

[54] **LIGHTING UNIT ARRANGEMENTS FOR NEEDED AND/OR DECORATIVE LIGHTING USING DEFINITE FORMS SUCH AS LIGHT BLOCKS**

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[58] Field of Search **240/9 R, 10 R, 52 R, 240/73 R, 73 DA**

[56] **References Cited**

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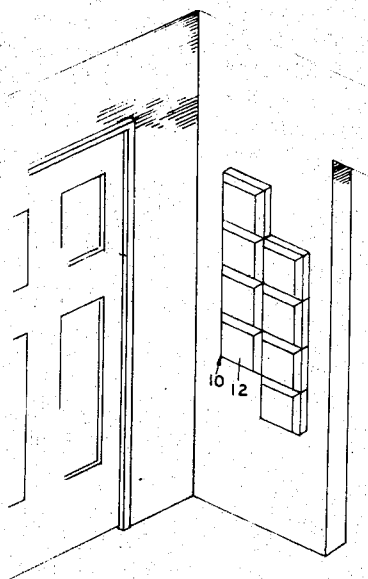
[57] **ABSTRACT**

For needed and/or decorative lighting in homes, of-

fices, clubs and other dwellings, lighting units, such as light block units, usable as a single unit and in groups, create white and/or colored artificial light. They may be arranged, one adjacent another, as walls of light, decorative strips of light, room dividers of light, accent groups of light, and walls designs of light.

Each light block unit has: at least one light source, comprising an electric light bulb, socket, and wires; a reflector caseback, which receives screw and/or adhesive fasteners to secure it to a building structure, which holds a light socket, to guide wires through the light block unit and on to adjacent light blocks, while the wires remain concealed throughout an overall arrangement of light block units, and which abuts adjacent casebacks at one or more preselected locations for the correct overall spacing of several light block units without requiring measurements beyond selecting the location of the first light block unit to be installed; a casefront or cover to conceal the caseback and its electrical attachments while providing an overall light passing cover, which is preferably snapped on and off providing ready access to the bulb, which may be white or colored. Several light block units, up to a presently recommended limit of thirty-six may be connected to the same lead-in electrical circuit, which inturn may incorporate several plugs and switches.

6 Claims, 9 Drawing Figures



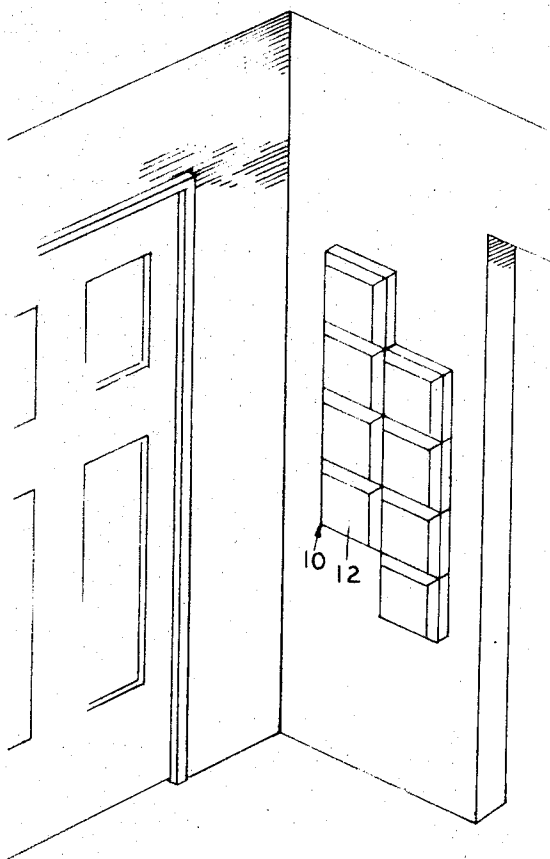


FIG. 1

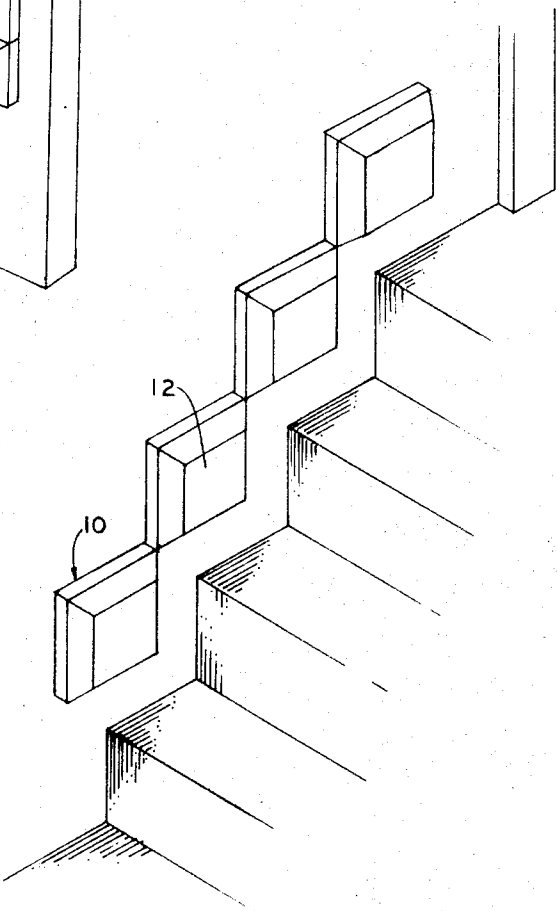


FIG. 2

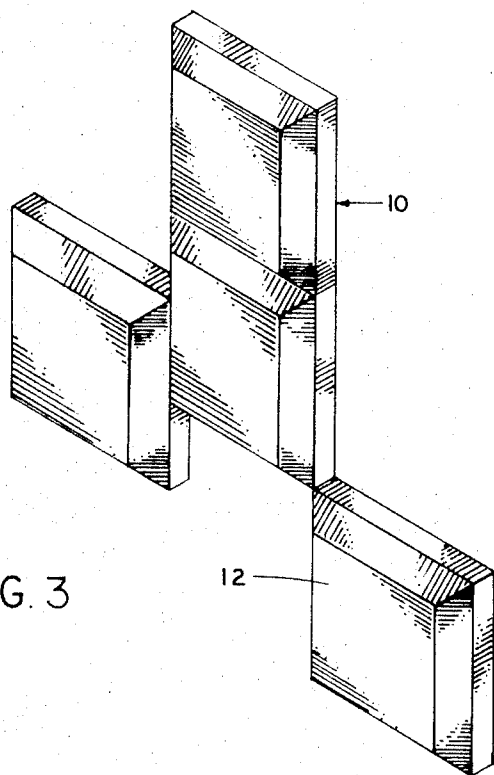


FIG. 3

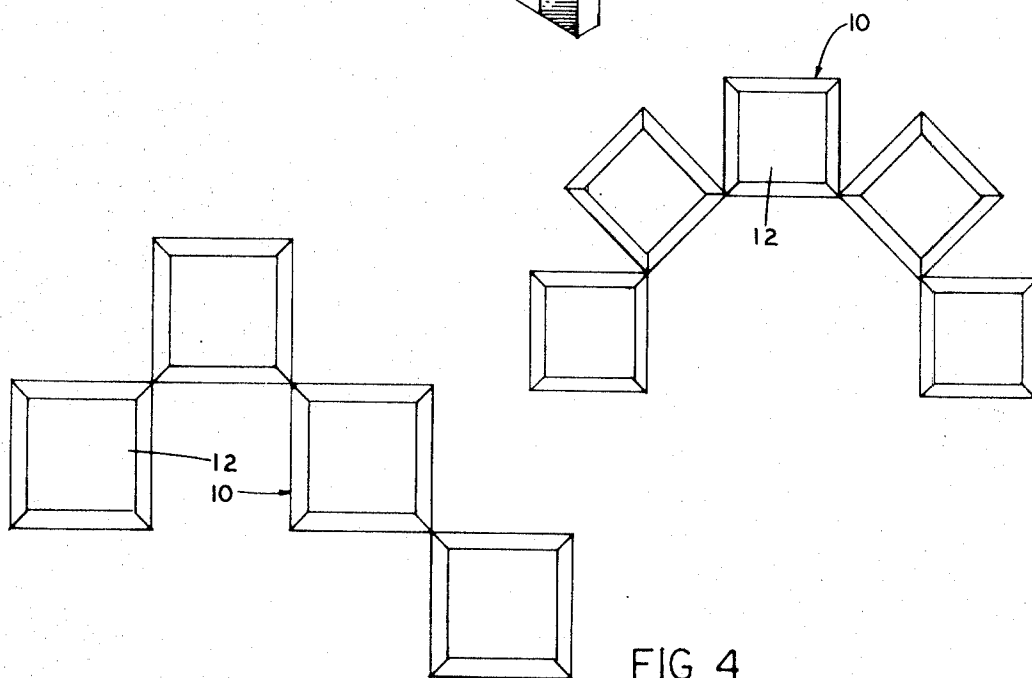
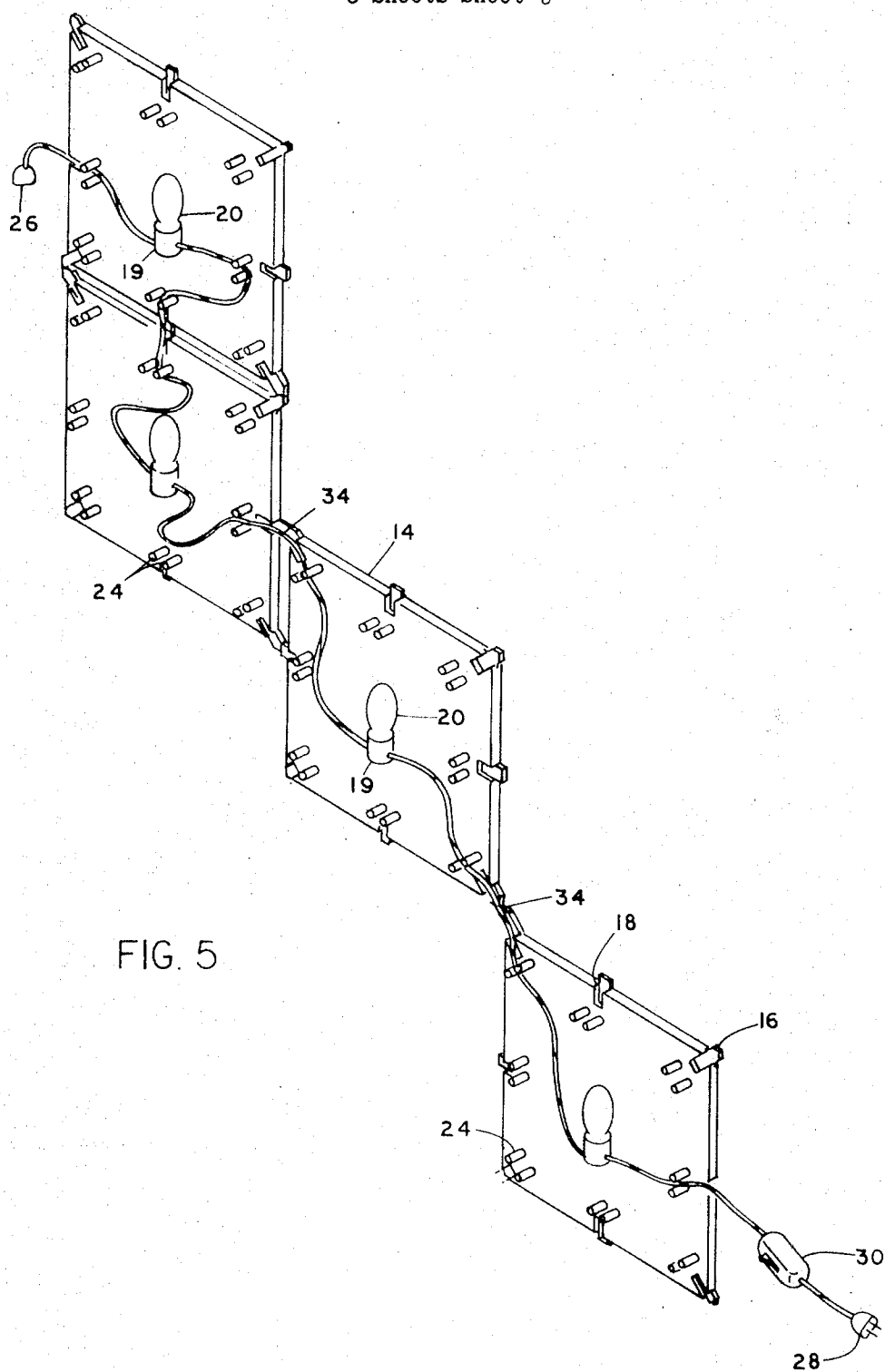
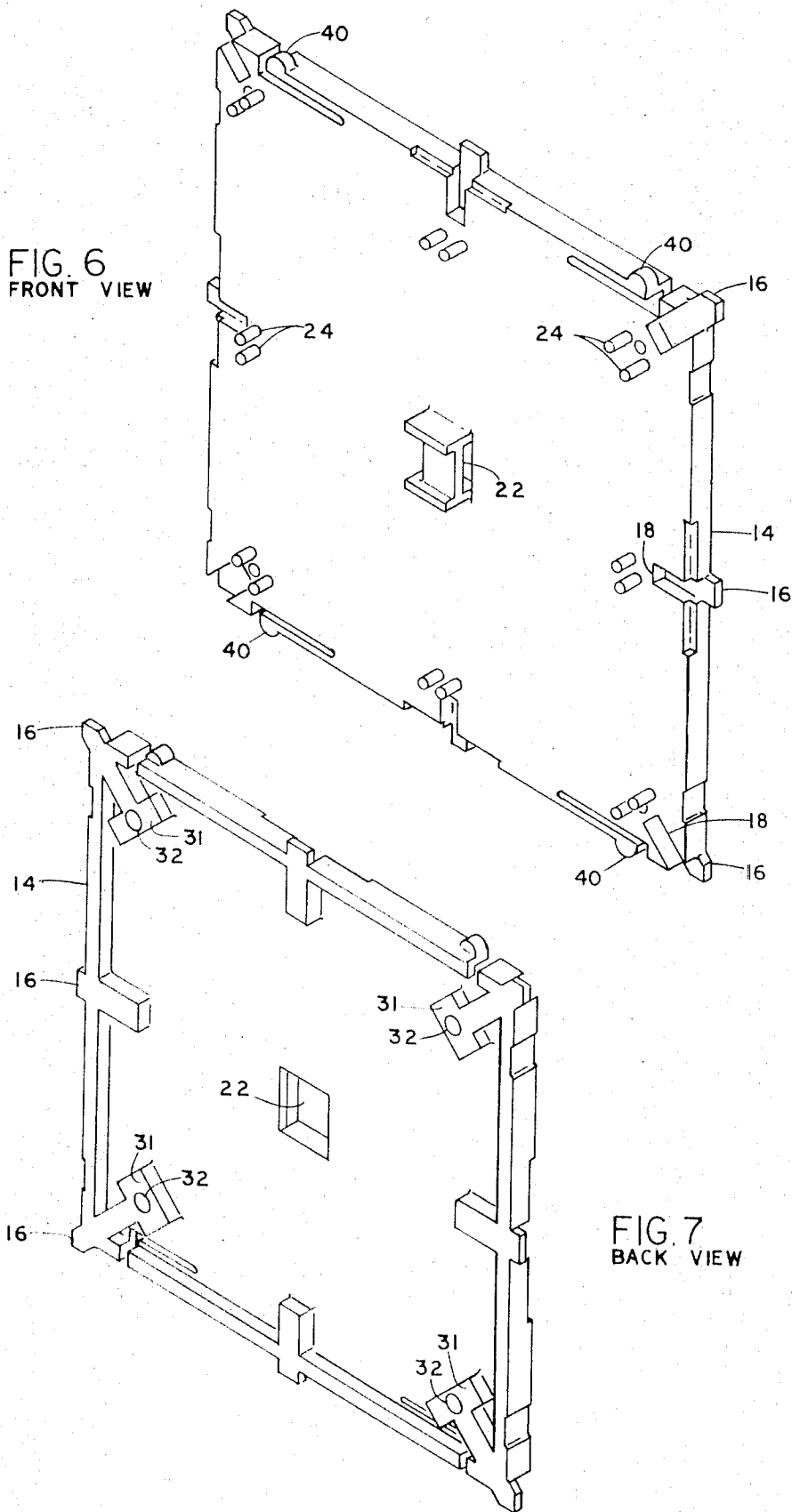


FIG. 4



5 Sheets-Sheet 4

FIG. 6
FRONT VIEW



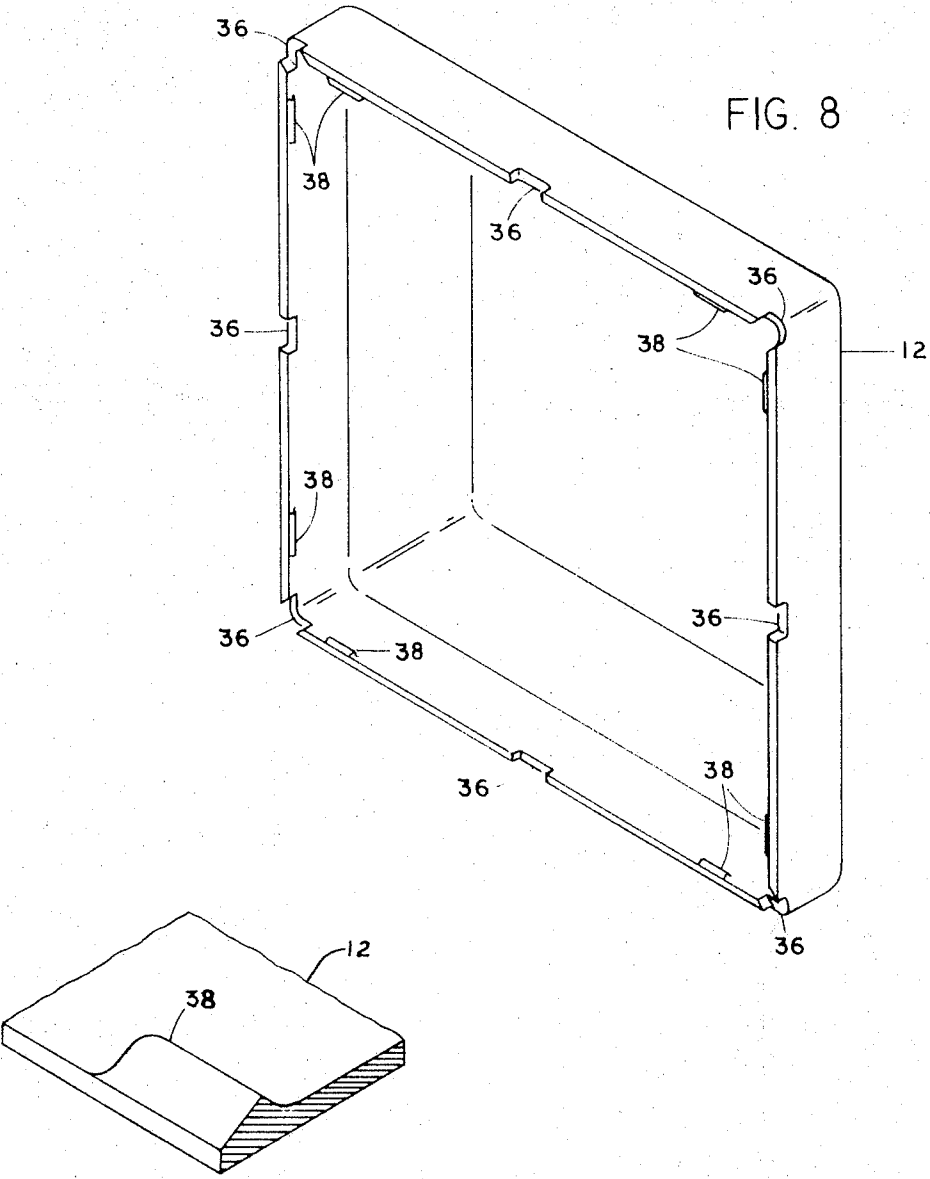


FIG. 9

LIGHTING UNIT ARRANGEMENTS FOR NEEDED AND/OR DECORATIVE LIGHTING USING DEFINITE FORMS SUCH AS LIGHT BLOCKS

BACKGROUND OF INVENTION

Lighting both for needed illumination and decoration has generally required preplanning at the time a dwelling has been designed or is to undergo remodeling. This is true even to provide a minimum source such as a wall outlet. Often outlets are placed wrong at the outset, or as time passes and the use of a dwelling changes, outlets become inconvenient to get to. As a consequence the use of a long extension cord is required or they are abandoned. Moreover, the need for outlets of any kind is often not realized or forgotten in certain places and consequently never installed.

To remedy some of these design defects initially noticed and/or subsequently recognized, and also to open up an all new approach to designing for adequate and/or decorative lighting, lighting units in various almost self contained arrangements, such as groupings of the illustrated light blocks, are now available. They are used in various places throughout a dwelling, many of which previously were not served by any lighting unit. Their planning, purchase, mounting, assembly, maintenance, and rearranging, is conveniently undertaken often by the lady of the home. After the first light block is located and secured, its caseback structure is utilized to locate the adjacent light blocks without undertaking further measurements and without being concerned for alignment of continuing pathways for the wiring. Throughout a grouping of light blocks positioned immediately adjacent one to another, in a variety of positions, the wiring remains concealed under all the light passing and decorative casefronts.

SUMMARY OF THE INVENTION

To aid in overcoming lighting deficiencies of present dwellings and to plan better lighting for new dwellings, and moreover to add decorative lighting to both present and proposed dwellings, lighting units, such as the illustrated light blocks, are now available. Each light block is independently secureable to a supporting structure and after making measurements for locating the first one, others of a group of any pattern are located without making further measurements. The light blocks are arranged as walls of light, strips of light, room dividers of light, accent light, free form design wall light, night light, and added light, for gaining additional lighting and/or decorative lighting.

In each group the wires remain fully concealed behind all the illuminated casefronts which snap on and off their respective casebacks. Light sockets with their bulbs are secured to the casebacks. Wires are routed in the casebacks to and from light sockets following various pathways aligned with selected pathways of other casebacks, which are controllably spaced adjacent one another in different overall patterns. Upon final assembly and during subsequent changes both colored light bulbs and colored casefronts are arranged and/or interchanged to acquire different effects of the overall lighting decoration furnished by the light blocks. The planning, installation, subsequent rearrangements and maintenance of groupings of light blocks are all often conveniently undertaken by the lady of the home.

DRAWINGS OF PREFERRED EMBODIMENTS

The preferred embodiment of the lighting unit assembly arranged in a somewhat block form and referred to as a light block is illustrated in respect to its use and its construction in the drawings, wherein:

FIG. 1 is a perspective view of a grouping of eight light blocks arranged on a wall near an entry;

FIG. 2 is a perspective view of a grouping of four light blocks mounted on a wall of a stairway;

FIG. 3 is a perspective view of a grouping of four light blocks to illustrate three ways of positioning one light block adjacent to another;

FIG. 4 is an elevational view indicating how two groups of light blocks are secured to a common wall and are positioned with only their corners touching to conceal the continuing wires, and yet they are arranged in two very different appearing groups;

FIG. 5 is a front perspective view of four light blocks with their casefronts removed to show the caseback and its support and routing of the electrical wires, sockets, and bulbs, and also its wire pathways which also serve as spacers in arranging adjacent light blocks in various selected overall lighting patterns;

FIG. 6 is a front perspective view of the caseback of the light block;

FIG. 7 is a back perspective view of the caseback of the light block.

FIG. 8 is a perspective view of the casefront to indicate how its edges are cut away to accommodate wires and wire passageways, and to show eight protuberances arranged to cooperate with at least four flexible projections on the caseback during the snap on placement of the casefront on and over the caseback; and

FIG. 9 is an enlarged partial perspective view of an edge portion of the casefront to illustrate one of the protuberances utilized during the snap on placement of the casefront on and over the caseback.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Groupings of Lighting Units - Light Blocks

As illustrated in FIGS. 1 through 4, lighting units 10, known in reference to this preferred embodiment as light blocks 10, are grouped together to provide adjacent lighting units to create light where needed and/or to create merely decorative light. After installation, no wires are noticeable providing an outlet from a major circuit is also covered by one of the light blocks 10. However, in many instances, pre-existing wall outlets are not easily covered. Otherwise, the only wire appearing would be a lead-in wire to a wall socket or other connecting place to the major circuit of a dwelling. Throughout such decorative groupings, the fronts 12 of each light block 10, referred to as casefronts 12, are often made of different colored materials to create multiple colored effects or uniform colored effects. The resulting colors are further modified and/or supplemented by also using colored electric light bulbs in the interiors of the light blocks. Preferably, the casefronts 12 are made of medium impact polystyrene material which may or may not be colored during manufacture. Resulting colors are quite varied such as aztec gold, tangerine, raspberry, berry red, bristol blue and avocado. Also there will always be white casefronts available to meet the sole objective of better lighting

and to be intermixed with other color casefronts for decorative lighting.

Mounting of Casebacks and Placement of Wiring and Bulbs

As illustrated in FIGS. 5, 6, and 7, the caseback 14 of the light block 10 serves many important purposes. As particularly shown in FIG. 5, a group of four casebacks 14 may be mounted so the adjoining casebacks 14 present a different overall wire pathway. The electrical conductor or wiring 34 continues on from the male plug 28, through optional line switch 30 and beyond through each light block 10, wherein it is wired to the respective light sockets 19 having bulbs 20. Then often, by using an optional female plug 26, the wire pathway may be continued on to additional light blocks. The additions are subject, however, to a preferred restriction of only 36 light blocks being supplied from the same lead-in cord. In contrast to the continuous electrical wiring 34 shown in FIG. 5, such wiring may be provided in shorter runs using more in line plugs and receptacles.

As further illustrated in FIGS. 6 and 7, to create: the selective entry and/or exit wiring passageways 18 preferably located in eight places about each caseback 14; the cooperating wire routing pins 24; the light socket holders 22; the mounting adhesive surface areas 31 and/or fastener hole structures 32; and the spacing tabs 16, often also serving as the wiring passageways 18, a high impact polystyrene material in opaque white is preferably molded into such overall form as the illustrated caseback 14. All other colored casebacks 14 are available.

Form and Snap on Securement of Casefronts

As illustrated in FIGS. 1 through 4, each lighting unit 10, referred to as a light block 10, when assembled appears substantially as the casefront 12 appears, for it completely covers the caseback 14, wires 34, socket 19, and bulb 20. The casefront 12 is further illustrated in FIGS. 8 and 9. As observed in the perspective view of FIG. 8 each corner and the middle of each side of the casefront 12 is formed with an opening 36 to accommodate the combined purpose structure of the wire passageway 18 and spacer tab 16 of the caseback 14.

When the materials used for the casefront 12 and caseback 14 are sufficiently resilient, such as the polystyrene materials, then a snap on and pull off assembly process may be relied upon. Spaced around the interior edge of the casefront are eight protuberances 38 arranged so any directional placement of the casefront 12 on and over the caseback 14 will secure them together. Then at least at four places about the caseback 12, it is formed with flexible and deflectable protuberances 40 which releasably interfit with the protuberances 38 on the casefront 12 when the latter is snapped on into place as part of the final assembled light block 10.

Other Possible Embodiments and Overall Purpose

The decorative and/or added lighting furnished by using lighting units 10 in the illustrated outer block form referred to as light blocks 10, is also realized by using other geometric forms, such as hexagons. For continued concealment of the wires, the other forms to be selected should have sufficient abutable surfaces conveniently located. If so provided with sufficient abutable surfaces to conceal the electrical wires, then, circles, rectangles, triangles, etc., could be used. Although incandescent lamps are illustrated, fluorescent lamps might be designed to be used in such lighting

units. Possibly printed circuits might be adaptable. However, throughout the considerations of all embodiments, the overall purpose remains to give the purchaser the opportunity to preplan his or her decorative lighting, which often also serves as needed illumination, thereafter to select the lighting units and accessories therefore, and then quite often to install them by himself or herself. Moreover, if color changes are subsequently wanted, changing of colored bulbs and/or colored casefronts is conveniently undertaken. Also if the change wanted includes repositioning of the lighting units this is reasonably accomplished as the casebacks are rearranged.

We claim:

1. A lighting unit to create useful and decorative artificial lighting, comprising:

a. a formed caseback having:

1. holes to optionally receive fasteners used to secure it to a structure of a building,
2. integral back mating surface structures to optionally receive adhesives to secure it to a mating structure of a building,
3. an integral front accessible receiving structure centrally positioned to receive a light bulb socket,
4. multiple front accessible integral sets of routing structures spaced to selectively receive electrical wires to be arranged in selective routes to and from a light socket to be secured to the centrally positioned structure,
5. recessed front accessible spaced integral receiving and guiding structures spaced along the caseback edges to accommodate electrical wires, and
6. spaced front accessible flexible protuberances to releasably interfit with protuberances on a casefront;

b. electrical lighting components including:

1. light bulb socket secured to the integral front accessible receiving structure centrally positioned on the caseback,
2. a light bulb secured in the socket, and
3. electrical wires connected to the light bulb socket and extending across the front of the caseback through selected multiple sets of routing structures and beyond into selected recessed receiving and guiding structures at the caseback edges, and

c. a formed light transmitting casefront removably secured over the top of the formed caseback to fully enclose the sides and front of the caseback and all the electrical lighting components secured and positioned on it, having:

1. recessed side edge accessible spaced integral receiving structures spaced along the casefront edges to accommodate the electrical wires, and
2. inside accessible spaced integral protuberances to releasably interfit with the flexible protuberances on the caseback.

2. Multiple lighting units, all as claimed in claim 1, positioned in contact with each other so each lighting unit will have some of its respective recessed receiving structures in alignment with those on an adjacent lighting unit, whereby the electrical wires extend directly from one unit to another unit while remaining concealed within the casefronts.

3. Multiple lighting units, all as claimed in claim 2, each unit having sufficient respective recessed receive-

ing structures available for alignment so the lighting units are arrangeable selectively in a continuous side to side alignment, in a continuous side to side perpendicular configuration, and in a continuous corner to corner configuration.

4. A lighting unit to create useful and decorative artificial lighting, comprising:

a. a formed caseback having:

1. securement means to secure the back of the caseback to a structure of a building,
2. a front accessible central receiving structure to receive a light bulb socket,
3. routing structures to selectively receive electrical wires arranged to and from a light bulb socket to be secured to the central receiving structure,
4. front accessible spaced edge recessed receiving structures to accommodate electrical wires which continue on, and
5. front accessible spaced releasable interfitting connecting structures to be used with complementary interfitting connecting structures on a casefront;

b. electrical lighting subassembly having:

1. light bulb socket secured to the front accessible central receiving structure of the caseback,
2. a light bulb secured in the socket, and
3. electrical wires connected to the light bulb socket and extending across the front of the caseback through selected routing structures and be-

yond into selected edge recessed receiving structures, and

c. a formed light transmitting casefront removably secured over the top of the formed caseback to enclose the electrical lighting subassembly, having:

1. side edge accessible spaced recessed receiving structures to accommodate the electrical wires which continue on, and
2. inside accessible spaced releasable interfitting connecting structures to be used with complementary interfitting connecting structures on the formed caseback.

5. Multiple lighting units, all as claimed in claim 4, positioned adjacent each other so each lighting unit will have some of its respective recessed receiving structures in alignment with those like recessed receiving structures on an adjacent lighting unit, whereby the electrical wires extend directly from one unit to another unit while remaining behind the casefronts.

6. Multiple lighting units, all as claimed in claim 5, each lighting unit having a sufficient number of spaced respective receiving structures available for selection, so the lighting units are arrangeable on a structure of a building selectively, in a continuous side to side alignment, in a continuous side to side perpendicular configuration, and in a continuous corner to corner configuration.

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