Feb. 26, 1924. 1,484,742

J. M. SHERWIN

LUMINOUS LOCATOR OR MARKER

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Fig. 1

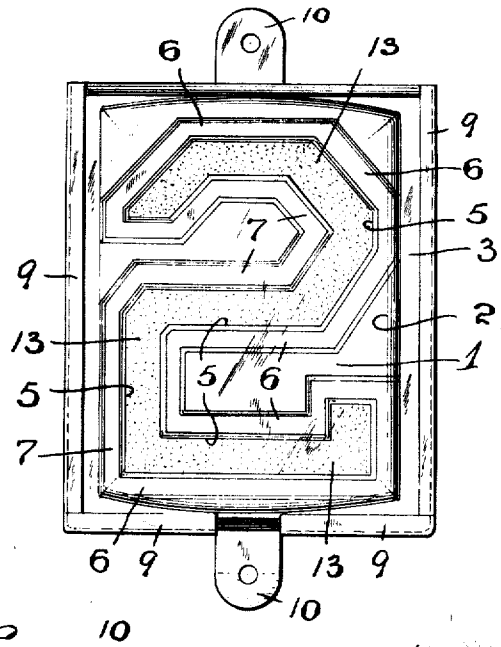


Fig. 2

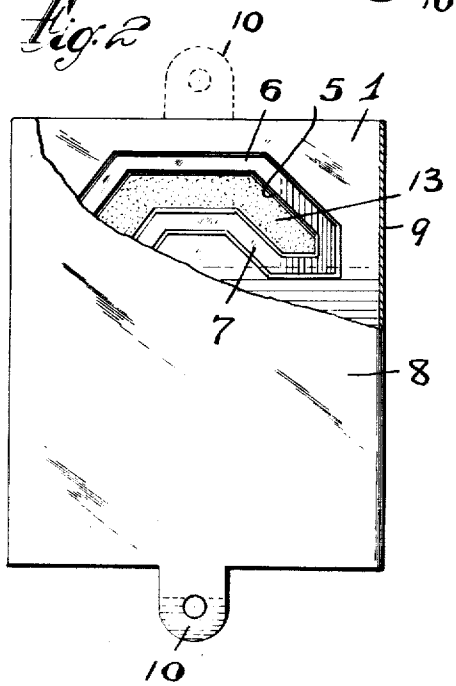
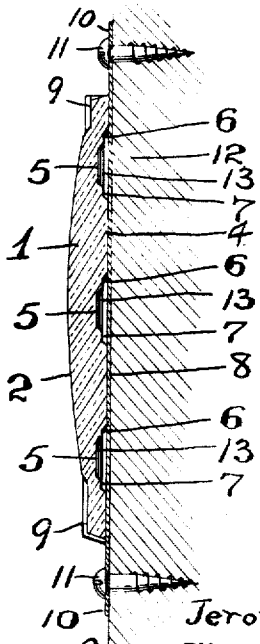


Fig. 3



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Fig. 4

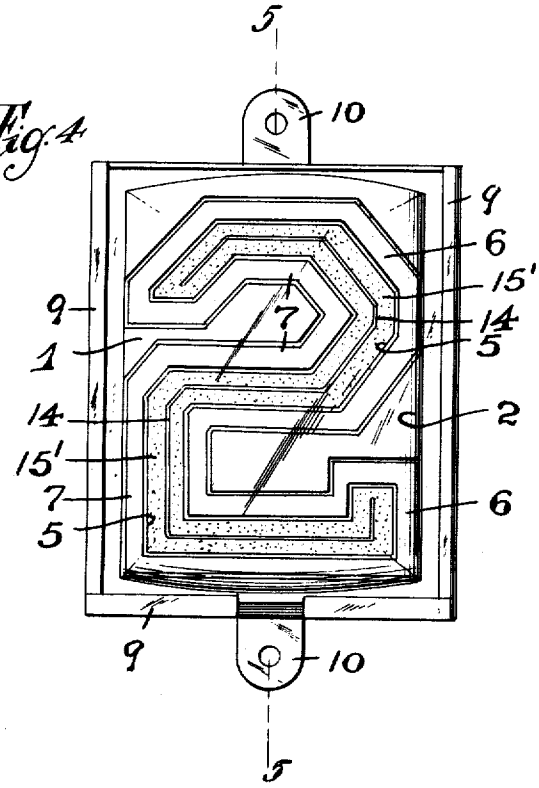


Fig. 5

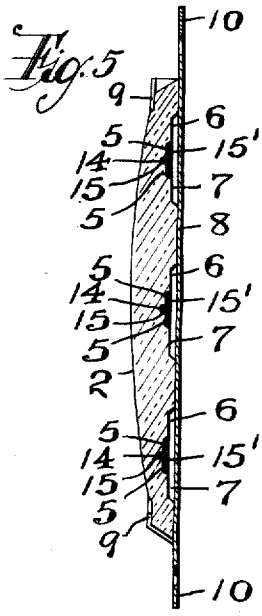


Fig. 6

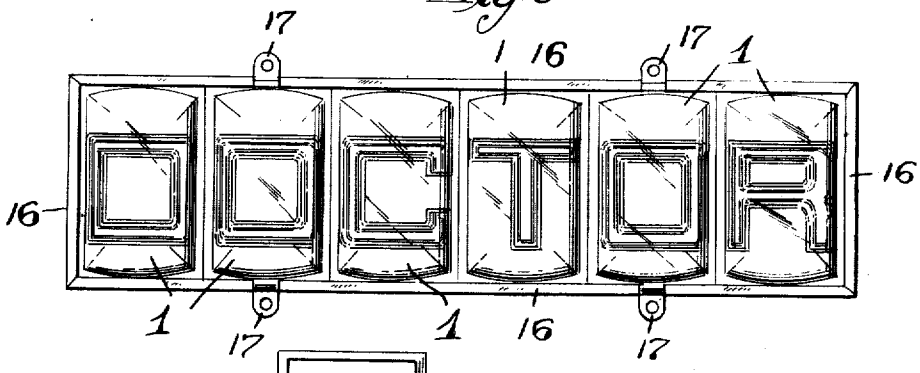
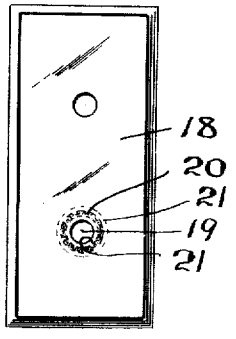


Fig. 7



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Patented Feb. 26, 1924. 1,484,742

UNITED STATES PATENT OFFICE.

JEROME M. SHERWIN, OF NEWARK, NEW JERSEY, ASSIGNOR TO THE LUMINITE CORPORATION, OF NEWARK, NEW JERSEY, A CORPORATION OF NEW JERSEY.

LUMINOUS LOCATOR OR MARKER.

Application filed February 8, 1922. Serial No. 534,885.

To all whom it may concern:

Be it known that I, JEROME M. SHERWIN, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Luminous Locators or Markers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to characters of reference marked thereon, which form a part of this specification.

This invention relates, generally, to a novel and simple construction of locator device; and, the present invention has reference, more particularly, to a novel and simply constructed locator or marker device employing in its structure a novel combination and arrangement of a transparent member and a luminous material imbedded in the back of said transparent member, with a view of providing a maximum luminous effect with a minimum use of the luminous material, the device being effectually used at night for house-numbers or markers, signs, push-button plates for electric switches, and for other uses where a luminous effect is desired.

The invention, therefore, has for its principal object to provide a cheap, simple and efficient luminous locator or marker, for the various purposes stated and of the general character herein-after more fully set forth, comprising more particularly a transparent element or body of glass, or other similar transparent material, provided in the back with recessed portions, in the forms of numerals, letters, or other design, certain parts of the recessed portions being provided with an inherently luminous or light-generating material, such as radium, phosphorescent zinc sulphide, or similar material, the painted or applied recessed or grooved portions being surrounded by other recessed or grooved portions adjacent thereto, said last-mentioned recessed or grooved portions being free of the application of such luminous material, whereby, at night, a much greater luminous effect is produced, so that the locator or marker may be clearly and distinctly seen at a great distance.

The invention has for its further object to provide a luminous locator or marker of glass, or other transparent material, provided upon its back with a luminous material, disposed within recessed or grooved portions, and the face of the body of the locator or marker being in convex form, so that the device at night will have an effect, similar to that of an illuminated bull's-eye lantern, causing the light-rays from the luminous body to be more widely spread, and the numeral, letter, or the like, to be more readily distinguished and seen for some distance, all with a view of providing a locator or marker adapted to yield a maximum of visibility with a minimum of material.

Other objects of the present invention not at this time more particularly enumerated will be clearly understood from the following detailed description of the present invention.

With the various objects of the present invention in view, the said invention consists primarily in the novel luminous locator or marker hereinafter set forth; and, the said invention consists, furthermore, in the novel arrangements and combinations of the various devices and parts, as well as in the details of the construction of the said parts, all of which will be more fully described in the following specification, and then finally embodied in the clauses of the claims which are appended to and which form an essential part of the said specification.

The invention is clearly illustrated in the accompanying drawings, in which:—

Figure 1 is a front face view of a locator or marker, showing one embodiment of the principles of the present invention, encased in a shell provided with means for its attachment to a door, post, or other element; Figure 2 is a rear face view of the same, a portion of the back of the shell being represented broken away, so as to show more particularly one arrangement of the recessed or grooved portions in the back of the transparent element, with a luminous material disposed in one of the said recessed or grooved portions, in the manner of the present invention; and Figure 3 is a vertical sectional representation of the said locator or marker, shown secured to the face of a door or other body.

Figure 4 is a face view of a modified construction of a luminous locator or marker, but still embodying the principles of the

present invention; and Figure 5 is a vertical sectional representation of the same, said section being taken on line 5—5 in said Figure 4.

Figure 6 is a face view of a plurality of luminous locators or markers, disposed in an enclosing shell or frame, each locator or marker being formed with a luminous letter, and said locators or markers being arranged to spell a word; and Figure 7 is a transparent push-button plate, provided in its back, with recessed or grooved portions, and a luminous material in one of said recessed or grooved portions, all made according to the principles of the present invention, and surrounding the hole or perforation in which the circuit-establishing push-button is adapted to be arranged.

Similar characters of reference are employed in all of the said above described views, to indicate corresponding parts.

Refering now to the several figures of the drawings, the reference-character 1, in said Figures 1 to 6 inclusive, indicates a main body or element made of glass, or any other suitable transparent material, the said body in this instance being shown of a rectangular marginal configuration, although it will be understood that the said body may be variously marginally shaped.

The said body upon its outer face is preferably convexly formed, as at 2, whereby the bull's-eye effect heretofore mentioned is obtained, said convex face-portion being usually surrounded by a reduced and flat-faced marginal rim-portion 3, as more particularly shown in Figures 1, 3, 4 and 5 of the drawings.

As shown in Figures 2 and 3 of the drawings, the rear flat face 4 of the said body or element 1 is made with a recessed portion or depression 5, of greater depth, than a pair of bounding recessed portions or depressions, as 6 and 7, said depressions or recessed portions 5, 6 and 7, being made to represent a number or letter, or being of any other desired conformation, according to the use to which the locator or marker is to be put.

Applied in any suitable manner in the deep recessed portion or depression 5 is an application of a luminous material, as radium, preferably the latter, but it will be understood, that any other luminous material, such as sulphide of zinc, may be used.

In order that the luminous locator or marker may be secured to a door, post, or other body, the said body 1 is encased in a suitable casing which is preferably made of metal, but may be made of any other suitable material, the said casing comprising a back-plate 8 disposed against the back of the transparent body 1, and forming a waterproof covering for the recessed portions or depressions 5, 6 and 7. The marginal edge-portions of the said back-plate 8 are turned over about the marginal edges of the said body 1, providing suitable retaining flanges 9 for holding said body in place. Extending from some of said flanges are perforated ears 10 for the reception of fastening screws or pins 11 for securing the locator or marker in place upon a door 12, or other suitable body.

In order to reduce the cost of the expensive radium, which gives the best luminous results, by referring to Figures 4 and 5 of the drawings, it will be seen that in addition to the deep depression 5, a still deeper and a narrow depression or recessed portion 14 is employed, which is filled with radium 15, and an application of the less expensive sulphide of zinc applied directly over said radium 15 and the adjacent portions of the depressions 5, as shown more particularly in Figure 5 or the drawings.

When the locator or markers are provided with letters, which are adapted to be arranged to form a word, as shown in Figure 6 of the drawings, a long and correspondingly formed shell or casing, as 16, is provided, said shell or casing being similar in construction as the previously described shell or casing used in connection with the single locator or marker hereinbefore described, the said frame or casing 16 in this case being provided at each side with a plurality of perforated screw or nail-receiving ears 17, substantially as shown.

Referring now to Figure 7 of the drawings, I have illustrated therein a transparent plate 18, such as is used with push-buttons for electric switches, the plate being provded with the usual hole or perforation 19 in which such button is adapted to be arranged. As indicated in dotted outline in said Figure 7, surrounding the said hole or perforation 19 are concentric depressions, as 20 and 21, similar to the arrangement of the previously mentioned depressions, in which the luminous matter may be disposed either as stated in connection with the locator shown in Figures 1, 2 and 3 of the drawings, or as stated in connection with the locator represented in Figures 4 and 5 of the drawings.

I claim:—

1. A locator or marker comprising a transparent body formed in its rear face with a plurality of adjacent depressions, one a central depression being of great depth, depressions adjacent thereto of less depth, and other depressions of still less depth adjacent to said last-mentioned depressions, a luminous material of a strong degree of luminosity in said central depression, and a luminous material of another degree of luminosity in the depressions adjacent to said central depression, the bounding depressions of the least depth being free from

luminous material to cause a diffusion of the light rays from the luminous materials in the respective depressions.

2. A locator or marker comprising a transparent body formed in its rear face with a plurality of adjacent depressions, one a central depression being of great depth, depressions adjacent thereto of less depth, and other depressions of still less depth adjacent to said last-mentioned depressions, a luminous material of a strong degree of luminosity in said central depression, and luminous material of another degree of luminosity in the depressions adjacent to said central depression, the bounding depressions of the least depth being free from luminous material to cause a diffusion of the light rays from the luminous materials in the respective depressions, and the front face of said body being convex in form to provide a bull's-eye effect.

3. A locator or marker comprising a transparent body formed in its rear face with a plurality of adjacent depressions, one a central depression of great depth, depressions adjacent thereto of less depth, and other depressions of still less depth adjacent to said last-mentioned depressions, a luminous material of a strong degree of luminosity in said central depression, and a luminous material of another degree of luminosity in the depressions adjacent to said central depression, the bounding depressions of the least depth being free from luminous material to cause a diffusion of the light rays from the luminous materials in the respective depressions, combined with an enclosing shell formed with marginal retaining flanges, and means extending from said flanges for securing the locator to the surface of a body.

4. A locator or marker comprising a transparent body formed in its rear face with a plurality of adjacent depressions, one a central depression of great depth, depressions adjacent thereto of less depth, and other depressions of still less depth adjacent to said last-mentioned depressions, a luminous material of a strong degree of luminosity in said central depression, and a luminous material of another degree of luminosity in the depressions adjacent to said central depression, the bounding depressions of the least depth being free from luminous material to cause a diffusion of the light rays from the luminous materials in the respective depressions, and the front face of said body being convex in form to provide a bull's-eye effect, combined with an enclosing shell formed with marginal retaining flanges, and means extending from said flanges for securing the locator to the surface of a body.

In testimony that I claim the invention set forth above I have hereunto set my hand this 6th day of February, 1922.

JEROME M. SHERWIN.

Witnesses:

FRANZ C. PRAMZET,

EVA E. DESCH.