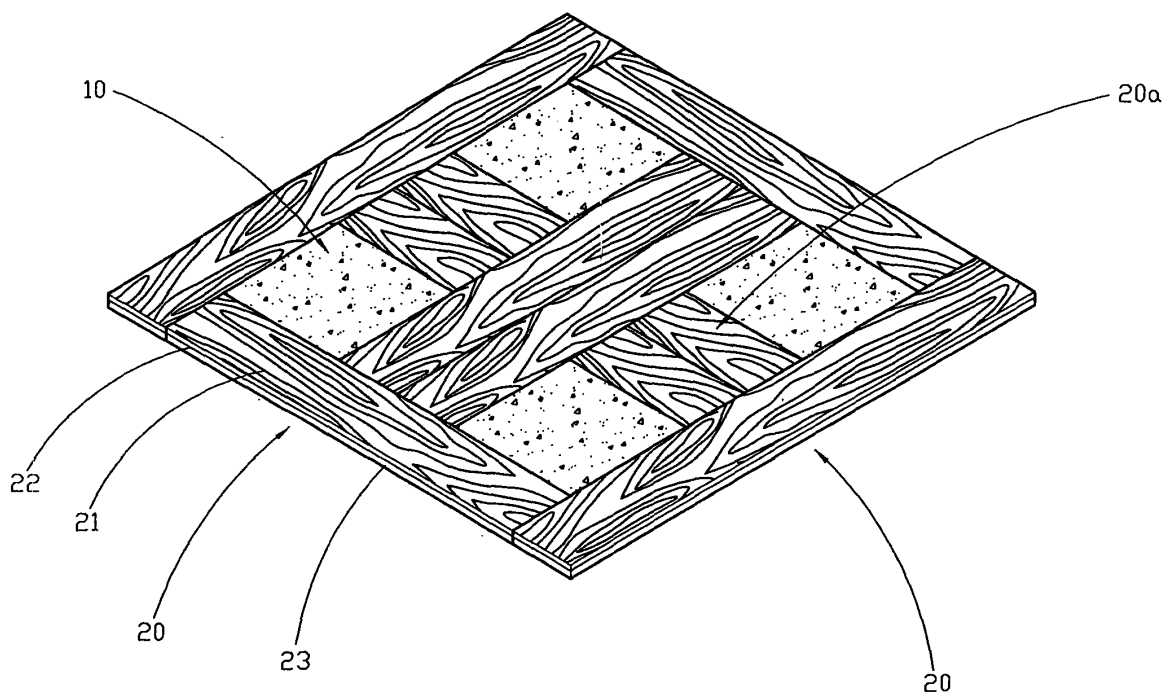
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(54) **Floor structure**

(57) A floor structure includes a plurality of stone boards (10) combined with a plurality of wooden boards (20). Thus, the floor structure combines and contains features of the stone boards and the wooden boards, thereby enhancing the versatility of the floor structure. In addition,

the stone boards and the wooden boards are combined to form different kinds of arrangements, so that the floor structure have various arrangements which can be changed and varied, thereby enhancing the aesthetic quality of the floor structure.



**FIG. 9**

## Description

**[0001]** The present invention relates to a floor and, more particularly, to a floor structure available for a house, building and the like.

**[0002]** A floor usually comprises a floor board placed on the ground of a house, building and the like, so as to provide a comfortable sensation to a person when treading the floor. The conventional floor board is usually made of stone or wood material. However, the conventional floor board only has a single type and lacks variation of colors and patterns, thereby limiting the outer appearance of the floor.

**[0003]** The primary objective of the present invention is to provide a floor structure having variable arrangements.

**[0004]** In accordance with the present invention, there is provided a floor structure, comprising at least one stone board, and at least one wooden board combined with the at least one stone board. The stone board includes a base layer and a stone layer combined with the base layer. The wooden board includes a base layer and a wooden layer combined with the base layer.

**[0005]** Another objective of the present invention is to provide a floor structure, wherein the floor structure comprises a plurality of stone boards combined with a plurality of wooden boards so that the floor structure wooden boards, thereby enhancing the versatility of the floor structure.

**[0006]** A further objective of the present invention is to provide a floor structure, wherein the stone boards and the wooden boards are combined to form different kinds of arrangements, so that the floor structure have various arrangements which can be changed and varied diversely, thereby enhancing the aesthetic quality of the floor structure.

**[0007]** Further benefits and advantages of the present invention will become apparent after a careful reading of the detailed description with appropriate reference to the accompanying drawings.

**[0008]** In the drawings:

Fig. 1 is a perspective view of a stone board of a floor structure in accordance with the preferred embodiment of the present invention.

Fig. 2 is an exploded perspective view of the stone board of the floor structure as shown in Fig. 1.

Fig. 3 is a front cross-sectional view of the stone board of the floor structure as shown in Fig. 1.

Fig. 4 is a perspective view of a wooden board of the floor structure in accordance with the preferred embodiment of the present invention.

Fig. 5 is an exploded perspective view of the wooden board of the floor structure as shown in Fig. 4.

Fig. 6 is a perspective view of a wooden board of the floor structure in accordance with another preferred embodiment of the present invention.

Fig. 7 is an exploded perspective view of the wooden

board of the floor structure as shown in Fig. 6.

Fig. 8 is a front cross-sectional view of the wooden board of the floor structure as shown in Fig. 6.

Fig. 9 is a perspective view of the floor structure in accordance with the preferred embodiment of the present invention.

Fig. 10 is an exploded perspective view of the floor structure as shown in Fig. 9.

Fig. 11 is a perspective view of the floor structure in accordance with another preferred embodiment of the present invention.

Fig. 12 is a perspective view of the floor structure in accordance with another preferred embodiment of the present invention.

Fig. 13 is a perspective view of the floor structure in accordance with another preferred embodiment of the present invention.

**[0009]** Referring to the drawings and initially to Figs. 1-3, a floor structure in accordance with the preferred embodiment of the present invention comprises at least one stone board 10 including a base layer 13 and a stone layer 11 combined with the base layer 13.

**[0010]** The stone layer 11 of the stone board 10 is made of marble or granite. The base layer 13 of the stone board 10 is made of plastics or rubber. The base layer 13 of the stone board 10 has a first surface combined with a surface of the stone layer 11 of the stone board 10 by a binding agent 12 so that the binding agent 12 of the stone board 10 is sandwiched between the stone layer 11 and the base layer 13 of the stone board 10. Preferably, the binding agent 12 of the stone board 10 is a resin. The base layer 13 of the stone board 10 has a second surface provided with a bonding agent 14 so that the base layer 13 of the stone board 10 is sandwiched between the binding agent 12 and the bonding agent 14 of the stone board 10. Preferably, the bonding agent 14 of the stone board 10 is an adhesive.

**[0011]** Referring to Figs. 4 and 5, the floor structure in accordance with the preferred embodiment of the present invention further comprises at least one wooden board 20 including a base layer 23 and a wooden layer 21 combined with the base layer 23.

**[0012]** The wooden layer 21 of the wooden board 20 is made of wood. The base layer 23 of the wooden board 20 is made of plastics or rubber. The base layer 23 of the wooden board 20 has a first surface combined with a surface of the wooden layer 21 of the wooden board 20 by a binding agent 22 so that the binding agent 22 of the wooden board 20 is sandwiched between the wooden layer 21 and the base layer 23 of the wooden board 20. Preferably, the binding agent 22 of the wooden board 20 is a resin. The base layer 23 of the wooden board 20 has a second surface provided with a bonding agent 24 so that the base layer 23 of the wooden board 20 is sandwiched between the binding agent 22 and the bonding agent 24 of the wooden board 20. Preferably, the bonding agent 24 of the wooden board 20 is an adhesive.

**[0013]** Referring to Figs. 6-8, the wooden board 20a has a length smaller than that of the wooden board 20.

**[0014]** Referring to Figs. 9 and 10, the floor structure in accordance with the preferred embodiment of the present invention comprises a plurality of stone boards 10 and a plurality of wooden boards 20 (or 20a) combined together with the stone boards 10. Preferably, the stone boards 10 are surrounded by the wooden boards 20. Thus, the stone boards 10 are combined with the wooden boards 20 to construct the floor structure which is placed on the ground.

**[0015]** Referring to Fig. 11, the floor structure in accordance with another preferred embodiment of the present invention comprises a plurality of stone boards 10 and a plurality of wooden boards 20 (or 20a) combined together with the stone boards 10. Preferably, the stone boards 10 are surrounded by the wooden boards 20. In addition, the wooden boards 20 (or 20a) and the stone boards 10 are arranged in a staggered manner.

**[0016]** Referring to Fig. 12, the floor structure in accordance with another preferred embodiment of the present invention comprises a plurality of stone boards 10 and a plurality of wooden boards 20 combined together with the stone boards 10. Preferably, the stone boards 10 are located at four corners of the floor structure. In addition, the wooden boards 20 have different colors and patterns.

**[0017]** Referring to Fig. 13, the floor structure in accordance with another preferred embodiment of the present invention comprises a stone board 10 and a plurality of wooden boards 20 (or 20a) combined together with the stone board 10. Preferably, the stone board 10 is surrounded by and located at a center of the wooden boards 20 (or 20a). In addition, the wooden boards 20 have different colors and patterns.

**[0018]** Accordingly, the floor structure comprises a plurality of stone boards 10 combined with a plurality of wooden boards 20 so that the floor structure combines and contains features of the stone boards 10 and the wooden boards 20, thereby enhancing the versatility of the floor structure. In addition, the stone boards 10 and the wooden boards 20 are combined to form different kinds of arrangements, so that the floor structure have various arrangements which can be changed and varied diversely, thereby enhancing the aesthetic quality of the floor structure. Further, the wooden boards 20 have different colors and patterns, thereby enhancing the outstanding appearance of the floor structure.

**[0019]** Although the invention has been explained in relation to its preferred embodiment(s) as mentioned above, it is to be understood that many other possible modifications and variations can be made without departing from the scope of the present invention. It is, therefore, contemplated that the appended claim or claims will cover such modifications and variations that fall within the true scope of the invention.

## Claims

1. A floor structure, comprising:

5 at least one stone board (10);  
at least one wooden board (20) combined with  
at least one stone board.

2. The floor structure in accordance with claim 1,  
10 wherein the stone board includes:

a base layer (13),  
a stone layer (11), combined with the base layer.

3. The floor structure in accordance with claim 2,  
15 wherein the base layer (13) of the stone board (10)  
has a first surface combined with a surface of the  
stone layer (11) of the stone board (10) by a binding  
agent (12).

4. The floor structure in accordance with claim 3,  
20 wherein the base layer (13) of the stone board (10)  
has a second surface provided with a bonding agent  
(14).

5. The floor structure in accordance with claim 1,  
25 wherein the wooden board includes:

a base layer (23),  
30 a wooden layer (21) combined with the base layer.

6. The floor structure in accordance with claim 5,  
35 wherein the base layer (23) of the wooden board (20)  
has a first surface combined with a surface of the  
wooden layer (21) of the wooden board (20) by a  
binding agent (22).

7. The floor structure in accordance with claim 6,  
40 wherein the base layer (23) of the wooden board (20)  
has a second surface provided with a bonding agent  
(24).

8. The floor structure in accordance with claim 1,  
45 wherein the wooden board (20) has different colors  
and patterns.

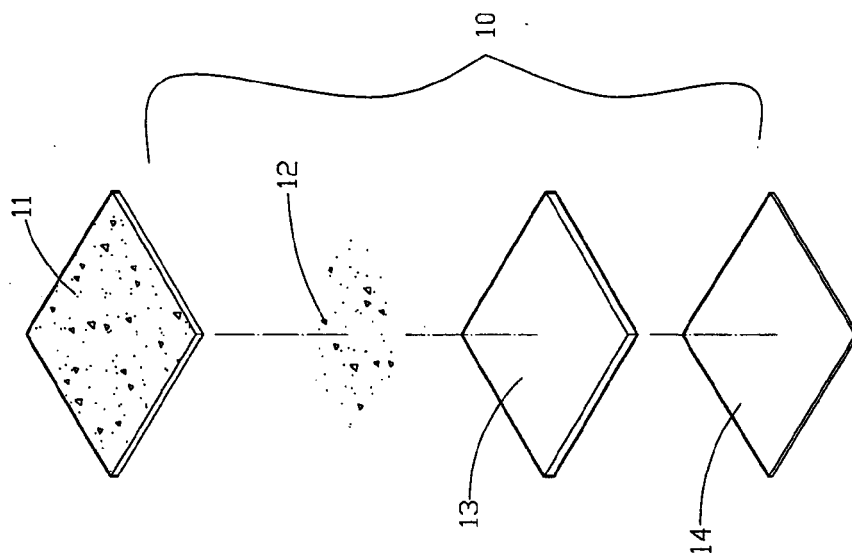


FIG. 2

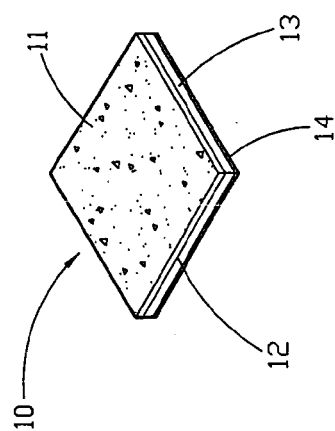


FIG. 1

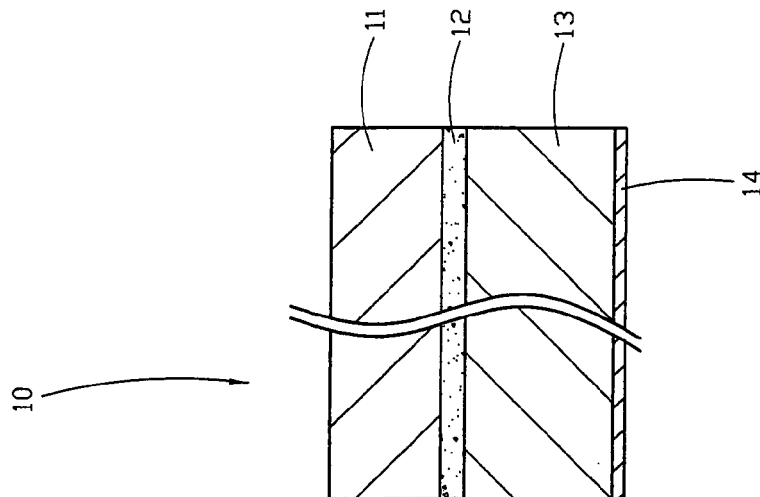


FIG. 3

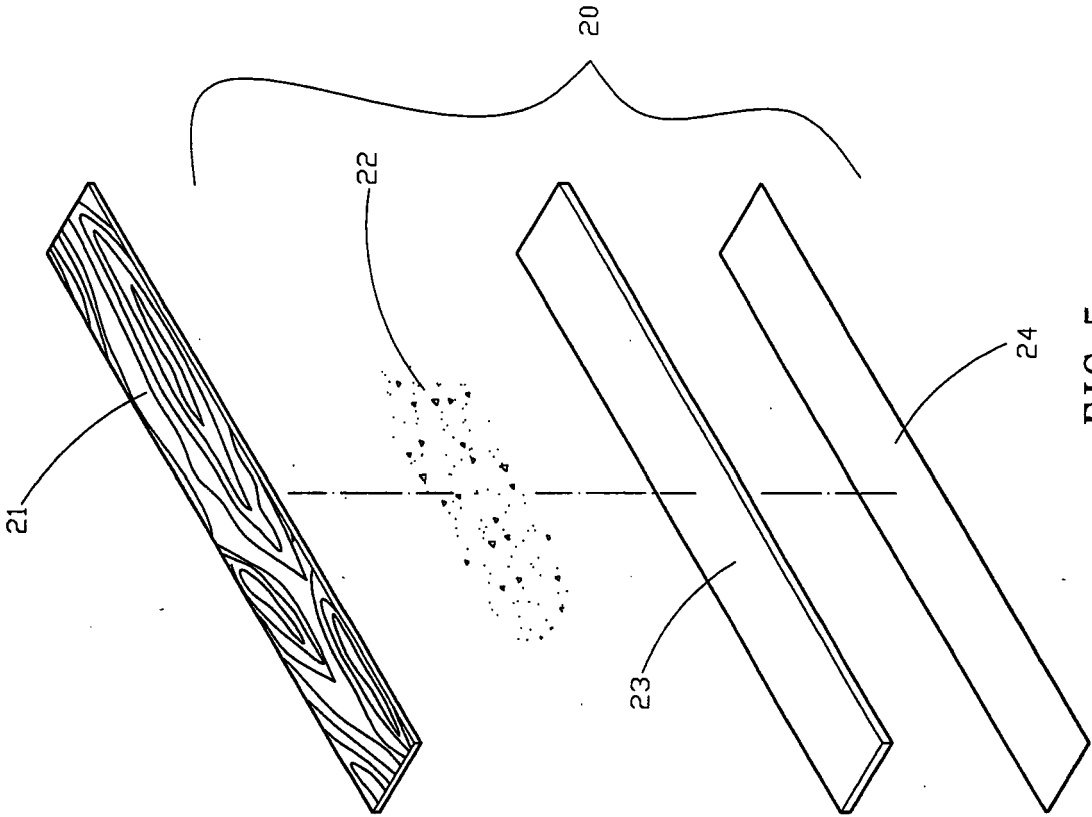


FIG. 5

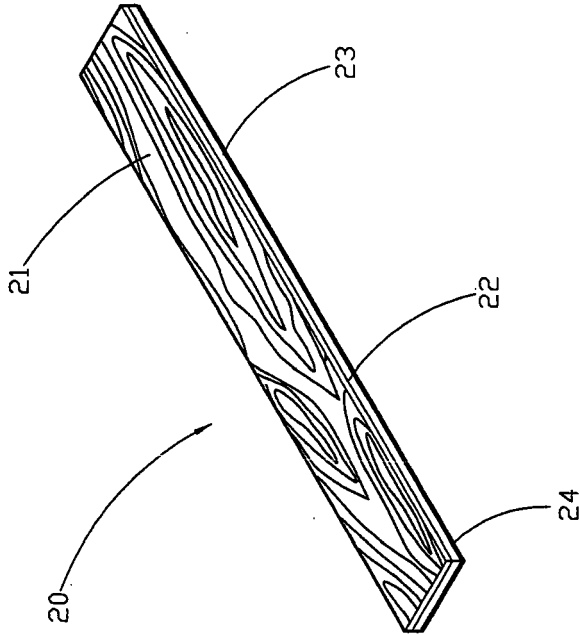


FIG. 4

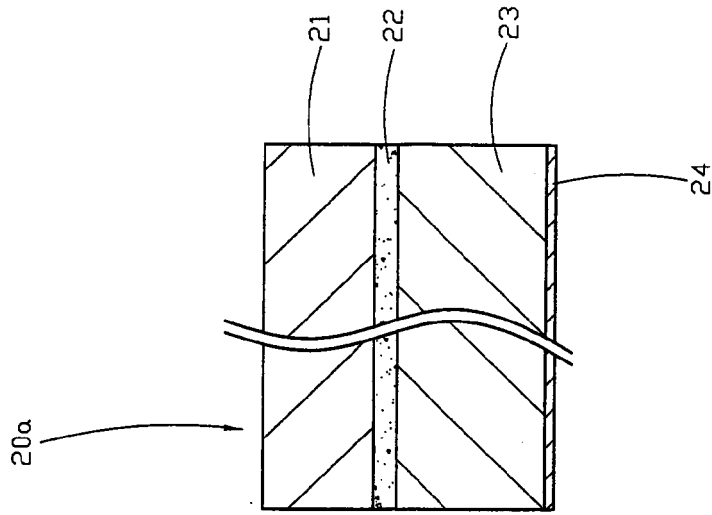


FIG. 8

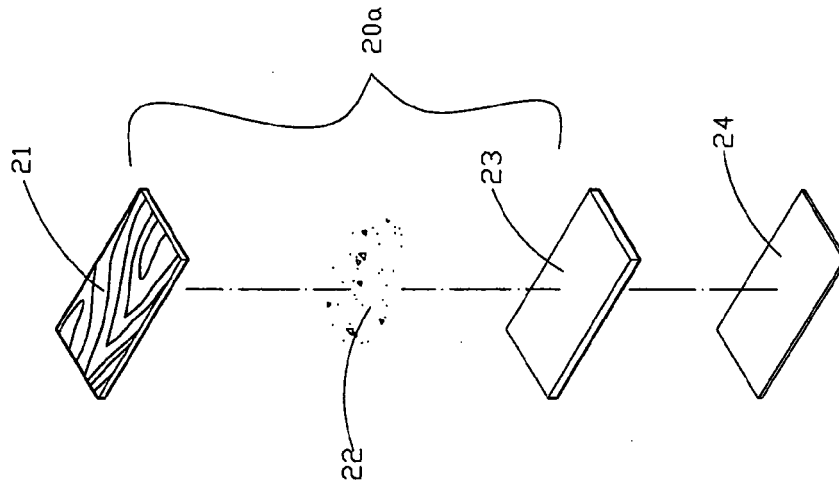


FIG. 7

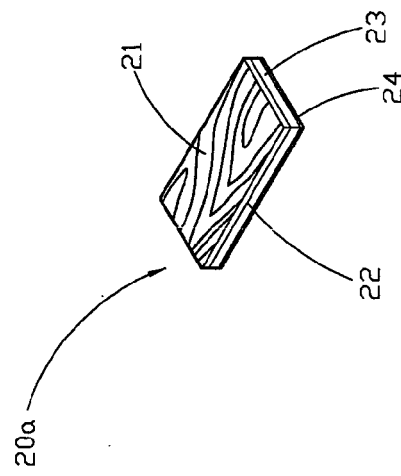


FIG. 6

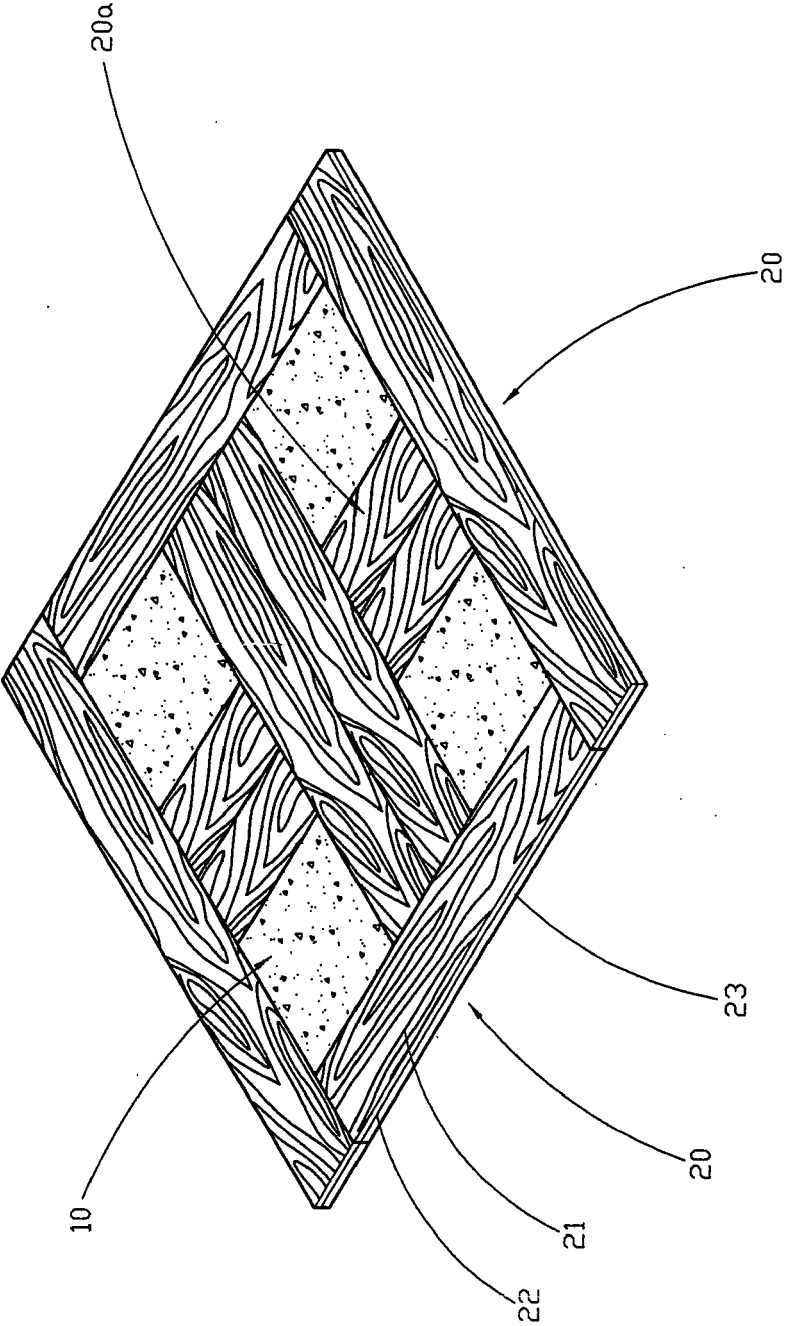


FIG. 9

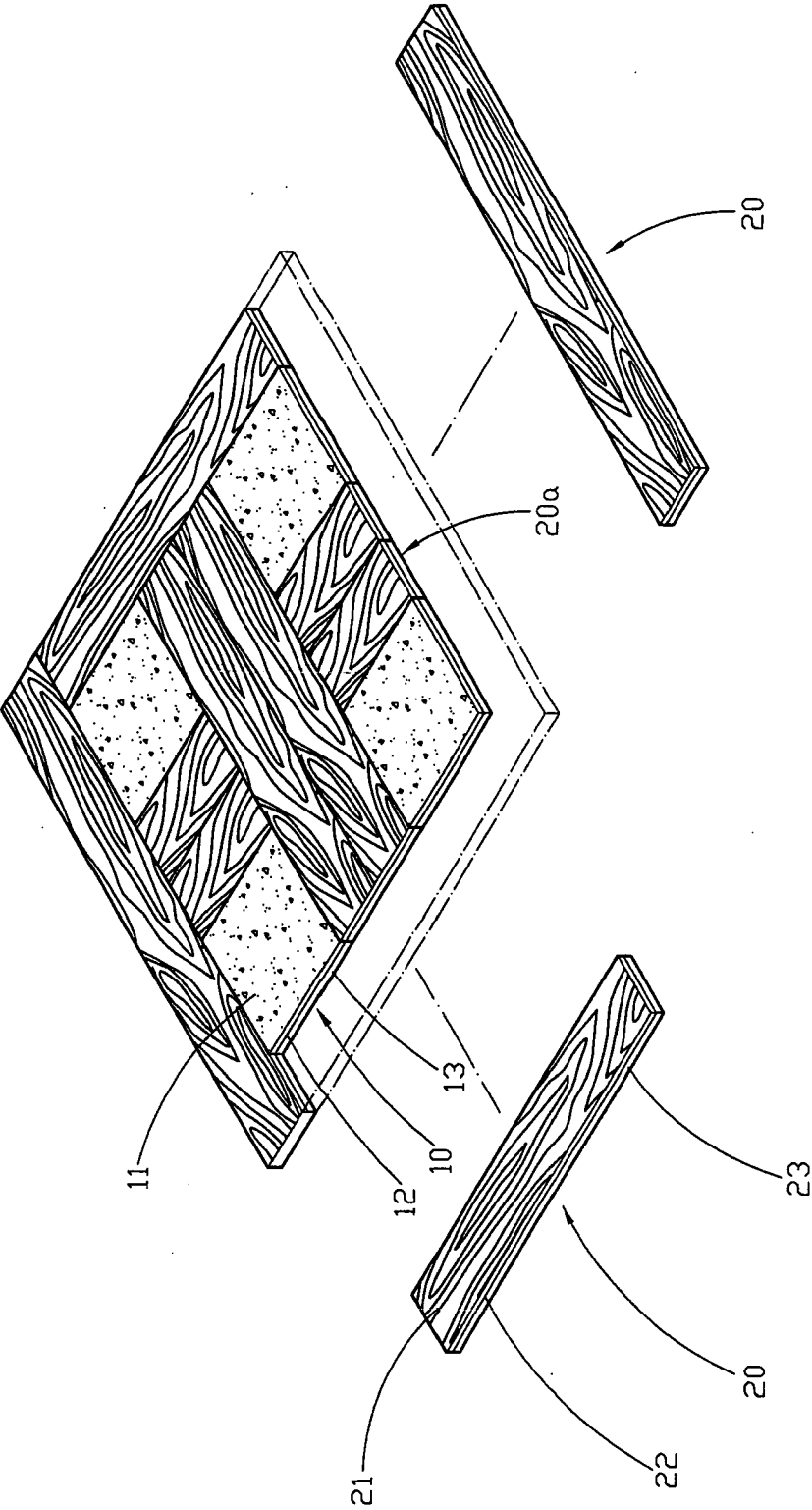


FIG. 10

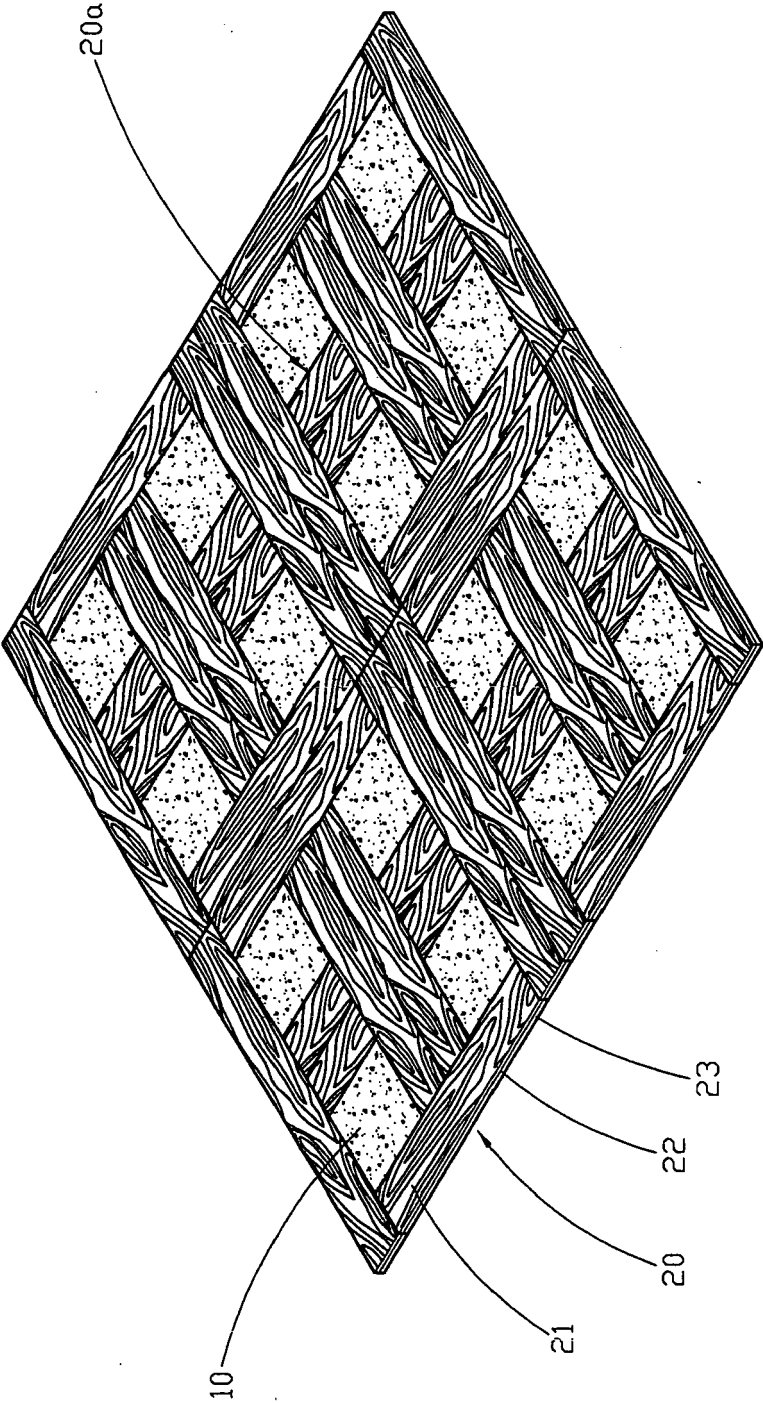


FIG. 11

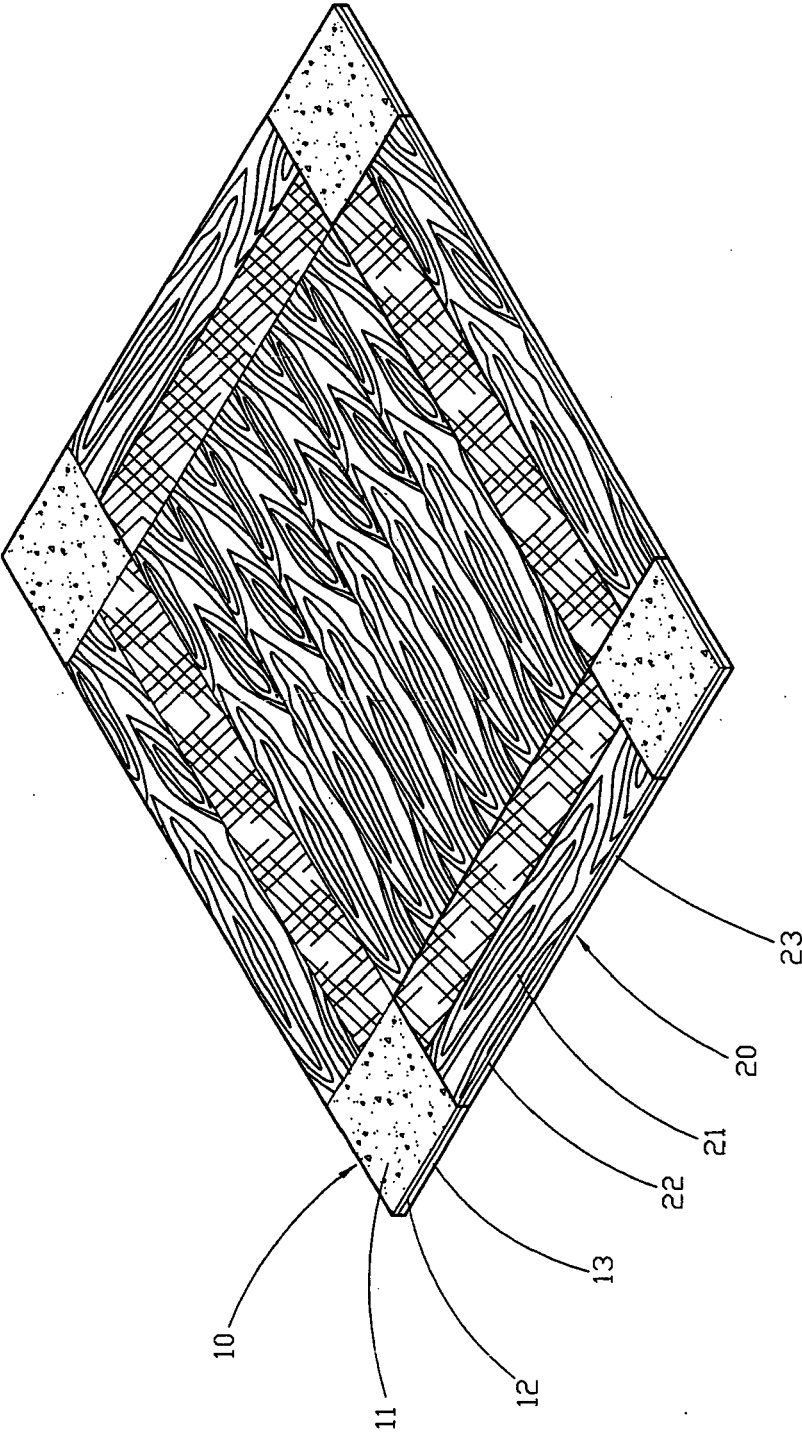


FIG. 12

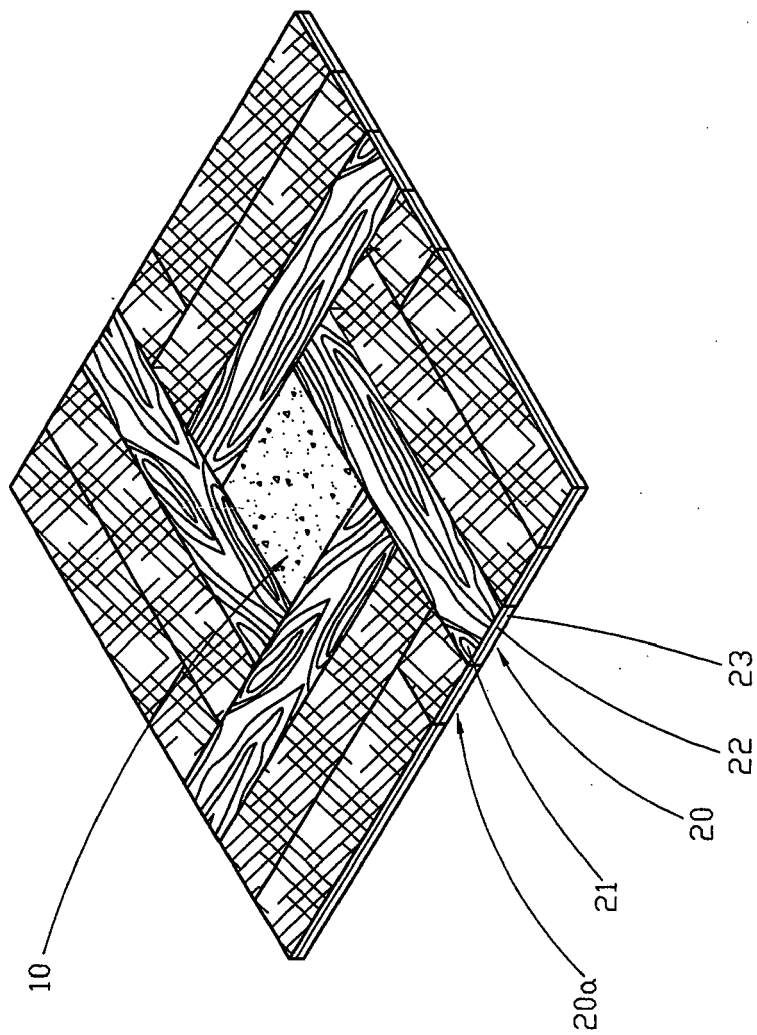


FIG. 13



European Patent  
Office

# EUROPEAN SEARCH REPORT

Application Number  
EP 08 00 6132

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 24 June 2008	Examiner Bouyssy, Vincent
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons &amp; : member of the same patent family, corresponding document</p>			

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
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EP 08 00 6132

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
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24-06-2008

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