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(54) Composite panel particularly for partitions, claddings for walls, doors and windows or the like

(57) A composite panel (10) particularly usable for partitions, claddings of walls, doors and windows or the like, the panel comprising a plurality of quadrangular tiles (11), each whereof has, along its entire perimetric rim (12), a milled region (13) for the insertion, on each side, of a complementarily shaped portion of an element (14;22) for connection to an adjacent tile (11) or to a portion of a supporting frame.

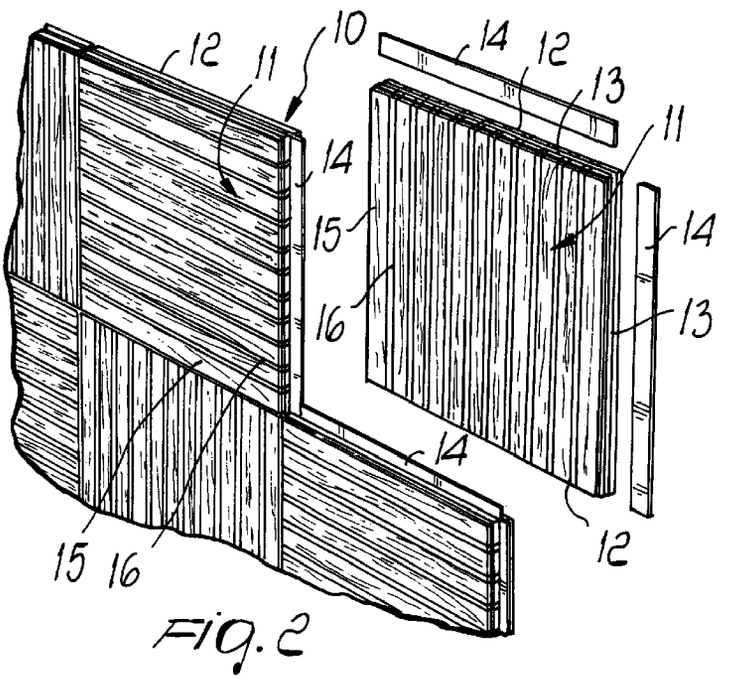


Fig. 2

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Description

The present invention relates to a composite panel particularly for partitions, claddings for walls, doors and windows or the like.

It is known that in recent years in particular, the field of interior decoration has developed towards optimizing or in any case changing the utilization of interior spaces of homes, offices, commercial spaces and the like.

The market of panel-based partitioning structures has developed particularly in this regard.

These structures are made of the most disparate opaque or transparent materials or of a combination of both, according to the requirements of the user in relation to the lighting of the spaces or to purely aesthetic concerns.

The structures are provided substantially to size and are installed and adapted on site.

Operating flexibility is substantially minimal, to the point that after assembly there is practically no possibility to vary or recombine the divided regions, unless time-consuming disassembly and reinstallation operations are performed by virtue of complicated adaptations which must in any case be performed by specialized personnel.

The aim of the present invention is to provide a panel for partitions or claddings of walls, doors and windows or the like which is composed of a plurality of basic elements which can be assembled easily and quickly also by non-specialized personnel.

Within the scope of this aim, an object of the present invention is to provide a composite panel which can he just as easily and quickly disassembled and recomposed in a configuration which is different from the original one.

Another important object of the present invention is to provide a composite panel which, if composed of basic elements having a surface finish, allows the user to vary the arrangement of the various basic elements and therefore vary the aesthetic configuration of the assembly.

Another important object of the present invention is to provide a panel which can be manufactured with commonly used equipment and systems.

This aim, these objects and others which will become apparent hereinafter are achieved by a composite panel particularly for partitions, claddings of walls, doors and windows or the like, characterized in that it comprises a plurality of quadrangular tiles, each whereof has, along its entire perimetric rim, a milled region for the insertion, on each side, of a complementarily shaped portion of an element for connection to an adjacent tile or to a portion of a supporting frame.

Further characteristics and advantages of the composite panel according to the present invention will become apparent from the following detailed description of an embodiment thereof, illustrated only by way of non-limitative example in the accompanying drawings, wherein:

figure 1 is a perspective view of a panel according to the invention, with a configuration suitable for a corner;

figure 2 is an enlarged-scale perspective view of a detail of a part of the panel of figure 1, with an element shown in exploded view;

figure 3 is a sectional view of the elements that compose the panel of figure 1;

figure 4 is a sectional view of the region for joining four parts of a panel arranged in a cross-like configuration;

figure 5 is a sectional view of the basic elements of a second embodiment of the panel according to the present invention.

With reference to figures 1 to 4, a composite panel particularly for partitions, claddings of walls, doors and windows or the like is generally designated by the reference numeral 10 and comprises a plurality of quadrangular tiles 11, particularly having a square contour, each whereof has, along its entire perimetric rim 12, a milled region 13 which constitutes the groove of a tongue-and-groove interlock coupling, in which the tongue is constituted in this case by a strip 14 whose length is substantially equal to one side of the tile 11 and can be interposed between two consecutive tiles 11 so as to be concealed from view.

The width of the strip 14 is at the most equal to the sum of the depths of two milled regions and its thickness is such that insertion occurs substantially without play.

The material that composes the tile 11 is preferably laminated wood, optionally with a surface finish on both faces with patterns which are mirror-symmetrical or, as shown in the figures, obtained from the alternation of wood strips 15 with plastic strips 16, such as to allow light to pass therethrough.

The strip 14 can conveniently be made of the same material as the strips 16 or can be made of wood, metal or other material.

The strip 14 is the tongue for the coupling of the perimetric tiles 11 to a corresponding portion of a border-like supporting frame 17.

The figures illustrate a frame obtained from hollow metallic profiles 18 having, on one face, a longitudinal slot 19 which has the same function as the milled region 13 formed in the tiles 11.

In order to provide corner or cross-shaped joints, it is possible to use profiles such as the one shown in figure 4 and designated by the reference numeral 20, in which each face has a longitudinal slot 21 for the insertion of strips 14 and thus for the association of tiles 11.

As an alternative to the metallic profiles 18 and 20 it is possible to provide rod-like elements, not shown in the figures, which are made of a solid material, for example heartwood.

With reference in particular to figure 5, the strips 14 are replaced, in a different embodiment, by profiles 22 having a cross-shaped section and in which two co-planar wings 23 are inserted in the milled regions 13 of the adjacent tiles 11.

In practice it has been observed that the intended aim and objects of the present invention have been achieved.

The panel is in fact composed of elements which are easy to handle and can be mutually interlocked by means of very simple operations to be performed dry, without any aid apart from the elements that compose it.

Accordingly, its overall appearance can be changed if it is composed at least partially of tiles with a surface finish which compose patterns, figures etcetera, or if it is composed at least partially of tiles constituted by laminations with colors, transparencies or materials which are different from one another.

Coupling is performed dry, by simple interlocking, composing a sort of puzzle.

The simplicity of the interlock is also due to the choice of the square shape and to the presence of simple coupling strips, which makes it practically impossible to make mistakes.

The invention thus conceived is susceptible of numerous modifications and variations, all of which are within the scope of the inventive concept.

All the details may also be replaced with other technically equivalent elements.

In practice, the materials employed, so long as they are compatible with the contingent use, as well as the dimensions, may be any according to requirements.

Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly, such reference signs do not have any limiting effect on the interpretation of each element identified by way of example by such reference signs.

Claims

1. A composite panel particularly for partitions, claddings of walls, doors and windows or the like, characterized in that it comprises a plurality of quadrangular tiles, each whereof has, along its entire perimetric rim, a milled region for the insertion, on each side, of a complementarily shaped portion of an element for connection to an adjacent tile or to a portion of a supporting frame.

2. A composite panel according to claim 1, characterized in that said tiles have a square contour.

3. A composite panel according to claim 1, characterized in that said connecting element is of the concealed type, and is constituted by a strip whose maximum width is equal to the sum of the depths of two milled regions.

4. A panel according to claim 1, characterized in that said connecting element is constituted by a profile having a cross-like section, two co-planar wings thereof being inserted in corresponding milled regions of the components to be joined.

5. A composite panel according to claim 1, characterized in that said supporting frame is constituted by rod-like elements which have a square cross-section and have, on at least one of their faces, a longitudinal slot for the insertion of said connecting element.

6. A composite panel according to claim 5, characterized in that said rod-like element is made of a tubular metallic profile.

7. A composite panel according to claim 5, characterized in that said rod-like element is constituted by a heartwood element in which said slots are obtained by milling.

8. A composite panel according to claim 1, characterized in that said quadrangular tiles are at least partially made of laminated wood.

9. A composite panel according to claim 1, characterized in that said tiles are at least partially made of elements constituted by wood strips alternated with laminations made of a material transparent to light.

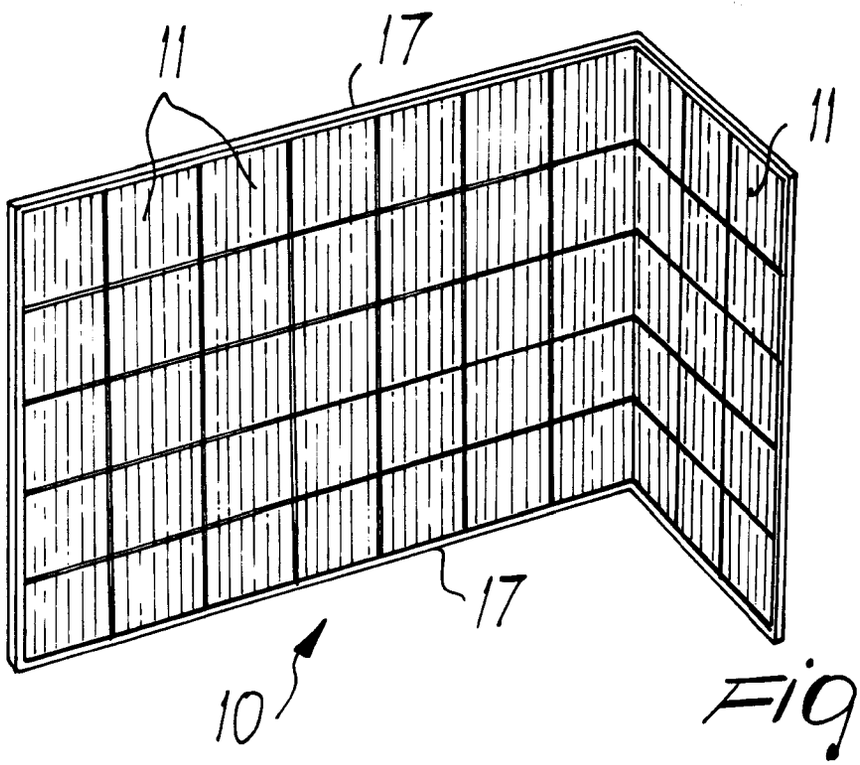


Fig. 1

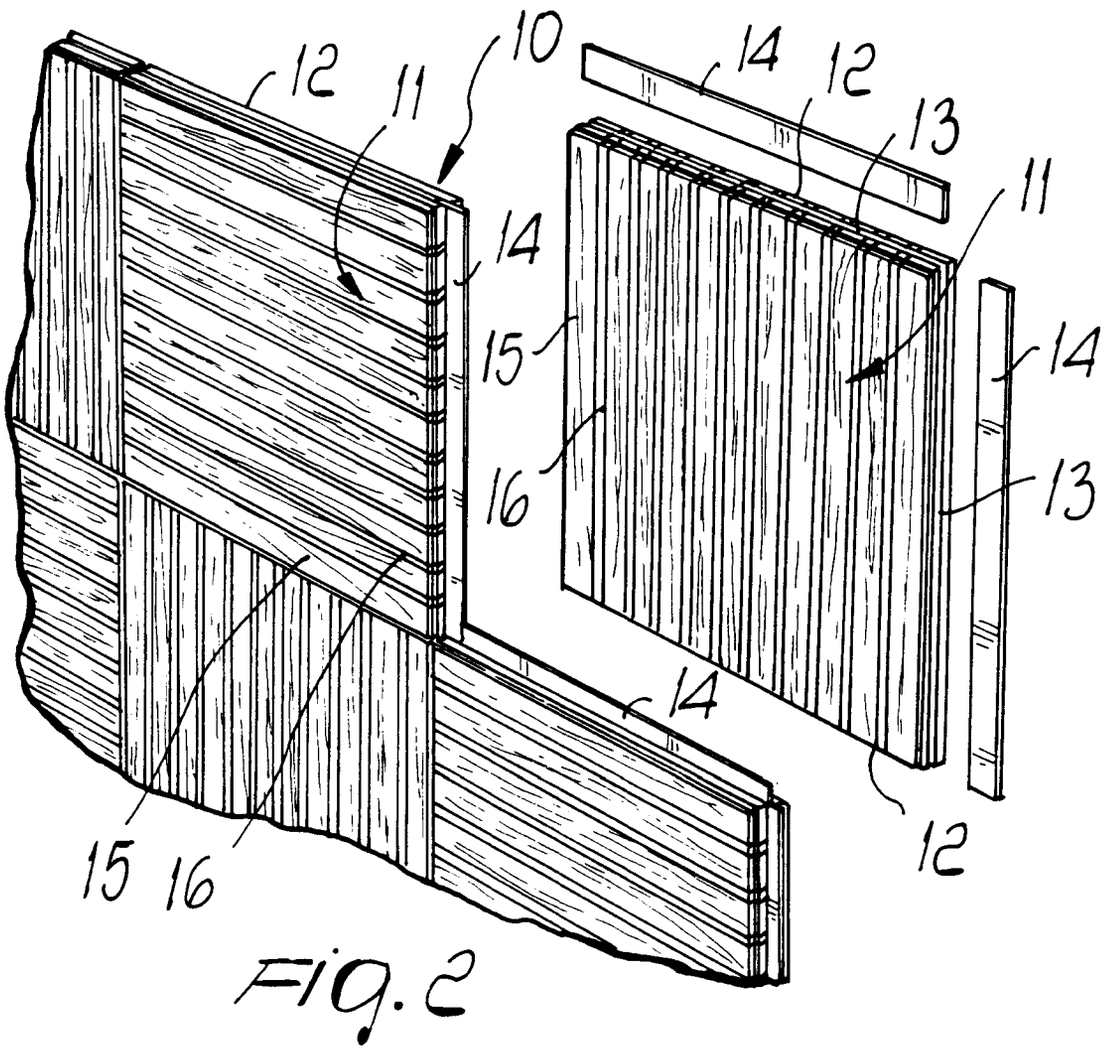


Fig. 2

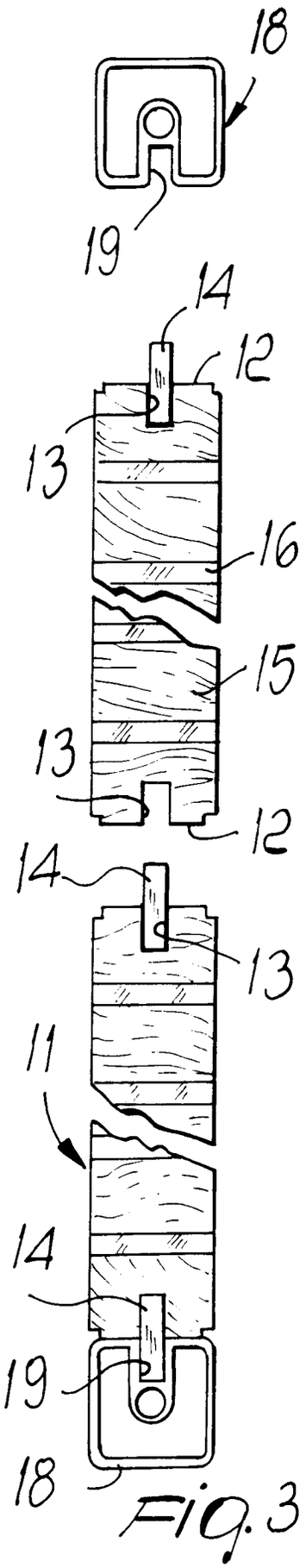


Fig. 3

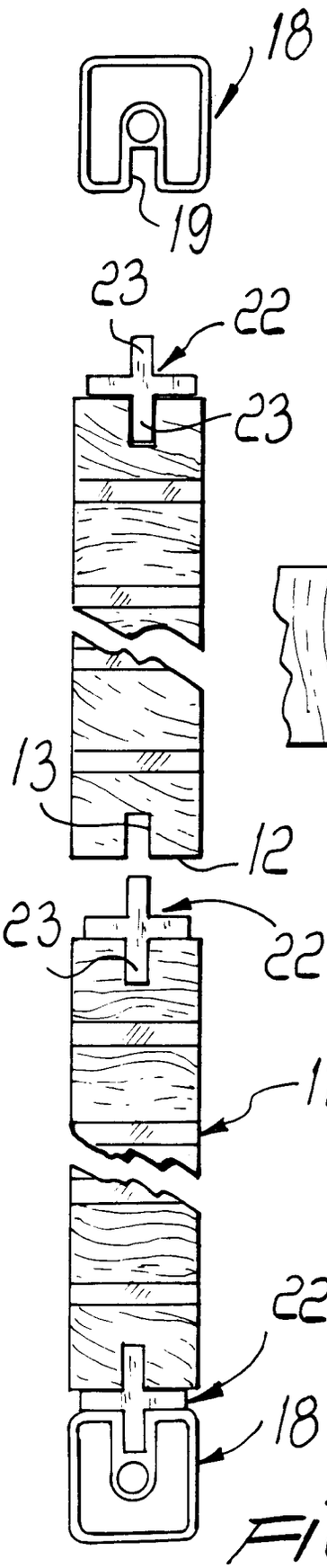


Fig. 5

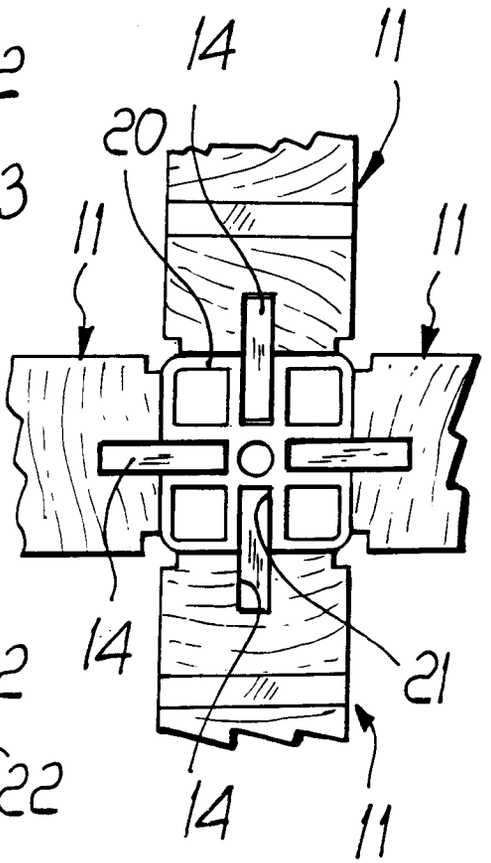


Fig. 4