Sept. 24, 1957 L. MONDRY 2,807,057

FLOORING

Filed May 25, 1955

FIG. 1.

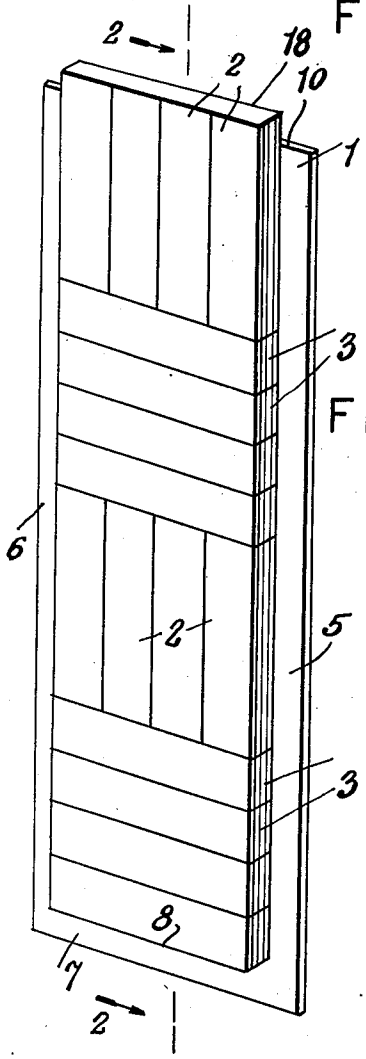


FIG. 2.

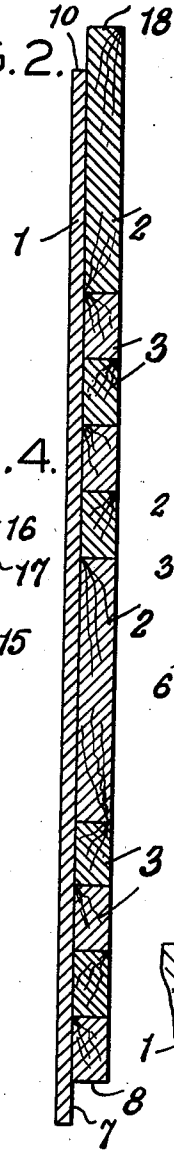


FIG. 3.

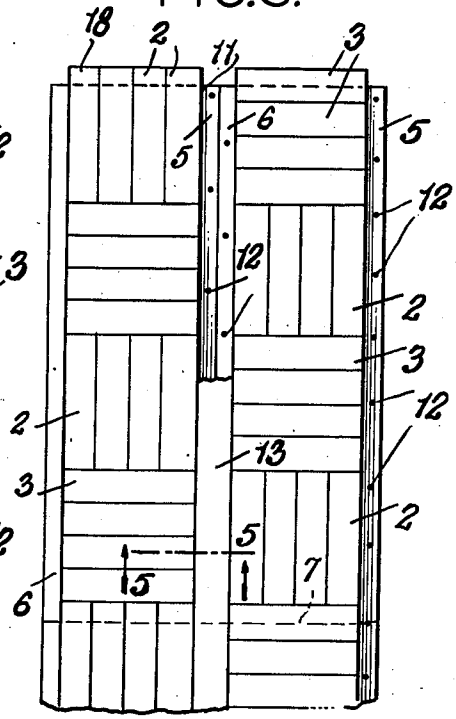


FIG. 4.

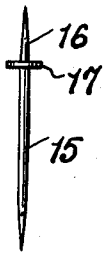


FIG. 5.

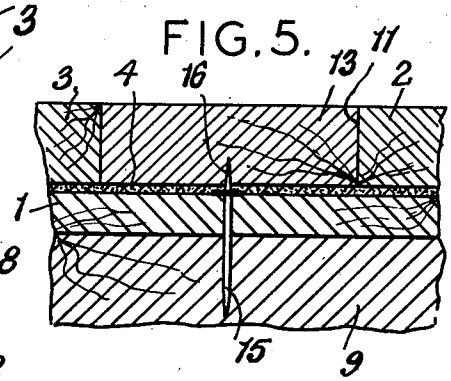
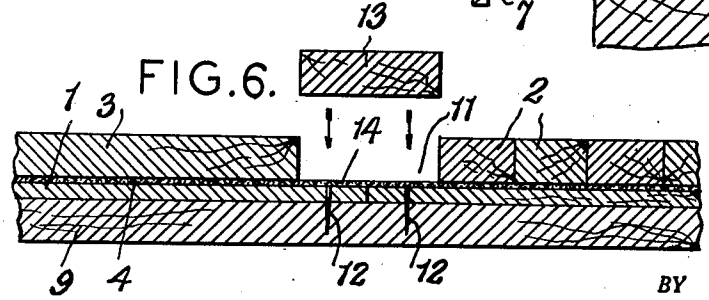


FIG. 6.



INVENTOR.
Leo Mondry
BY
Harry Razinsky
Attorney

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2,807,057

FLOORING

Leo Mondry, New York, N. Y., assignor to Sectional Flooring Corp., New York, N. Y., a corporation of New York

Application May 25, 1955, Serial No. 510,951

1 Claim. (Cl. 20—7)

This invention relates to flooring, and has for one of its objects the provision of a strong, substantial flooring which can be prepared in sections or panels at locations remote from the point of installation; which can be prefinished, easily installed and which will result in a long-lasting floor of attractive appearance.

It is another object of the invention to provide means by which flooring pieces can be assembled in the form of panels before the floor is installed, and which panels will be subsequently attached to the sub-flooring in the building where the flooring is laid. It is another object of the invention to provide means by which the flooring panels can be easily applied to the sub-flooring, with the fastening means for attaching the panels concealed from view so that the finished flooring will present the appearance of a floor in which the flooring pieces were independently and accurately laid and the flooring subsequently surfaced.

It is still another object of the invention to provide a flooring in which most of the finishing is done remotely from the site of installation; in which subsequent resurfacing of the flooring will be unnecessary and by which the installation time is greatly reduced.

With these, and other objects to be hereinafter set forth in view, I have devised the arrangement of parts to be described and more particularly pointed out in the claim appended hereto.

In the accompanying drawing, wherein an illustrative embodiment of the invention is disclosed,

Fig. 1 is a perspective view of a form of flooring panel embodying the invention;

Fig. 2 is a sectional view, taken substantially on the line 2—2 of Fig. 1, looking in the direction of the arrows;

Fig. 3 is a top plan view of a plurality of the flooring panels placed in juxtaposition on a sub-flooring;

Fig. 4 shows a form of double-shank nail which can be employed in laying the flooring according to the present invention;

Fig. 5 is a sectional view, taken substantially on the line 5—5 of Fig. 3, looking in the direction of the arrows, and

Fig. 6 is a sectional view, somewhat similar to that of Fig. 5, but with the filler strip removed and shown out of the groove between two of the panel sections.

Referring to the drawing, 1 indicates a backing sheet or base member for one of the flooring panels. Said sheet or base member is composed of a relatively stiff, rigid material, but of a nail-penetrable nature, to enable nails or other penetrating fastening elements to be driven through it in a manner to be explained. The backing sheet or base member 1 may be therefore composed of plywood, of other hard sheet material or of some other suitable substance which will not be likely to be materially compressed or distorted under the use to which flooring is normally subjected.

Secured to one face of the base member or backing sheet 1 is a plurality of flooring pieces, some of which are indicated at 2 and others at 3. These flooring pieces

are preferably composed of hardwood flooring strips or parquetry and may be arranged on the surface of the backing sheet or base member 1 in various ornamental ways. In the arrangement shown, the flooring strips 2 extend in one direction, or longitudinally of the panel, while those shown at 3 extend cross-wise of the panel and at right angles to those disclosed at 2. This is exemplary of one way in which the flooring pieces may be arranged and it will be understood that they may be arranged in various other ways well known in the floor-laying art.

The flooring pieces 2 and 3 are securely and permanently attached to the surface of the backing sheet or base member 1 by suitable glue or other adhesive shown at 4 in Figs. 5 and 6, to thereby both permanently and rigidly attach the flooring pieces to the face of the sheet, whereby the flooring pieces and the backing sheet 1 thereafter become a substantially integral structure.

The flooring pieces are so arranged on the backing sheet or base member 1 that certain marginal edge portions of the backing sheet extend or project slightly beyond the flooring as indicated respectively at 5, 6 and 7. These protruding portions of the backing sheet or base member 1 extend beyond two sides of the group of flooring pieces in each panel, as well as beyond the end 8 thereof, in a manner to form flanges by means of which the panel will be securely attached to a sub-flooring 9 without requiring penetration of the flooring pieces 2 and 3 by nails or like fastening elements. It is to be noted that at one end of the panel, portions of the flooring pieces extend beyond or overhang the end 10 of the base member 1, thereby providing the equivalent of an undercut at this end of the panel under which the protruding edge portion 7 of an adjacent panel may be inserted when the flooring is laid.

Figs. 3 and 5 show the manner in which several of the flooring panels are placed in juxtaposition when laying a floor composed of these panels. It will be noted that when laying the floor, the panels are placed together in such a manner that the extending marginal edge portion 6 of one panel will come into abutment with the edge of the extended part 5 of an adjacent panel, so that there will be resultantly provided between the flooring pieces on the two adjacent panels, a groove such as indicated at 11. The backing sheets or base members 1 of the several panels might be adhesively secured to the sub-flooring 9, but they are preferably secured thereto by nails 12 or other equivalent fastening means driven through the extended marginal edge portions 5, 6 and 7, of each panel, as shown in Figs. 3 and 6.

After the panels have been thus securely attached to the sub-flooring by the nails 12, the grooves 11 between the flooring pieces on the several adjacent panels are closed by the insertion in each of them of a filler strip shown at 13. Such filler strip 13 can be composed of wood similar to that constituting the flooring pieces 2 and 3 or of a wood of a contrast thereto, or it might be composed of some other suitable wear-resisting material adding to the attractiveness of the flooring. The filler strips 13 can be secured in place within the grooves 11 by being solely adhesively secured therein by glue 14 placed in the bottom of the groove 11, or placed on the strip or on both the strip and walls and bottom of the groove. The filler strip can also be nailed in place to close the groove 11 by nails driven through it and countersunk and with the nail holes subsequently filled. The filler strip can in addition be so shaped as to fit within the groove 11 with a wedging fit, or clips or other retaining elements might be employed in the groove to securely anchor the filler strip therein.

As a substitute for the nailing as above described, a double-shank nail such as shown in Figs. 4 and 5 can be employed. This nail is provided with a longer shank

15 which penetrates through the backing sheet or base member 1 and enters the sub-flooring 9, and with a shorter shank 16 which extends point upwardly into the groove 11. A head 17 is formed on the nail between its two shanks. When the filler strip 13 is inserted in the groove 11, it can be driven down on the upwardly-directed pointed end of the short shank 16 and will be held firmly thereby, particularly while the glue 4 in the bottom of the groove 11 sets to firmly anchor the filler strip 13 in place therein, so that the filler strip thereupon, and for all intents and purposes, becomes a substantially integral part of the flooring installation. At the ends of the panels, the projecting marginal edge portion 7 of the backing sheet or base member 1 enters under the overhang 13 of the adjacent panel so that no break or interruption in the flooring is visible or apparent.

An advantage of the present invention resides in the fact that the panels with the flooring pieces adhesively united thereto, can be assembled in wood-working plants remote from the point of installation, and where the flooring pieces are accurately and carefully fitted together and adhesively attached under pressure to the backing sheets to become inseparably attached thereto. The flooring pieces attached to the stiff, penetrable backing sheets can be furnished to the floor layer in finished form requiring no subsequent surfacing and finishing after the floor has been laid. The laying of the flooring requires only the placing of a plurality of the panels in juxtaposition on the sub-flooring and the nailing of the same thereto by nails extended through the projecting marginal edge parts of the backing sheets, followed by the insertion of the filler strips in the grooves 11. The filler strips for the grooves 11 can also be produced remotely from the point of floor laying and can be loosely fitted in the panel sections and temporarily removed therefrom while attaching the panels to the sub-flooring, and then fitted back permanently in the grooves 11. This insures accuracy of fit of each filler strip in a groove for which it was intended and in which it was originally expressly fitted.

While I have herein described a single embodiment of the invention, various modifications may be made in the same without departing from the spirit of the invention. For example, while I have herein disclosed the flooring panel as being of an elongated rectangular form, it may be made substantially square or in other shapes; the number of flooring pieces incorporated in each flooring panel may be materially increased or decreased, and various other alterations are possible as is contemplated as being within the scope of the claim appended hereto.

What I claim is:

A flooring construction comprising a panel consisting of a backing sheet of stiff and penetrable plywood, a plurality of pieces of flooring adhesively secured to a face of the backing sheet, said pieces being arranged in abutting relation and covering most of the face of the backing sheet, the backing sheet having a plurality of its marginal edges projecting beyond the lateral limits of the flooring, fastening means extended through said marginal edges of the backing sheet to permanently fasten said sheet to sub-flooring, a second panel placed with one of its projecting edges in abutment with one of the projecting edges of the first panel, the two panels thereby providing a groove between the areas of flooring pieces attached to them, and a filler piece fitted in the groove and covering and concealing the parts of the plywood forming the bottom of the groove and through which the fastening elements have penetrated.

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