

No. 874,328.

PATENTED DEC. 17, 1907.

R. G. GORDON.
CYCLORAMIC APPARATUS.
APPLICATION FILED JUNE 22, 1907.

3 SHEETS—SHEET 1.

Fig. 1.

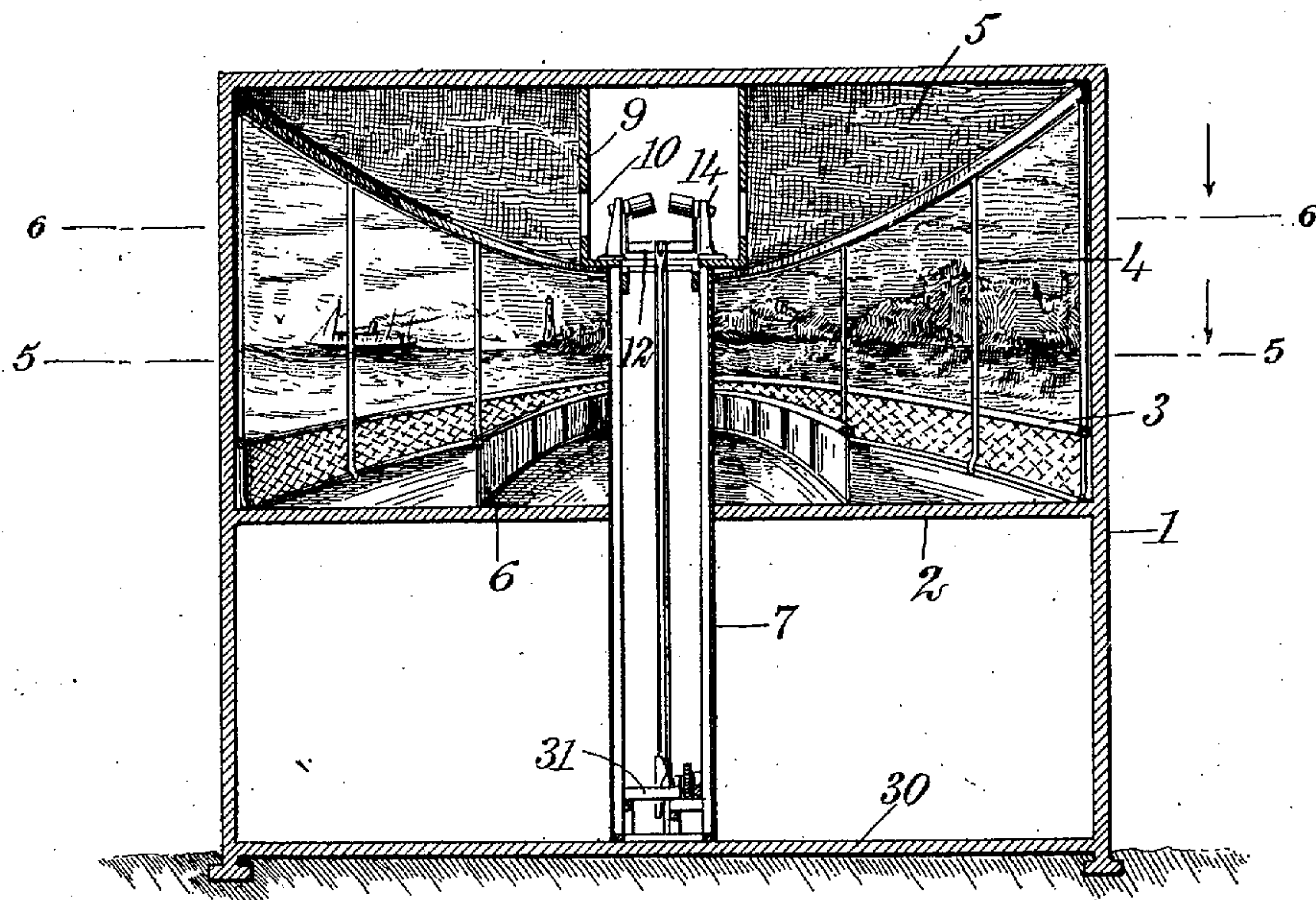
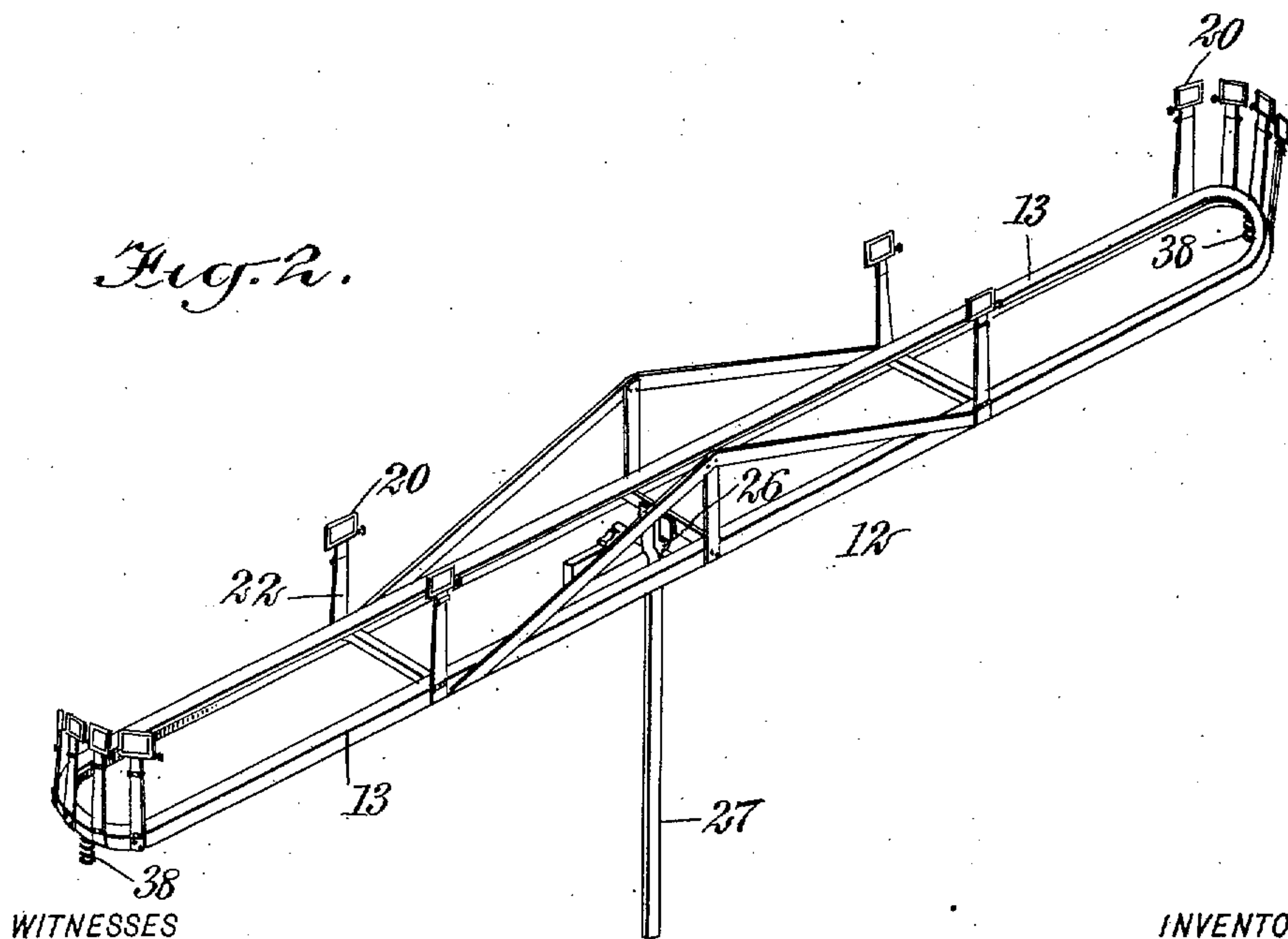


Fig. 2.



WITNESSES

Geo. W. Taylor
J. D. Munn

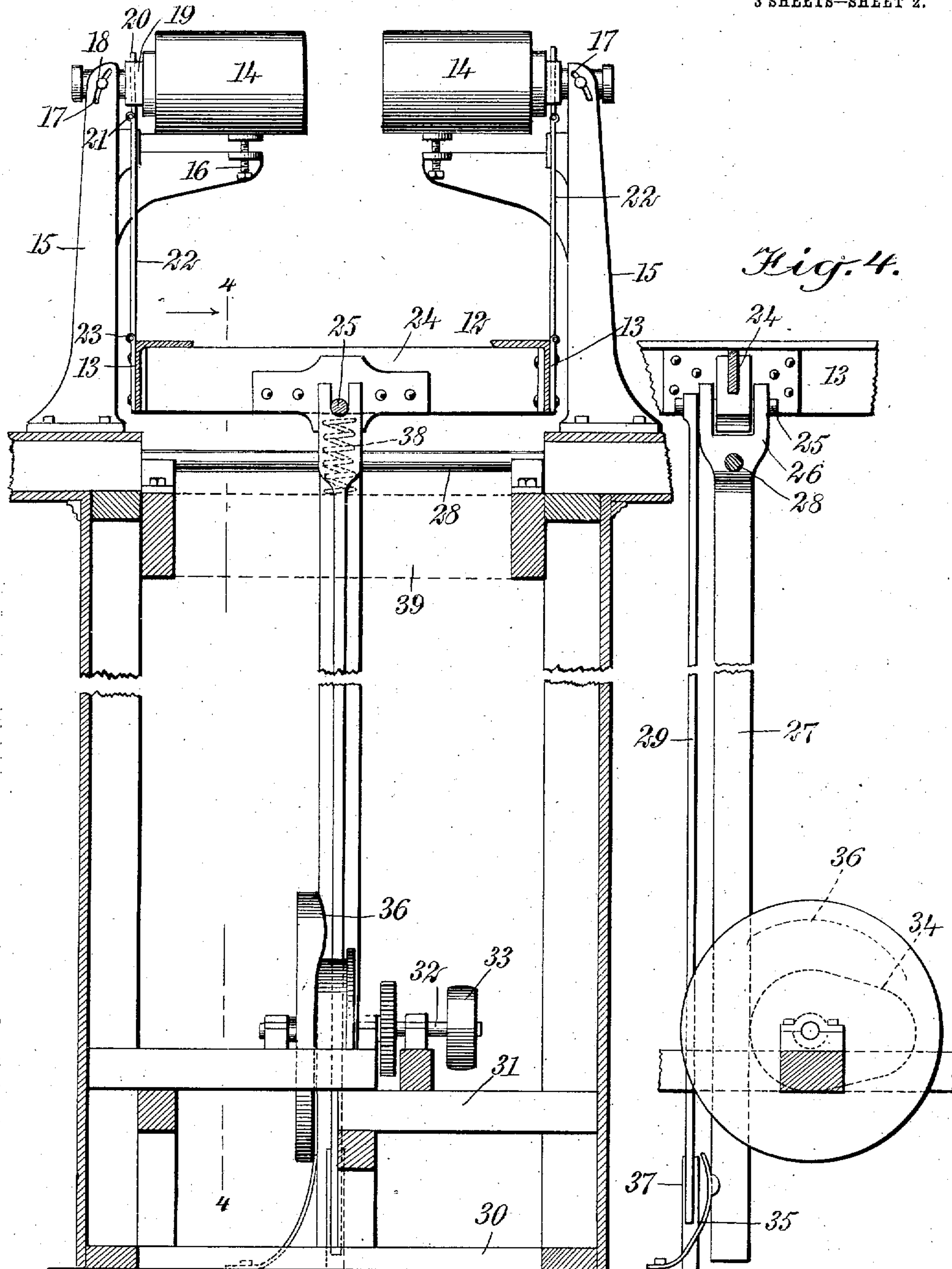
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Fig. 3.

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3 SHEETS—SHEET 3.

Fig. 5.

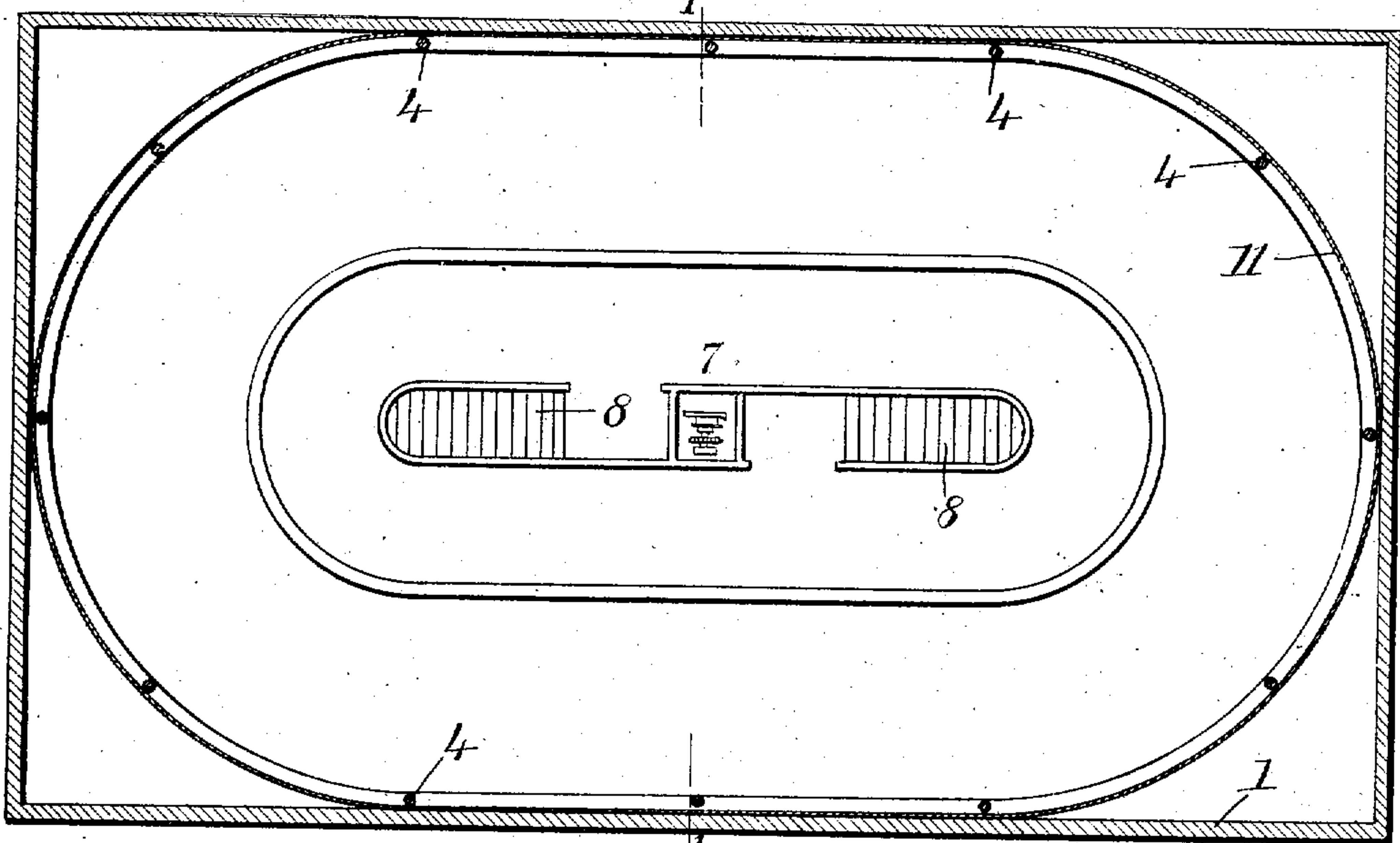
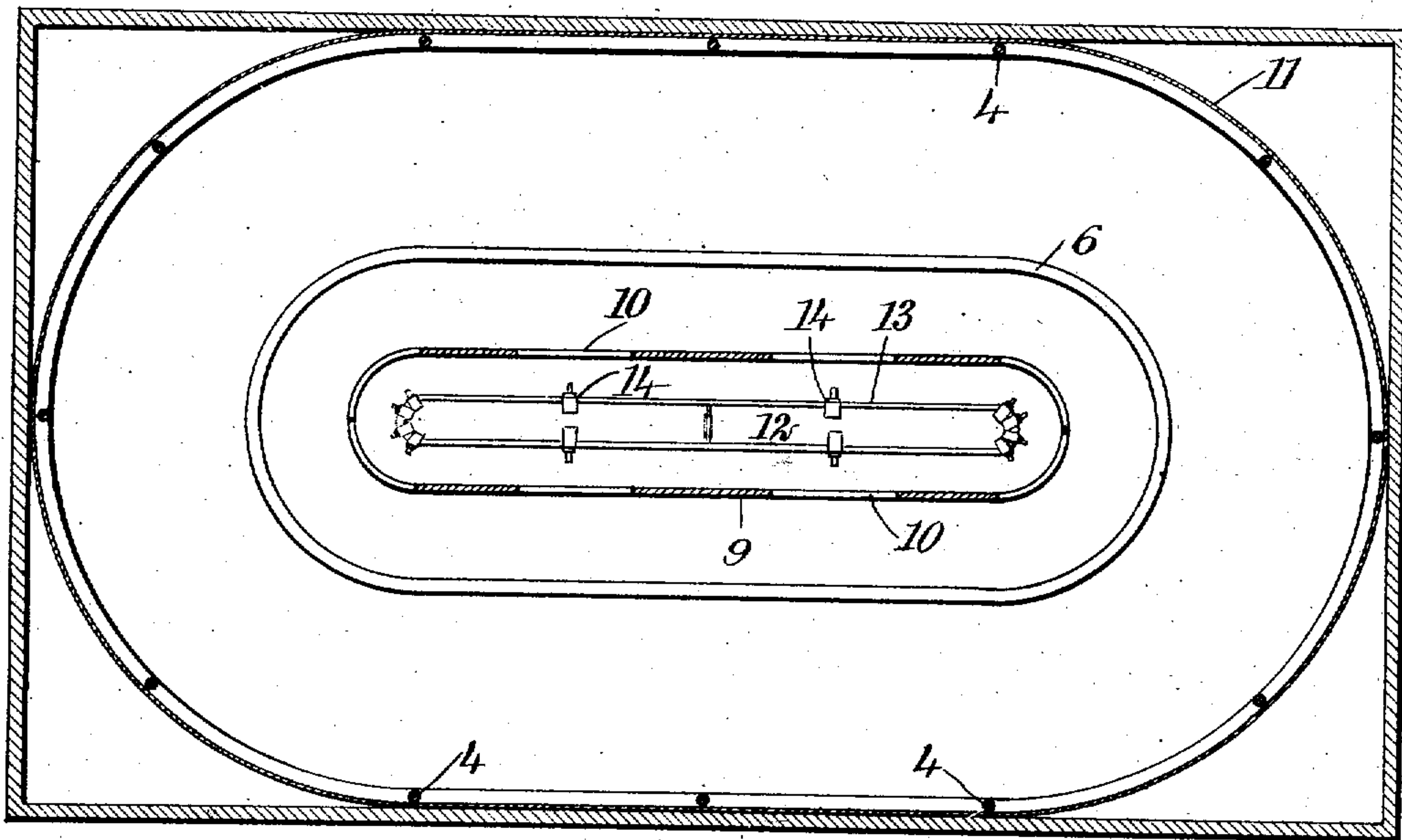


Fig. 6.



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UNITED STATES PATENT OFFICE.

ROBERT GEORGE GORDON, OF CALGARY, ALBERTA, CANADA.

CYCLORAMIC APPARATUS.

No. 874,328.

Specification of Letters Patent.

Patented Dec. 17, 1907.

Application filed June 22, 1907. Serial No. 380,252.

To all whom it may concern:

Be it known that I, ROBERT GEORGE GORDON, a subject of the King of Great Britain, and a resident of Calgary, in the Province of Alberta and Dominion of Canada, have invented a new and improved Cycloramic Apparatus, of which the following is a full, clear, and exact description.

This invention relates to a cycloramic apparatus for producing an illusion, and is especially useful where an illusion such as an apparent rocking motion is to be given to the observer.

In the following specification, the invention is described in the form of a marine cyclorama which is presented to the observer, arrangement being made for giving the same effect as though the observer were standing upon the deck of a rolling ship.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical central section through the apparatus, taken on the line 1—1 of Fig. 5; Fig. 2 is a perspective view showing the rocking frame by means of which the illusion of rolling or rocking is produced; Fig. 3 is a vertical section upon an enlarged scale, and illustrating especially the mechanism for mounting the lanterns and for producing the illusion of rocking; Fig. 4 is a vertical section taken on the line 4—4 of Fig. 3; Fig. 5 is a horizontal section taken on the line 5—5 of Fig. 1; and Fig. 6 is a view similar to Fig. 5 but taken at a higher elevation, on the line 6—6 of Fig. 1.

Referring more particularly to the parts and especially to Fig. 1, 1 represents a box-shaped structure or house having an elevated floor 2 provided with a continuous rail 3, and having stanchions 4 which appear to support the ceiling 5. The ceiling 5 represents the hurricane deck of a ship, while the floor 2 represents the promenade deck. The parts are constructed so as to represent the corresponding parts of a ship, and the middle portion of the floor or deck 2 is inclosed in a small rail 6, within which the observer is supposed to stand.

Passing up through the middle point of

the deck 2, I provide a vertical shaft or companionway 7, having steps 8 which permit persons to ascend to the promenade deck. The shaft 7 is continued to a considerable height above the deck 2, and supports a lantern house or box 9. This lantern house is of elongated or oblong form, as indicated in Fig. 6, and is provided with openings 10. These openings are disposed opposite to the spaces between the stanchions, and behind the stanchions a continuous screen 11 is placed. Centrally disposed in the lantern house I provide an elongated rocking frame 12 which presents two parallel bars 13. The manner of mounting the lanterns 14 is clearly illustrated in Fig. 3. Each lantern is mounted upon a fixed bracket or pedestal 15 and is arranged for adjustment by means of an adjusting screw 16 and a curved slot 17 through which a screw 18 passes near the lens of the lantern. The arrangement is such that the lanterns may be pointed at the screen respectively so as to project pictures upon the screen by means of a lime light or similar means. In the forward part of each lantern a guide 19 is formed, having a slide or transparency 20. These transparencies are connected by hinge joints 21 at their lower edges with links 22 respectively, and these links are connected by hinge joints 23 with the frame 12. The frame 12 is supported at its middle point in the manner illustrated in Figs. 3 and 4. For this purpose, it is provided with a transverse cross bar or cross head 24, and this cross bar is provided with a rigid gudgeon or horizontal pin 25 which is rotatably mounted in a fork 26 provided at the upper end of a main rock bar 27. The pin 25 extends in a longitudinal direction with respect to the frame 12. The rock bar 27 is supported just below the fork 26 upon a transversely disposed rock shaft 28.

Attached rigidly to the pin 25 there is provided an auxiliary rock bar 29, and the lower ends of these bars 27 and 29 lie close together near the lower floor 30 of the house, and in the lower part of the shaft 7. At this point I provide a framework 31 which supports a horizontal shaft 32 which is adapted to be driven continuously by means of a pulley 33. The shaft 32 is provided with an oblong or oval cam 34, indicated most clearly in dotted lines in Fig. 4. The face of this cam lies against the side face of the main rock bar 27, so that as the shaft 32 rotates, the bar 27 will rock to and fro. In this way the frame

12 will be made to rock upon the axis of the shaft 28, as will be readily understood. The rock bar 27 is held against the face of the cam by means of a suitable leaf spring 35 attached to the floor, as indicated in Fig. 4.

In addition to the cam 34 I provide a second cam 36 which consists of a wheel presenting a projection on its side face and against which the auxiliary rock bar 29 is held by means of a spring 37 similar to the spring 35 referred to above. From this arrangement it should be understood that when the shaft 32 is rotated, the frame 12 will be given a rocking movement, not only on the axis of the shaft 28, but also will have a rocking movement upon its own longitudinal axis; that is, upon the axis of the pin 25. When the frame 12 is given this rocking movement, the transparencies or slides 20 will move up and down in the guides 19, and the pictures projected upon the screen will constantly appear to rise and fall. As the slides are all attached to the frame 12, they move as one piece, and the effect is produced of a rocking boat.

In order to steady the movement of the frame, I place helical springs 38 at the under side of the frame at the ends thereof, as shown in Fig. 2. These springs rest at their under sides against a scantling or timber 39 which extends across the end of the shaft, as indicated most clearly in Fig. 3.

The pictures thrown upon the screen are preferably marine views, and they may be changed if desired, from mid-ocean views to views including parts of the shore.

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

1. In apparatus of the class described, in combination, a screen adapted to have a continuous picture cast thereupon, picture-pro-

jecting mechanism, and means for rocking a part of said mechanism to rock the picture on said screen.

2. In apparatus of the class described, in combination, a screen adapted to have a continuous picture cast thereupon, a frame, a plurality of picture-casting devices carried thereby, and means for rocking parts of said devices simultaneously to rock the pictures on said screen.

3. In apparatus of the class described, in combination, a frame, a plurality of slides, lanterns guiding said slides, and means for rocking said frame, and a screen receiving the pictures cast by said lanterns.

4. In apparatus of the class described, in combination, a screen adapted to have pictures cast thereupon, a frame mounted to rock on different axes, picture-casting devices partly carried by said frame, and means for rocking said frame.

5. In apparatus of the class described, in combination, a screen adapted to receive pictures, a frame mounted to rock on two axes substantially at right angles to each other, picture-casting slides mounted on said frame, and means for rocking said frame.

6. In apparatus of the class described, in combination, a cycloramic screen, a frame disposed in a central position with respect to said screen, a plurality of picture-casting devices throwing pictures on said screen, and means for moving said frame to rock said pictures on said screen.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ROBERT GEORGE GORDON.

Witnesses:

JOHN SMITH,
W. L. WAINES.