

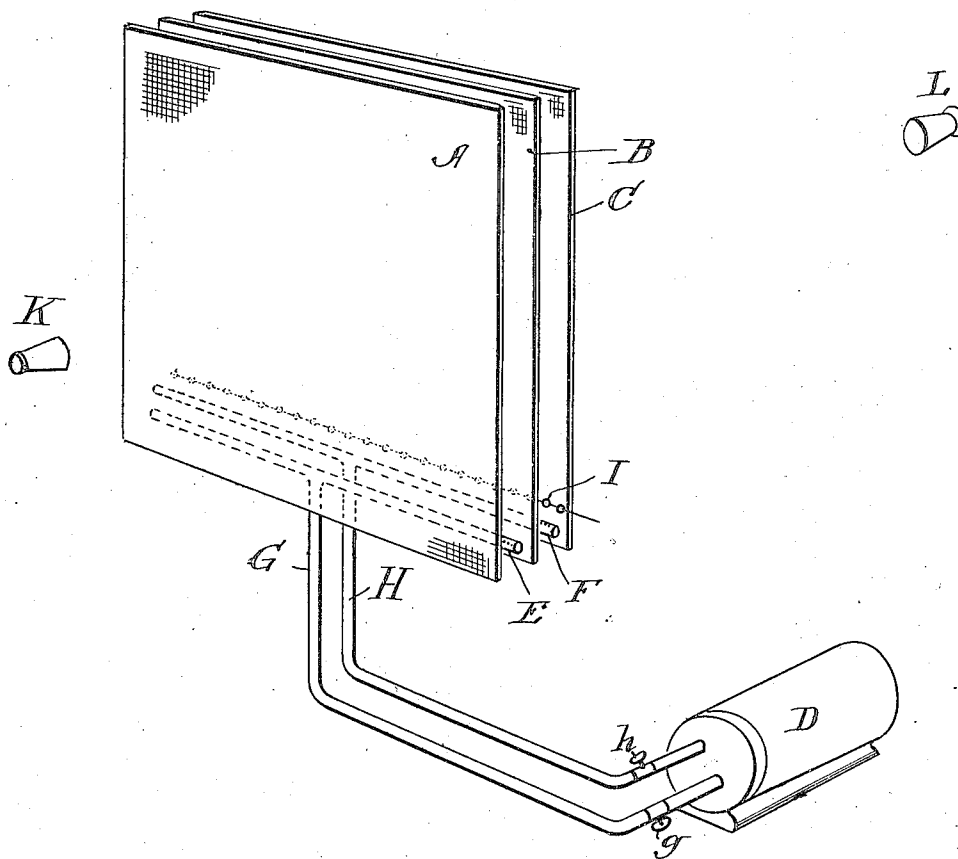
J. M. CARY.

PROCESS FOR PRODUCING COLOR EFFECTS AND THE APPARATUS THEREFOR.

APPLICATION FILED MAY 26, 1913.

1,104,407.

Patented July 21, 1914.



WITNESSES

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UNITED STATES PATENT OFFICE.

JULIA M. CARY, OF RIDGEFIELD, CONNECTICUT.

PROCESS FOR PRODUCING COLOR EFFECTS AND THE APPARATUS THEREFOR.

1,104,407.

Specification of Letters Patent.

Patented July 21, 1914.

Application filed May 26, 1913. Serial No. 739,789.

To all whom it may concern:

Be it known that I, JULIA METCALF CARY, a citizen of the United States of America, residing in the town of Ridgefield, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Processes for Producing Color Effects and the Apparatus Therefor.

My invention relates to improvements in producing, projecting and manipulating colors on a vapor medium for artistic effects and for commercial purposes, on the stage of a theater or outdoors, wherever light and color may be projected and used for scenic effect, either as the principal foreground, middle distance, or background; and the objects of my discovery are: 1st. To provide, confine and shape a vapor body, on, into or through which light and color may be projected, temporarily arrested, and changed, with a great variety of color effects. 2nd. To produce at will aerial perspective and tone and depth in color effects, with or without continuous movement and change, merging pictures one into another, dissolving views, and blending lights, or the like. 3rd. To provide simple and effective means for realizing the foregoing objects.

Other objects will appear from the hereinafter description.

I attain these objects and work this process by the mechanism illustrated in the accompanying drawings, which are by way of illustration only, and not a limitation. I describe in this specification and represent in the accompanying drawings such illustrative mechanism, in which—

Figure 1 is a perspective view of the screens in place upon the stage of a theater, omitting all accessories not directly concerned in working the process, and these screens would ordinarily be the whole height and width of the stage, or they may be employed to cover the upper half of the stage, for example, or some other part of the stage.

A and B are transparent or translucent wire gauze screens, preferably of medium mesh, say sixteen to the inch, and preferably composed of copper or other metal wire of inconspicuous size, but it may be of fibrous gauze, and with less effect, and the screen A is represented as facing the audience in a theater, for example, and as occupying the whole height and width of the stage.

C may be another screen, like any of those described as suitable for A or B, or of can-

vas, or it may be the back wall of the stage, or any other plain or decorated surface.

D is a small steam boiler adapted to produce steam.

E and F are perforated steam pipes, each located in the space between the screens A, B and C, at the bottom, but they may be at one side or both sides, or at the top, or in all of these positions.

G and H are steam connecting pipes connecting the steam space of the boiler D to the perforated pipes E and F, each controlled by a stop-cock, *g* and *h*.

I is a row of footlights between the screens B and C, as shown in the drawings; but they may be arranged also at the sides or top of the space, or in any one or more such locations; and such lights may be arranged in the space between A and B, or in front or back of all the screens.

K is a source of light in the front of the stage, as is in the gallery, adapted to throw lights, colors, and representations of any desired kind toward the apparatus above described.

L is a similar light in the rear of the stage, but in front of the back wall which may be used simultaneously with light K, or other lights, or alone. Other similar lights, chiefly for projecting color, may be arranged at the sides of the stage, directed at the sides or top or bottom, or any or all such locations adapted to throw lights into the spaces between the screens.

I have discovered that such wire gauze screens have the property of confining a cloud of vapor to the space between the said screens, and I make use of this discovery to provide a body of vapor shaped and controlled at the will of the operator between the spaces defined by any two adjacent screens as described; and on this body of vapor and into it I project by the apparatus above described light and scenes and representations of all kinds in a way to produce depth in the scene represented, a color symphony with manifold variety, with or without constant change, and with high artistic excellence. By projecting sky blue on one vapor body, and gray or neutral tints on local parts of vapor in the space next in front, I may produce the effect of clouds drifting over the sky, and by other lights I may produce a sunset and then the after-glow. I may produce wonderful stage backgrounds by throwing scenes upon the

vapor body toward the front from the lantern K, and luminous background effects by suitable lights at the same time from the lantern L in the rear. I may shoot beams of light athwart the vapor bodies, from the stage, or from the top or bottom. I may thus reproduce on the stage the aurora borealis, the dawn, the seasons, lightning, moving pictures, butterfly effects, and color symphonies.

As original work, other great varieties of light and color creations are possible; and these in turn may be photographed on moving picture films and reproduced on an ordinary screen, without the expense of the wire gauze, lights and steam apparatus required for original work.

These screens may be multiplied indefinitely in parallel with suitable vapor space between each, each illuminated by different lights from the sides, top or bottom of the stage, with endless combinations of scene and light.

In outdoor work the screens may be installed for all kinds of display, and for amusement, instruction, signaling, or producing legends, news, advertisements, and the like; and in all combinations they may be attended, of course, by acting, singing, and other music and the like.

Many changes may be made in the apparatus, the arrangement of elements, the number of screens, means of lighting, projecting

light, and the creation of the vapor body; and with suitable screens, vapors of other kinds than visible steam may be used, from which may be realized in part the effects of my invention; and in all such cases there is no departure from the spirit and scope of my invention. And I desire the claims to be construed in this sense.

What I claim and desire to secure by Letters Patent is—

1. The process of producing scenic effects, which consists in using a visible vapor body as the support for color effects, shaping and controlling the said vapor body by means of gauze screens, and projecting light upon the vapor body.

2. The apparatus for carrying out the said process, which consists in gauze screens adapted to locate and shape a visible body of vapor, means for producing a visible body of vapor within the space between said screens, and means for throwing light upon said body of vapor.

In witness whereof I have hereunto set my hand, at New York, in the county of New York and State of New York, this 22nd day of May, 1913.

JULIA M. CARY.

In presence of—

MELBERT B. CARY,
LORETTA BEIRNE,
HUGH F. DOLAN.