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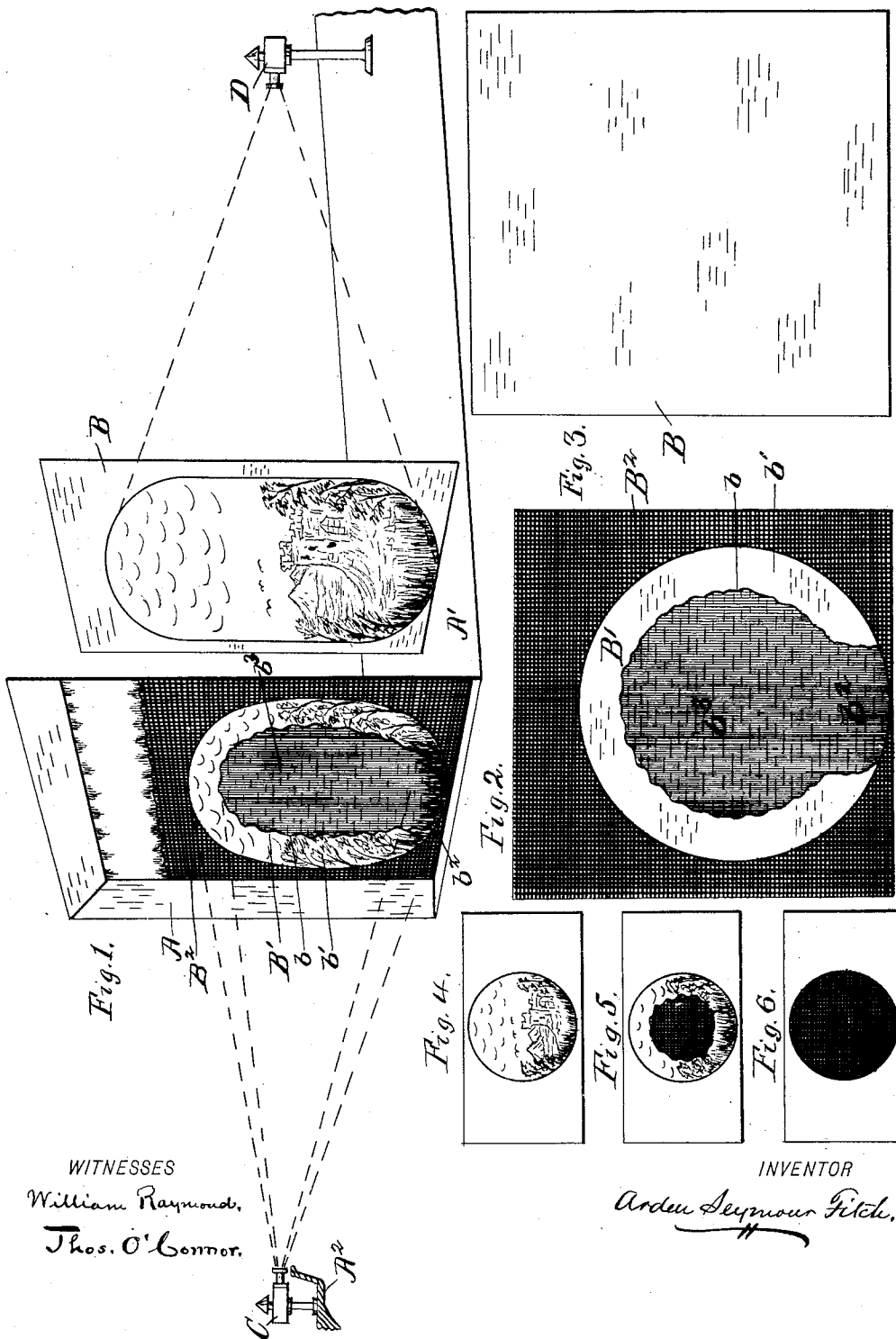
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A. S. FITCH.

APPARATUS FOR PRODUCING SCENIC REPRESENTATIONS.

(Application filed June 12, 1900.)

(No Model.)



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APPARATUS FOR PRODUCING SCENIC REPRESENTATIONS.

SPECIFICATION forming part of Letters Patent No. 663,267, dated December 4, 1900.

Application filed June 12, 1900. Serial No. 20,084. (No model.)

To all whom it may concern:

Be it known that I, ARDEN SEYMOUR FITCH, a citizen of the United States, and a resident of the city of New York, county and State of New York, have invented certain new and useful Improvements in Apparatus for Producing Scenic Representations, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to apparatus for use in producing scenic representations, as upon the stage of a theater, by projecting by concentrated light thrown through pictures and refracting mediums, as by stereopticons or magic lanterns, images of such pictures upon screens.

My invention consists, primarily, in an apparatus for use in producing scenic representations, as upon the stage of a theater, which comprises a continuous screen, preferably translucent, and a screen which is centrally and widely apertured and is located in front of the continuous screen, and said aperture in which is preferably filled with a reflective transparent medium.

In the drawings, Figure 1 is a sectional perspective view of the proscenium and stage of a theater with the apparatus containing my invention in operative position thereon. Fig. 2 is a front elevation of the forward screen. Fig. 3 is a similar view of the rearward screen; and Figs. 4, 5, and 6 are face views of lantern-slides which may be employed in projecting images of pictures upon the screens.

A represents the proscenium of a theater, A' the stage, and A² a gallery in the audience-chamber thereof.

The apparatus which comprises my invention consists of a screen B, composed of any suitable cloth, and preferably of thin muslin or silk, which is translucent and white or whitish in color, together with a screen B', which is centrally and widely apertured, as at *b*, so as to leave only a marginal portion, as at *b'*, which may be of any desired general contour and is preferably irregularly circular or annular, as

shown. The said portion *b'* is desirably opaque and may be composed of thick or reinforced cloth for this purpose, and its front face is white or whitish in color. The central lower portion of the opaque cloth composing said annular screen *b'* is preferably cut away and a section of reflective transparent material, such as gauze or reticulated lace, is inserted, as shown at *b²*, and it is also desirable that a central portion of reflective transparent material be inserted in and fill the central wide aperture *b* in this screen, and it will be found preferable in constructing the screen B' to compose the entire central portion *b³* and the section *b²* in the margin of a sheet of gauze or reticulated lace of a white or whitish color, as shown. The screen B is continuous or unbroken throughout its entire area and is desirably of a greater area than that of screen B'.

In employing the described screens composing my apparatus I locate, as upon the stage of a theater, the screen B' in front of the screen B relatively to the audience-chamber, and it will be found desirable to place the screen B' in the proscenium opening, filling in the space between outer edges of the screen and the sides, top, and bottom of said opening with a drapery or curtain, such as is indicated at B², composed of opaque material, having a lusterless front surface—such, for example, as a deep purple or black velvet or plush or a woolen fabric—and then to place the screen B a determinate distance on the stage A' to the rearward of the screen B', as illustrated in Fig. 1. Now it is evident that the usual lights in the audience-chamber and on the stage being dimmed or extinguished the image of a picture may, by means of a stereopticon C, located, say, in a gallery A² of the theater and employing a lantern-slide, such as is illustrated in Fig. 5, having an opaque central field, be projected only upon the marginal reflective opaque portion *b'* of the screen B', including the reflective transparent section *b²* of said marginal portion when such section is incorporated in the screen, and that the image of a picture may, by means of a stereopticon D, located on the

stage behind the screen B, be projected on said screen, and such screen B being translucent, as described, the image thus projected thereon will appear on the forward surface of said screen and will be visible from the audience-chamber through the aperture *b* in the screen B' and through the reflective transparent central portion *b*³ of the screen when said latter portion fills said aperture in the screen, as described, the light from the stereopticon D, projected through the screen B, having the effect of rendering the said central portion *b*³ of the screen B' invisible from the audience-chamber, and the image on the screen B may constitute a scenic background and that on the portion *b'* of the screen B' a scenic foreground of a homogeneous scenic representation. It is also evident that a figure or performer, one or more, may be introduced and move in the space on the stage between the described screens, where they will desirably be illuminated by light-rays thrown on them from the well-known hooded or "slit" lights, which may be placed at either side of the stage for the purpose, and that such figures or performers will be visible from the audience-chamber within the environment of the scenic representation produced, as described, upon said screens, the full lengths of such figures or performers being thus visible when the section *b*² is employed in the screen B', while said section will in a degree reflect the part of the image projected thereon by the stereopticon C. It is furthermore evident that by employing a lantern-slide, such as indicated in Fig. 4, in the stereopticon C in the same manner as such a slide is employed in the stereopticon D to project the image thereof on screen B the image of a picture may be projected upon the entire area of screen B', including both the marginal portion *b'* and the central portion *b*³, and that such image will appear from the audience-chamber as a flat picture obscuring the stage and screen B thereon behind said screen B', while an area of dark tint, such as deep purple, corresponding to the area of screen B', projected upon and through screen B, as by using a slide, such as is indicated in Fig. 6, in stereopticon D, will serve to heighten the reflective quality of the portion *b*³ of screen B' and enhance the brilliancy of the image projected, as described, on said screen B'. It is still further evident that by the employment of the well-known "dissolver" devices in connection with suitable stereopticons the images successively projected on screen B' may be alternated with the successive projections of images of pictures on the screen B, and the images projected on said screen B' may be changed or "dissolved" from an image covering the entire area of such screen to an image covering only the marginal portion *b'* thereof, so that a series of scenic representations, comprising

a foreground on said portion *b'* of screen B' and a background on screen B, may be projected by the respective stereopticons, while a series of images severally made visible in the intervals between such scenic representations may be projected by the stereopticon C to cover the entire area of the screen B', thereby producing a pleasing succession of different scenic representations with decorative or symbolical pictures in the intervals between them in place of the scene-curtains generally employed.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. An apparatus for use in producing scenic representations, as upon the stage of a theater, comprising a continuous screen and a screen which is centrally and widely apertured and is located, as upon the stage, in front of the continuous screen; whereby, when the images of pictures are respectively projected, by concentrated light thrown through such pictures and refracting mediums, upon said continuous screen and upon the marginal portion of said apertured screen, as by stereopticons, the image on the continuous screen will be visible, as from the audience-chamber of the theater, through the aperture in the forward screen, and will constitute a scenic background, while the image on the marginal portion of the apertured screen will constitute a scenic foreground in a homogeneous scenic representation.

2. An apparatus for use in producing scenic representations, as upon the stage of a theater, comprising a continuous screen and a screen which is located, as upon the stage, in front of the continuous screen and is centrally and widely apertured and has a reflective transparent section in the central lower part of the marginal portion thereof; whereby, when images of pictures are respectively projected, by concentrated light thrown through said pictures and refracting mediums, upon said continuous screen and upon the marginal portion of said apertured screen, as by stereopticons, to constitute respectively on said screens a scenic background and a scenic foreground of a homogeneous scenic representation, figures or performers introduced on the stage between the screens will be visible from the audience-chamber of the theater through the aperture in the forward screen and also the reflective transparent section of the marginal portion thereof.

3. An apparatus for use in producing scenic representations, as upon the stage of a theater, comprising a continuous screen and a screen composed of a reflective opaque marginal portion and a reflective transparent central portion, and which is located, as upon the stage, in front of the continuous screen; whereby the image of a picture may be projected, by concentrated light thrown through said picture and a refracting medium, as by

a stereopticon, upon and will be visible on the reflective transparent portion of the front screen as well as the marginal portion thereof, and the image of a picture may be similarly
5 projected upon the continuous screen and, when no light is projected on the reflective transparent portion of said front screen, will be visible, as from the audience-chamber of

the theater, through said reflective transparent portion of said front screen. 10

Signed at New York city, State of New York, this 11th day of June, A. D. 1900.

ARDEN SEYMOUR FITCH.

Witnesses:

J. O'CONNOR,
WILLIAM RAYMOND.