

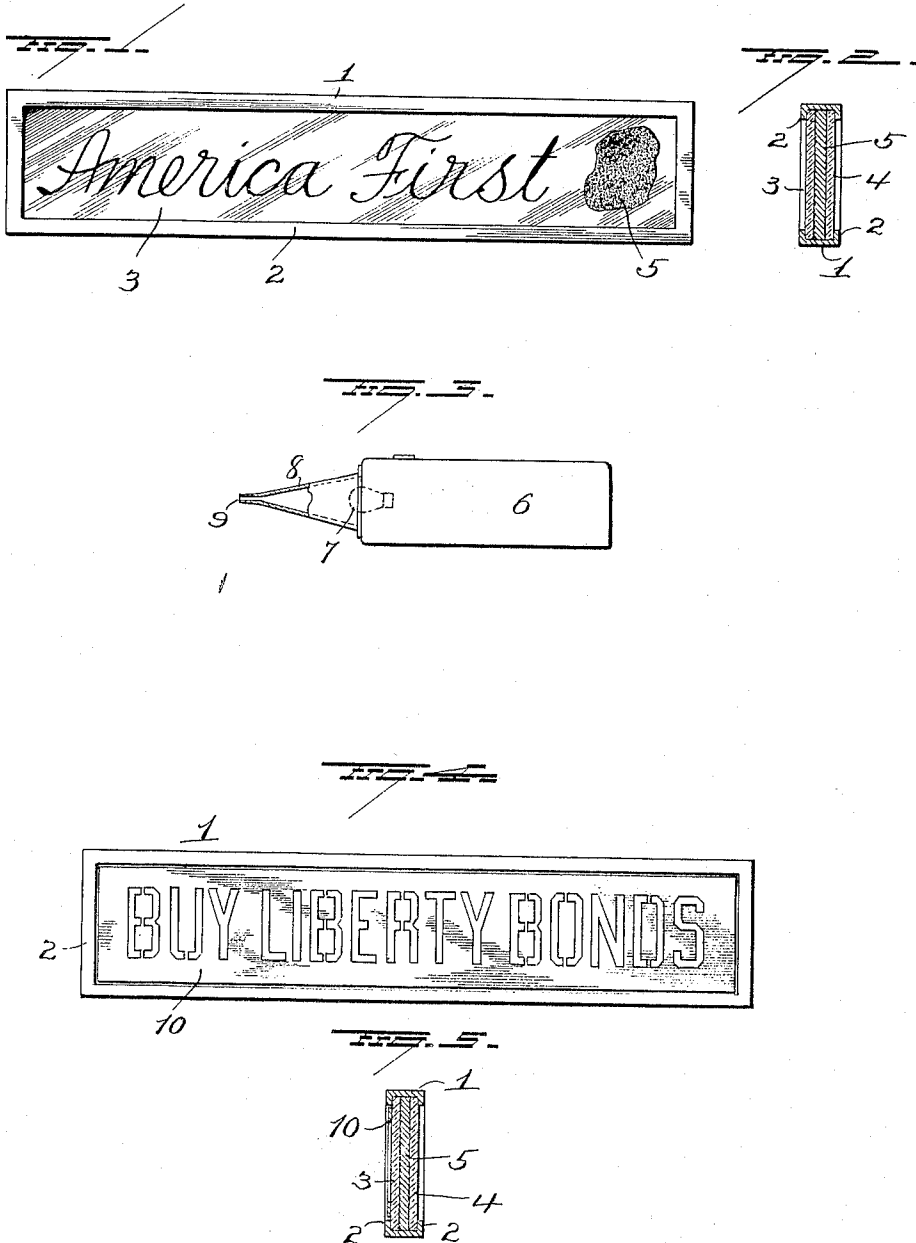
E. I. DODDS.

MEANS FOR DISPLAYING ILLUMINATED WORDS OR CHARACTERS.

APPLICATION FILED OCT. 10, 1917.

1,383,082.

Patented June 28, 1921.



WITNESSES
E. J. Nottingham
G. J. Downing

INVENTOR
E. I. Dodds
Cy Seymour & Bright
Attorneys

UNITED STATES PATENT OFFICE.

ETHAN I. DODDS, OF PITTSBURGH, PENNSYLVANIA, ASSIGNOR TO FLANNERY BOLT COMPANY, OF PITTSBURGH, PENNSYLVANIA.

MEANS FOR DISPLAYING ILLUMINATED WORDS OR CHARACTERS.

1,383,082.

Specification of Letters Patent.

Patented June 28, 1921.

Application filed October 10, 1917. Serial No. 195,818.

To all whom it may concern:

Be it known that I, ETHAN I. DODDS, a citizen of the United States, and residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Means for Displaying Illuminated Words or Characters; 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.

This invention relates to improvements in means for displaying illuminated words or characters,—the object of the invention being to provide means whereby illuminated words or characters may be made to appear in the dark on a signal or sign board and remain visible for a more or less limited time.

With this and other objects in view, the invention consists in certain novel features as hereinafter set forth and pointed out in the claims.

In the accompanying drawings; Figure 1 is a front view illustrating an embodiment of my invention; Fig. 2 is a transverse sectional view of the signal or sign board; Fig. 3 is a separate view of a light pencil which may be employed to cause illuminated letters or words to appear on the signal or sign board, and Figs. 4 and 5 are views illustrating a modification.

1 represents a frame which may be made elongated or of any other desired shape and provided with retaining flanges or strips 2 to receive the edges of plates 3 and 4.

The plate 3 will be of transparent material such, for example, as glass and the plate 4 may be made of white glass or white board. The plates are spaced apart somewhat, and between them a layer 5 is located. This layer comprises material which will absorb light,—viz., which will become activated or energized by the application of artificial light to render the same luminous in the dark. The material composing the layer 5 may comprise zinc or calcium sulfid and a very small quantity of radioactive material, such as a salt of radium.

Words or characters may be made to appear on the sign or signal board with the use of a pencil of light,—the same being moved over the plate 3 as in writing or lettering so that those portions of the layer of

light absorbing material over which the light passes will be rendered luminous and illuminated letters or words thus will be caused to be visible.

To provide a light-pencil for writing upon the signal or sign board as above explained, the device shown in Fig. 3 may be employed. This may consist of a handle portion 6 containing an incandescent lamp 7, and a hollow conical member 8 having a contracted opening 9 at its apex through which rays of light from the lamp 7 may pass to form the pencil of light above mentioned.

Instead of causing portions only of the light absorbing layer to be rendered luminous to form illuminated words or letters by means of a pencil of light, I may employ a stencil 10 which may be placed in front of the signal or sign board as shown in Figs. 4 and 5 and then a lamp or other source of light may be placed in front of the board or moved slowly from end to end thereof in front of the stencil so that the light will pass through the letter openings of the stencil and activate those portions of the light-absorbing material which appear behind such openings.

With my improvements, illuminated letters or words may be made to appear on the board at the will of the operator and will remain visible in the dark for an appreciable though more or less limited time.

My improvement may be utilized as advertising means or it may be used for signaling purposes.

Various slight changes might be made in the details of construction of my invention without departing from the spirit thereof or limiting its scope and hence I do not wish to restrict myself to the precise details herein set forth.

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

1. Means for displaying illuminated words or characters comprising a member provided with a continuous layer of material which will be capable of being rendered luminous by artificial light, and means whereby predetermined portions only of said continuous layer may be activated to form illuminated words or characters.

2. Means for displaying illuminated words or characters, comprising a transparent plate, a continuous layer of light-absorb-

ing material behind said transparent plate, and means for throwing light on portions only of said layer to form illuminated words or characters in the portions of said layer
5 activated by such light.

3. Means for displaying illuminated words or characters, comprising a frame, two plates in said frame, one of said plates being transparent, a continuous layer of light-absorb-
10 ing material between said plates, and means for throwing light on said transparent plate to activate portions only of said layer to form illuminated words or characters.

4. Means for displaying illuminated words

or characters, comprising a transparent 15 plate, a coating of light absorbing material behind the same, and a portable lighting device for throwing a pencil of light on said layer to activate portions of the same, and form illuminated words or characters. 20

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ETHAN I. DODDS.

Witnesses:

F. H. ALLISON,
EDWIN S. RYCE.