

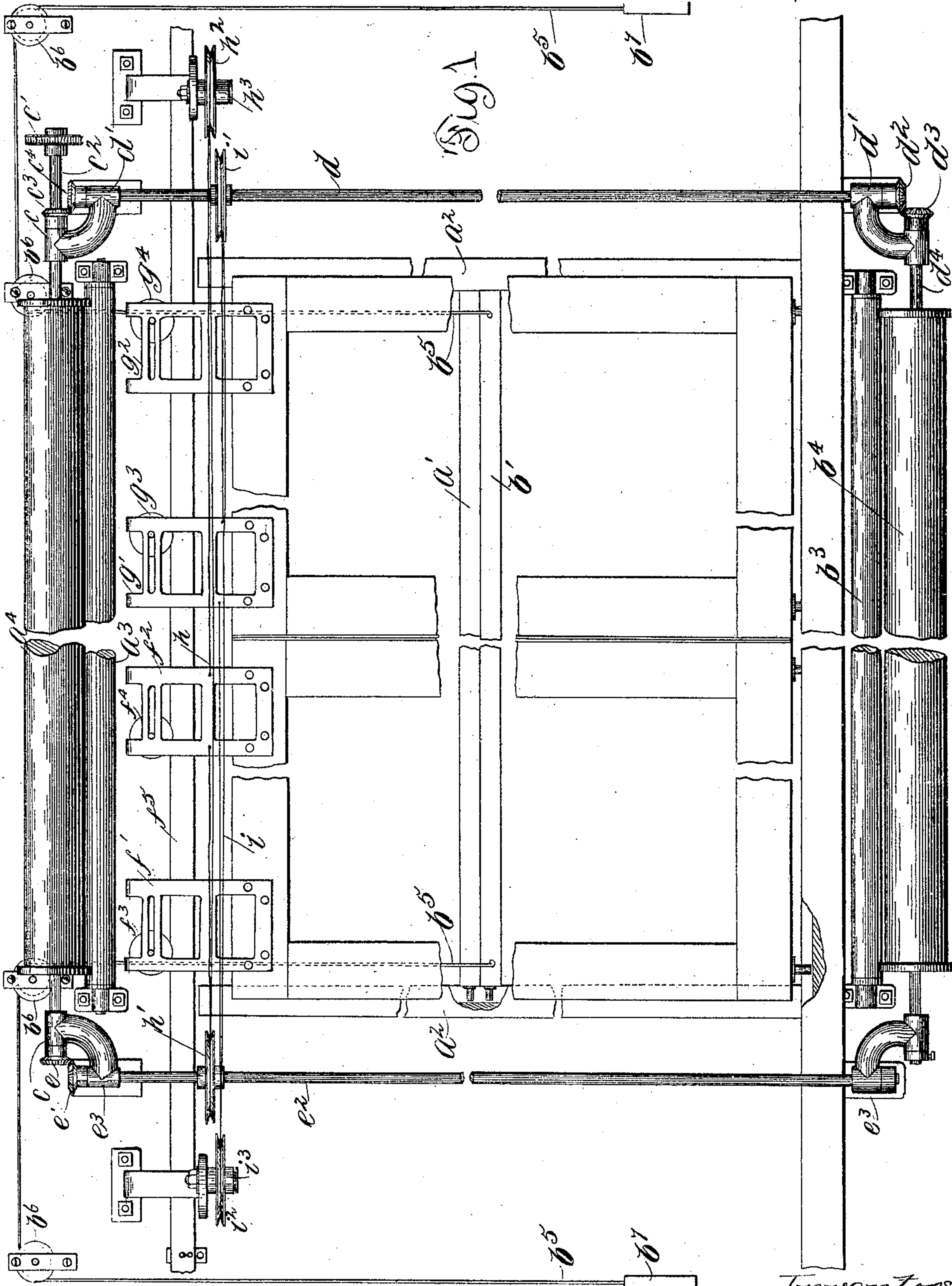
(No Model.)

2 Sheets—Sheet 1.

A. J. OEHRING & A. L. TUCKER.  
PROSCENIUM CURTAIN FOR THEATERS.

No. 555,115.

Patented Feb. 25, 1896.



Witnesses:  
George L. Cragg.  
W. Clyde Jones.

Inventors  
August J. Oehring  
Albert L. Tucker.  
By Barton & Brown  
Attorneys

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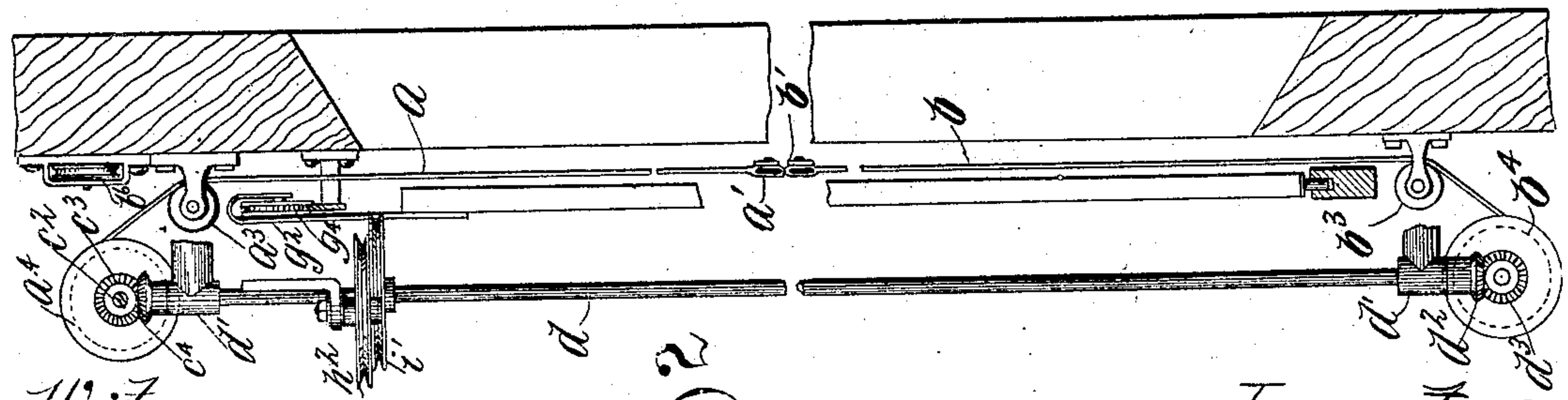
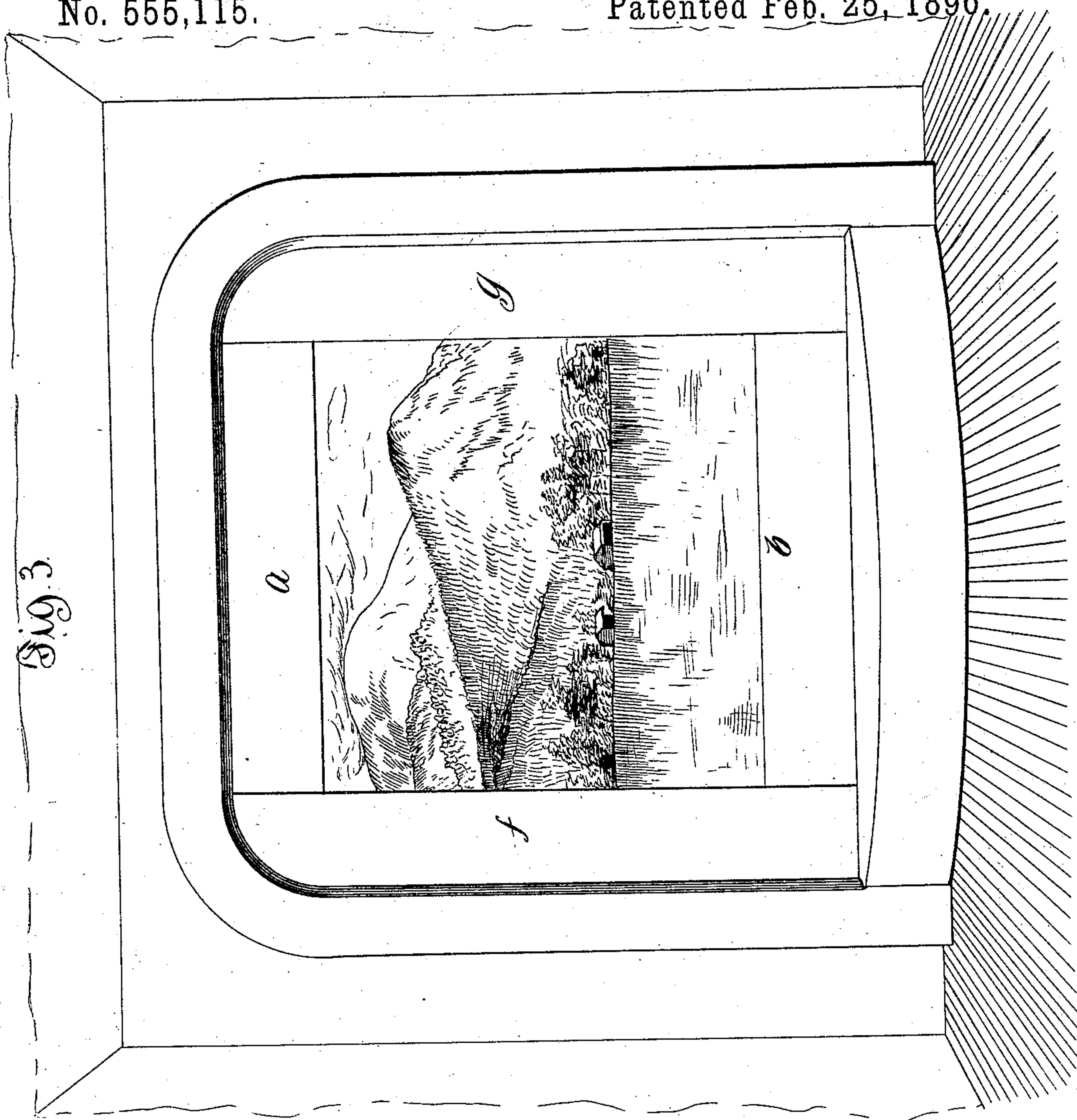
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Fig. 3



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George L. Cragg  
W. Clyde Jones.

Fig. 2

Inventors:  
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# UNITED STATES PATENT OFFICE.

AUGUST J. OEHRING AND ALBERT L. TUCKER, OF CHICAGO, ILLINOIS, ASSIGNORS TO THE WESTERN ELECTRIC COMPANY, OF SAME PLACE.

## PROSCENIUM-CURTAIN FOR THEATERS.

SPECIFICATION forming part of Letters Patent No. 555,115, dated February 25, 1896.

Application filed May 13, 1895. Serial No. 549,137. (No model.)

*To all whom it may concern:*

Be it known that we, AUGUST J. OEHRING and ALBERT L. TUCKER, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Proscenium-Curtains for Theaters, (Oehring Case No. 9, Tucker Case No. 2,) of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

Our invention relates to a proscenium-curtain for theaters, and its object is the provision of a curtain that shall open from the center simultaneously toward the four sides.

Our invention in its preferred form comprises a pair of horizontally-moving curtains adapted, when closed, to rest with their edges in contact near the middle of the proscenium-opening, and a pair of vertically-sliding curtains also adapted to rest with their edges in contact, the edges likewise occupying a position near the middle of the opening, means being provided for simultaneously separating the pairs of curtains, whereby the opening, beginning at the center, enlarges toward the four sides.

Our invention will be more readily understood by reference to the accompanying drawings, in which—

Figure 1 is a view illustrative of our invention, looking toward the rear of the curtain. Fig. 2 is an end view thereof. Fig. 3 is a view of a stage-proscenium provided with curtains after the manner of our invention, the curtains being shown in a partially-opened position.

Like letters refer to like parts in the several figures.

The lower edge of the upper vertically-sliding curtain, *a*, is secured to a cross-piece *a'* adapted to slide in guides *a<sup>2</sup>*, the curtain passing upward over roller *a<sup>3</sup>* and winding about the drum *a<sup>4</sup>*. Likewise the edge of the lower curtain, *b*, is secured to a cross-piece *b'*, the curtain passing downward over a roller *b<sup>3</sup>* and winding about a drum *b<sup>4</sup>*. Cords *b<sup>5</sup>* *b<sup>5</sup>* are attached to the cross-piece *b'*, extend upward and over pulleys *b<sup>6</sup>*, weights *b<sup>7</sup>* being provided upon the ends of the cords to maintain the

curtain *b* taut. When the rollers *a<sup>4</sup>* *b<sup>4</sup>* are rotated to wind thereon the curtains, the cross-pieces *a'* and *b'* are moved respectively up and down, traveling in the vertical guide *a<sup>2</sup>*. When the drums are rotated in an opposite direction the curtains are unwound therefrom and the weight of cross-piece *a'* serves to return the upper curtain to its closed position, while the weights *b<sup>7</sup>* serve to return the lower curtain to its closed position. The drum *a<sup>4</sup>* is mounted in bearings *c c*, a wheel *c'* being provided upon the shaft *c<sup>2</sup>* upon which said drum is mounted, whereby power may be applied to rotate the drum. Upon said shaft *c<sup>2</sup>* is provided a bevel-gear *c<sup>3</sup>*, meshing with a bevel-gear *c<sup>4</sup>*, provided upon the vertical shaft *d*, which rotates in bearings *d' d'*. Upon the lower end of shaft *d* is provided a bevel-gear *d<sup>2</sup>*, adapted to mesh with bevel-gear *d<sup>3</sup>* provided upon the end of shaft *d<sup>4</sup>*, upon which shaft *d<sup>4</sup>* is mounted the lower drum *b<sup>4</sup>*. Upon the shaft *c<sup>2</sup>* at the opposite end of the drum *a<sup>4</sup>* is provided a bevel-gear *e*, meshing with bevel-gear *e'* provided upon the vertical shaft *e<sup>2</sup>*, which rotates in bearings *e<sup>3</sup>* *e<sup>3</sup>*. When shaft *c<sup>2</sup>* is rotated to rotate the drum *a<sup>4</sup>*, the drum *b<sup>4</sup>* is rotated in an opposite direction through the agency of the shaft *d* and the meshing bevel-gears. When the shaft *c<sup>2</sup>* is rotated in one direction both curtains are wound upon their drums, while, when the rotation is in the opposite direction, both curtains are unwound from their drums.

The horizontally-sliding curtain *f* is supported from carriages *f'* *f<sup>2</sup>* provided with wheels *f<sup>3</sup>* *f<sup>4</sup>* which travel upon the track *f<sup>5</sup>*. Likewise the horizontally-sliding curtain *g* is supported from carriages *g'* *g<sup>2</sup>* provided with wheels *g<sup>3</sup>* *g<sup>4</sup>* traveling upon the track *f<sup>5</sup>*. To one of the carriages, as *f<sup>2</sup>*, is attached a rope *h* which passes around the pulley *h'* provided upon the vertical shaft *e<sup>2</sup>*, then passes around a pulley *h<sup>2</sup>* turning loosely in its bearing *h<sup>3</sup>*, the opposite end of the rope being attached to the opposite side of said carriage *f<sup>2</sup>*. When the shaft *e<sup>2</sup>* is rotated in one direction the rope *h* is caused to travel to move the carriage *f<sup>2</sup>* to the left, thereby moving the curtain *f* to the left to open the same. When the direction of rotation is reversed rope *h* is caused to travel in the opposite direction, thereby



moving the curtain to the right to close the same.

In the same manner one of the carriages of the curtain  $g$  is connected by means of rope  $i$  passing over the pulley  $i'$  provided upon shaft  $d$  and over the loosely-running pulley  $i^2$  mounted in bearing  $i^3$ . The gearing between the vertical shafts  $d$  and  $e^2$  and the driving-shaft  $c^2$  is such that said shafts  $d$  and  $e^2$  rotate in opposite directions, so that the curtains are moved either toward or from one another to open or close the same. The loosely-mounted pulleys  $h^2$  and  $i^2$  are preferably so mounted that they may be moved back and forth to properly adjust the tension of the ropes passing over the same.

It will thus be seen that when the driving-shaft  $c^2$  is rotated in one direction, say to wind up the vertically-sliding curtains, the vertical shafts  $d$  and  $e^2$  are rotating in such a direction as to separate the horizontally-sliding curtains, and vice versa. Thus in opening the perpendicularly-moving pair of curtains form a rectangular opening in the middle of the proscenium, which, as the movement of the curtains continues, increases in dimension, the opening being thus simultaneously formed toward the four sides. If the proscenium be oblong in shape, one pair of curtains may be made to separate at a different rate from the other pair, the rates being so adjusted that the opening will at all times be of the proper oblong shape.

Having described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination with a pair of vertically-moving curtains, adapted to rest with their edges in contact, of a pair of horizontally-moving curtains adapted to rest with their

edges in contact, and means for simultaneously separating the members of the two pairs of curtains; whereby the curtain, as a whole, is opened from the center outward, substantially as described.

2. The combination with a pair of vertically-moving curtains adapted to rest with their edges in contact, of drums about which said curtains are adapted to be wound to separate the same, a pair of horizontally-sliding curtains, adapted to rest with their edges in contact, and means for separating said horizontally-sliding curtains and simultaneously rotating said drums to wind the curtains thereon; whereby the curtain, as a whole, is opened from the center outward, substantially as described.

3. The combination with a vertically-moving curtain, of a drum to which the upper end of the same is secured, a cross-piece secured to the lower end adapted to travel in a vertical guide, a second vertically-movable curtain, a cross-piece secured to the upper end thereof, adapted to travel in said vertical guide, a drum to which the lower end of said curtain is secured, means for rotating said drums to wind the curtains thereon or to unwind the same therefrom, a pair of horizontally-sliding curtains, and means for separating the same simultaneously with the rotation of said drums, whereby the curtain, as a whole, is opened from the center outward.

In witness whereof we hereunto subscribe our names this 22d day of September, A. D. 1894.

AUGUST J. OEHRING.  
ALBERT L. TUCKER.

Witnesses:

W. CLYDE JONES,  
GEORGE L. CRAGG.