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R. F. SPANGENBERG.

SYSTEM FOR OPERATING LIGHT EFFECTS.

APPLICATION FILED MAR. 25, 1902.

NO MODEL.

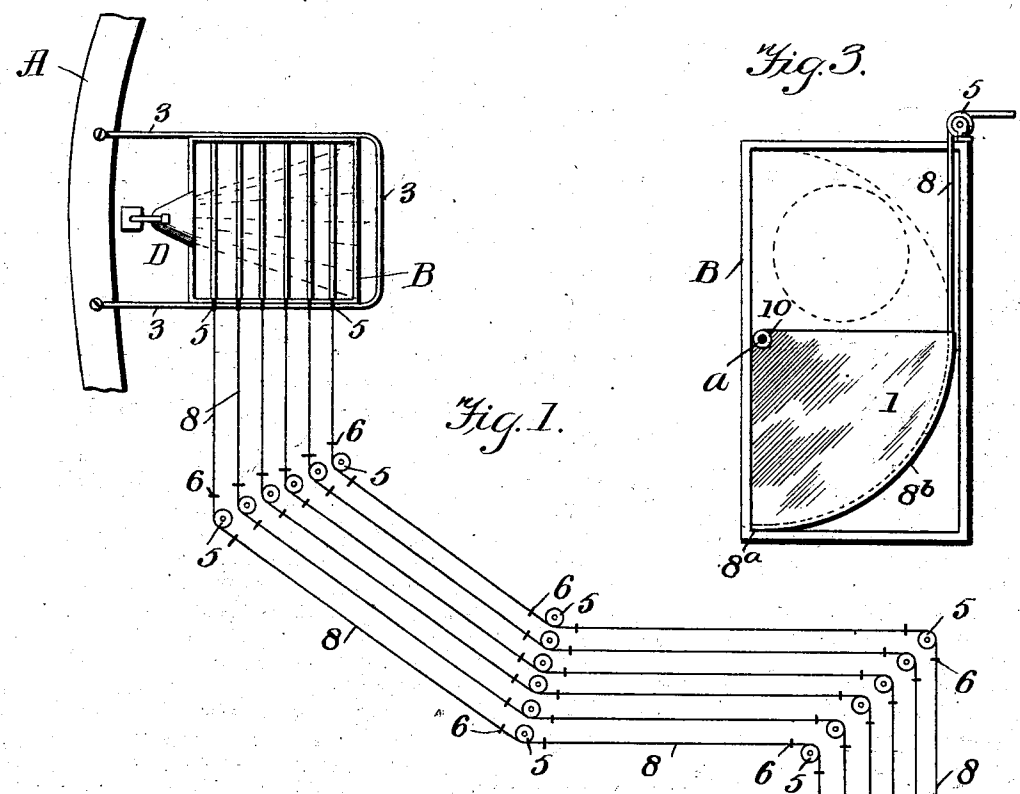
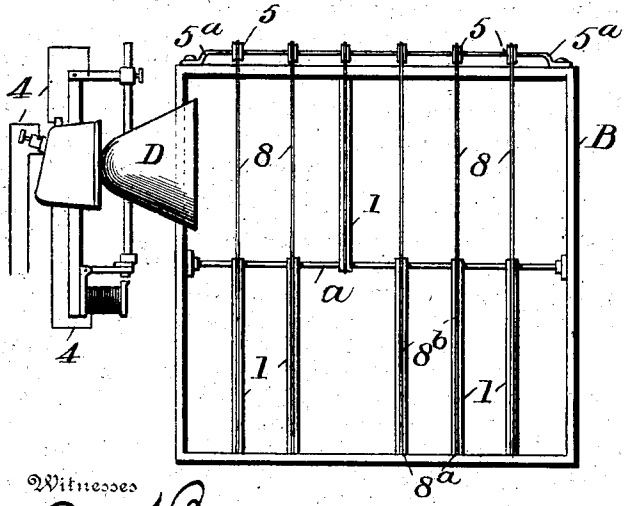
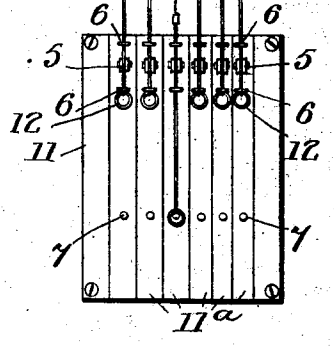


Fig. 1.

Fig. 3.

Fig. 2.





Witnesses

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SYSTEM FOR OPERATING LIGHT EFFECTS.

SPECIFICATION forming part of Letters Patent No. 726,199, dated April 21, 1903.

Application filed March 26, 1902. Serial No. 99,960. (No model.)

To all whom it may concern:

Be it known that I, ROBERT FERRIDAY SPANGENBERG, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Systems for Operating Light Effects; 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.

My present invention relates to improvements in systems of controlling light effects, and has for its object certain features of novelty that will hereinafter more fully appear.

In carrying out my said invention I have shown the same in the accompanying drawings as embodied in an apparatus for mechanically controlling the colored lights thrown upon a theatrical stage.

In the accompanying drawings, Figure 1 is a diagrammatic view of the system applied to the usual stage-illuminating mechanism. Fig. 2 is a detail view, enlarged, of the cabinet, one side of the same being removed to show the color-frames; and Fig. 3 is a similar view showing the same looking from one end.

In the several views, A represents the balcony or other suitable support within the auditorium of a theater. Located slightly in front of this balcony or other support A is the casing or cabinet B, containing the quadrant-shaped color frame or holder. A plurality of such frames or holders are pivotally mounted within the said casing B, such as by the rod *a* passing through an aperture in the bearings 10 upon the corner of each quadrant. Mounted behind these color-frames 1 in the casing B is a lamp or light of any suitable character, the light from which is projected through the said color-frame 1. In the drawings I have illustrated in Fig. 2 an arc-lamp of any preferred type provided with a reflector D, current being supplied to said lamp through the feeders 4 4. This casing or cabinet B may be suspended from its support by means of light braces or rods 3 3 or in any other preferred manner to suit varying requirements. Mounted upon the top of this cabinet B in any suitable manner, such as by the bracket 5^a, are a plurality of rollers or pulleys 5. These brackets 5^a, carrying the pulleys 5, are preferably located at suitable intervals around beneath the balcony, guide-staples 6 being preferably provided upon each side of said pulleys. Through these eyelets 6 and over the pulleys 5 are passed the cords 8. One end of each of these cords 8 is attached to one of the quadrant-shaped color-frames 1 at the point 8^a, said cord resting upon the grooved curved portion 8^b of said quadrant 1. These cords 8 are led around beneath the balcony or in any other hidden place to the wings or stage of the theater, these pulleys 5 and guide-staples 6 being placed wherever needed to support and guide said cords. These cords may be made of dark-colored twine or may be wire or any other preferred material. Upon the stage within easy access of the electrician or other attendant is located an indicator-board 11, provided with longitudinal divisions 11^a, each of said divisions being painted in different colors. Upon the top of this indicator-board 11 are provided the pulleys 5 and guide-staples 6, one set of which is located at the top of each division. Passing through each of these pulleys and guide-staples located upon the variously-colored divisions are the cords connected to the corresponding color-changing frames within the cabinet B. Upon the end of each of these cords 8 is provided a ring 12, arranged so that when its respective color-frame is in its lowermost position said ring will rest in its uppermost position against one of the staples 6.

When it is desired to raise one or more of the color-frames to cast the desired light, the ring attached to the cord resting upon that particular desired colored partition or division of the indicator-board 11 will be drawn down and hooked upon the pins 7, one of which is provided for each ring 12. Thus it will be seen that a system for operating the colored lights thrown upon a stage is provided whereby the same may be operated from the stage or any desired point in a positive manner, thus avoiding the employment of a special attendant for this purpose, as well as eliminating the inconveniences of the old method.

Should the theater or other place be not

equipped for electric lighting, a calcium, lime, or other suitable light may be substituted for the electric light commonly employed.

While I have shown my invention as embodied in the form herein shown and described, it will be understood that I do not limit myself to such form and apparatus, as said invention may be applied in many different ways without changing the principle or scope of my said invention.

Having thus described my said invention, what I claim, and desire to secure by Letters Patent, is—

1. In a device of the character described, the combination of a rectangular-shaped cabinet adapted to be located in front of the balcony of a theater, trussed braces interposed between said balcony and said cabinet for supporting the same at the desired distance outside the balcony, illuminating means carried by said cabinet, a plurality of color-frames pivotally mounted in said cabinet, a plurality of cords leading from said cabinet, each connected to its respective color-frame, pulleys located at spaced distances beneath said balcony, over which said cords pass, an indicator-board located at a distant point, colored divisions upon said indicator-board, means for connecting each cord leading from its respective color-frame to the corresponding division upon said indicator-board, and means carried by said board for retaining the desired frame or frames elevated before the illuminating means within the cabinet.

2. In a device of the character described, the combination with an inclosing cabinet, a light located in the rear of said cabinet, a plurality of quadrant-shaped color-frames pivoted upon one side of said cabinet, each of said frames having a grooved edge upon its curved periphery, a cord attached to each of said frames, adapted to lie in said groove when said frame is in its lowered position, pulleys in the top of said frame over which said cords pass, guide-pulleys at intervals outside of said cabinet over which said cords pass, an indicator-board located at a distance to which said cords lead, colored divisions upon said indicator-board, means for securing the cords leading from the colored frame to their respective divisions upon said indicator-board, and a ring carried upon the end of each of said cords adapted to be hooked upon a pin in said board, to retain its corresponding frame elevated.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT FERRIDAY SPANGENBERG.

Witnesses:
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