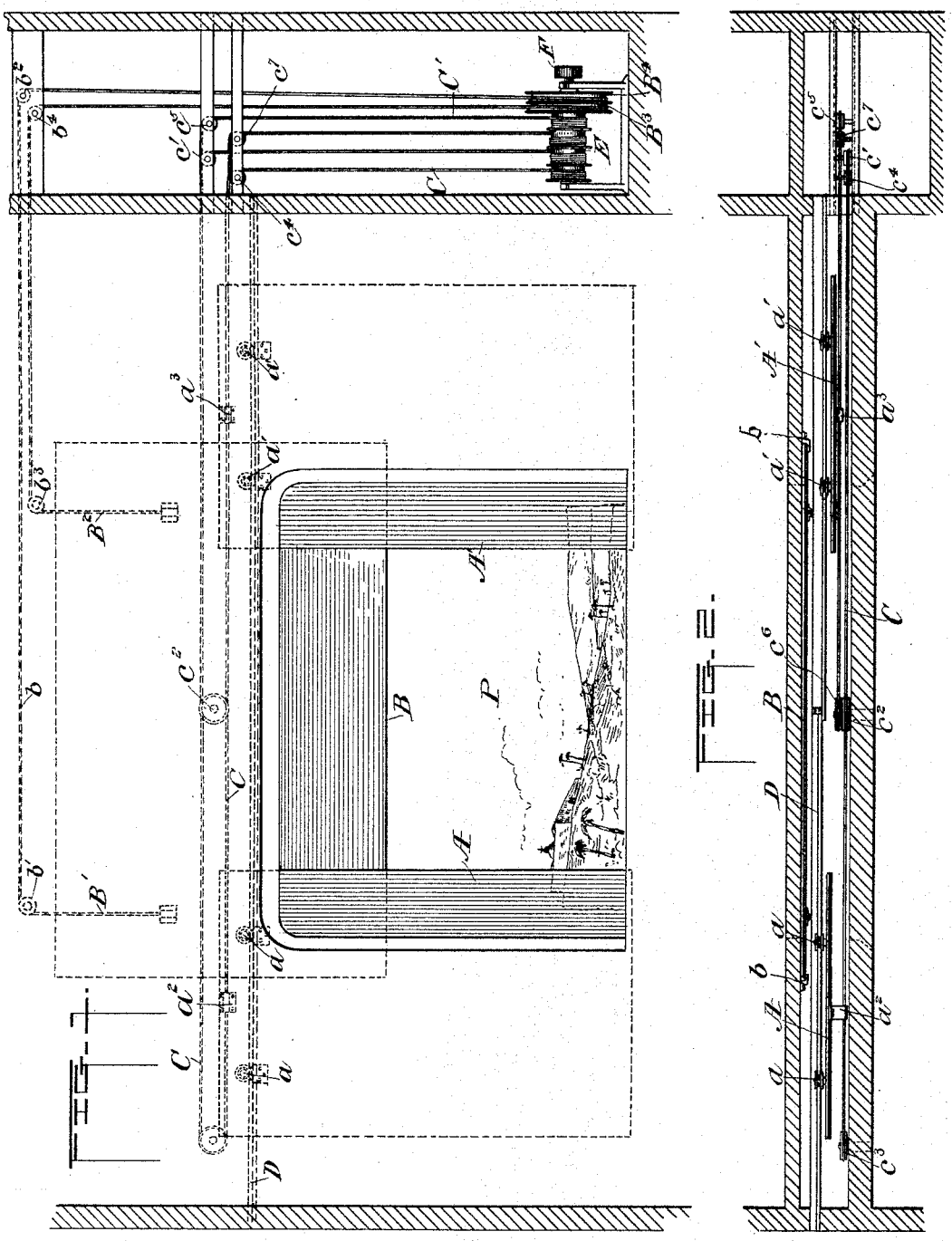
(No Model.)

S. MACKAYE.

PROSCENIUM ADJUSTER.

No. 490,482. Patented Jan. 24. 1893.



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UNITED STATES PATENT OFFICE.

STEELE MACKAYE, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE SPECTATORIA COMPANY, OF SAME PLACE.

PROSCENIUM-ADJUSTER.

SPECIFICATION forming part of Letters Patent No. 490,482, dated January 24, 1893.

Application filed May 25, 1892. Serial No. 434,290. (No model.)

To all whom it may concern:

Be it known that I, STEELE MACKAYE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Proscenium-Adjusters; 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 invention relates to theatrical appliances, and the object is to provide means for regulating the size of the proscenium opening to conform to the various requirements and uses to which a theater or other similar structure may be put; it being sometimes necessary, particularly in the exhibition of spectacular or scenic effects, to provide a large opening in order to properly display a set-scene or other scenic arrangement, and immediately after to reduce the size of the opening so as to exhibit the scene in part only, or partially conceal from view the scenic arrangements, objects, or persons on the stage or platform in rear of the proscenium opening.

To this end I have devised improved means for enlarging and contracting the proscenium opening at will, so that without a moment's delay and almost imperceptibly to the audience, except as to the result, and during the performance or exhibition, the opening may be enlarged or contracted in conformity with the requirements of the occasion.

The invention will first be described with reference to the accompanying drawings, and then particularly pointed out in the claims at the end of this specification.

Referring to the drawings, which form a part of this specification, and in which similar letters of reference are used to denote similar parts, Figure 1 represents a front elevation, partly in section, of the proscenium of a theater, or other similar edifice, with my improvements applied thereto; and Fig. 2 is a horizontal section of the same.

A, A′, denote laterally movable slides or wings which may be hung upon suitable rolls a, a', adapted to travel upon a track or rail D, which may be fixed above the proscenium arch or opening P, within the recessed wall as shown.

B, denotes a vertically movable slide or drop, which extends across the proscenium opening at right angles to the side wings A, A′, and is adapted to move in suitable guides b, b. The slide B, is suspended by means of the cords or cables B′, B^2, the ends of which are secured to said slide. From the point of attachment to the slide B, the cords B′, B^3, pass over friction rolls or pulleys b', b^2, and b^3, b^4, respectively, and have their opposite ends secured to the enlarged portion of a drum or shaft E or to pulleys B^3, B^4, fixed on said shaft.

C, C′, denote endless cords or cables which may be fixed as at a^2, a^3, to the lateral slides A, A′, so as to cause said slides to move with the cords. The cord C, has one end fixed to a reduced portion of the drum or shaft E, or to a pulley fixed on said shaft, and passes thence over friction rolls c', c^2, c^3, and around the latter back past its point of attachment a^2, to the slide A over a friction roll c^4, and thence to the opposite side of the shaft E or pulley on said shaft. The cord C′, passes in a similar manner from a correspondingly reduced section or pulley on the shaft E, over friction rolls or pulleys c^5, c^6, and around the latter back past its point of attachment at a^3, to the slide A′, over friction roll c^7, and thence to the opposite side of the shaft E or pulley on said shaft. By this means, when the shaft E revolves one end of each cord or cable C, C′, will be wound upon the shaft E, while the opposite ends of said cords are being unwound therefrom, and as the slides or wings A, A′, must move with the cords, said wings may be made to approach or recede from each other, so as to enlarge or contract the proscenium opening, according to the direction in which the shaft E is rotated. The same movement of the shaft will raise or lower the vertical slide or drop B, by winding the cords B′, B^2, upon the pulleys B^3, B^4, or unwinding the same, so that when the lateral slides are moved inwardly the vertical slide will be simultaneously lowered, and vice versa thus enlarging or contracting the proscenium opening uniformly on all sides by the simultaneous movements of the vertical and lateral slides.

It will be observed that inasmuch as there are two lateral slides and but one vertical

slide, the width of the proscenium opening would be contracted or enlarged more rapidly than the depth, if all the slides were permitted to move at the same rate of speed. I therefore provide a winding drum or shaft in the form of a differential windlass with enlarged and reduced portions or with pulleys of unequal diameters fixed thereon, and secure the ends of the cords B′, B², to the enlarged portion, or larger pulleys, and the ends of the cords C, C′, to the reduced portion, or smaller pulleys, so that the slide B may move about twice as rapidly as the slides A, A′, and thereby increase or decrease the depth of the opening uniformly with the increasing or decreasing of its width.

F denotes a pulley or band wheel by which power may be applied to the shaft E, or any suitable means may be employed for this purpose.

The proscenium opening may be of any desired size according to the size of the building or the wishes of the constructer, and although my present invention is designed particularly for regulating the size of openings of a large area, it is equally well adapted for use in theaters and similar buildings with openings of ordinary size, and hence I do not desire to limit the application of the invention to any particular use.

The arrangement of the operating mechanism may also be varied in a number of ways and various devices may be employed for effecting the simultaneous adjustment of the vertical and lateral slides. If desired mechanism may also be provided whereby the vertical and lateral slides may be adjusted independently of each other, and while I preferably employ means for accomplishing the simultaneous adjustment of all the slides, I do not desire to be limited to the exact construction and arrangement of parts shown and described herein.

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

1. In combination with the proscenium opening of a theater or similar structure, the laterally adjustable side wings or slides, the vertically adjustable slide or drop, and means for adjusting the same, substantially as described.

2. In combination with the proscenium opening of a theater or similar structure the laterally adjustable slides, the vertically adjustable drop, and means for simultaneously adjusting said slides and drop so as to uniformly enlarge or contract the proscenium opening, substantially as described.

3. In combination with the proscenium opening of a theater or similar structure the laterally adjustable side wings or slides, the vertically adjustable drop and means for simultaneously adjusting the drop and slides, so as to cause the drop to move at a greater rate of speed than the side wings, for the purpose of uniformly enlarging or contracting the proscenium opening, substantially as described.

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

STEELE MACKAYE.

Witnesses:
POWEL CROSLEY,
SIDNEY CLARKE WHITE, Jr.