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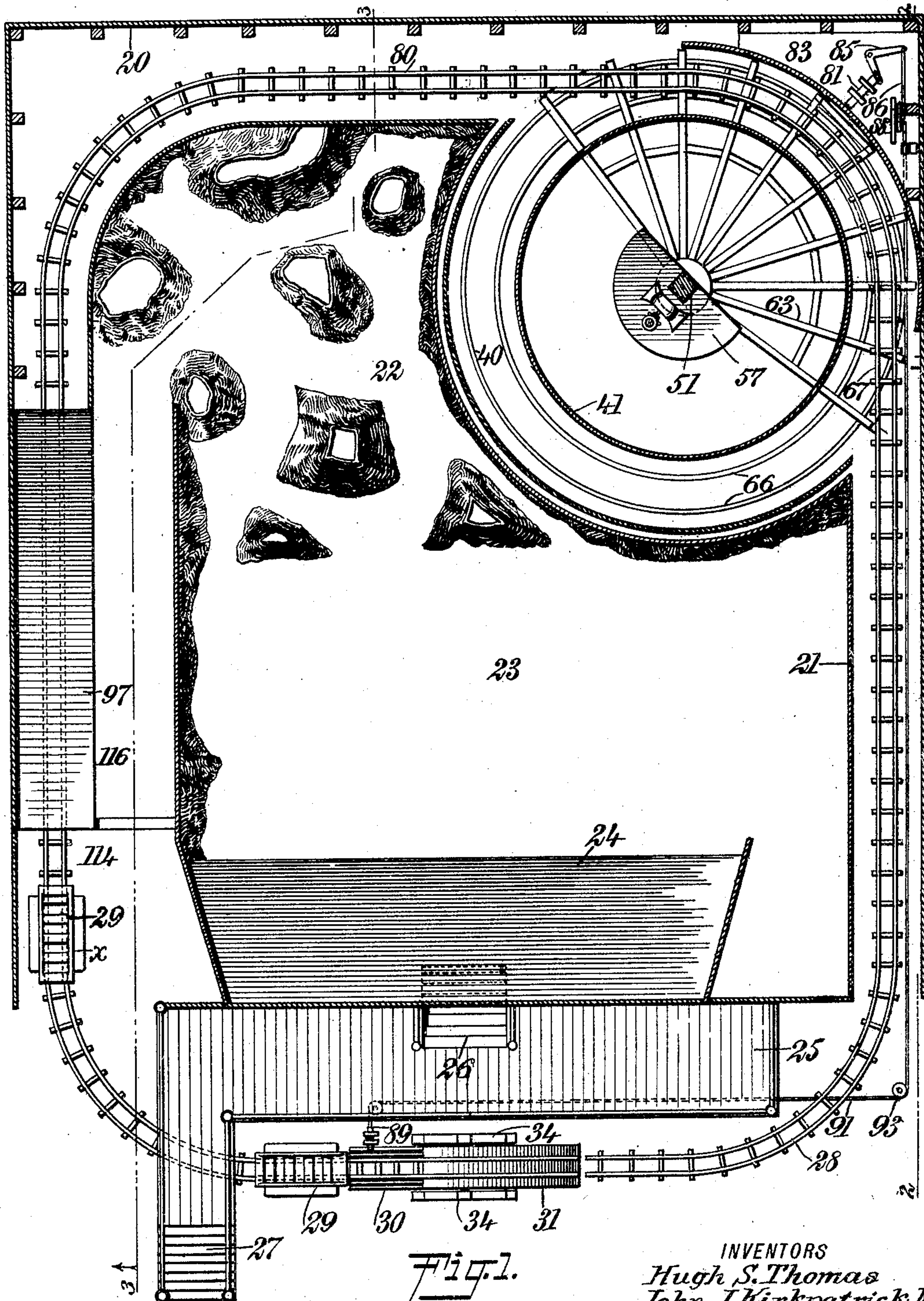
PATENTED JUNE 27, 1905.

H. S. THOMAS & J. J. KIRKPATRICK, JR.

AMUSEMENT DEVICE.

APPLICATION FILED NOV. 2, 1904.

7 SHEETS—SHEET 1.



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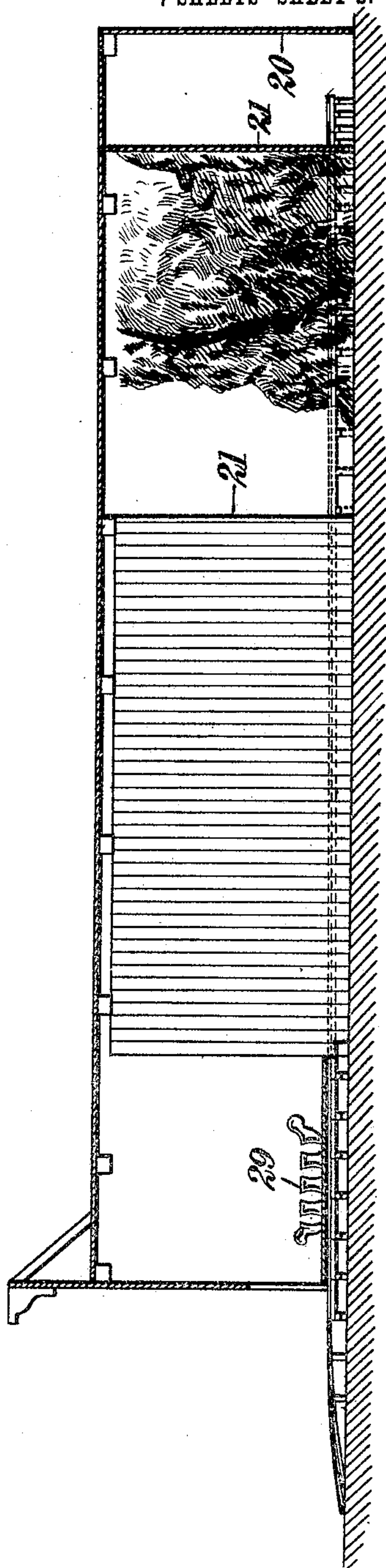
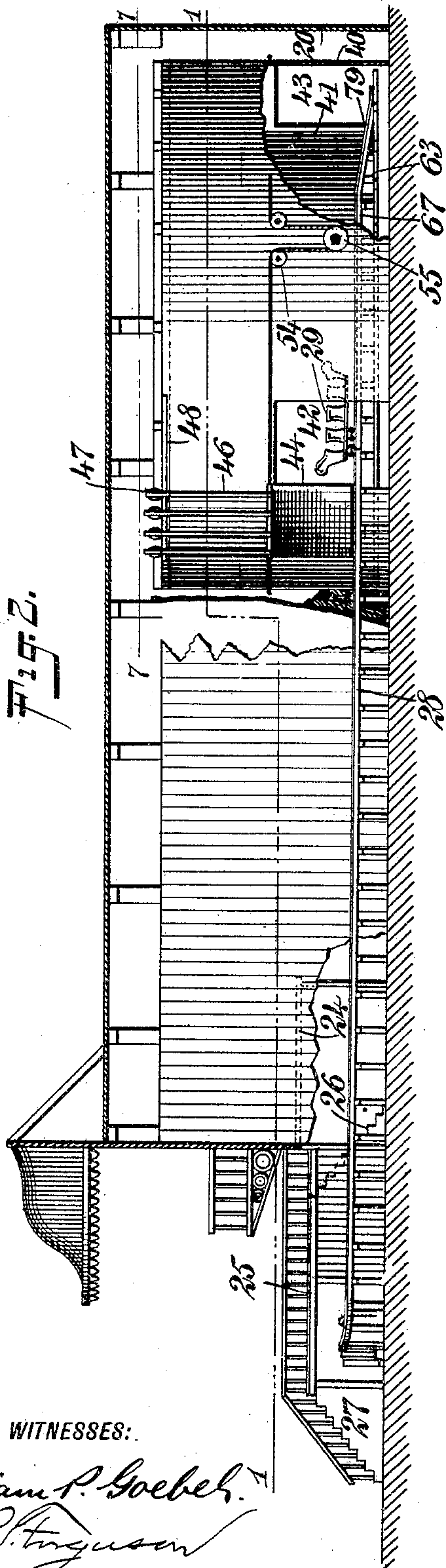
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7 SHEETS—SHEET 2.



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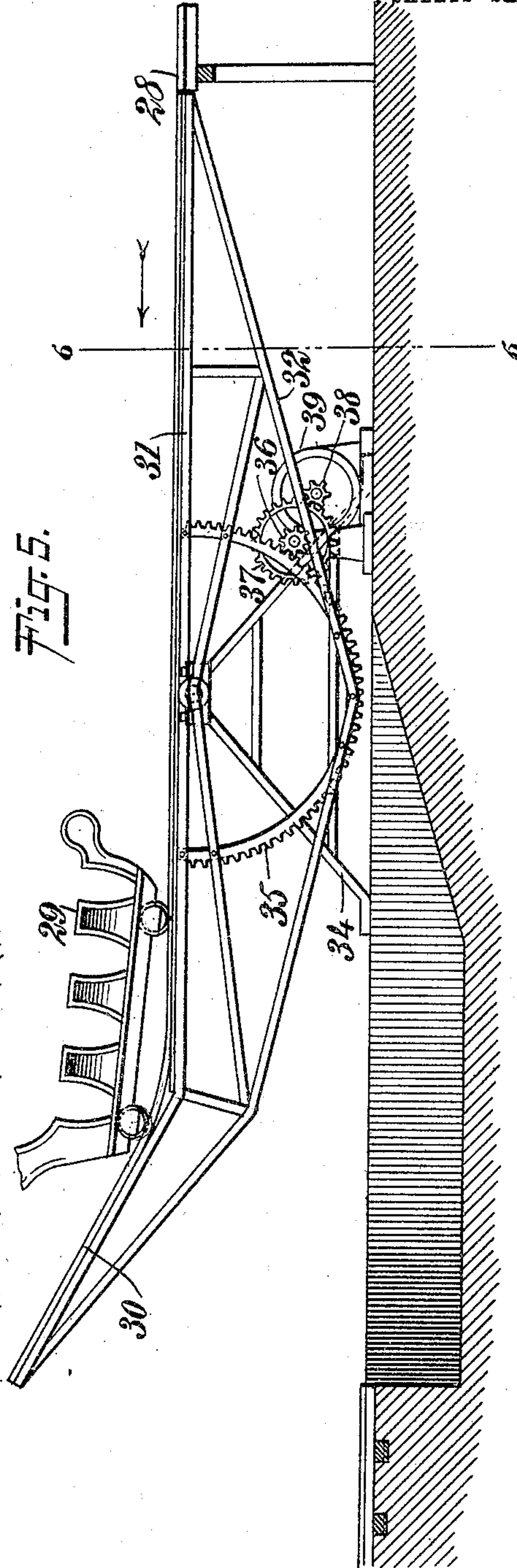
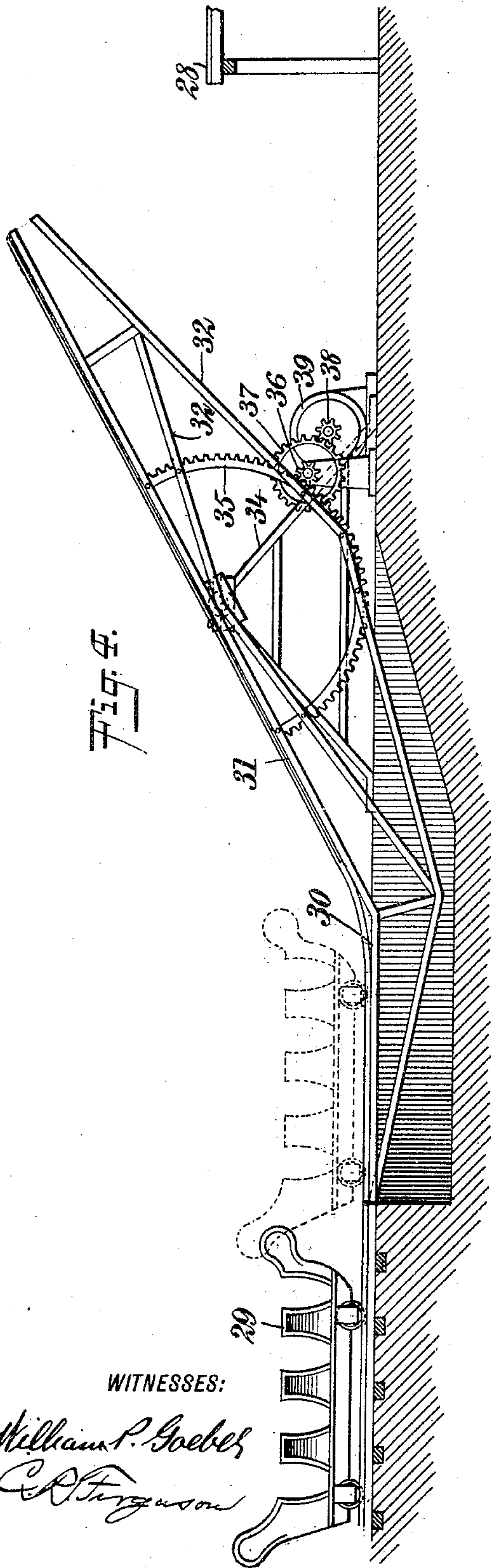
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7 SHEETS—SHEET 3



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7 SHEETS—SHEET 4.

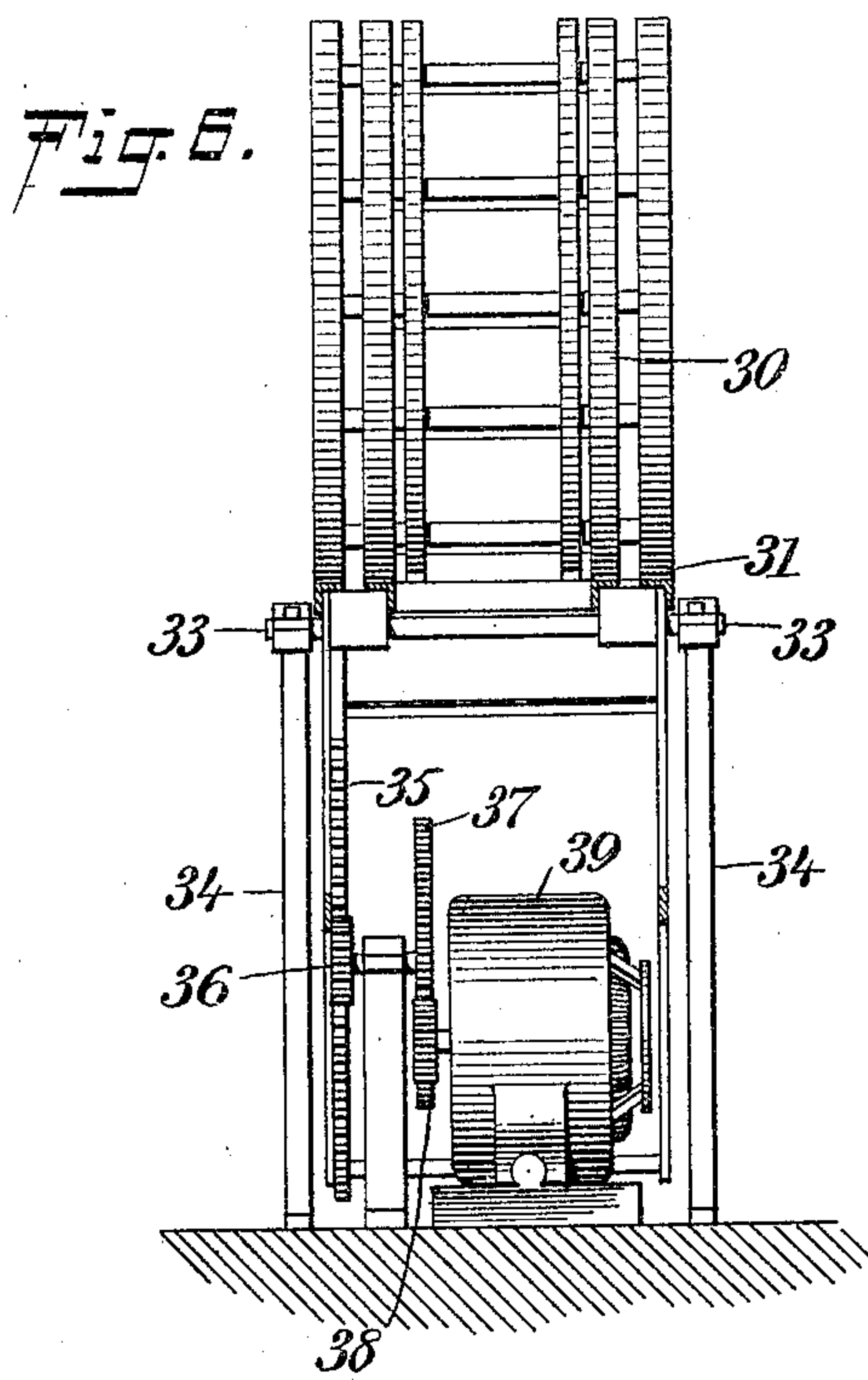
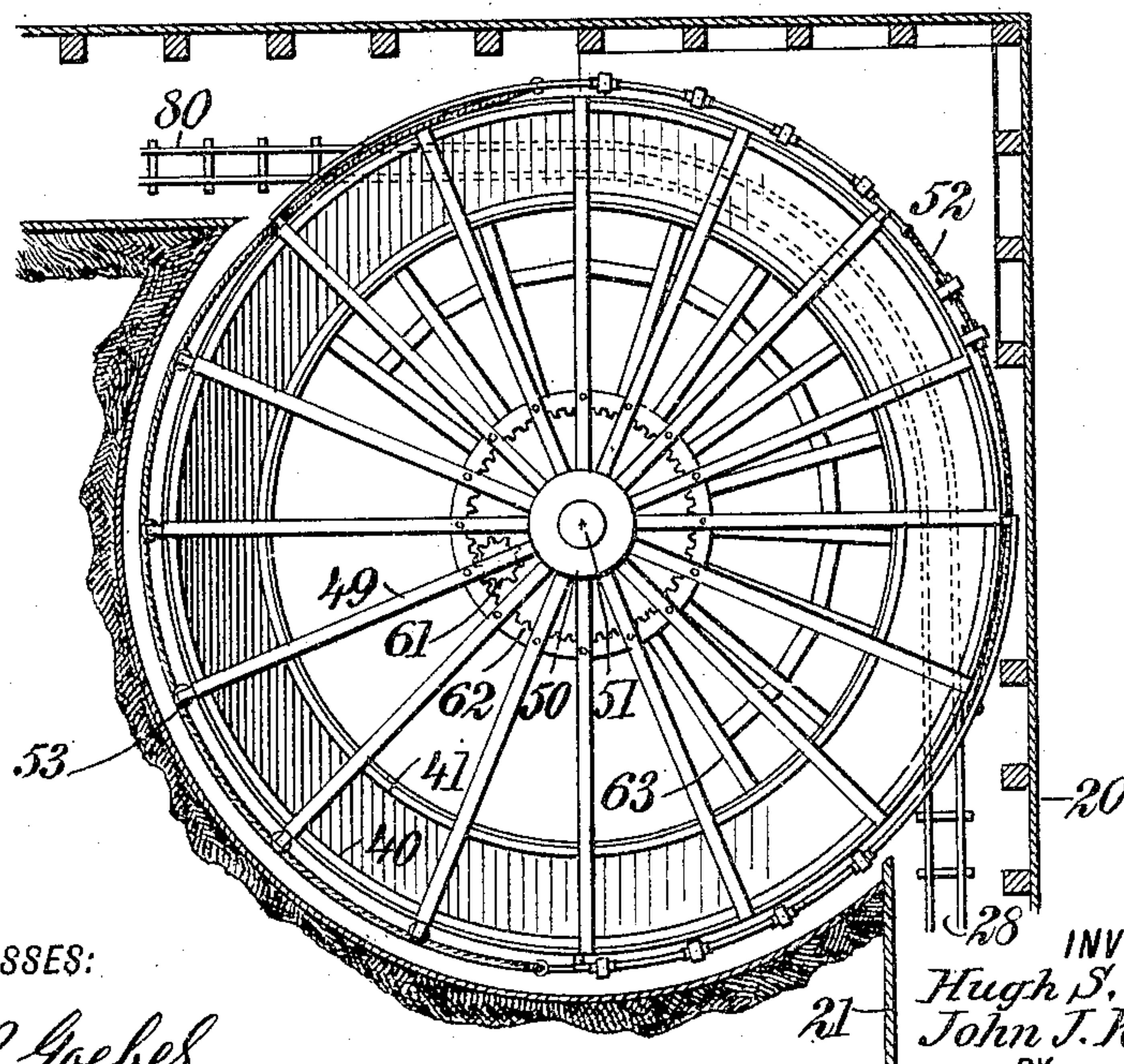



Fig. 7.



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7 SHEETS—SHEET 6.

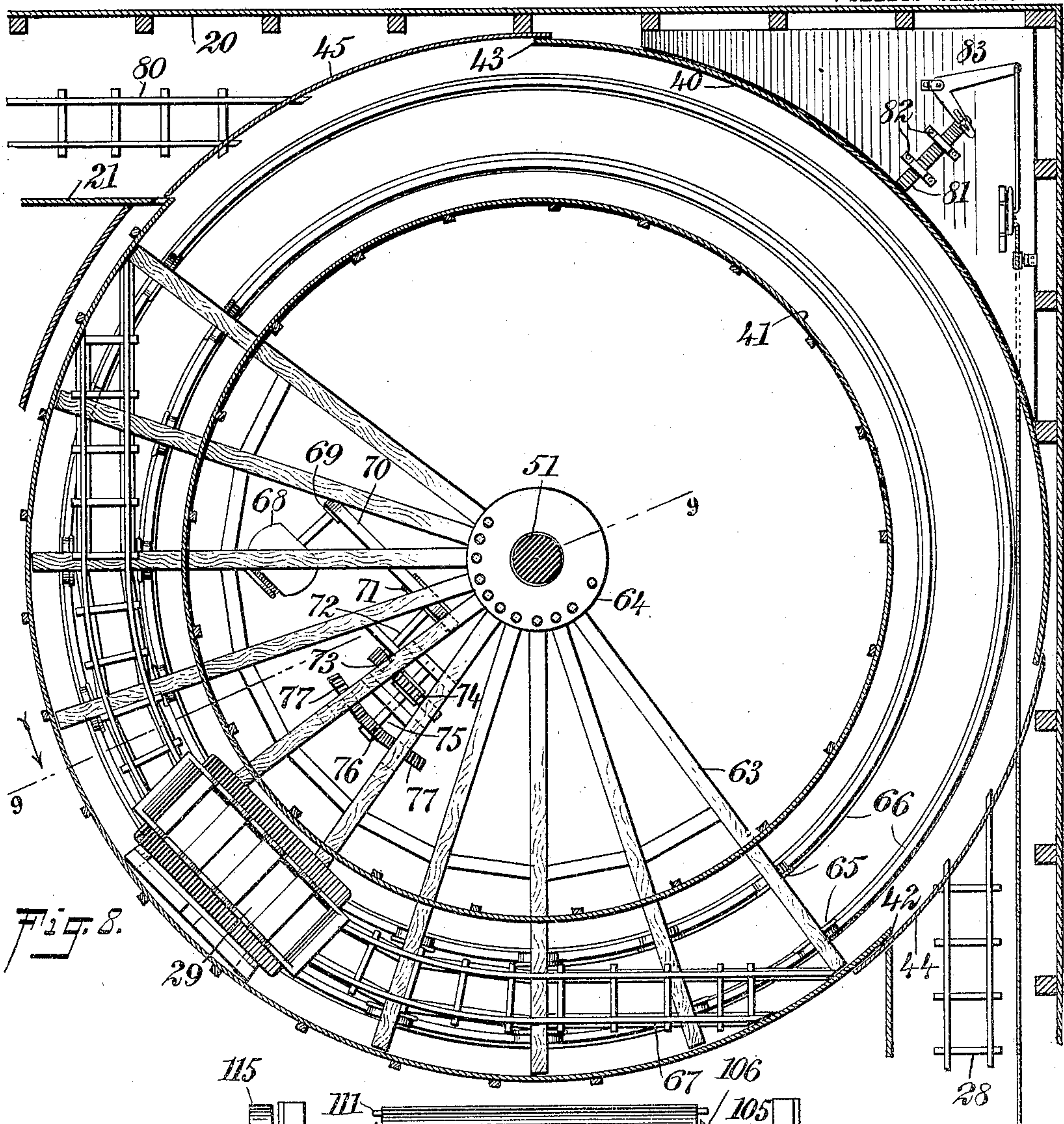


Fig. 8.

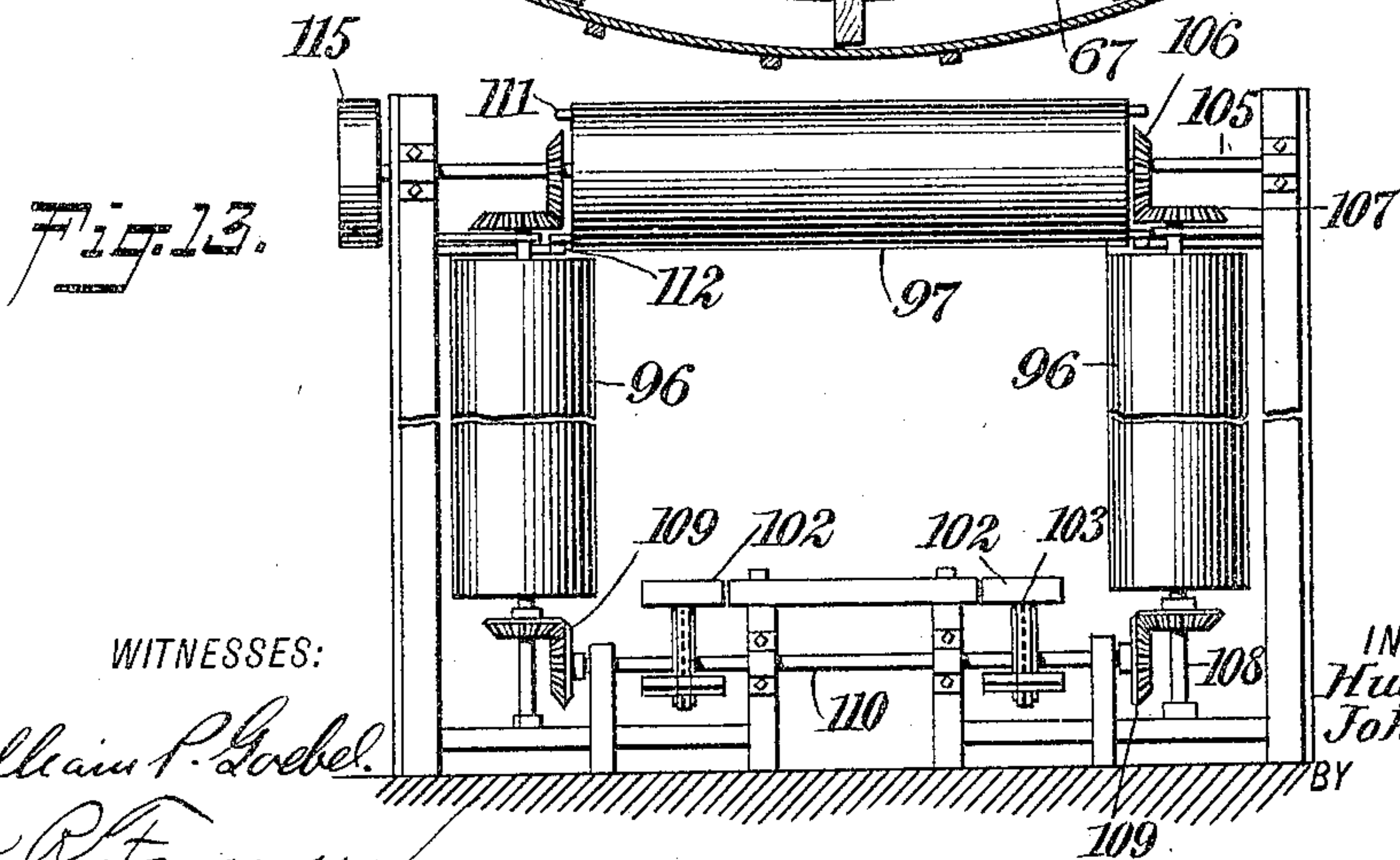


Fig. 13.

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7 SHEETS—SHEET 8.

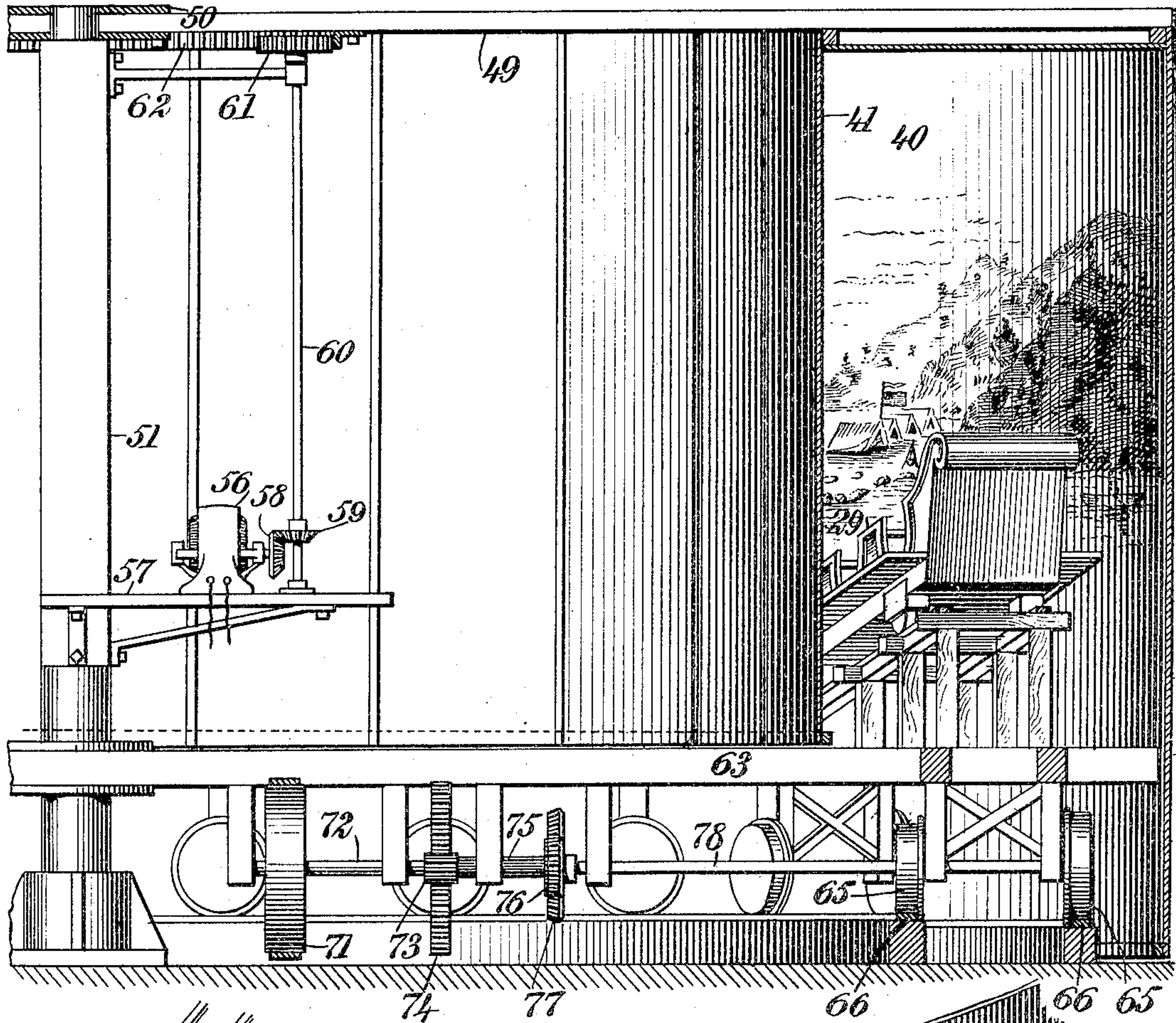


Fig. 9.

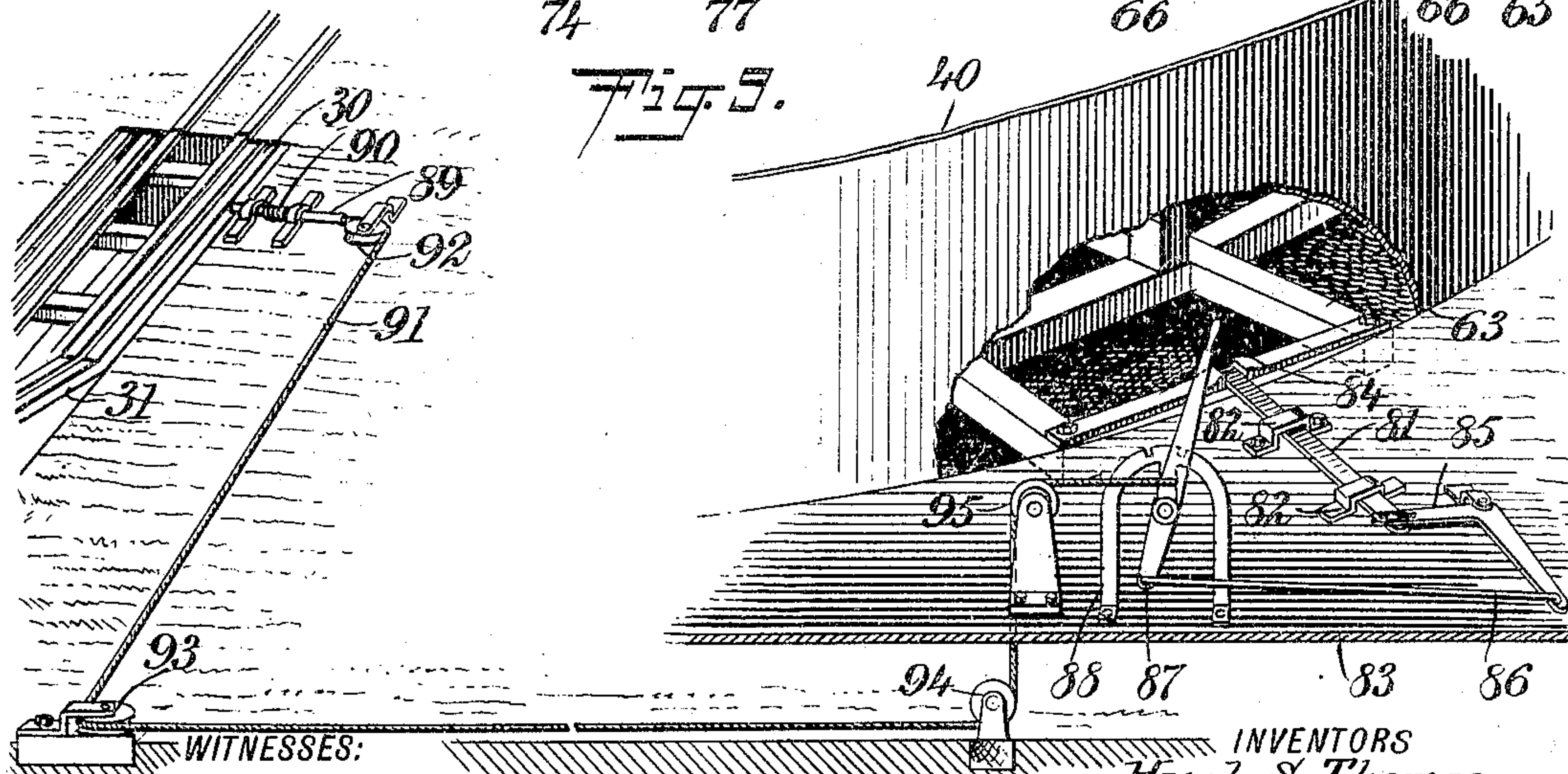


Fig. 10.

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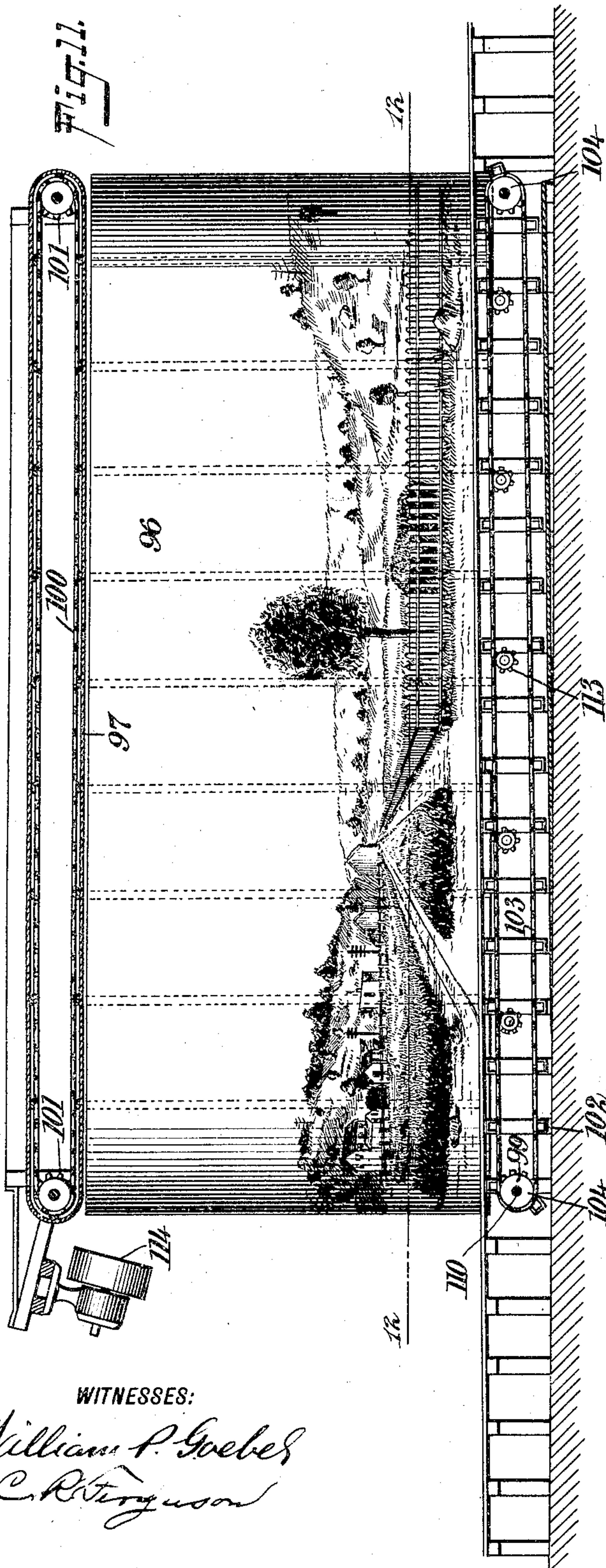
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7 SHEETS—SHEET 7.



UNITED STATES PATENT OFFICE.

HUGH S. THOMAS AND JOHN J. KIRKPATRICK, JR., OF NEW YORK, N. Y.

AMUSEMENT DEVICE.

SPECIFICATION forming part of Letters Patent No. 793,471, dated June 27, 1905.

Application filed November 2, 1904. Serial No. 231,078.

To all whom it may concern:

Be it known that we, HUGH S. THOMAS and JOHN J. KIRKPATRICK, Jr., citizens of the United States, and residents of the city of New York, Coney Island, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Amusement Device, of which the following is a full, clear, and exact description.

This invention relates to improvements in amusement devices of the character in which passenger-carrying cars are movable along a track, the object being to provide a novel means for starting the cars and also to provide movable scenic devices along portions of the track that will give to passengers the impression of traveling a long distance at a high speed, while, in fact, the car is moving a comparatively short distance at a slow speed.

Other objects of the invention will appear in the general description.

We will describe an amusement device embodying our invention and then point out the novel features in the appended 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 sectional plan on the line 1 1 of Fig. 2 of an amusement device embodying our invention. Fig. 2 is a section on the line 2 2 of Fig. 1. Fig. 3 is a section on the line 3 3 of Fig. 1. Figs. 4 and 5 are side views of a rocking track-section employed, showing the same in different positions. Fig. 6 is a section on the line 6 6 of Fig. 5. Fig. 7 is a plan, partly in section, on the line 7 7 of Fig. 2, showing a turn-table employed. Fig. 8 is a plan of the turn-table. Fig. 9 is a section on the line 9 9 of Fig. 8. Fig. 10 is a perspective view of a locking mechanism employed. Fig. 11 is a section on the line 11 11 of Fig. 12. Fig. 12 is a section on the line 12 12 of Fig. 11, and Fig. 13 is an end view of a tunnel mechanism.

Referring to the drawings, 20 designates a housing in which the greater portion of the amusement device is located. Upon the floor-space within the inner wall 21 of the housing is a grotto 22, an auditorium 23, and a stage

24, and outward of the inner wall 21 at the front is a platform 25, leading to the floor-space below the platform by a stairway 26, and the platform is also provided with an exit-stairway 27. The inner and outer walls of the structure practically form a tunnel, and the walls adjacent to the track 28, extending through the tunnel, will be suitably painted to give scenic effects.

Arranged in the track forward of the platform 25 is a rocking track-section designed for the starting of the cars 29. This rocking track-section comprises a frame having an inlet end 30 and an outlet portion 31, these portions 30 and 31 being arranged at an angle with relation to each other. These angular portions are mounted on a frame 32, which has trunnion-bearings 33 in standards 34, these trunnions being arranged practically midway between the ends of the portion 31, and on this portion is a segment-rack 35, meshing with a pinion 36, on the shaft of which is a gear-wheel 37, engaging with a pinion 38 on the shaft of an electric motor 39. By means of the motor of the gear mechanism the rocking track-section may be swung from its initial or receiving position (shown in Fig. 4) to the discharging position (shown in Fig. 5) and also return to starting position. It is to be understood, however, that we do not confine our invention to the means here shown for causing rocking movements of the frame. When in starting position, the rocking section will have its rails in engagement with the main fixed rails, and it may be here stated that the track throughout its entire length has a downward incline, so that the cars pass along the same by gravity. From a portion of the main track the car carrying passengers passes into a circular tunnel comprising an outer wall 40 and an inner wall 41, which on their inner or adjacent sides are painted for scenic effect. The outer wall 40 is provided with an ingress-opening 42 and an egress-opening 43. These openings are designed to be closed, respectively, when the walls are in rotation, by means of doors 44 45. These doors are supported by hangers 46, provided with rollers 47, which engage with short tracks 48, secured to certain of the radial arms 49, extended from a hub 50, 100

mounted to rotate on a fixed center post 51. The doors 44 45 are simultaneously opened or closed by means of a rope 52, which engages with opposite sides of the door and post around idler-rollers 53, and at one side the rope passes downward over pulleys 54 and around a pulley 55. Obviously by drawing on the rope at one side of the pulley 55 the doors will be moved in one direction, while by pulling on the rope on the opposite side of the pulley 55 the doors will be moved in the opposite direction.

As here shown, rotary motion is imparted to the scene-carrying walls 40 and 41 by means of an electric motor 56, supported on a platform 57, extended from the post 51. A pinion 58 on the shaft of the motor engages with a bevel-pinion 59 on a vertical shaft 60, which at its upper end has a gear-wheel 61 meshing with an interior toothed gear 62, attached to the arms 49.

Arranged to rotate in the tunnel is a turn-table consisting of arms 63, extended from a hub 64, mounted to rotate on the post 51. This turn-table is made in the form of a segment of a circle, and carried by the arms are wheels 65, which engage on circular rails 66, arranged below the turn-table. Mounted on this turn-table is a track-section 67, and rotary motion is imparted to the turn-table, by means of an electric motor 68, from a pulley 69, on the shaft of which a band 70 extends to a driving-pulley 71 on a counter-shaft 72, and on this counter-shaft 72 is a pinion 73, meshing with a gear-wheel 74 on a shaft 75, and on this shaft 75 is a pinion 76, meshing with gear-wheels 77, mounted on the axles 78 of two pair of the wheels 65. It may be here stated that the turn-table while a car is thereon rotates in an opposite direction from the rotary movement of the tunnel-walls 40 and 41, and the said walls will have a greater speed of motion than that of the turn-table, thus giving the illusion to passengers in the car that they are traveling at a rapid rate of speed, while, in fact, the turn-table, with the car stationary thereon, is traveling at a comparatively slow speed. At the outlet end of the track-section 67 is a sharp incline 79, on which the car rests while the turn-table is in motion. Of course the car will be caused to rest on this inclined portion by means of an attendant applying a brake, which it is not deemed necessary to show herein. When the turn-table shall have made one rotation and the portion 79 of the track-section 67 is in connection with the straight track-section 80 and upon releasing the brake, the car will automatically start and continue its journey. The turn-table is locked in its receiving and discharging position by means of a bolt 81, mounted to slide in keepers 82, secured to a platform 83, the inner end of this bolt 81 being designed to engage between lugs 84 on the frame of the turn-table, as clearly indicated in Fig. 10.

The outer end of the bolt 81 has a pin extended into a slot formed in one member of an angle-lever 85, and from the other member of this angle-lever a rod 86 extends to a connection with a lever 87, mounted on a rack-frame 88, extended upward from the platform 83. This lever 87 will be provided with a suitable dog for engaging in the rack.

We also provide means for locking the rocking track-section in the position (indicated in Fig. 4) for receiving a loaded car. This means consists of a bolt 89, which is moved in one direction, by means of a spring 90, for engaging with the portion 30 of the rocking frame, and from this bolt a cable 91 extends around a horizontal pulley 92, then around another horizontal pulley 93 to a vertical pulley 94, and thence over a pulley 95 to the lever 87. By this arrangement the bolts 81 and 89 will be simultaneously operated.

After leaving the circular tunnel and passing over the track-section 80 the car passes into a straight tunnel, which has the opposite side walls 96 and the ceiling-wall 97. These side and ceiling walls are in the form of endless aprons having scenes painted thereon. The side walls are connected to sprocket-chains 98, which engage around sprocket-wheels 99 at the ends of the tunnel, and the top or ceiling canvas is attached to sprocket-chains 100, engaging with sprocket-wheels 101 at the ends of the tunnel. These endless aprons carrying the scenic matter will be rotated quite rapidly while a car is passing slowly through the tunnel, and to further create the impression of fast traveling of a car the ends 102 of the rail-ties are mounted on endless sprocket-chains 103, and these chains pass around sprocket-wheels 104 at the ends of the tunnel. On the shaft 105 of the sprocket-wheels 102 at one end of the tunnel are bevel-pinions 106, which engage with bevel-pinions 107 on shafts 108, connecting the upper and lower sprocket-wheels 99, and on the lower portions of these shafts 108, to which said sprocket-wheels 99 are attached, are bevel-pinions 109 on a shaft 110, to which the sprocket-wheels 104 at the outlet end of the tunnel engage. The ceiling device or portion 97 is prevented from sagging by means of the extended ends 111 of the slats connecting the opposite sprocket-chains engaging with rails 112, and the sprocket-chains carrying the tie-sections 102 are prevented from sagging by passing over idler-sprockets 113.

At one end of the starting-tunnel (here shown as the outlet end) is a blower 114, designed to force air into the tunnel with considerable velocity, thus giving the impression of high wind. Motion is imparted to these scenic devices by means of a motor having a driving-band connection with a wheel 115 on the shaft 105.

In the operation passengers will step into the car while the same is on the portion 30 of

the rocking track-frame, as indicated in Fig. 4, and then by rocking the said frame the car will move down the incline by gravity and thence to the main track into the tunnel, the doors of course being open. While the car is at rest on the incline 79 the walls of the tunnel will be rotated and the turn-table will be turned once around in the opposite direction to the walls of the tunnel, as before mentioned, and then after opening the doors the car will proceed along the track-section 80 to the straight tunnel and come to a stop at the point x , where the passengers will step out of the car and pass through the hallway 116 to the grotto 22, thence to the auditorium 23, from which operations on the stage 24 may be viewed, and then the people will pass out underneath the stage, up the stairway 26 to the platform 25, and thence down the stairway 27.

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

1. An amusement device comprising a track a rotary section therein, and a vertically-rocking section in the track.

2. An amusement device comprising a track, a rotary section therein, and a vertically-rocking section in the track, the said rocking section having rail or track members arranged at an angle to each other.

3. An amusement device comprising a track, a rotary section therein, a rocking frame arranged in the track and having portions arranged at a vertical incline with relation to each other, rails on said portions, and mechanism for rocking said frame.

4. An amusement device comprising a track, and a circular tunnel having movable scenic walls and through which the track extends.

5. An amusement device comprising a track, a circular tunnel having movable scenic walls, a turn-table arranged to rotate in the tunnel and in an opposite direction thereto, and a track-section on said turn-table.

6. An amusement device comprising a track, a circular tunnel having rotating side walls, a turn-table arranged to rotate in the tunnel, a track-section on said turn-table, and means for rotating the turn-table and the side walls at different rates of speed.

7. An amusement device comprising a track, a tunnel consisting of endless movable scenic side walls, an endless movable scenic top wall, a blast-producing device at one end of the tunnel and a track-section extended through the tunnel.

8. An amusement device comprising a track,

a tunnel having endless movable walls, a track-section in the tunnel, and tie members movable along said track-section within the tunnel.

9. An amusement device comprising a main track, a rocking track-section arranged in the main track, a rotary tunnel, a turn-table mounted to rotate in the tunnel and carrying the track-section, and means for simultaneously locking or releasing the rocking section and the turn-table.

10. An amusement device comprising a main track, a tunnel consisting of inner and outer walls mounted to rotate, the outer wall having inlet and outlet openings, sliding doors for said openings, and means for simultaneously operating the doors.

11. An amusement device comprising a main track, a tunnel consisting of inner and outer scenic walls mounted to rotate, a turn-table arranged in the tunnel, a track-section carried by said turn-table, the said track-section having a steep inclined portion, and means for rotating the tunnel-walls and the turn-table at different rates of speed.

12. An amusement device comprising a housing having inner and outer walls, a main track extending between the walls, a grotto arranged within the space within the inner wall, an auditorium, a stage arranged within said space, a straight tunnel through which the track extends, the said tunnel having endless movable side and top walls, and a passage-way leading from the outlet end of said tunnel to the grotto.

13. An amusement device comprising a main track, a tunnel consisting of two circular scenic walls, a fixed center post, arms mounted to rotate on said post and to which the said walls are connected, a segmental turn-table mounted to rotate around said post, a segmental track-section carried by said turn-table, a motor for rotating the tunnel-walls, and a motor for rotating the turn-table.

14. An amusement device comprising a main track, a rocking frame, track-rails carried by said frame, the said frame having top portions arranged at a vertical incline with relation to each other, a segment-rack carried by said frame, and a motor having gear connections with said rack.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

HUGH S. THOMAS.

JOHN J. KIRKPATRICK, Jr.

Witnesses:

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F. J. H. SIEGFRIED.