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LUMINOUS OR FLUORESCENT FLOOR COVERING

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This invention relates to floor coverings for use in theatres and other buildings where semi-darkness is required. The invention also includes methods of treating floor coverings for such purposes.

In theatres, particularly motion picture theatres, most of the theatre is in semi-darkness in order to permit satisfactory brilliance on the screen without excessive projected light. Great difficulty is encountered by people entering the theatre either from the brightly lighted streets or a brightly lighted theatre lobby because their eyes accustom themselves to the semi-darkness only gradually, and it is difficult to see where they are going when walking down the aisle to their seats. Attempts have been made to provide highly localized illumination of theatre aisles, but this requires either an excessive number of extremely low power, and therefore inefficient, lights or increases the level of brightness in the auditorium to a point where it disturbs the observation of the motion picture on the screen. In most theatres, ushers are provided with flash lights or other source of local illumination to aid the audience in finding seats. This creates an annoyance to those already seated, and is at best an unsatisfactory compromise.

According to the present invention, the floor coverings for aisles are treated with materials which fluoresce under the ultra violet, or a strip of fluorescent material may be applied to the floor covering in the middle of the aisle. The aisle is then illuminated with ultra violet light from which the visible radiations have been carefully filtered out. The aisle glows with the fluorescent light which, while sufficient to show members of the audience where the aisle is when seeking their seats, is not sufficiently brilliant to affect the general brightness of the auditorium.

It is also possible by means of the present invention to provide floor coverings with a narrow strip of floor material down the middle and identifying numbers in fluorescent material at the side to indicate the seat rows which is particularly useful where reserved seats are provided as it is even more difficult to read seat numbers and row numbers than it is to locate the aisle.

The present invention is not limited to any particular fluorescent material. In general, there are three main ways of providing fluorescent floor coverings or floor coverings with fluorescent strips or designs. The yarns may be dyed with dyes which fluoresce or designs may be printed on the floor covering after it has been woven, using fluorescent coloring matter. The second method

is to apply pigment colors in the form of paints, enamels and lacquers. The third method is to impregnate the floor covering with luminous pigments such as sulfides of barium, zinc or bismuth or fluorescent silicates. While the invention is not limited to any one of these methods, the first method, although in some cases slightly more costly, particularly where floor covering has already been laid, gives the most satisfactory results. The coloring matter which is actually dyed into the floor covering either by way of the original yarn from which the floor covering was woven or by printing after it was woven is more permanent. With floor coverings such as linoleum, of course, only the second method may be applied.

In general, it is desirable to use a fluorescent material in conjunction with a source of ultra violet radiation as these materials are cheap in cost and the amount of ultra violet radiation required does not involve any serious consumption of power. However, where desired, self-luminous colors may be used such as those incorporating radioactive material.

The invention will be described in conjunction with the following specific examples which constitute typical illustrations of the invention.

Example 1

Floor covering for aisles is prepared by using yarn dyed with Rhodamine B (C. I. No. 749) which, under the ultra violet radiation, fluoresces.

Example 2

A woven floor covering is printed in the desired designs with fluorescent or ultra violet sensitive pigments, dyes, lacquers, or self-luminous radioactive paints.

Example 3

Fluorescent zinc sulfide is incorporated into a paint, and floor covering is coated with the material in a suitable design.

Example 4

An aisle carpet for a theatre is impregnated with a lacquer containing barium sulfide. It is then subjected to ultra violet radiation during the time when the theatre is open.

What I claim is:

1. An arrangement comprising in combination a floor coating in a theatre aisle, at least a portion of the floor coating containing fluorescent materials which fluoresce strongly in the visible spectrum, and sources of ultra violet radiation directed on said floor coverings.

2. An arrangement comprising in combination

- a textile floor covering, a portion of which is dyed with a fluorescent dye which fluoresce strongly in the visible spectrum, and sources of ultra violet radiation directed on said floor covering.
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3. An arrangement comprising a floor covering for theatre aisles, outlying portions of which being dyed with a fluorescent dye which fluoresce strongly in the visible spectrum and row identifying symbols being likewise dyed therein with the fluorescent dye and located adjacent to their respective rows, and means for directing ultra violet radiation on said floor covering.
4. A floor covering comprising a textile fabric 5 having a portion thereof woven of yarn dyed with a fluorescent dye which fluoresces strongly in the visible spectrum.

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