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W. R. WALKER
COMPOSITION FLOOR COVERING OF RESILIENT
PLIABLE COATED MATERIAL
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Fig. 1.

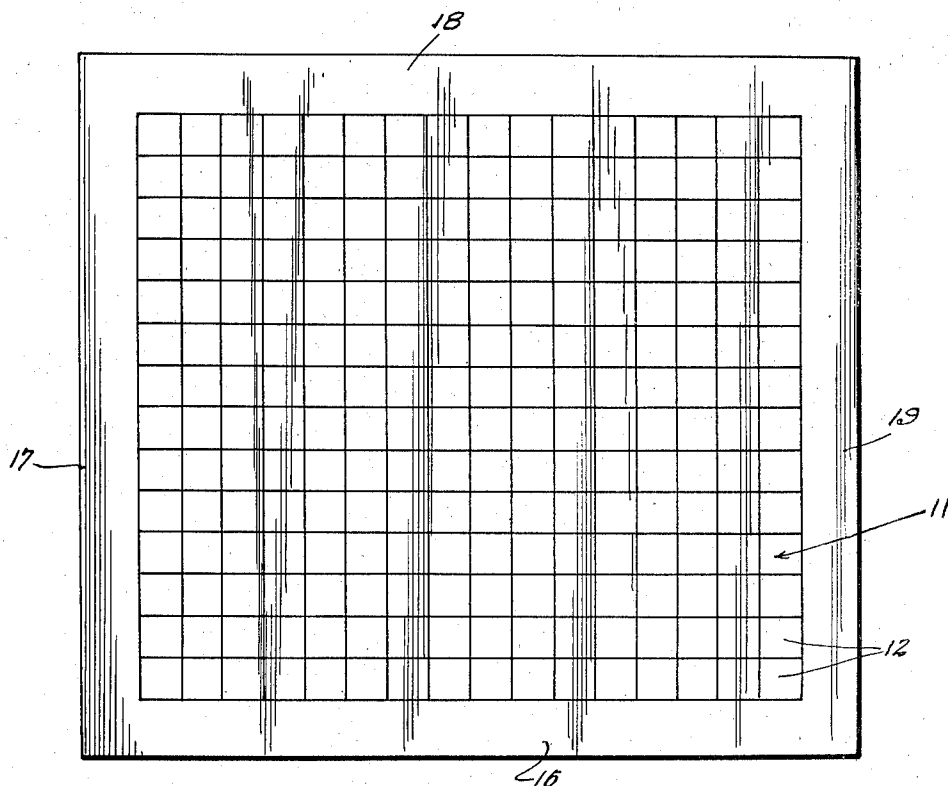


Fig. 2.

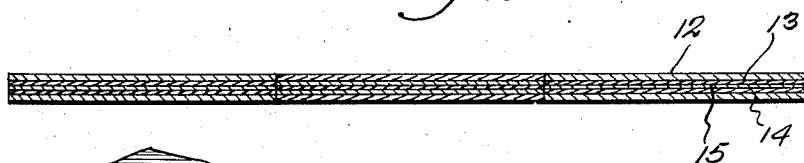
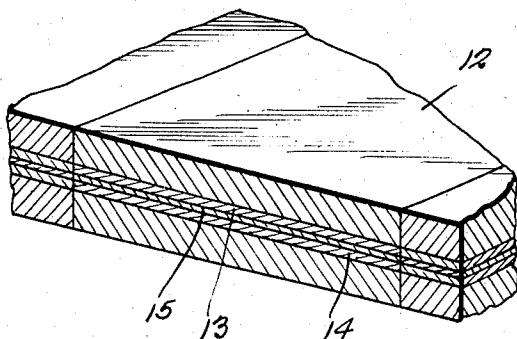


Fig. 3.



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COMPOSITION FLOOR COVERING OF RESILIENT PLIABLE COATED MATERIAL

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2 Claims. (Cl. 20—6)

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This invention relates to floor coverings and especially to floor coverings of the resilient type. This type of floor covering is usually applied by cementing webs of very large width directly to the concrete floor. Where the floor area to be covered is wider than the width of the webs used, several webs are cemented to the floor side by side.

With wooden floors a layer of felt is interposed, but otherwise the process is the same.

With this method of application the decorative effect which can be obtained is very limited. The design which is applied to the surface by printing or otherwise has to fulfill so many requirements and conditions that merely uniformly colored surfaces or small elements in constant repetition or some very carefully composed stylized pattern which may be cut or joined everywhere are suitable. This naturally restricts the use of such floor coverings to certain types of rooms.

The invention has for its object to replace the old method of covering the floor by one piece of resilient material or by a very small number of juxtaposed webs cemented to the floor and to introduce a method of floor covering in which a substantial portion of the floor or a certain arbitrarily selected portion thereof are covered by frictionally held units of the resilient material.

According to the invention, exactly cut pieces or units of resilient floor covering, such as linoleum, rubber floor covering, cork carpet and other resilient coverings are used, of a size which varies from large panels of several feet in length and width to small panels covering a square foot or less, which are closely juxtaposed, side by side, without joining them otherwise and which are enclosed in a holding frame cemented to the floor in the usual manner above described and encircling the area to be covered by the tile-like units.

Each unit consists, however, not of a simple piece of material but of two pieces exactly alike and cut to the same size cemented together with their backs and therefore turning their smooth and decorative sides outwardly.

This method of producing a floor covering has a number of important advantages practically unobtainable with the floor coverings as hitherto used.

The cementing of the pieces, back to back, increases greatly the stiffness and solidity of a unit; it eliminates effectively the tendency of cut pieces to curl up, which is very marked in small pieces of inhomogeneous structure such as linoleum, or such as rubber, which is sometimes provided with

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a sponge rubber base. But it also provides two usable surfaces so that one panel may do double duty as regards surface wear and may, moreover, be used much more freely as two decorative surfaces are now available.

Moreover, the very fact that the room is covered by a considerable number of units presents a much greater freedom as regards the decorative design, so that many restrictions due to the fact that a single web or two or three parallel webs have to be used, disappears altogether.

The even holding of the units on the floor without displacement is accomplished by their juxtaposition in frictional contact with each other within a frame whose sides are spaced so as to take up the required number of units. The units when held at their edges are "wedged in" just in the same way in which flagstones hold together without any cement or asphalt and they can be separated only after overcoming great resistance. The units form a surface cover in themselves just as if they were forming a coherent surface. This is simply due to the fact that they are firmly held and pressed towards each other, when they are fitted into the frame.

A further advantage of the floor covering according to the invention, consists in the fact that the laying out of this type of floor covering entails less skill, less labor, and less material than the usual floor covering, the last mentioned advantage being a consequence of the reduction of the waste material. The floor is more elastic when walked on on account of the double thickness, and the covering may be replaced easily at the spots which are worn out, therefore, it is much more economical than the floor coverings as hitherto known.

It is moreover possible to use the usual resilient floor covering together with the system according to the invention by cutting out areas in which particular or varying designs are required, or in which wear of a heavy kind is to be expected, and by filling said areas by one or more units of the type above described.

The invention is illustrated in the accompanying drawings, by way of example, but it is to be understood that the example shown which illustrates a linoleum floor covering for a big room is not in any way limitative and that other materials, and especially different sizes and numbers of units, may be used without in any way departing from the invention as pointed out in the foregoing general description.

Figure 1 is a complete floor covering for a large square room.

Figure 2 is a cross section through a floor covering.

Figure 3 is a perspective view of a cross section through a unit consisting of old style linoleum.

The floor covering as described consists of a number of units 11, placed side by side on the floor to be covered. Each unit consists of a square piece of resilient floor covering 12 glued with its back 13 to the back 14 of another or similar piece 15. As seen from Figure 2, a unit has its two smooth and decorative faces turned outwardly while the unsightly backing forms the supporting skeleton in the interior of the unit.

These elements may simply be laid on the floor side by side so that they cover the entire room. Those units which are located near the border may be cut to the size of the space which is left for them.

The frame consists of strips 19 which are laid out and glued to the floor in the customary way, care being taken to select a strip of appropriate thickness, or to provide a supporting layer of felt of appropriate thickness to make up for the increased thickness of the units so that the surface of the frame may be even with the surface of the units 11 when laid out. The units 11 are then inserted into the free space defined and enclosed by the frame which is of a predetermined area adapted to receive a predetermined number of units when laid out side by side in frictional contact with each other.

Irregularities on the floor space to be covered may be taken care of by laying out a frame 16, 17, 18, 19 of such width that these irregularities are contained within the area covered by the frame while the area defined by the frame is more or less of regular shape and of predetermined size.

It will be clear that any type of ornament or design may be made which is suited to the character of the room and to its size and that provision may be made for a change in the event that the character of the room is changed in the course of time. This result may either be obtained by selecting units provided with such colored patterns or ornamental designs that they are capable to be assembled in various or different orders so that at least two or three artistic patterns or several color schemes may be formed. The elements of the pattern or of the ornamental design may, of course, be arranged on both sides of the unit.

When wear is great merely in certain spots a regular change of units at certain intervals replacing the worn units by others and transferring them to a spot where wear is less will greatly increase the life of a floor covering.

I claim:

1. A floor covering comprising a frame of a material consisting of a smooth layer provided with a backing fixed to the floor with its upper surface at a level corresponding to twice the thickness of the aforesaid material, said frame encircling an opening, and of a number of separate unconnected units, each consisting of two sheets of the aforesaid material of the same size, having their backings adhesively secured together with the smooth layers turned outwardly, a number of such units being aligned side by side solely in frictional contact with the floor, filling the opening encircled by the frame, said units being wedged in so as to be held by the frictional contact between each other and between them and the frame, said frame and said units being resilient and pliable.

2. A floor covering comprising a frame of a material consisting of a smooth layer of resilient and pliable material adhering to and stiffened by a pliable backing, fixed to the floor and encircling an opening, and separate unconnected units, consisting of two sheets of the aforementioned material composed of a smooth layer and a backing, the sheets being of the same size and having their backing adhesively secured together, with the smooth layers turned outwardly, said units being solely in frictional contact with the floor, but filling completely the space within the opening of the frame, in side by side relation, and being held only by lateral pressure with the units wedged in between the sides of the opening in the frame.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
602,769	Parker	Apr. 19, 1898
695,621	Moyle	Mar. 18, 1902
1,296,114	Perry	Mar. 4, 1919
1,306,246	Bried	June 10, 1919
1,661,078	Mell	Feb. 28, 1928
2,007,244	Gathercoal	July 9, 1935
2,000,977	Moseley	May 14, 1935

FOREIGN PATENTS

Number	Country	Date
13,007	Great Britain	July 4, 1893
18,714	Great Britain	Aug. 31, 1903
172,310	Switzerland	Oct. 15, 1934