July 20, 1948. J. E. BAXTER 2,445,552

DISPLAY STRUCTURE

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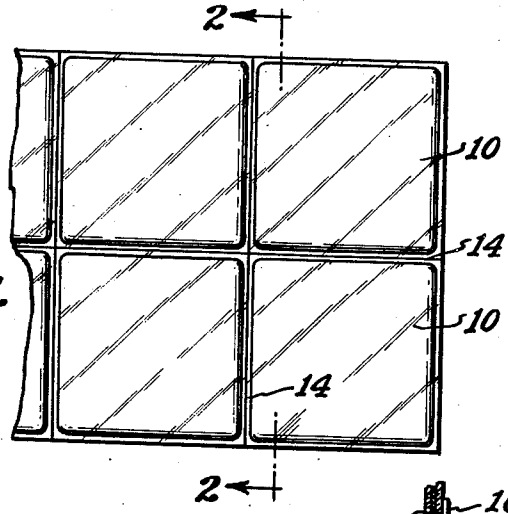

FIG. 1.

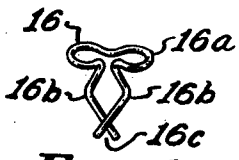

FIG. 4.

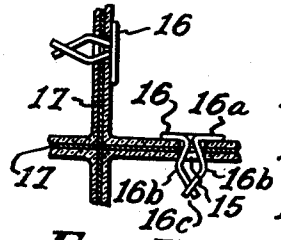

FIG. 3.

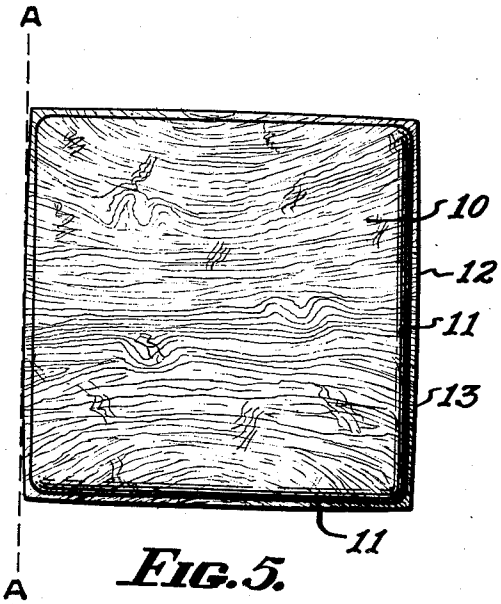

FIG. 5.

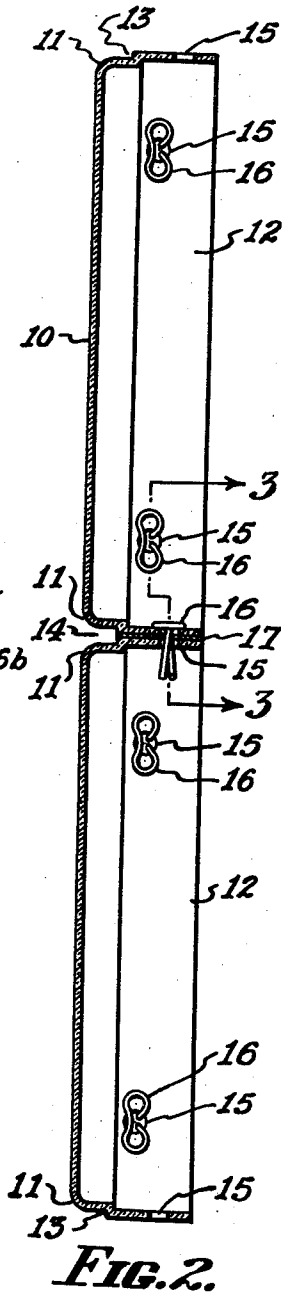

FIG. 2.

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DISPLAY STRUCTURE

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3 Claims. (Cl. 72—18)

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This invention relates to a display structure of such character that it is relatively inexpensive in initial cost and which can be dissembled and reassembled innumerable times in a substantially infinite variety of designs.

There is a considerable demand in stores, hotels, night clubs, and the like for display structures. For example, a hotel which is host to a convention may wish to put up temporarily in the lobby some sort of an attractive display featuring the particular convention in question. Likewise, department stores will frequently set up temporary displays to feature some new line of merchandise. Night clubs and theaters and the like will frequently set up temporary displays which they will change from week to week. Heretofore such displays have generally been made from sheets of cardboard material or one or another of the various building boards now on the market. Such materials are generally expended in use by cutting or otherwise, and being more or less fragile they will deteriorate so that when the display is dissembled and it is desired to erect a new display very little if any of the material can be salvaged. It will be clear that the invention is also useful for architectural purposes and is susceptible to numerous uses in connection with indirect lighting installation.

With the above considerations in mind it is an object of my invention to provide a display structure comprising individual tiles with simple and effective means for joining such tiles together whereby the tiles may be joined together and separated with a minimum of effort and with complete salvage. It is another object of my invention to provide such panels made from a plastic material whereby the display will be light and whereby an infinite number of color schemes may be employed and whereby the panels may be made translucent so that indirect lighting may be used to further enhance the attractiveness of the display.

These and other objects of my invention which will be pointed out more in detail hereinafter or which will appear to one skilled in the art upon reading these specifications, I accomplish by that certain construction and arrangement of parts of which I shall now describe an exemplary embodiment. Reference is made to the drawings forming a part hereof and in which—

Figure 1 is a plan view of an assembly of panels according to my invention.

Figure 2 is a cross sectional view on a greatly enlarged scale taken on the line 2—2 of Figure 1.

Figure 3 is a cross sectional view taken on the line 3—3 of Figure 2.

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Figure 4 is a detail view of one of the fastening elements in perspective.

Figure 5 is a somewhat enlarged view of a single panel showing the characteristic flow lines of the molded material.

Briefly, in the practice of my invention, I provide a display structure comprising a plurality of individual shallow boxlike panels. While the panels may be of a variety of shapes, I have shown them in the drawings forming a part hereof as being square whereby they will give the effect of tiles. Any number of such panels may be fastened together by the very simple fastening means disclosed herein and built up into a display structure of any desired shape. By judicious selection of colors and by the use of light behind the translucent panels a variety of artistic effects may be attained.

The individual panels as shown in the drawings are of generally shallow boxlike shape having a face 10 which is smoothly rounded at the edges as at 11 and having a skirt portion 12 which is somewhat offset as indicated at 13 so that when the panels are assembled, as most clearly shown in Figures 1 and 2, spaces indicated generally at 14 will be provided. The skirt portions of the panels are preferably bowed slightly as may be clearly observed with reference to the broken line A–A in Figure 5. The purpose of this structure is so that when adjacent panels are clipped together they will closely conform and will not leave spaces in the mid portions of the panels as might be the case if the panels should happen not to be perfectly uniform.

The skirt portions of the panels are provided with perforations indicated at 15 and it will be observed by reference to Figure 2 that the perforations 15 in one pair of opposed skirt portions are somewhat offset from the perforations 15 in the other two opposed skirt portions. This structure makes for increased strength and rigidity when the panels are in assembly, and permits the use of bracing rods if desired. Such rods may pass through the holes 15 in crisscross manner, and by virtue of the offset, such rods may pass each other.

Adjacent panels are fastened together by means of the fastening elements indicated generally at 16 which are shown in greater detail in Figure 4. Such member 16 is preferably made from some sort of spring steel wire and is formed with a head portion indicated at 16a and with two leg portions which have the projecting portions 16b which form engaging abutments for the skirt portions of the tile. The ends of the member 16 may be crossed as shown in 16c.

In fastening adjacent panels together the portion 16c of the member 16 is inserted in the aligned perforations 15 and is then pushed home so that the shoulders or abutments 16b pass through the perforations 15 and engage behind the skirt portion of the adjacent panel as most clearly shown in Figure 3. It will be clear that these members 16 may be as easily removed.

In order to insure that there will be a close fit between adjacent panels and in order to obviate the possibility of gaps in the event that adjacent panels are not absolutely uniform, I prefer to insert between adjacent panels strips of felt or any suitable material 17.

While the panels may be made from a variety of materials, I prefer that they be molded from a material known as Styron or from a polystyrene, which material comes in a granular form and may be obtained in a variety of colors, and which is reduced to a fluid state and injected into a mold as is well known in the art.

In view of the fact that it is difficult when molding panels of a combination of colors to produce a molded panel having a perfectly uniform color, I may emphasize the flow lines by injecting the material from opposite sides of the mold so that a distinct line of division will be formed transversely of the panel with respect to the direction of injection. For example, in Figure 5, if the flow lines are as shown, the molding material would have been injected from the top and bottom of the figure.

I prefer to use a polystyrene for the reason that the panels thus produced will be of good dimensional stability, alcohol and alkali resistant, will not warp or absorb appreciable amounts of water, and will have a relatively high critical temperature. I prefer to make them translucent, and I am therefore enabled to place lights behind a display and achieve numerous beautiful effects.

While dimensions are not in the least critical, I have made very satisfactory panels of approximately six inches square with the depth of the offset 13 from the face of the panel 10 being on the order of three-eighths of an inch and with the skirt portion being on the order of three-fourths of an inch in width and with the panels being of a thickness on the order of one-sixteenth of an inch. It is to be understood that these dimensions are exemplary only and are in no sense to be considered as limiting the scope of my protection. Likewise, while I have shown square panels, it will be clear that the panels could be rectangular or hexagonal or any suitable shape which would permit a plurality of such panels being assembled to form a display, and it will likewise be clear that while I have mentioned preferably a moldable material, I am not limited to any particular material, such as polystyrene for example in all the phases of my invention.

Having now fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A panel unit for display purposes comprising a shallow, thin-walled, tray-like member of molded translucent material, said member having a face and a depending peripheral skirt portion, said face being configured with rounded edge portions merging it into substantially normal depending portions peripherally inwardly offset from said skirt portion and connected thereto by shoulder-like configurations, the said unit having a regular polygonal contour, and the skirt portion of the unit being so disposed that it may be attached to other similar members to form a self-sustaining, continuous, translucent, panel, the said skirt portions being provided with perforations having a regular spacing such that when individual units are assembled to other individual units, the perforations will match, whereby fastening means may be employed passing through the perforations in skirt portions of adjacent units, the said unit while stiff having walls characterized by flexibility, the said skirt portions being bowed slightly outwardly whereby fastening means engaging skirt portions of different units are enabled to provide a tight fit between said skirt portions by slightly deflecting them.

2. A self-sustaining display structure comprising a plurality of panels of molded material, said panels comprising a face portion and depending skirt portions, said face portion extending above and being annularly, inwardly offset from said skirt portions so as to give the appearance of spaces between adjacent panels, said skirt portions being initially bowed outwardly a slight amount whereby a tight fit between adjacent skirt portions is provided, and means in the region of said skirt portions for fastening adjacent panels together.

3. A panel unit for display purposes comprising a shallow, thin-walled, tray-like member of molded translucent material, said member having a face and a depending peripheral skirt portion, said face being configured with rounded edge portions merging it into substantially normal depending portions peripherally inwardly offset from said skirt portion and connected thereto by shoulder-like configurations, the said unit having a regular polygonal contour, and the skirt portion of the unit being so disposed that it may be attached to other similar members to form a self-sustaining, continuous, translucent panel, the said unit while stiff having walls characterized by flexibility, the said skirt portions being bowed slightly outwardly whereby when skirt portions of adjacent units are fastened together a tight fit is provided therebetween by the slight straightening deflection of said skirt portions.

JACK E. BAXTER.

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