## A. M. ZINN. THEATER APPLIANCE.

(Application filed Jan. 15, 1902.)

(No Model.) F7.77.Zinn Inventor

## United States Patent Office.

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## THEATER APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 715,730, dated December 9, 1902.

Application filed January 15, 1902. Serial No. 89,898. (No model.)

To all whom it may concern:

Be it known that I, ALBERT M. ZINN, a citizen of the United States, residing at Spokane, in the county of Spokane and State of Washington, have invented a new and useful Theater Appliance, of which the following is a specification.

This invention relates generally to theater appliances, and specifically to a novel arcorangement of stage-fitting adapted particularly for use in connection with spectacular dances, scenic effect, exhibition, and adver-

tising purposes.

The object of the invention is to provide a novel arrangement of back and fore ground for a stage which under action of motion and projected light will present to an audience an illusion of appearing and disappearing brilliant jewels or of phosphorescent insects flittoting through the air around and over the stage.

With these and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of a stage-fitting, as will be hereinafter fully

described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like numerals of reference indicate corresponding parts, there is illustrated a form of embodiment of the invention, together with a slightly-modified form thereof, capable of carrying the same into effect, it being understood that the elements therein exhibited may be varied or changed as to shape, proportion, and exact manner of assemblage without departing from the spirit thereof.

In the drawings, Figure 1 is a view in elevation of a curtain constituting what is known in theatrical parlance as a "back drop" and designated hereinafter the "background."
Fig. 2 is a similar view of a curtain constituting what is known as the "front" curtain and designated hereinafter the "foreground."
Fig. 3 is a view in sectional elevation exhibiting the manner in which the appliance is disposed with relation to the dancer. Figs. 4 and 5 are modified forms of foreground, exhibiting the manner in which the same will be constructed for use as a "leg-drop" and a "border," respectively.

Referring to the drawings, 1 designates a curtain constituting the background, the same being constructed of any suitable dark or 55 black material and suspended in any preferred manner from a batten 2. The front or outer side of the curtain has glued or otherwise attached to it any desired number of small pieces of mirror 3, of regular or irregular shape, which may be disposed over the surface thereof at like or unlike distances apart, according to the effect desired to be secured.

The curtain 4, which constitutes the fore- 65 ground, consists of a plurality of pendants or suspending-cords 5, preferably of strong black thread, to each of which is secured at equal or unequal distances apart reflecting-surfaces 6, consisting each of two pieces of mirror 70 glued back to back to the suspending-cords, the said surfaces to be either regular or irregular in shape, as may be preferred. The upper ends of the cords are secured to a batten 7, which latter is held suspended in front of 75 the background and at a sufficient distance therefrom to afford the dancer ample room for movement, as clearly shown in Fig. 3, the lower ends of the pendants to lie close to but not touch the stage in order that they may be 80 free for movement.

In use the two curtains will have constant movement, either by being shaken by hand or by having a blast of air projected against them from a fan, thereby imparting to both 85 the background and foreground an undulatory motion and, further, causing the pendants to twist and untwist or rotate vertically, whereby the light thrown thereagainst will be intermittently caught and reflected, it be- 90 ing apparent that so long as the broad side of the reflecting-surfaces of the foreground are directed toward the audience the light will be reflected; but as soon as the edges of the surfaces come opposite the observer the 95 light will cease. With the background, however, the light-rays travel across the curtain in waves or flashes intermittently, according to how it is waved or moved, as may be preferred.

When this stage-fitting is employed, the hall or theater will be in perfect darkness, the light projected on the curtains being from the rear of the theater or from the sides of the

stage or from beneath or from above the stage or from any combination of said places, according to the effect desired or preferred, so that under motion a brilliant and beautiful 5 effect will result, and by the employment of varicolored lights the elegance of the exhibition will materially be enhanced. Colored electric, calcium, or incandescent lights only are used, thereby preventing an audience so from seeing how the effects are produced, which it could easily perceive were white lights employed. Owing to the fact that both the suspending-cords and back-curtain material are black or dark, the former will be in-15 visible to the spectators, and thus to all appearances the brilliant points of light alternately appearing and disappearing in the space in front of the background are suspended or seem to be floating in mid-air, darting 20 and shooting through space like comets or shooting stars, while the reflecting-surfaces of the background, projecting steady but scintillating rays of light, will have the appearance of the firmament on a cloudless night 25 or of moonlight on rippling waters, the effect produced being determined by the manner in which the curtain is moved or waved.

In Fig. 4 the foreground is shown as adapted for exhibition in connection with a leg30 drop, and in Fig. 5 as a border, the suspending-cords in this latter instance at the center of the curtain being shorter than those at the ends, so that the dancer can have space for movement under the borders and between the legs of the leg-drop, the borders and leg-drops acting merely as wings in a theater-scene to complete the setting of the stage and to prevent an appearance of emptiness between the front curtain and back drop over40 head and on the sides, at the same time creating more jewels to reflect the light-rays.

It is intended that these curtains shall be

readily adaptable to stages without necessitating any change in the structural arrangement thereof and, in effect, to constitute a 45 part of the dancer's outfit.

Having thus fully described my invention, what I claim as new, and desire to secure by

Letters Patent, is-

1. A theater appliance comprising a back- 50 ground composed of a continuous surface carrying light-reflecting means, and a foreground composed of pendants carrying light-reflecting means.

2. A theater appliance comprising a back- 55 ground composed of a dark curtain having light-reflecting surfaces disposed on its outer side, and a foreground composed of flexible pendants having light-reflecting surfaces se-

cured in pairs thereto.

3. A theater appliance comprising a background and a foreground suitably spaced apart, the background comprising a batten and a dark curtain secured thereto carrying light-reflecting surfaces, and the foreground 6; comprising a batten and a plurality of cords secured thereto and carrying reflecting-surfaces arranged back to back.

4. A theater appliance consisting of a background and a foreground suitably spaced 70 apart, the background comprising a batten and a dark curtain secured thereto carrying pieces of mirror constituting light-reflecting surfaces, and the foreground comprising a batten and a plurality of cords secured thereto carrying pieces of mirror secured back to back and constituting reflecting-surfaces.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in

the presence of two witnesses.

ALBERT M. ZINN.

Witnesses:

AL ONKEN, GEO. C. BLAKESLEE.