

No. 763,584.

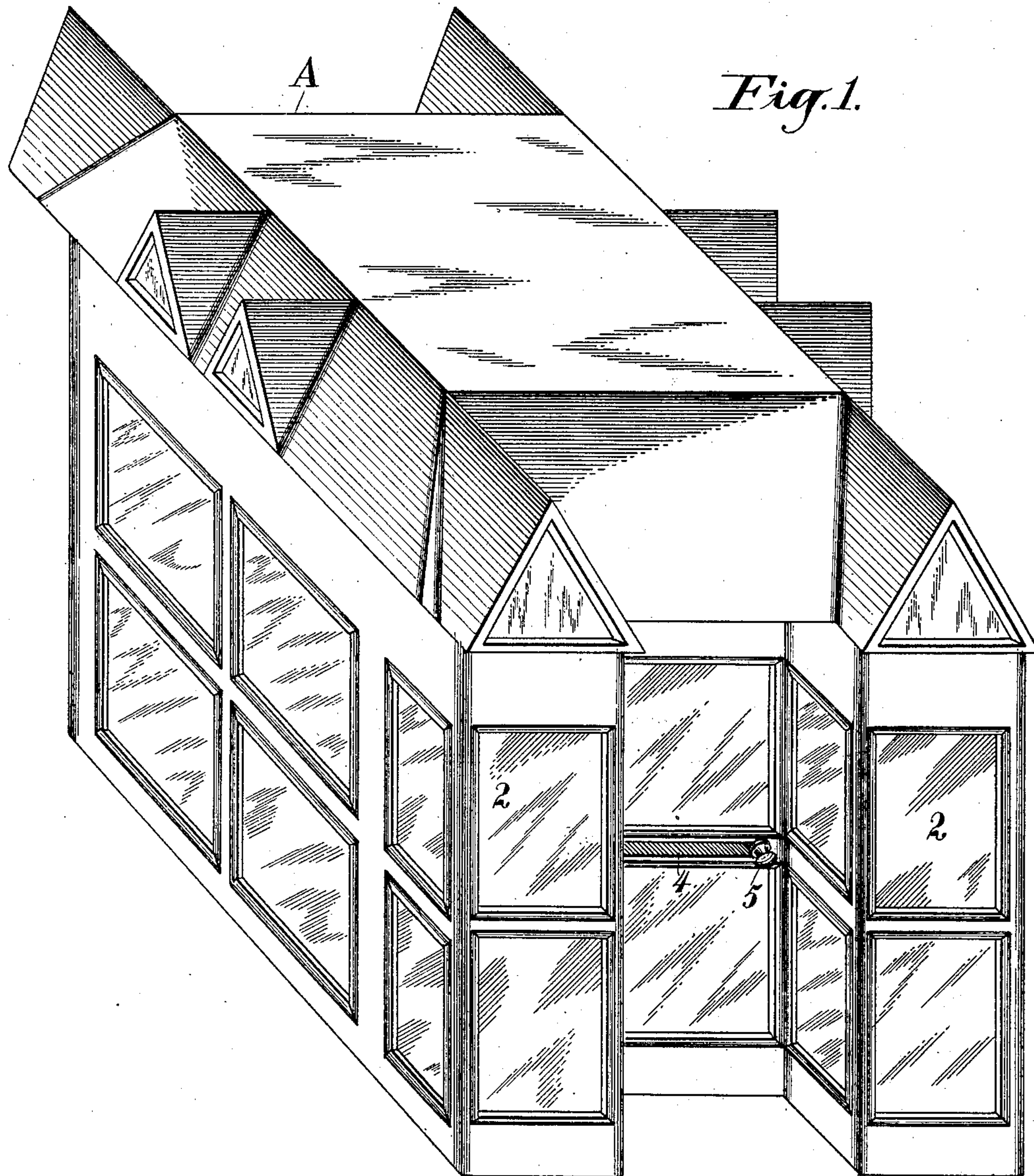
PATENTED JUNE 28, 1904.

D. WOODS.  
REVOLUBLE EXHIBITION CASE.

APPLICATION FILED JULY 1, 1903.

NO MODEL.

4 SHEETS—SHEET 1.



Witnesses:

F. L. Fiedner  
J. H. Harse

Inventor,

David Woods  
By Geo. B. Strong. atty



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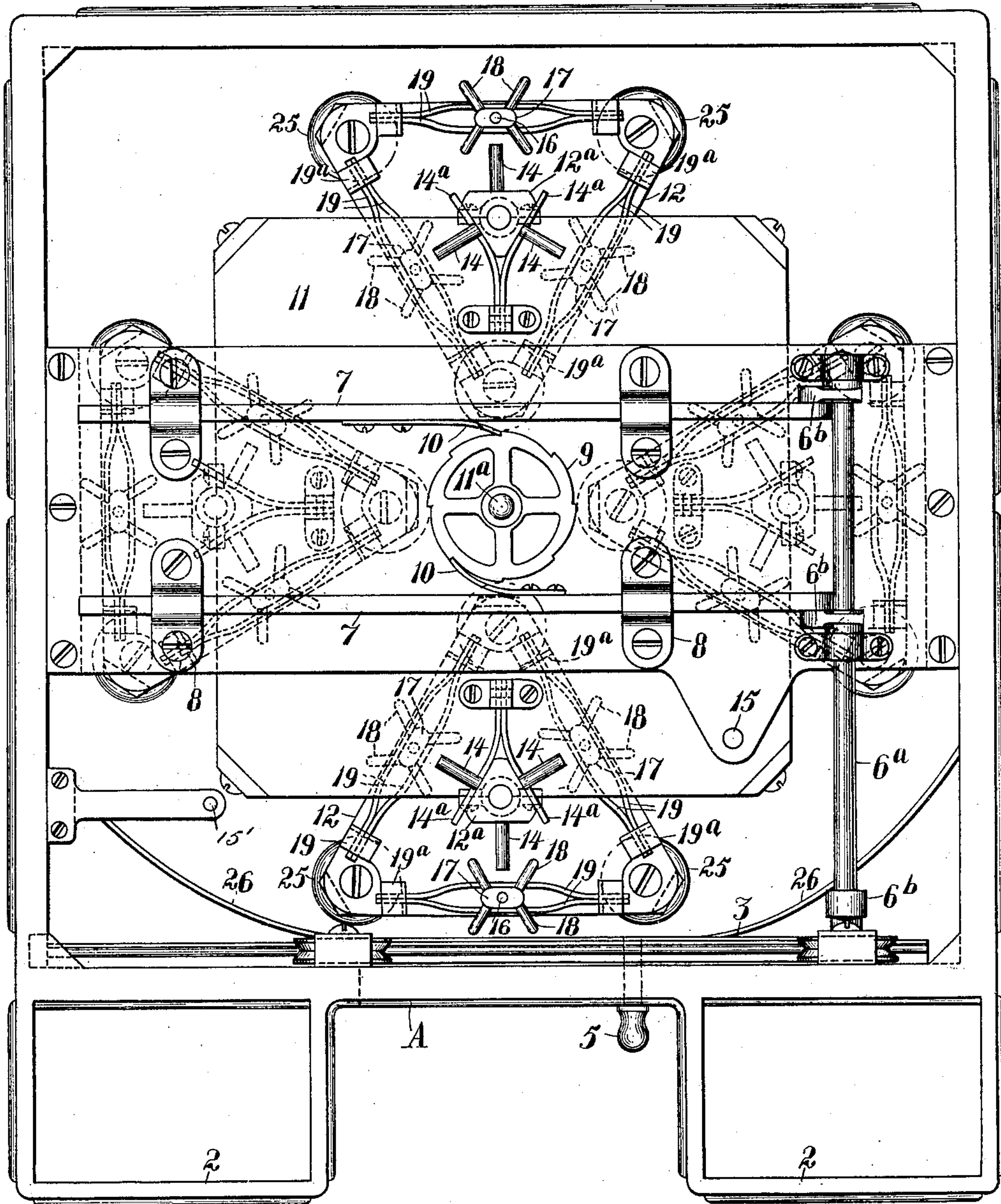
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4 SHEETS—SHEET 2.

*Fig. 2.*



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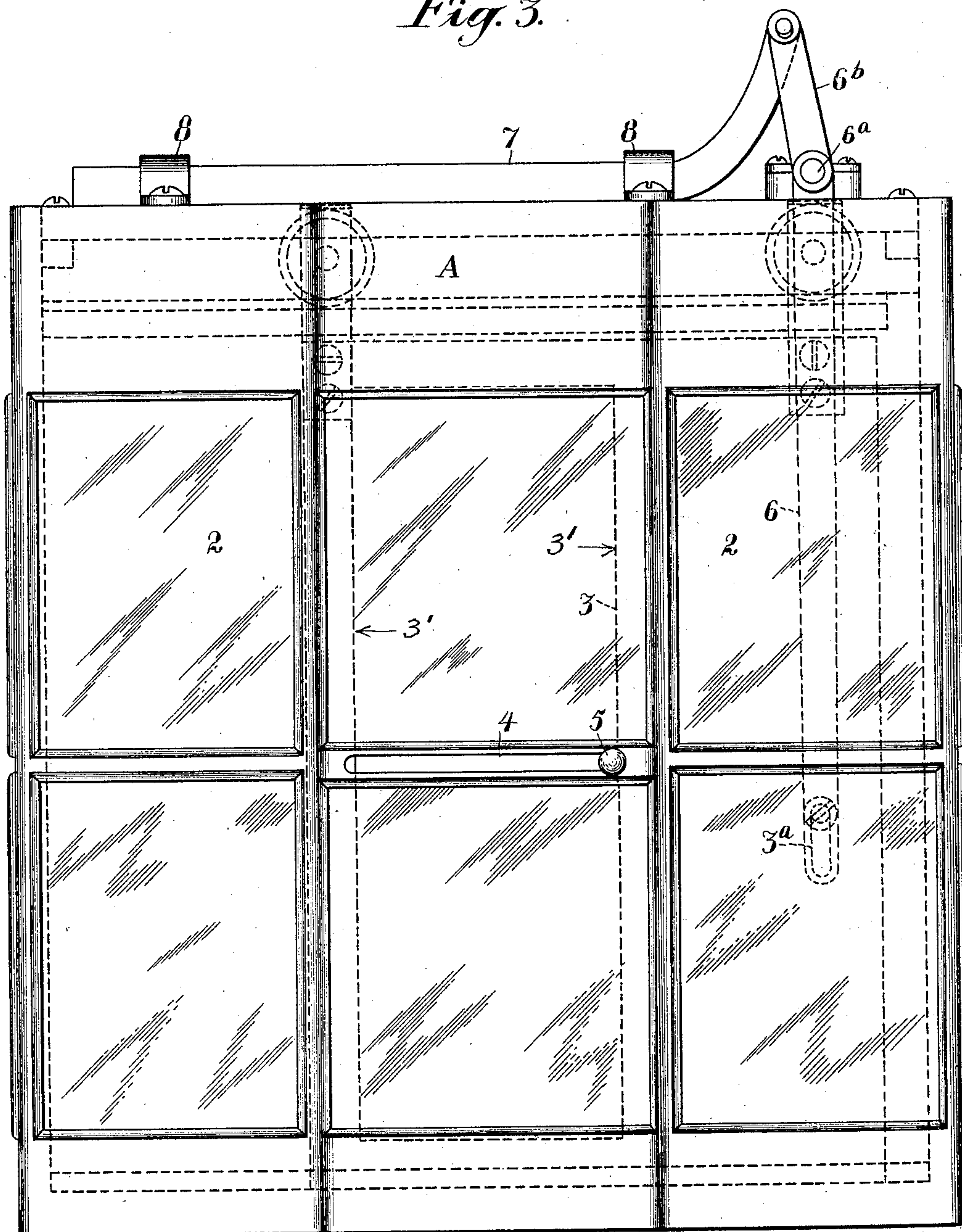
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4 SHEETS—SHEET 3.

*Fig. 3.*



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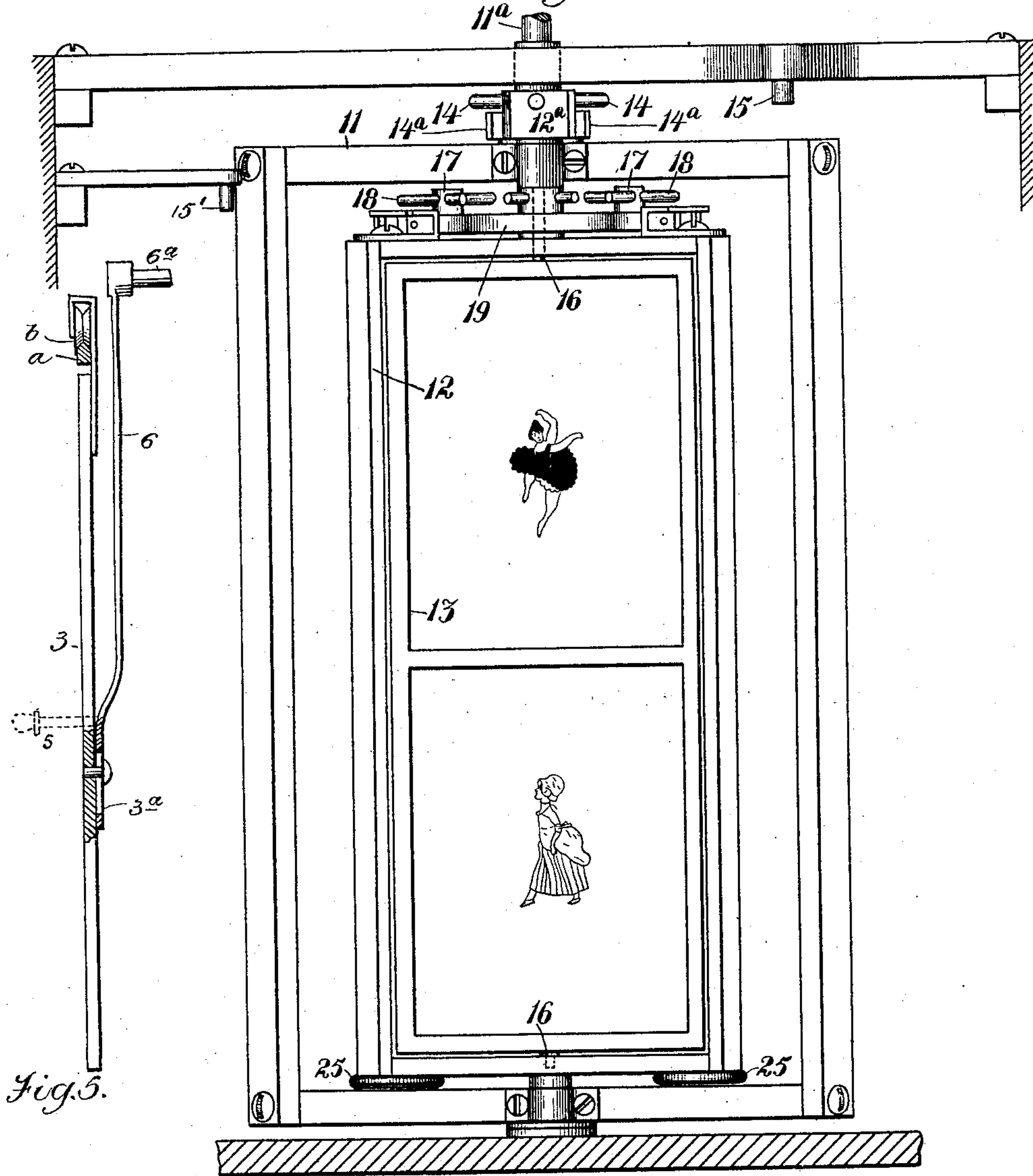
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4 SHEETS—SHEET 4.

*Fig. 4.*



*Fig. 5.*

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# UNITED STATES PATENT OFFICE.

DAVID WOODS, OF SAN FRANCISCO, CALIFORNIA.

## REVOLUBLE EXHIBITION-CASE.

SPECIFICATION forming part of Letters Patent No. 763,584, dated June 28, 1904.

Application filed July 1, 1903. Serial No. 163,874. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID WOODS, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Revoluble Exhibition-Cases; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to an apparatus which is designed for the exhibition of photographs, pictures, or the like.

It consists of the parts and the constructions and combinations of parts, which I will hereinafter describe and claim.

Figure 1 is an exterior view of the apparatus, showing the door and knob by which mechanism is actuated. Fig. 2 is a horizontal plan view with the roof removed, showing the central frame, revoluble frames, and actuating mechanism. Fig. 3 is a front view with the roof removed, showing the actuating-levers and connected mechanism. Fig. 4 is an elevation of one of the revoluble frames with the reversible face and the turning mechanism. Fig. 5 is an edge view of the shutter, showing the connection between the shutter and the lever 6.

It is the object of my invention to produce an ornamental structure which may have permanent place in the library or other room devoted to such matters.

In the present structure I have shown a house-shaped ornamental structure A, having bay or other windows, as at 2, in which pictures may be permanently fixed for exhibition.

In Figs. 2 and 3 I show a guide-rail *a* with grooved rollers *b* adapted to travel thereon to keep the shutter in position as it moves back and forth.

3 represents shutters, of which there may be a plurality located on different sides, and through these shutters it is designed to exhibit a large number of pictures by means of the mechanism which I employ for the purpose.

The shutters 3 are slidable in suitable guides and have the openings 3' (shown in dotted lines in Fig. 3) of such size as to expose the picture, said shutters having a projecting knob

5, which passes out through a horizontally-disposed slit 4, which is here shown as made substantially midway between the top and bottom of the shutter. By taking hold of the knob it may be pushed back, so as to slide the shutter and leave the space behind the shutter exposed.

11 is a rectangular frame pivoted substantially central by pivots at top and bottom, as at 11<sup>a</sup>. Upon each side of this rectangular frame I have shown frames 12, which in the present case are triangular in form, having each three vertical faces. These frames are vertically pivoted and turnable upon journals, as at 12<sup>a</sup>, and by this construction each of the frames 12 may be turned to present either one of its faces squarely to the front as it stands opposite the shutter-opening when the shutter 3 has been retracted, and these triangular frames may also be turned so as to successively present the different faces, each containing one or more pictures or articles for exhibit.

6 is a lever-arm fixed upon the shaft 6<sup>a</sup>, which shaft is journaled horizontally upon the top of the apparatus, and this lever-arm is connected with the shutter 3, which is operated by the knob 5 by a pivot-pin fixed in the shutter and passing through a slot in the lever-arm, as at 3<sup>a</sup>, so that as the shutter is caused to slide to open or close the connection between this shutter and the lever-arm will cause the arm to swing, and thus turn the shaft 6<sup>a</sup>. This shaft 6<sup>a</sup> has lever-arms 6<sup>b</sup> projecting upwardly from it, and these arms are connected with slidable bars 7, movable in guides, as at 8. These slidable bars are parallel and upon opposite sides of a ratchet-wheel 9, which is fixed to the shaft 11<sup>a</sup>, so that the turning of the ratchet-wheel will turn the shaft, and with it the structure 11, which carries the frames 12.

10 represents spring-pawls, one fixed to each of the bars 7, and they stand in opposite directions, so that the point of one pawl engages the ratchet-teeth when the bars 7 slide in one direction, and thus give the apparatus a partial revolution. When the bars are caused to slide in the opposite direction, the other pawl may engage a tooth upon the opposite side and revolve the apparatus another part of a revolution.



lution. This mechanism serves to revolve the main frame 11, and thus successively present each of the frames 12 in front of the shutter-opening; but as these frames (in the present case triangular in cross-section) have a number of faces it is desirable that each of them should be turned so as to present these faces successively. This is effected by means of pins 14, which project from the faces of triangular blocks or frames 12<sup>a</sup>, which are fixed upon the vertical shafts of the frames, and these pins engage with a fixed projecting pin or lug 15, which may be mounted upon some stationary part of the apparatus, so that as the main frame 11 turns about one of the pins 14 will be brought into contact with the pin 15 and will thus turn the frame 12 to present a new face to the front. In order to hold these frames 12 at each point after they have been turned and prevent their swinging, I have shown elastic springs 14<sup>a</sup>, projecting so as to press upon one or more of the sides of the triangular blocks 12<sup>a</sup>. These springs yield when the pins 14 strike the projecting stop 15 and separate to allow the angles of the blocks 12<sup>a</sup> to pass between them. As soon as they have turned a sufficient distance the pressure of the spring tending to rest again against the flat side of the block will assist to bring the frame to its proper position with one of its faces presented at the shutter-opening. These triangular frames 12 may be as long vertically as desired and may carry a plurality of pictures or articles for exhibit upon each of their faces.

In order to increase the capacity of the apparatus, I have shown each of the sides of the frame 12 as having a frame 13, adapted to carry one or more pictures, and one of these frames is pivoted to each front of the frame 12 by pins at top and bottom, as shown at 16, so that these frames 13 may be reversed and a second set of pictures upon the opposite side of each may be exposed. In order to reverse these picture-carrying frames, I have shown blocks 17 fixed to one of the pivot-pins 16 of each frame. In the present case these blocks are fixed to the upper pivot pin or shaft, as shown, and they are turnable between springs disposed as shown at 19. These springs are here shown as having the ends slidable in slotted supports 19<sup>a</sup>, carried upon the upper ends of the polygons 12, and the oval blocks 17 normally lie between the central portions of the springs 19, which press upon the flat sides of the blocks, and thus retain the picture-frames with the sides in the plane of the faces of the frames 12. Each of these blocks 17 has pins projecting from it, as shown at 18, and these pins serve as means for reversing the picture-carrying frames 13, either by taking hold of them and turning them by hand when it is desired to reverse the frames or by means of a projecting pin or spur 15', located in the path of travel of these pins, in a man-

ner similar to that described for the pins 14. In this manner each of the faces of the frames 12 may be reversed and a double number of pictures carried upon them.

It is desirable to bring the picture-bearing faces of the polygon as near as possible to the openings through which they are to be exhibited, and in order to prevent the angles of the frames 12 from striking fixed portions of the case and to insure the proper turning of the frame 12 antifrictional rollers 25 are journaled on the angles of the frames 12, and these contact with guide-strips 26 as they pass across the front.

The pressure-springs which are depended upon to in a great measure place the triangular picture-holders may not always be relied on to bring the pictures squarely to the front, and sometimes these holders will when the movement commences be turned a little angularly, so that if it were not for the rollers and the guides the corners might project so as to strike some part of the frame and turn the triangular frame into a position not desired. Fig. 2 shows the guide-strips in such position that as the rollers on one of the triangular frames approach the frame is maintained in its proper position and prevented from turning around, although the rollers do not absolutely contact with the guides when the triangular frame is in position for exhibition of the pictures; but it will be seen that the rear-most of the rollers will contact with the curved guide edges as the device starts to move forward, and this will insure the turning of the frame in the right direction by holding the arm or pin 14 so that it will properly strike the fixed pin 15.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. An apparatus for the exhibition of pictures and the like consisting of a main frame, an inclosing structure within which said frame is vertically journaled and turnable, said structure having an opening, a sliding member controlling said opening and connections between said sliding member and the main frame whereby the opening and closing of the sliding member acts to rotate said frame, and frames carried by said main frame adapted to contain pictures, said connections including a ratchet-wheel fixed upon the axis of the main frame and a horizontally-reciprocating slide mechanism and an actuating rock-shaft and means connecting the same with said sliding member.

2. An apparatus for the exhibition of pictures and the like consisting of a main vertically-journaled frame, an inclosing housing therefor having a slidable shutter, frames adapted to contain pictures carried upon the sides of the main frame, and mechanism by which said frame is advanced to expose each side successively, said mechanism consisting



of a ratchet-wheel fixed upon the journal-shaft of the frame, reciprocating slides movable upon each side of said ratchet-wheel, pawls carried by the slides adapted to engage the teeth of the ratchet and connections between the slides and the shutter, whereby the movement of the said shutter acts to reciprocate the slides and turn the ratchet and frame.

3. An apparatus for the exhibition of pictures and the like consisting of a main frame, a housing within which said frame is vertically journaled and turnable, a slidable shutter in the house, a horizontally-journaled shaft, a swinging lever fixed to said shaft and connected with the shutter so that the shaft is oscillated by the opening and closing of the shutter, rocker-arms fixed to the shaft, guided slidable bars connected with the rocker-arms and reciprocated by the movement thereof, pawls carried by said slides, a ratchet-wheel fixed to the journal-shaft of the turnable frame, said ratchet-wheel lying between the slidable bars and engaged by the pawls carried by said bars when the latter are reciprocated.

4. An apparatus for the exhibition of pictures and the like consisting of a vertically-journaled frame, a housing within which said frame is contained, a slidable shutter and intermediate mechanism whereby the frame is turned a partial revolution at each reciprocation of the shutter, supplemental triangular frames vertically pivoted in the sides of the main frame, mechanism by which said supplemental frames are turned to successively present their faces at the shutter-opening.

5. An apparatus for the exhibition of pictures and the like consisting of a housing having a slidable shutter, a main frame vertically pivoted and turnable within said housing, connections between said shutter and the main frame whereby the frame is turned by the movement of the shutter, supplemental trian-

gular frames vertically pivoted in the sides of the main frame having picture-carrying frames in each of their faces, means for turning said supplemental frames, said means consisting of blocks fixed to the journal-shafts of the frames having pins projecting therefrom, a fixed lug or stop in the path of revolution of said pins whereby a pin is engaged at each turn of the main frame, and the supplemental frame is turned a partial revolution.

6. An apparatus for the exhibition of pictures and the like consisting of a main frame, an inclosing housing, a slide and intermediate mechanism whereby the main frame is rotated, supplemental frames vertically pivoted and turnable upon the sides of the main frame, said supplemental frames having blocks fixed to their shafts, with pins projecting therefrom, a stop or lug in the path of said pins whereby each is engaged to turn the frame a partial revolution, and springs fixed to press upon the sides of the turning-blocks and retain the frames in the position to which they have been turned.

7. An apparatus for the exhibition of pictures and the like consisting of a main vertically-journaled turnable frame, supplemental frames journaled and turnable upon the periphery of the main frame, said supplemental frames having picture-frames pivoted in each of their sides, blocks fixed to the pivot-pins of said supplemental frames having springs pressing upon the sides whereby said frames are normally retained with one of their faces presented outwardly and pins connected with said blocks whereby they may be turned to reverse the picture-carrying frames.

In witness whereof I have hereunto set my hand.

DAVID WOODS.

Witnesses:

S. H. NOURSE,  
JESSIE C. BRODIE.