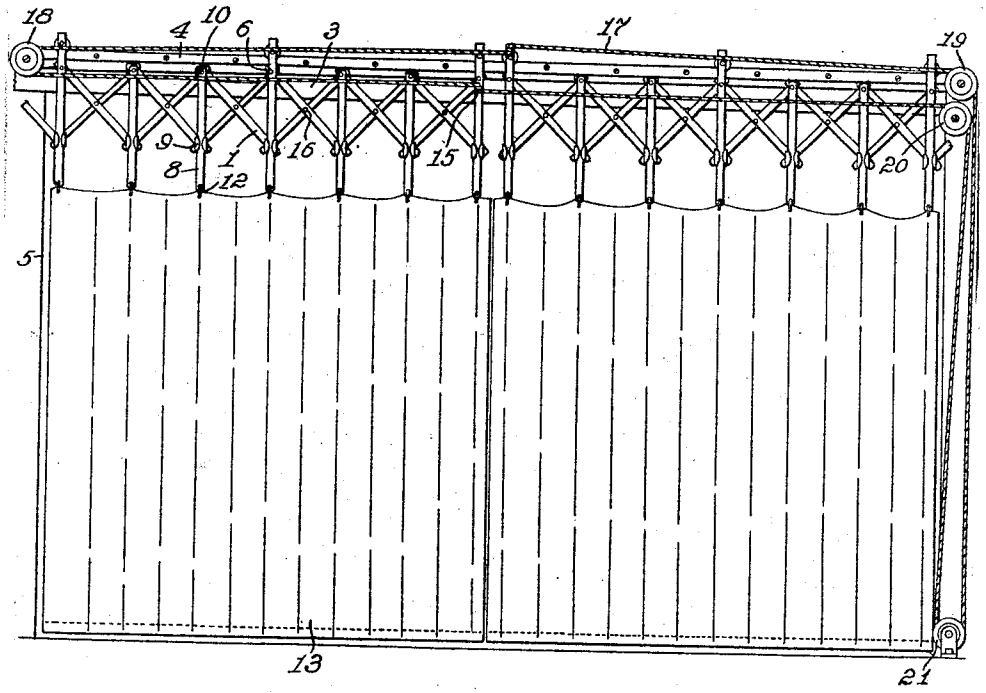
Nov. 11, 1924. 1,514,722

S. E. PERKINS

COLLAPSIBLE SUPPORTING DEVICE

Filed Sept. 21, 1922

Fig. 1.



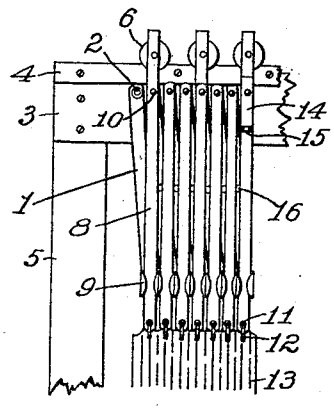


Fig. 2.

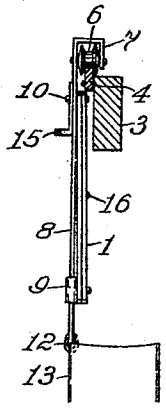


Fig. 3.

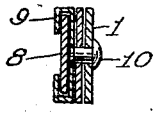


Fig. 4.

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UNITED STATES PATENT OFFICE.

SETH E. PERKINS, OF WATERLOO, IOWA.

COLLAPSIBLE SUPPORTING DEVICE.

Application filed September 21, 1922. Serial No. 589,541.

To all whom it may concern:

Be it known that I, SETH E. PERKINS, a citizen of the United States of America, and a resident of Waterloo, Blackhawk County, Iowa, have invented certain new and useful Improvements in Collapsible Supporting Devices, of which the following is a specification.

This invention pertains to improvements in collapsible supporting devices, and the object of my improvement is to supply curtain supporting means provided with hangers for a curtain at equal intervals, said means when extended, holding the curtain evenly and flatly, and when collapsed, supporting the curtain compactly folded to occupy but little space.

This object I have accomplished by means which are hereinafter described and claimed, and which is illustrated in the accompanying drawings, in which Fig. 1 is an elevation of a pair of curtains as spread out in the same plane with their top edges supported at equal intervals by the hangers of my improved extensible and collapsible supporting device. Fig. 2 is an elevation, fragmental, on a larger scale, of one of the supporting devices for a suspended curtain, and Fig. 3 is an end elevation thereof with its supporting beam and track shown in cross-section. Fig. 4 is a cross-section of a part of the lazy-tongs, and of one of the hangers taken at the pivotal connection of the hanger slideway with overlapped parts of the lazy-tongs, on a still larger scale.

My improved supporting device for curtains is especially suitable for use in supporting one or more flexible curtains under the proscenium arch of a theatre or other auditorium to extend and collapsibly hold together the curtain or curtains, usually large and made of heavy material. This improved supporting-device, however, may be of any dimensions or length as desired to support the curtain of any size across any opening.

The numeral 5 denotes a pair of spaced standards or jambs connected at their tops by a horizontal beam 3. Upon one vertical face of this beam is fastened a longitudinal bar 4 whose upper part projects above the beam to serve as an elevated track. In Fig. 1, a pair of like flexible curtains 13 are shown suspended and extended on and under a pair of like alined horizontally disposed lazy-tongs which are composed of the usual cross-bars 1. Each pair of cross-bars 1 are pivotally connected together medially at 16, and at their ends with the adjacent pair of cross-bars on pivots 10 in the usual manner. The upper end of a terminal cross-bar of the outer end part of each lazy-tongs is secured to the beam 3 on a fixed pivot pin 2.

The numeral 8 denotes a plurality of vertical parallel hanger-bars which are at or near their upper ends pivoted on the upper pivot pintles 10 of the lazy tongs. Certain of the bars 8 only at equal intervals apart have their upper ends projecting above said lazy-tongs and bent transversely horizontally and then downwardly to supply housing-members 7 within which grooved anti-friction rollers 6 are rotatably mounted to run to and fro along said elevated track 4. The lower ends of all the hanger-bars 8 project downwardly a suitable distance below the lazy-tongs and have terminal orifices 11 to receive hooks 12 on which the curtain 13 is suspended at equally spaced intervals of its upper marginal edge. In order to keep the hanger-bars 8 parallel with each other during all the phases of extending or collapsing movement of the lazy-tongs so as to equally extend the curtain and hold it flatly when extended, or to collapse it together in equal folds for the sake of compactness, I supply the following means for slidably connecting their lower parts to the lower parts of the lazy-tongs. The numeral 9 denotes a slideway constructed from a short flat bar whose extremities are bent to one side into rectangular hooks 9, and this slideway is pivotally secured medially upon the flush head of a lower pintle 10 which also pivotally connects together overlapped ends of cross-bars 1 of the lazy-tongs. The lower part of the hanger-bar 8 is seated loosely in this slideway to permit free up and down sliding movements of the slideway upon said bar 8 as the lazy-tongs are expanded or contracted. It will be seen that the hanger-bars 8 are thus kept parallel while the lazy-tongs is acting to spread them apart or draw them together.

Any desired traction means may be used to expand or contract the lazy-tongs, or, when a pair of lazy-tongs are used as shown in Fig. 1 to contract them while moving

them apart from each other or to simultaneously expand them to bring them together endwise.

I have shown in Fig. 1 a simple mechanism which may be used for this purpose. The numeral 14 denotes a bar fastened to a terminal hanger-bar 8 near its upper end by means of one of the pivots 10, the lower end of the bar being bent outwardly horizontally and orificed at 15. On the adjacent terminal hanger-bar 8 of the other lazy-tongs, a like bar and eye 15 is secured in a reverse position so that the two eyes 15 are at different levels. Grooved sheaves 18 and 19 are rotatably mounted on opposite ends of the beam 3. A like grooved sheave 20 is rotatably mounted just below the sheave 19 on a standard 5, and another grooved sheave 21 is rotatably mounted on a fixed support at or near the lower end of the same standard 5. The numeral 17 denotes an endless cable which is passed about said grooved sheaves, the upper and lower reaches of the cable being passed through the eyes 15, and as the cable is stretched tautly, it is frictionally engaged with these eyes against displacement therefrom. The vertically disposed reaches of said cable which connect the lowermost sheave 21 with the upper sheaves 19 and 20, may be moved to and fro manually to shift the upper horizontal reaches to extend or to collapse the pair of lazy-tongs while simultaneously expanding or collapsibly folding the curtains 13. It is obvious that any kind of motor may be operatively connected to either of said sheaves to rotate it in either of reverse directions if desired.

It is also obvious that this device may be employed to suspensively support some other object or a series of objects from the hanger-bars 8 instead of a curtain 13 wherever such use is convenient.

Having described my invention, what I claim as new and desire to secure by Letters Patent, is:

A device of the character described, comprising a pair of alined like lazy-tongs anchored at their outer ends and extensible toward each other, each including vertically disposed bars pivoted at their upper ends to the upper pivotal connections of the lazy-tong members, slideways pivoted at the lower pivotal connections of the lazy-tong members, each slideway consisting of a plate having its opposite ends bent reversely toward each other to provide an interspace receiving the respective vertical bar slidably, and curtain securing means on the lower extremities of said vertical bars.

Signed at Waterloo, Iowa, this 28th day of August, 1922.

SETH E. PERKINS.