2 Sheets- Sheet 1.

JAMES SCHONBERG.

Improvement in Stage Machinery.

No. 123,735. Patented Feb. 13, 1872.

Fig: 1.

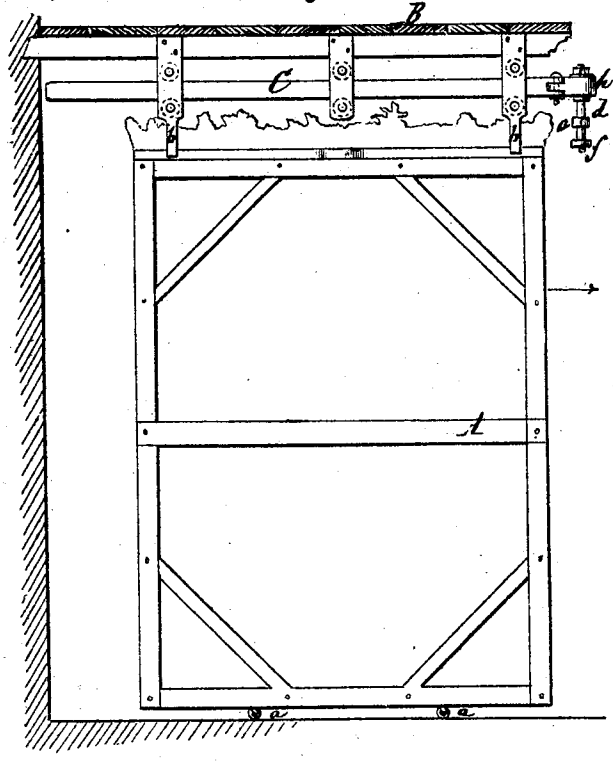


Fig: 4.

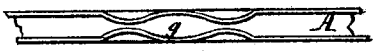


Fig: 2.

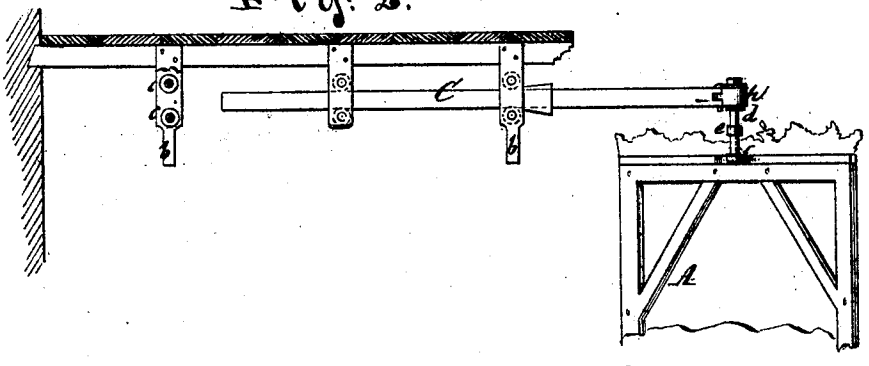
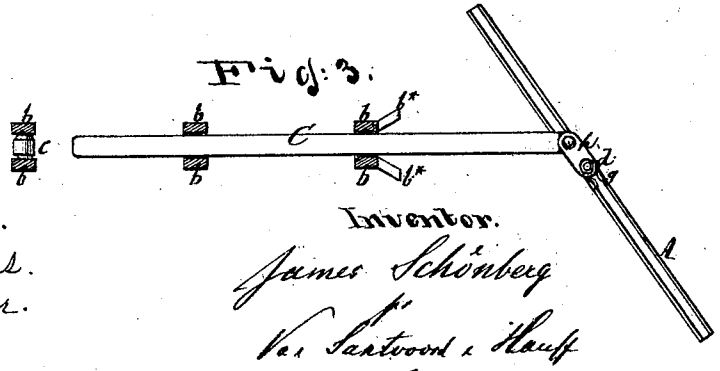


Fig: 3.



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2 Sheets--Sheet 2.

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Improvement in Stage Machinery.

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Fig: 7.

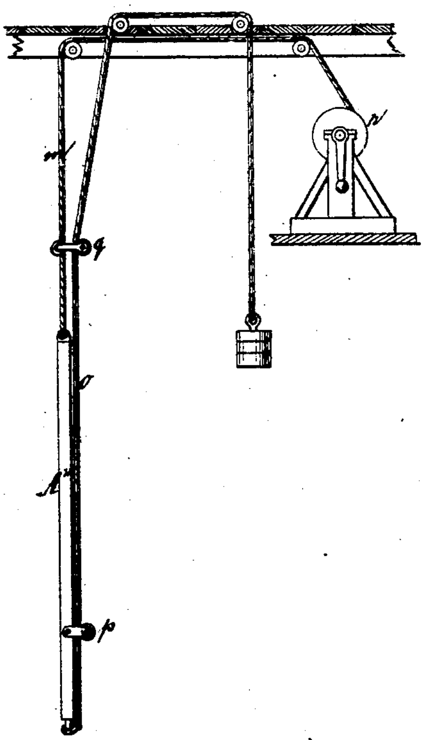


Fig: 8.

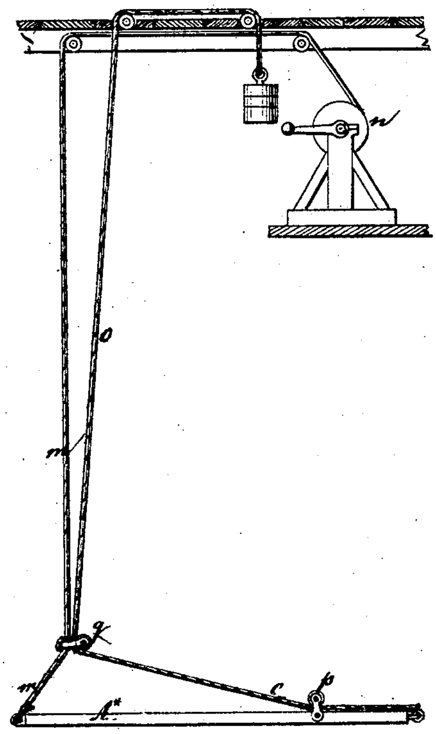


Fig: 5.

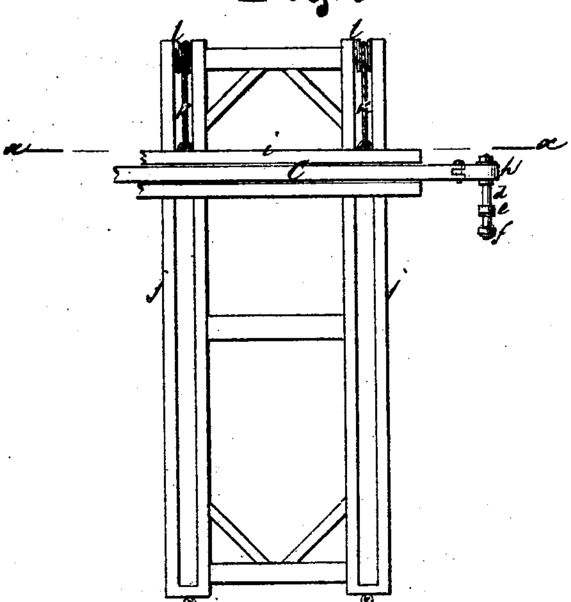


Fig: 9.

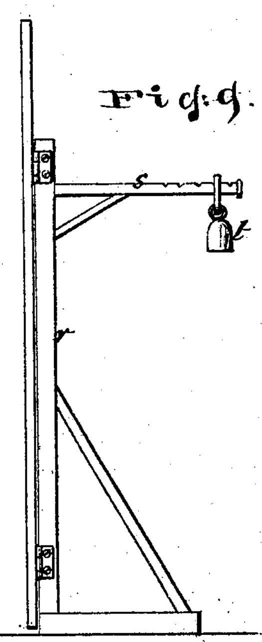
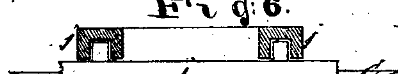


Fig: 6.



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123,735

UNITED STATES PATENT OFFICE.

JAMES SCHÖNBERG, OF NEW YORK, N. Y.

IMPROVEMENT IN STAGE MACHINERY.

Specification forming part of Letters Patent No. 123,735, dated February 13, 1872; antedated February 9, 1872.

To all whom it may concern:

Be it known that I, JAMES SCHÖNBERG, of the city, county, and State of New York, have invented a new and useful Improvement in Stage Machinery; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a front view of my mechanism for moving scenery, showing the scene-frame in its retired position. Fig. 2 is a similar view of the same after the scene-frame has been moved out. Fig. 3 is a sectional plan or top view of the same. Fig. 4 is a top view of one of the scene-frames. Fig. 5 is a front view of a modification of the above mechanism, showing how the same can be adapted to scene-frames of different height. Fig. 6 is a horizontal section of the same taken in the plane indicated by the line *x x*, Fig. 5. Fig. 7 is a sectional side view of my mechanism for working borders or frames, showing the frame in an upright position. Fig. 8 is a similar view of the same, showing the frame in a horizontal position. Fig. 9 is a side view of my device for balancing scene-frames.

Similar letters indicate corresponding parts.

The object of this invention is an improvement in the working of stage scenery, by means of which the same is held, supported, advanced, retired, and turned with ease and facility, and which allows of placing the same in positions unattainable at present without great labor. My improvement consists, first, in a top slide moving in suitable guides, and provided with a swivel-arm, in combination with a scene-frame, in such a manner that, when the scene-frame is pushed out, it is caught by the swivel-arm, which serves to support its top, allowing, at the same time, of turning the same round to any desired angle; second, in a jointed extension attached to the top slide and supporting the swivel-arm in such a manner that the scene-frame, when attached to the swivel-arm, can be brought in an oblique position, and that, in pushing said scene-frame back, it can be made to clear another placed directly beneath the top slide; third, in a spring-clip attached to the top edge of the scene-frame, in combination with the swivel-arm and top slide, in such a manner that the scene-frame can be connected to or disconnected from the swivel-arm with ease and facility; fourth, in a rising and falling guide, in combination with the top slide, in such a manner that said top slide can be readily adjusted to scene-frames of different height; fifth, in the arrangement of adjustable sheaves, one on the working-rope and the other on the scene-frame or border, in combination with a balance-rope and with the scene-frame or border, in such a manner that, by means of said sheaves and ropes, the requisite angle can be given to the scene-frame or border at any point of its descent, and the angle can be readily changed by moving the sheaves, either or both; sixth, in the arrangement of a balance-arm and weight, extending from the top or upper part of the leg or support that is attached to the back of the scene-frame, in such a manner that, when the support is turned out and the weight adjusted on the balance-arm, the scene-frame is held securely in position without screwing the support down to the floor or stage.

In the drawing, the letter A designates a scene-frame, which is provided at its bottom edge with caster-rollers *a*. The top edge of this scene-frame catches between arms *b*, which extend down from the gallery B, and serve to sustain the frame A in an upright position. Said arms form the bearings for friction-rollers *c*, between which is fitted the top slide C. If desired, the arms *b* may be so arranged that they can be lengthened or shortened, so as to adapt them to frames of different height. From the end of this top slide extends an arm, *d*, which is made in two parts, united by a swivel-joint, *e*, so that the lower part of said arm is free to turn round its own axis. To the lower end of the arm *d* is secured a friction-roller, *f*; and if the frame A is pushed out in the direction of the arrow marked near it in Fig. 1, the friction-roller *f* catches in a guide, and finally in a clip, *g*, which is secured to the top edge of the frame A, (see Fig. 4,) and the top slide C is carried out to the position shown in Fig. 2. The frame A can now be turned to any desired angle. The arm *d* should be attached to the slide C, so that it is free to rise and fall a few inches, to compensate for the inclination of the stage. If desired, the arm

d might be attached to the scene-frame, and the clip *g* to the top slide. The swivel-arm *a* is, by preference, connected to an extension, *h*, which is hinged to the top slide, so that, in returning, the frame A may be carried clear of the guide-arms *b*, or of any other frame placed between said guide-arms; and as the first frame is disengaged from the swivel-arm *d* another frame may be pushed out and brought in the required position. When the top slide is pushed back, the extension *h* is returned to a direction in line with said top slide by flaring guides *b** attached to one of the arms *b*. (See Fig. 3.) By the swivel-arm and top slide the frames A are supported at the top, and the operation of shifting the scenes can be accomplished with great ease and rapidity. The top slide C may be made telescopic, so that it can be lengthened or shortened at pleasure, and the swivel-arm *d* may also be so constructed that it can be lengthened or shortened, and consequently adapted to frames of different height. The top slide C, instead of being fitted between guide-arms *b*, may be fitted into a grooved beam, *i*, (see Figs. 5 and 6,) which moves up and down in grooved standards *j j*, and which is suspended from ropes *k k* running over pulleys *l l* in the upper ends of the grooved standards. By this arrangement I am enabled to adjust the position of the top slide to frames of different height. In cases where it is desirable to give a scene-frame or border an oblique or horizontal position, I suspend said frame or border A* (Figs. 7 and 8) from a working-rope, *m*, which is fast to the top edge of the frame, and operated by means of a windlass, *n;* and I balance said frame by a weighted or balance rope, *o*, which is fastened to the bottom edge of the frame, and which passes up behind the two sheaves *p q*, one of which is attached to the edge of the frame A*, while the other is attached to the working-rope *m*. If the working-rope is slackened, the frame A* will gradually pass from an upright to a horizontal position, and it can be retained in any intermediate oblique position by stopping the windlass *n*. By adjusting the sheaves *p q* up or down, the inclination or angle of the frame can be changed, and the frame can be made to turn down to the desired point. In some cases the frames A, Fig. 9, are provided with supports *r*, which are attached to their backs, so that they can be folded in close to the frames, or turned out to the position shown in Fig. 9. If the supports are turned out to this last-named position, the frames are liable to tip over, and the supports are generally fastened down to the stage by means of screws. By these screws the stage is injured, and, besides this, much time and labor are required for fastening and unfastening the supports. I have, therefore, provided said supports with scale-beams or arms *s*, with a sliding weight, *t*. By adjusting this weight the top of the frame is counterbalanced, and said frame is prevented from tipping over. The arm or scale-beam *s* may be firmly secured to the support, or it may be hinged to the same, and so arranged that it can be turned up when required, and turned down when not needed.

What I claim as new, and desire to secure by Letters Patent, is—

1. The top slide C and arm *d*, in combination with a scene-frame, A, substantially as herein shown and described.

2. The jointed extension *h* on the top slide C, substantially as herein set forth.

3. The combination of the spring-clip *g* with the arm *d* and top slide C, substantially as described.

4. The grooved standards *j j*, in combination with the guide of the top slide C, substantially as set forth.

5. The blocks or sheaves *p q*, in combination with the frame or border A*, its working-rope *m*, and its balance-rope *o*, substantially as described.

6. The scale-beam *s* on the hinged support *r* of a scene-frame, substantially as set forth.

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