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J. J. R. MEYERS

FLOOR AND CEILING CONSTRUCTION

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Fig. 1.

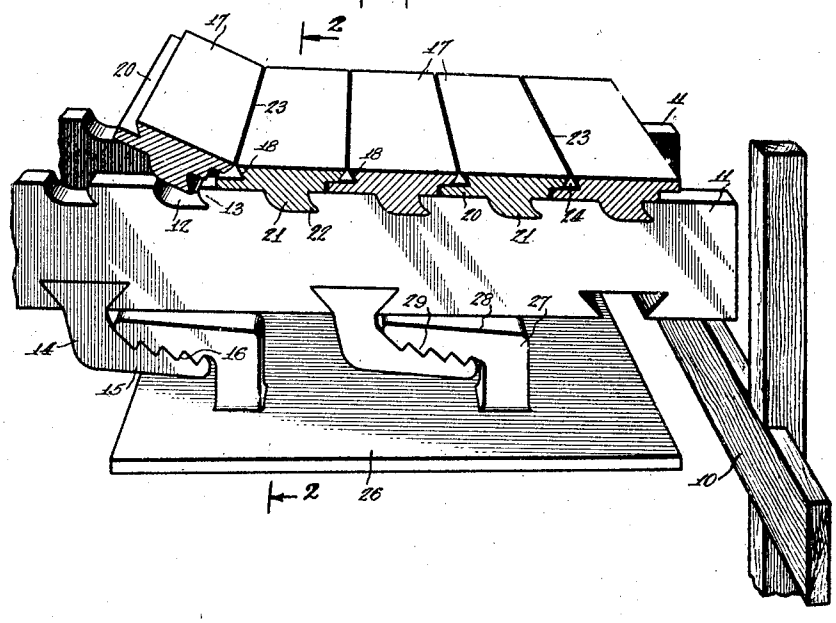


Fig. 2.

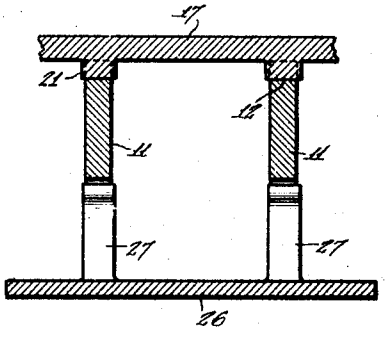
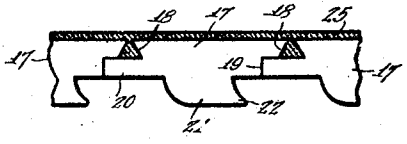


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

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FLOOR AND CEILING CONSTRUCTION.

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This invention relates to interior constructions for buildings, dwellings, etc.

An object of the present invention is an interior construction to provide floors, ceilings, and walls for a building or dwelling, principally a dwelling, by the use of structural units of novel construction which may be quickly and easily set up or be incorporated by virtue of attaching or anchoring means embodied by the units.

Another object of the present invention is to obtain a floor or wall construction of structural units each having similar structural features by virtue of which the units may be associated to accommodate a binder which concretes and so holds the units together to constitute a monolithic structure. The nature of the invention and its distinguishing features and advantages will appear when the following specification is read in conjunction with the accompanying drawings, in which:

Figure 1 is a sectional perspective view showing the features of the interior construction of the present invention and showing the manner in which the floor units and ceiling panel are incorporated.

Fig. 2 is a detail sectional view taken substantially on line 2—2 of Fig. 1.

Fig. 3 is a fragmentary sectional view illustrating a plurality of floor units and showing the manner in which the binder is applied to hold the floor units together.

In accordance with the present invention the interior constructions which provide the floors and ceilings will be supported by the main supporting walls of a building or dwelling, shown in Fig. 1 of the drawings, such support being indicated at 10. The structure 10 supports stringers or supports 11. The upper edge of each of the stringers 11 is provided with notches 12 which are spaced equi-distantly and each of said notches is so shaped as to provide a locking portion 13. The lower edge of each of said stringers is provided with hangers 14 and the said hangers may be permanently attached, or may be detachable. Each of the hangers 14 includes a portion 15 which is provided with serrations 16. The floor and ceiling, as is usual in interior constructions, are supported by stringers 11. The floor in accordance with the present invention is made up of a multiplicity of units 17 which may be of any preferred material of sufficient likeness and yet having the proper supporting strength and durability; the material used in the present instance being of a cementitious nature. Each of the units 17 may be of any preferred length and width. Each of the units 17 is chamfered as at 18 at the opposite longitudinal side edges thereof near the top face, is rabbeted as at 19 at one longitudinal side edge in the bottom face, is provided with a tongue 20 at the longitudinal side edge opposite to that having the rabbet therein, and is provided with lugs 21 on the bottom face. If desired, instead of using a number of lugs 21, one lug extending the length of the unit may be used. The cross sectional shape of each lug 21 conforms to the shape of the notches 12 so that the curved portion 22 of each lug will serve with the locking portion 13 related thereto to hold the unit in place. The units 17 are laid down one at a time so that the lugs 21 will be engaged respectively in the notches 12. When all of the units are laid down the portions 13 and 22 will constitute a means for anchoring the units to the stringers 11, and as shown in Fig. 1 there will be a space 23 between adjacent units 17 which converges into a larger triangular space 24 by virtue of the adjacent chamfered side edges, and portions of adjacent units will be overlapped by virtue of the tongue 20 of one unit being disposed in the rabbet 19 of the adjacent unit. A suitable cementitious binder 25 is applied. The binder 25 in flowing condition is made to enter the spaces 24 through the crevices 23, and when the said binder concretes all of the units 17 will be securely bound together to form a monolithic structure having a top layer, as shown more clearly in Fig. 3, to constitute a floor.

A ceiling will be incorporated to provide panels 26 of any preferred material—plastic or other similar material. The panel is provided with hangers 27 somewhat similar in construction to the hangers 14 in that each of the hangers is provided with a portion 28 having serrations 29. The serrated portions of the hangers 27 may be brought over the serrated portions 15 of the hangers 14 and in this manner the panel may be suspended; the said serrated portions constituting a means for attachably accommodating the panel 26. One panel 26 or more than one panel may be used to produce the ceiling. It is to be understood that the hangers 27 may be formed integral with the panel

26 or may be attached thereto in any suitable manner, and instead of using a number of hangers in the same row one long hanger may be employed which extends from one end of the panel to the other.

It is to be understood that the structural feature of the units 17 may be adopted for producting walls as well as floors as it has actually been found that units of this character serve adequately for such purpose.

I claim—

1. In a floor construction, supports, floor units, and means between the supports and the floor units for anchoring the floor units to said supports, each of said floor units being chamfered at the opposite longitudinal side edges thereof near the top face and rabbeted at one side edge at the bottom face thereof and having a tongue, the tongue of each floor unit entering the rabbet of the adjoining floor unit.

2. A structural unit consisting of a body of cementitious material, said body being chamfered at the opposite longitudinal side edges at the top face thereof, rabbeted along one longitudinal side edge in the bottom face thereof, a tongue at the side opposite to that having the rabbet, and a curved anchoring lug on the bottom face of said body.

3. A structural unit consisting of a body of cementitious material, said body being chamfered at the opposite longitudinal side edges at the top face thereof, rabbeted along one longitudinal side edge in the bottom face thereof, having a tongue at the side opposite to that having the rabbet, and attaching means on the bottom face of said body.

4. In a floor construction, floor units, supports on which the floor units rest, and means for anchoring the floor units to said supports, portions on adjoining floor units overlapping each other, there being a space between adjoining floor units by virtue of adjacent portions of the adjoining floor units being chamfered, the spaces formed between the adjoining floor units accommodating a binder which holds said floor units together.

5. An interior construction comprising supports each having recesses therein, structural units each having a portion adapted to enter recesses in a plurality of said supports for connecting the unit thereto, adjacent units having portions which interfit to provide an overlap, said units being chamfered to provide a space between the units over each overlap, and surfacing material over the units with portions received in the spaces between the units.

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