

No. 848,180.

PATENTED MAR. 26, 1907.

J. M. LEAVITT.
SCENERY.

APPLICATION FILED FEB. 23, 1906.

3 SHEETS—SHEET 1.

Fig. 1.

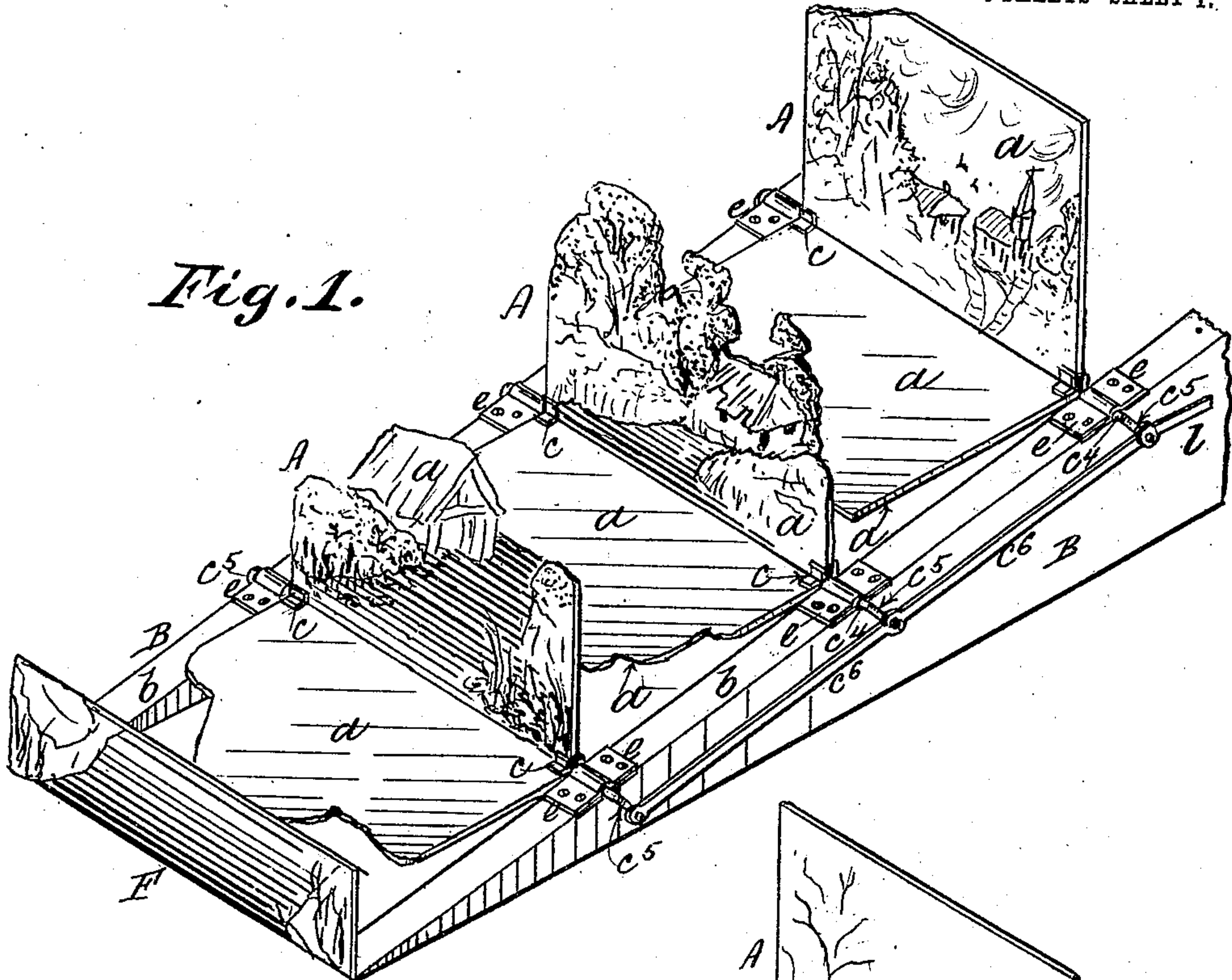
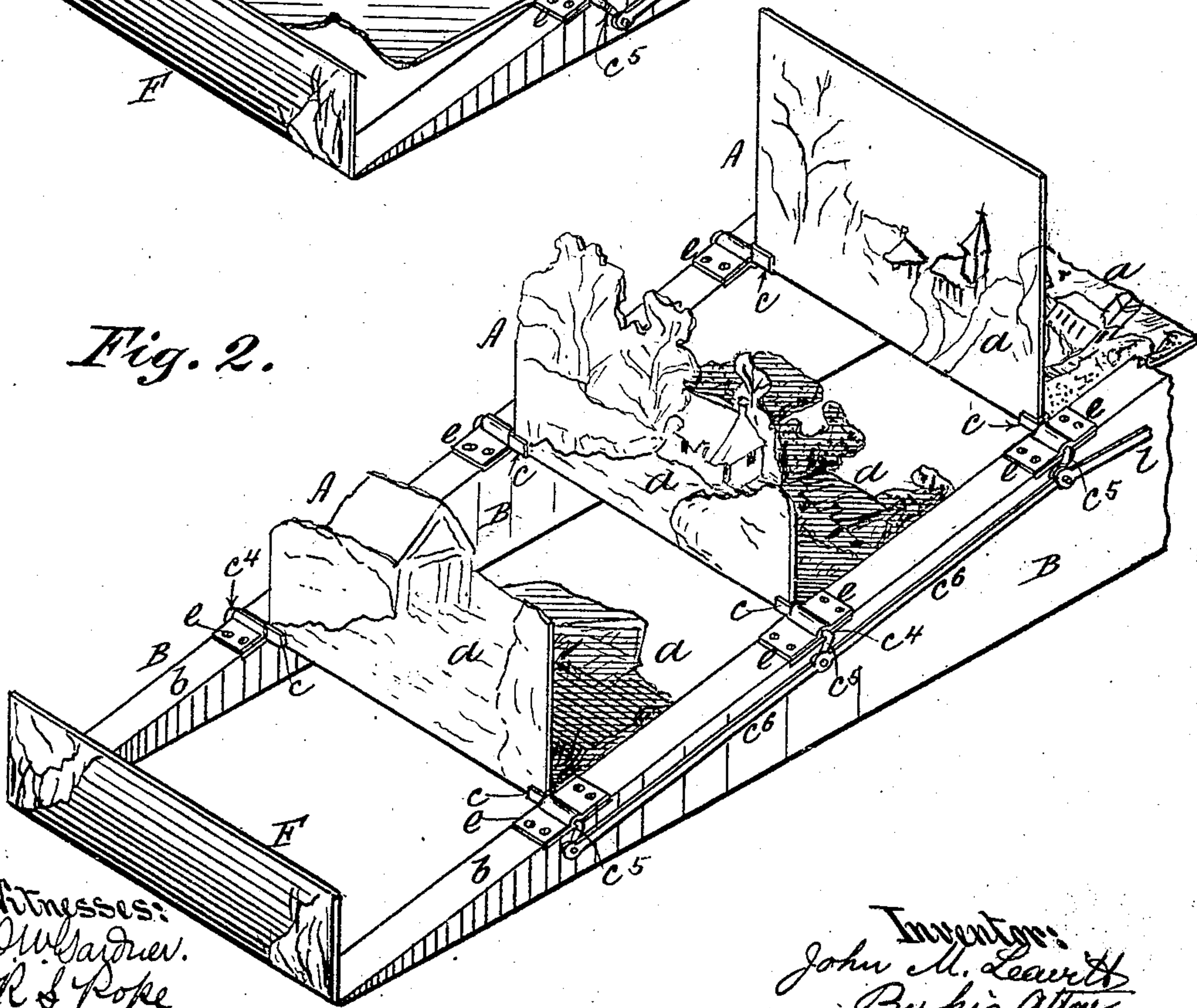


Fig. 2.



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3 SHEETS—SHEET 2.

Fig. 3.

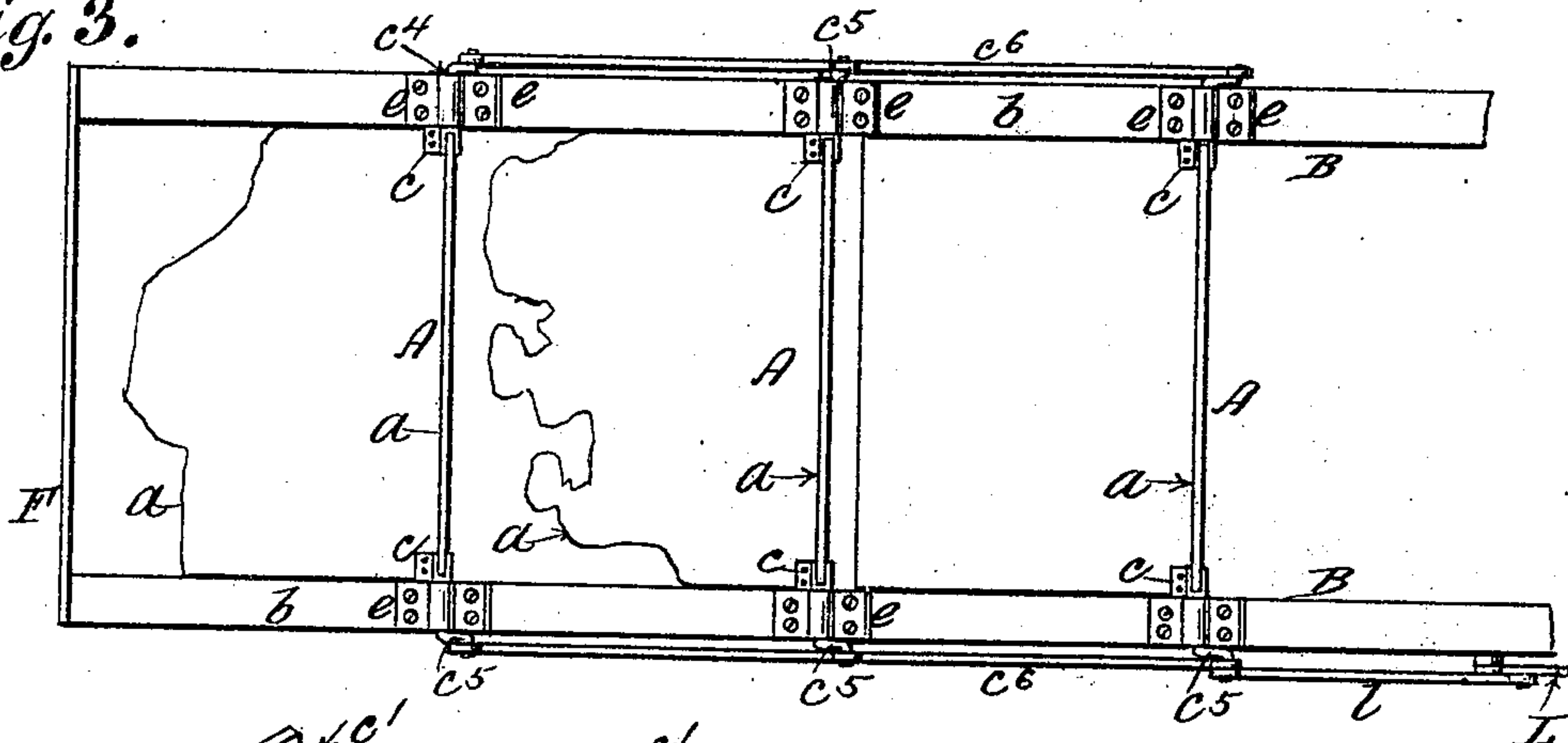


Fig. 5.

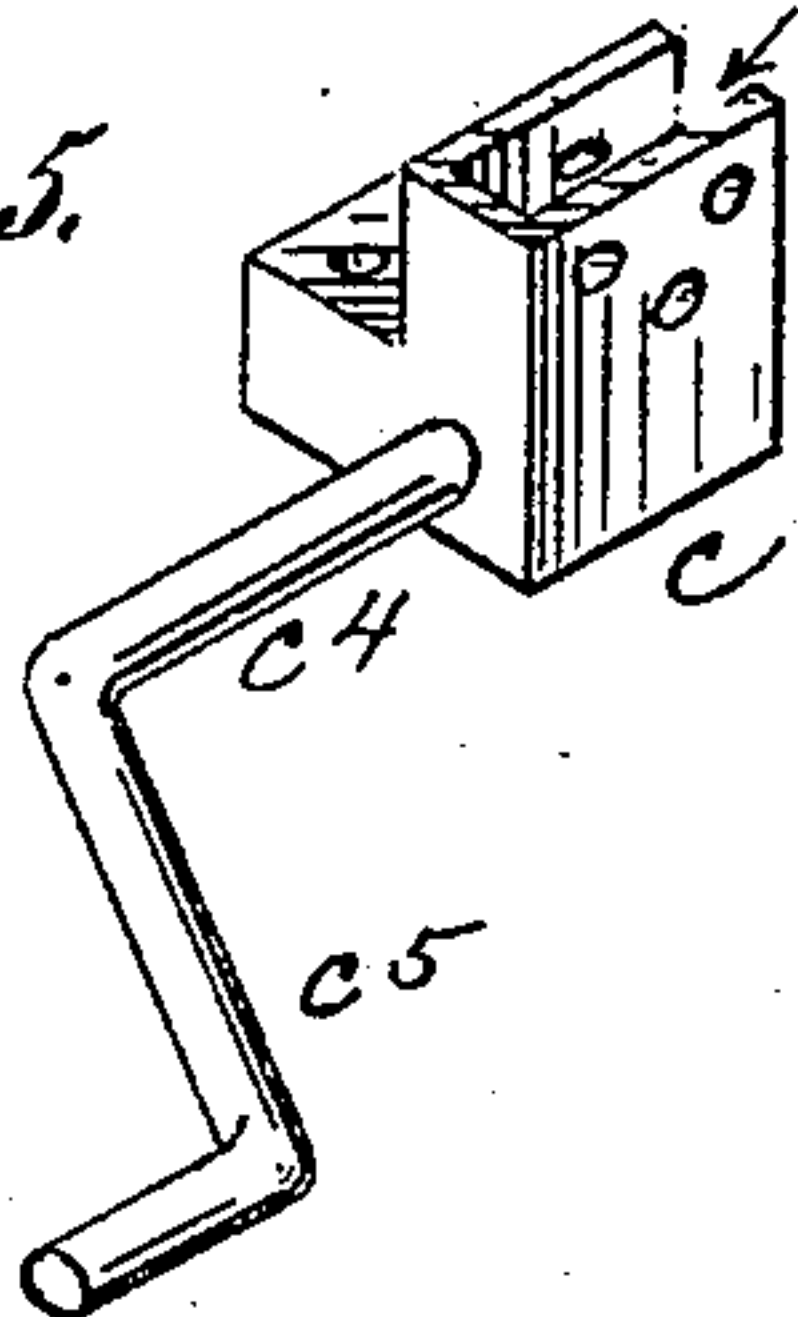


Fig. 6.

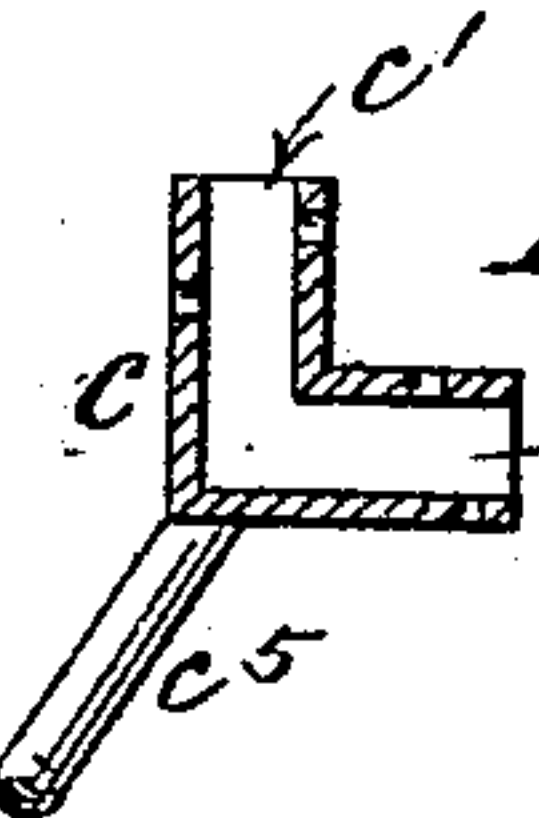


Fig. 4.

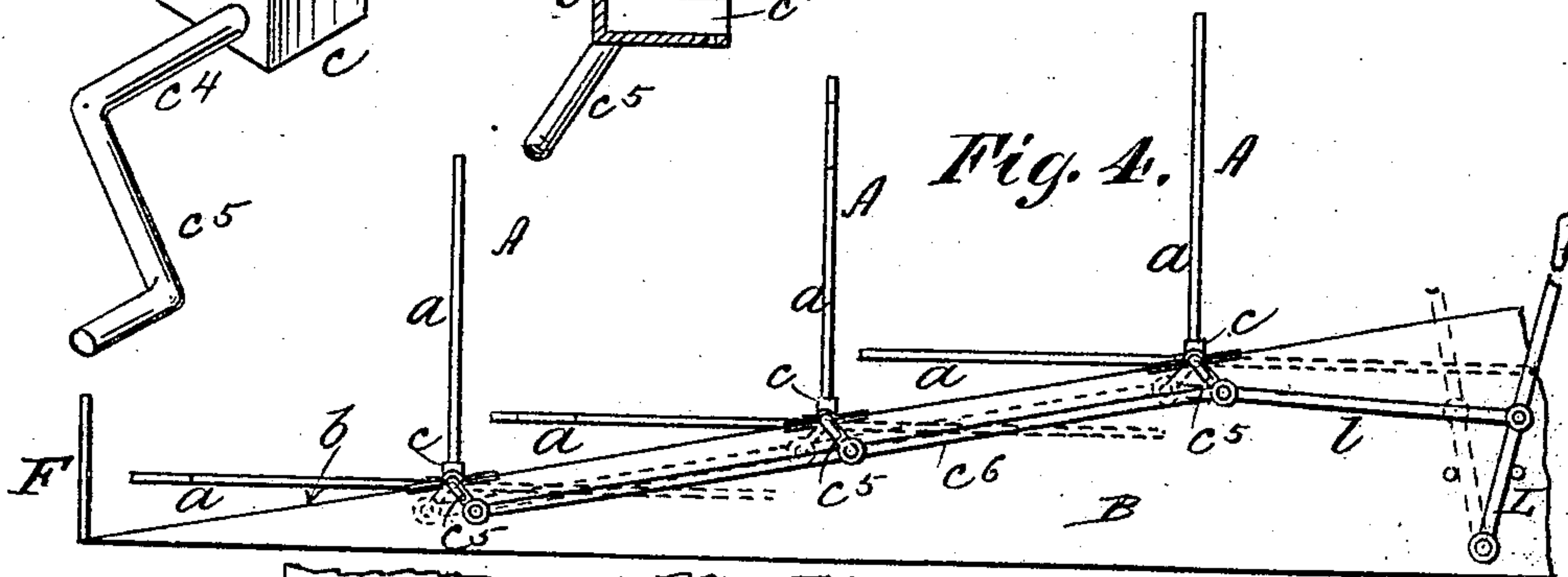


Fig. 7.

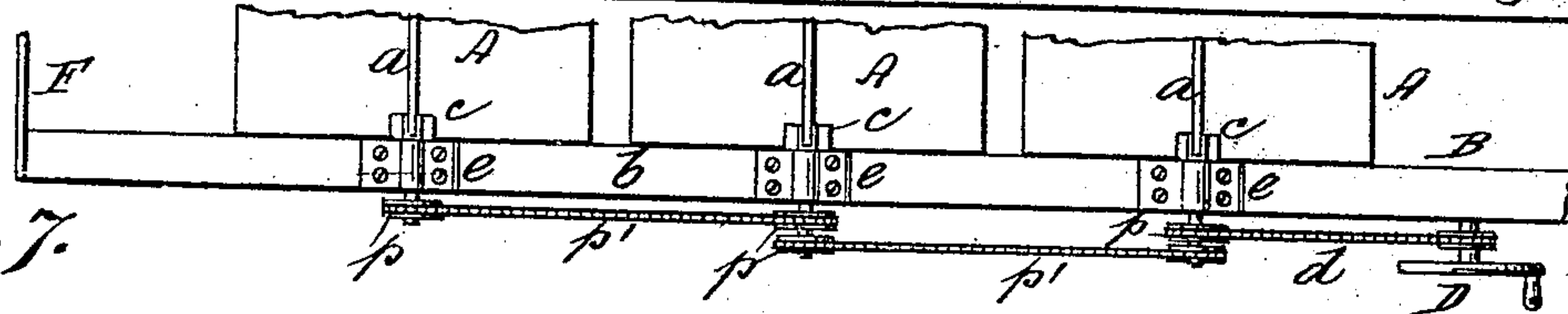
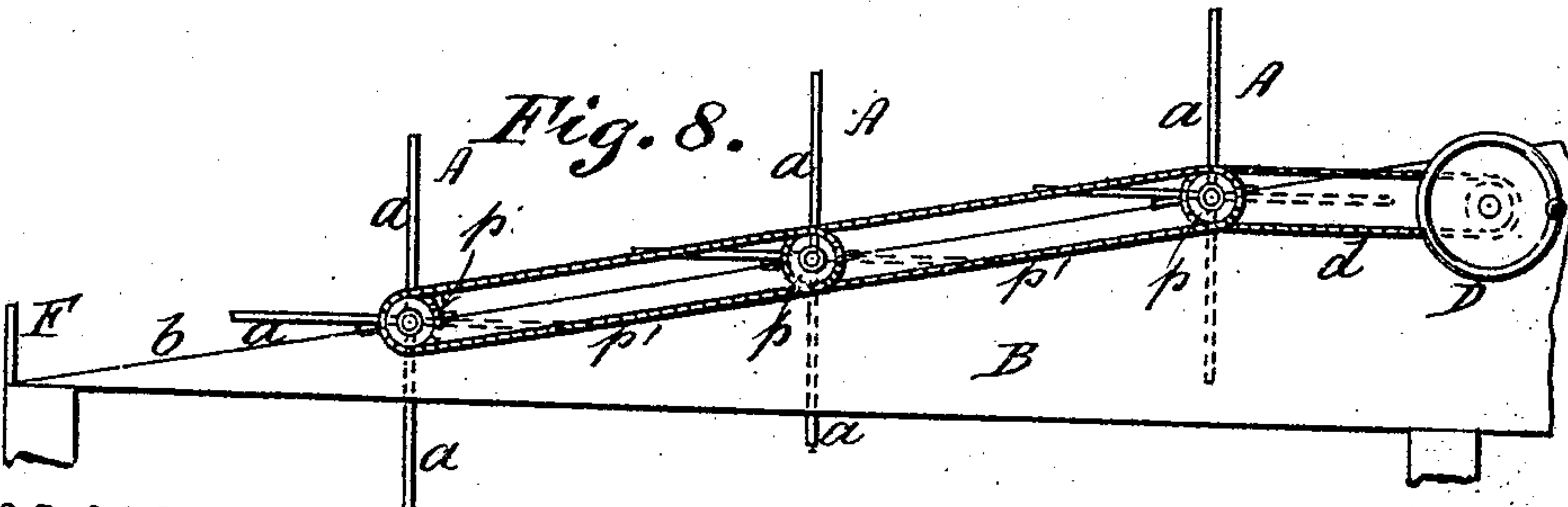


Fig. 8.



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3 SHEETS—SHEET 3.

Fig. 9.

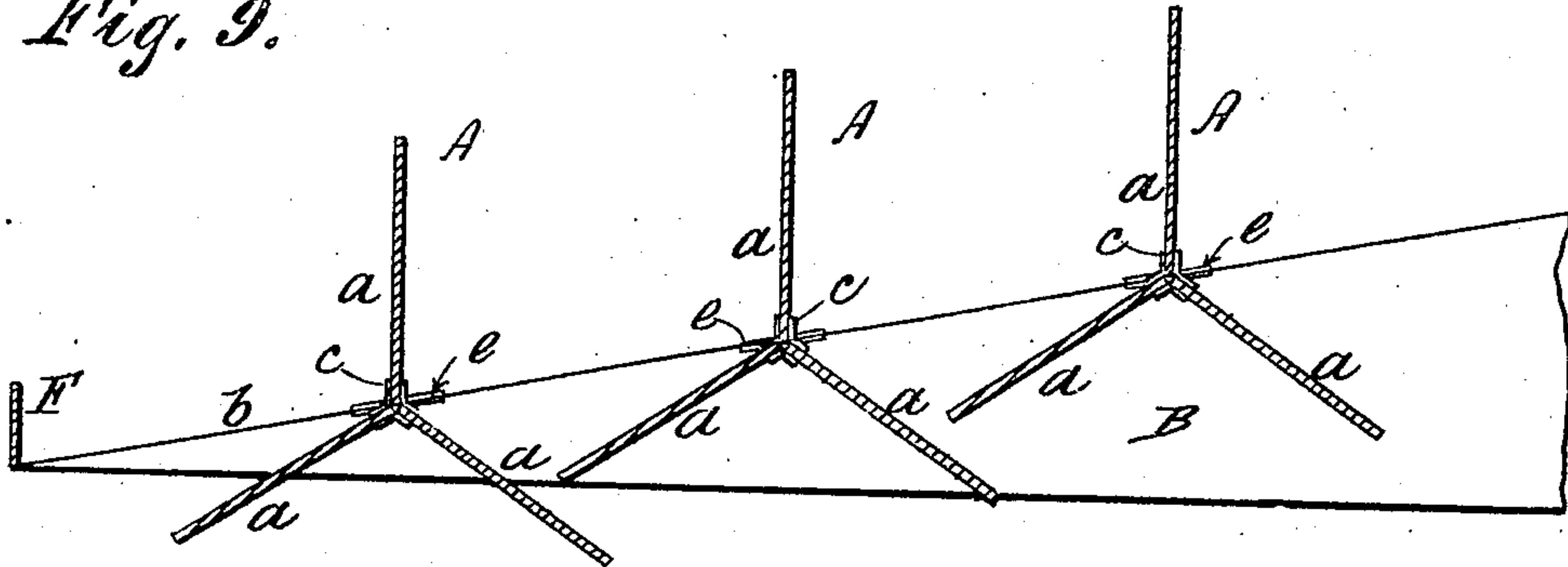


Fig. 10.

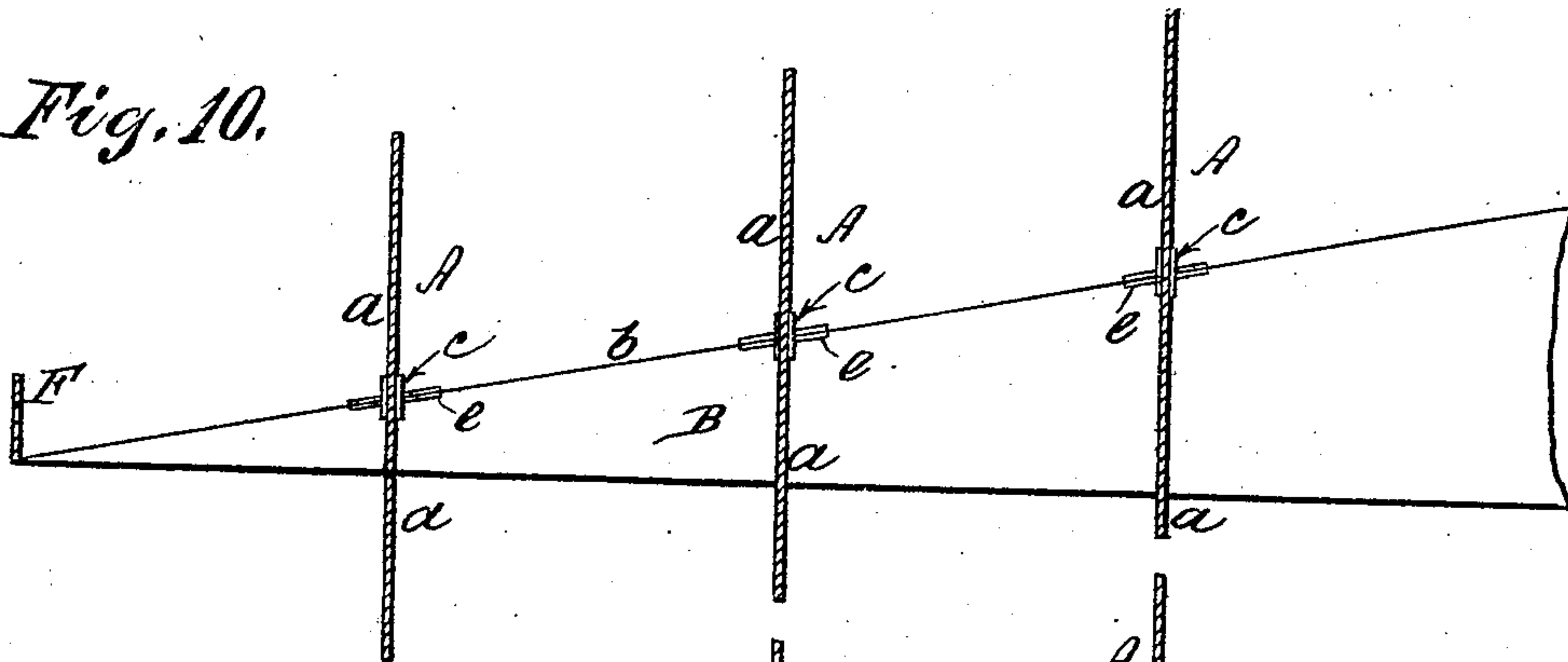
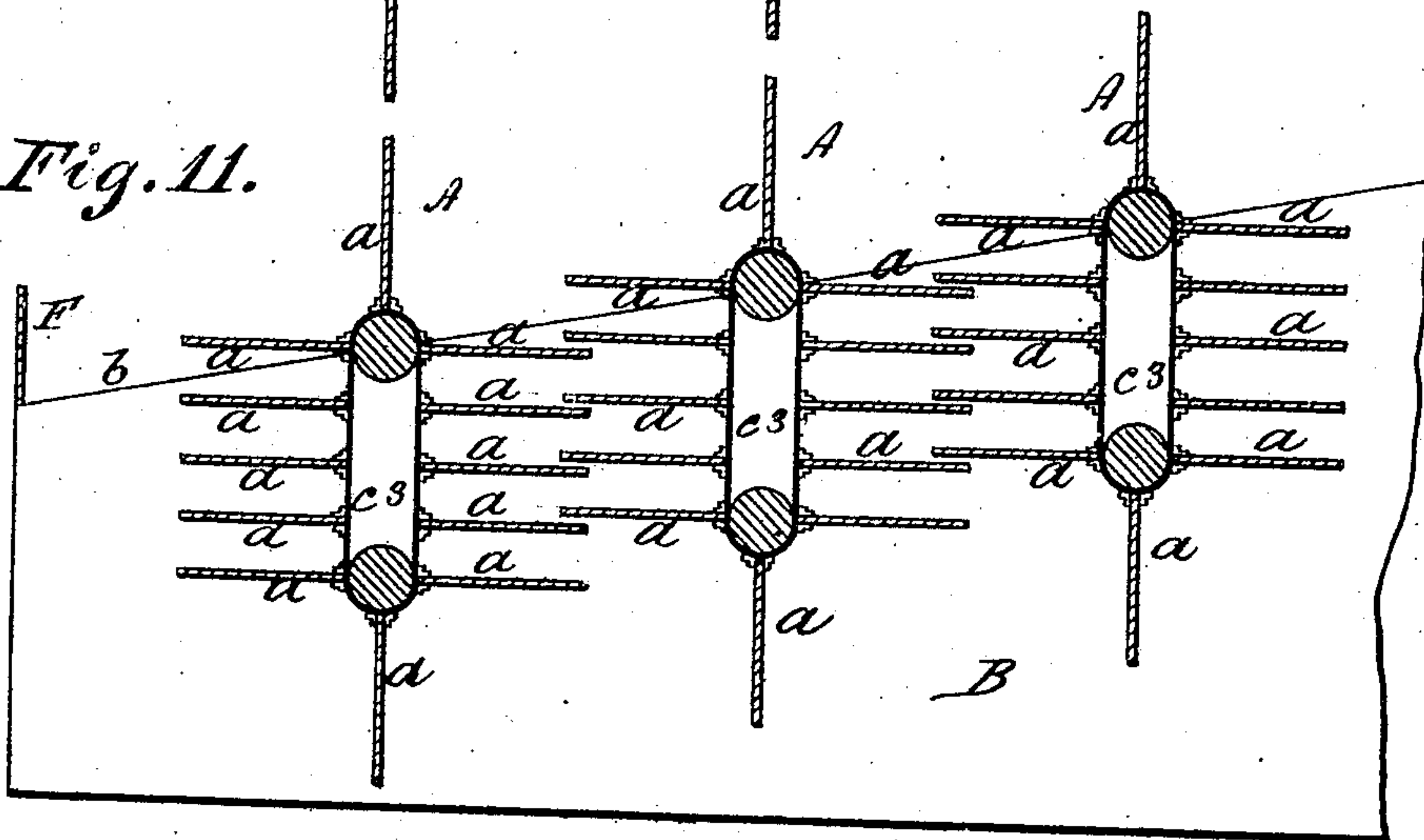


Fig. 11.



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UNITED STATES PATENT OFFICE.

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SCENERY.

No. 848,180.

Specification of Letters Patent.

Patented March 26, 1907.

Application filed February 23, 1906. Serial No. 302,388.

To all whom it may concern:

Be it known that I, JOHN M. LEAVITT, a citizen of the United States, residing in the city of New York, borough of Manhattan, county and State of New York, have invented certain new and useful Improvements in Scenery, of which the following is a specification.

My improvements relate to means for producing changes in scenic effects—such as transformation-scenes, the presentation of different objects or landscapes under different conditions to illustrate the effects of disasters—as floods, fires, earthquakes, &c.—the object being to afford simple cheap mechanism by which the changes may be accomplished quickly and noiselessly.

The invention consists, essentially, in the use of two or more plural flap part-scene pieces mounted and arranged with relation to each other in such manner that the scenes thereof may each be made to constitute a component part of a common scene or representation, each plural flap scene-piece consisting of two or more part-scenes secured and mounted, preferably, at substantially right angles to each other, whereby they may be brought successively into view together with means for simultaneously turning the several plural flap scene-pieces to bring corresponding flap part-scenes on the several plural flap-pieces into coincidence with respect to each other from the point of view substantially as hereinafter set forth.

In the accompanying drawings, Figure 1 is an isometrical perspective view of parts essential to the practical application of my invention illustrating the use of duplex part-scene flap-pieces. Fig. 2 is a like view illustrating a change of scene. Fig. 3 is a plan of the parts in the position shown in Fig. 1; Fig. 4, a side elevation, the change of scene being illustrated in dotted lines. Fig. 5 is an isometrical perspective of a form of clamp that may be used in securing and supporting the scenes; Fig. 6, a cross-section of the same. Fig. 7 is a plan of one side support and adjacent parts of a modification in which the plural flap-scene pieces are each formed with four flap-scenes; Fig. 8, a side elevation of the parts shown in Fig. 7. Fig. 9 is a diagrammatic view illustrating a modification. Fig. 10 is a similar view of another form of embodiment of the invention. Fig. 11 is a like view of still another form.

In the drawings, by way of illustration of the principle involved, three plural flap part-scene pieces A A A are shown as mounted upon supports common to all, said supports consisting of longitudinal members B B, having inclined surfaces *b b*, upon and between which are mounted the plural flap part-scene pieces A A A. It is obvious in this connection that each plural flap part-scene piece A may be provided with an independent support, if desired, the essential feature in the arrangement being the mounting of the said plural flap part-scene pieces A successively at higher planes from front to rear, so that the part-scenes will coincide or blend together when seen in perspective from a prescribed point of view, which latter will govern the inclination of support or difference in height of the several plural flap part-scene pieces A with relation to each other, as will be readily understood in the art to which my invention appertains.

Each plural flap scene-piece A is provided with two or more flap part-scenes *a*, which are rigidly secured together in positions in which they are preferably substantially at right angles, so that when one is turned down out of sight another will be brought into view. Thus in the main figures of the drawings for the sake of simplicity I have shown the scene *a* as secured together at right angles to each other by means of clamps *c*, to which the adjoining edges or bases of the scenes *a* are attached, although obviously the means of attachment are not essential provided a common support is afforded the scenes incorporated into each plural flap part-scene piece, be the same two, as shown in Figs. 1 to 6, inclusive, or four, as shown in Figs. 7 and 8, in which latter case each clamp *c* will of course be formed with four sockets *c'* in lieu of the two shown in Fig. 6. In this connection I wish to state that I do not restrict myself in respect either to the number of scene parts embodied in each plural flap scene-piece A to the means of common support for said part-scenes nor to their angle of support, since by reference to Figs. 9 to 11 it will be seen that various modifications may be resorted to with like result. Thus in Fig. 9 the several flap-pieces A are indicated as each formed with three equidistant part-scenes *a a a*, while in Fig. 10 two part-scenes *a a* are mounted in the same plane. Again, as indicated in Fig. 11, by mounting the part-

scenes *a a* on endless belts $c^3 c^3$ any desired number may be accommodated, and a whole series of composite scenes or pictures may thus be provided for.

5 In any and all cases the part-scenes *a* are mounted so as to be turned at least one-fourth of a circle in effecting a change of scene. For instance, in Figs. 1 to 8 and Fig. 11 a quarter-turn of the axial support of
10 each plural flap part-scene piece effects a transformation or change of the composite scene presented to view, while in Fig. 9 a movement equivalent to one-third a circle and in Fig. 10 a movement equivalent to one-half a circle is necessary to effect the change.
15 In all these forms it will be seen that the part-scenes *a* of each plural flap scene-piece *A* are at the point of change of scene separated at an angle of at least ninety degrees, so that one part-scene *a* cannot obstruct the
20 view of another on the same plural flap-piece.

The simultaneous movement of the several plural flap part-scene pieces *A* to effect a
25 change of composite scene may be effected by resort to any of the well-known mechanical expedients. Thus in the first six figures of the drawings the journals c^4 , projecting from the clamps *c*, are formed with
30 crank-arms c^5 , which are coupled together by connecting-rods c^6 and are actuated by a lever *L* through the medium of the pitman *l*, while in the other figures the journals c^4 are provided with pulleys *p*, over which pass
35 belts p' , actuated, through the medium of the belt *d*, by the driving-pulley *D*.

e e indicate caps or equivalent means for securing the bearings c^4 to their supports.

40 *F* is a stationary foreground or set piece arranged to conceal the lower portion of the first upright part-scene and the edge of the next succeeding part scene.

It will be readily understood by those familiar with the art that by the use of a
45 suitable number of these plural flap part-scene pieces *A* an infinite variety of effects may be produced and transformations accomplished in a manner practically instantaneous in so far as appearances are concerned. Furthermore, the device is not only
50 adapted for the production of "before and after" effects, as before and after flood, fire, or natural phenomena, but it is also equally adapted for the illustration of a series of historical or other events, conditions, or circumstances.

It is to be understood as hereinbefore intimated that each flap part-scene forms only a component portion of a scene made by
60 exposing simultaneously other flap part-scenes in which the lines of perspective are arranged to coincide and blend when the several part-scenes are observed from a given point of view.

65 I have herein shown and described the de-

vice as utilized in the reproduction of horizontal ground or floor scenery; but it may with equal facility be applied to the representation of sky or overhead effects by a simple reversal of the mechanism and part-scenes, or both ground and sky effects may be used together if found desirable or expedient.

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

75 1. In transformation-scenery of the character designated, the combination of a plurality of rotatably-mounted members disposed in groups each group mounted on an individual horizontal axis, said members being
80 disposed in successive order with each member excepting the front hidden by the member in front thereof, said members representing portions of scenes arranged to simultaneously present to view, with the
85 lines of perspective coinciding and blending, the component parts of a composite scene, and means for simultaneously moving said members to effect a change of scene by bringing other portions of said members into view.

90 2. In transformation-scenery of the character designated, the combination of a plurality of members each swinging on an individual horizontal axis and each representing a portion of a scene, said members being
95 disposed in successive order one behind another with each excepting the front partially hidden by the one in front thereof, and unitedly representing a complete scene, and means for simultaneously turning said members
100 in the same direction in the arc of a circle to effect a change of scene.

3. In transformation-scenery of the character designated, the combination of a plurality of members representing portions of
105 scenes, said members arranged in groups with each group mounted on an individual horizontal axis with its members extending radially from said axis, the members of the different groups being arranged to be exposed
110 in successive order one behind another, and means for turning said members to effect a change of scene.

4. In transformation-scenery of the character designated, the combination of a plurality of members representing portions of
115 scenes, said members arranged in groups with each group mounted on an individual horizontal axis with its members extending radially from said axis, the members of the different groups being arranged to be exposed
120 in successive order one behind another, and means for turning said members to effect a change of scene, said axes being disposed on different horizontal planes.

125 5. In transformation-scenery of the character designated, the combination of a plurality of axes, members in series arranged on each axis representing portions of scenes, said members being arranged at angles to
130

each other for simultaneous movement about their axis, and means for actuating said axes in unison.

5 6. In transformation-scenery of the character designated, the combination of a plurality of axes, members in series arranged on each axis representing portions of scenes, said members being arranged at angles to each other for simultaneous movement about
10 their axis, means for actuating said axes in unison and a support for said axes and between the side portions of which said members are movable.

15 7. In transformation-scenery of the character designated, the combination of a plu-

rality of groups of members representing portions of scenes, said groups being disposed from front to rear with the members thereof so arranged as to expose only one member of each group at a time with each member excepting the front partially hidden by the member in front thereof, the exposed members combining to represent a complete scene, and means for moving them simultaneously to bring different members of each
20 group into operative position. 25

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