May 8, 1928.

1,668,620

J. WHITELEY

AMUSEMENT APPARATUS

Filed April 21, 1926

3 Sheets-Sheet 1

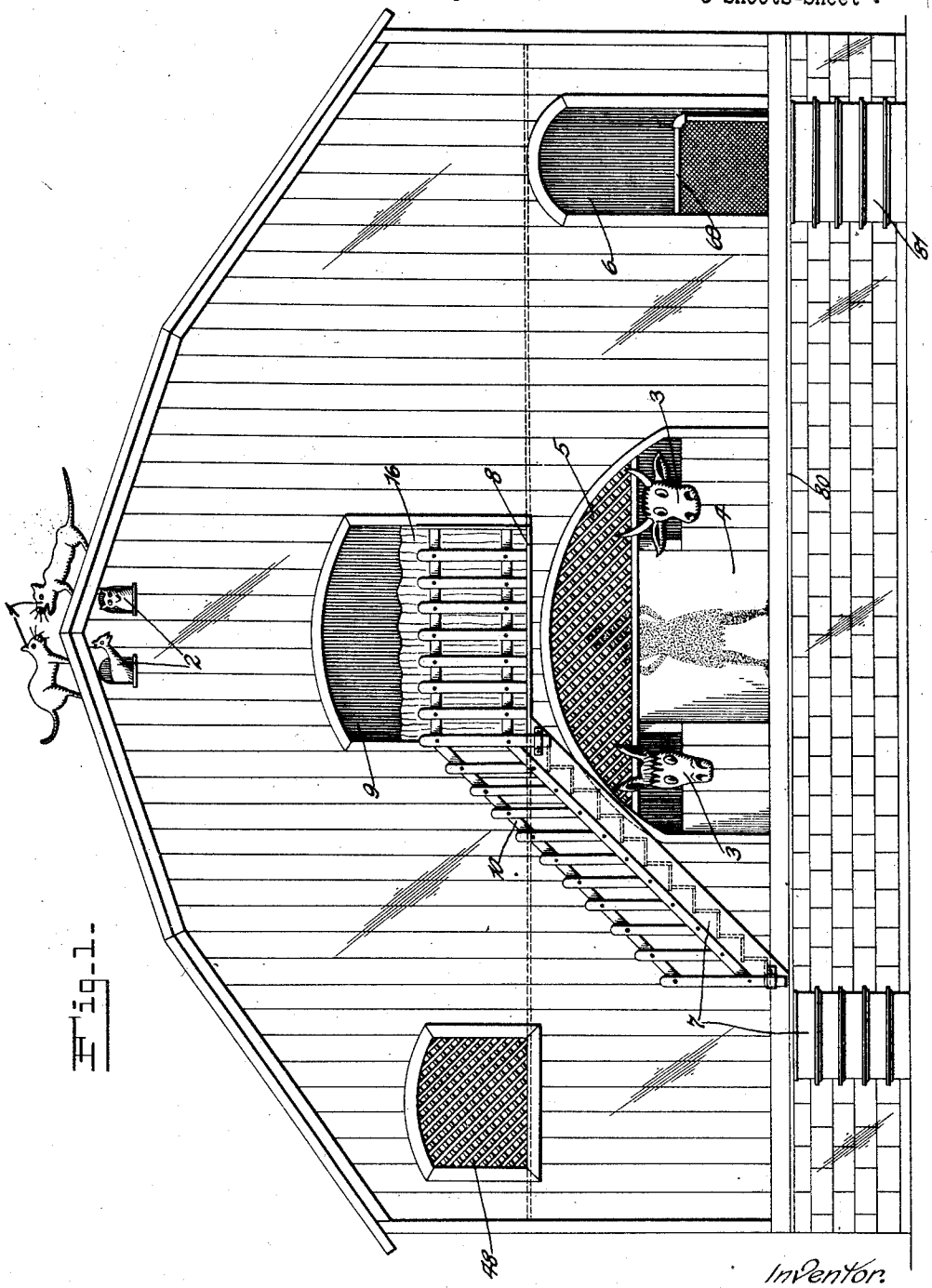

Fig. 1.

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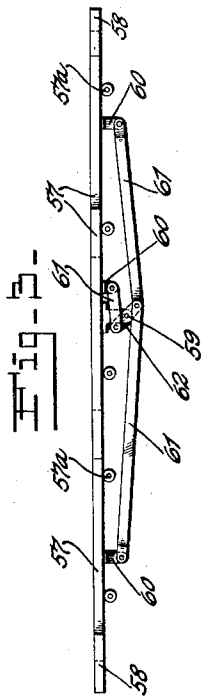

Fig. 3.

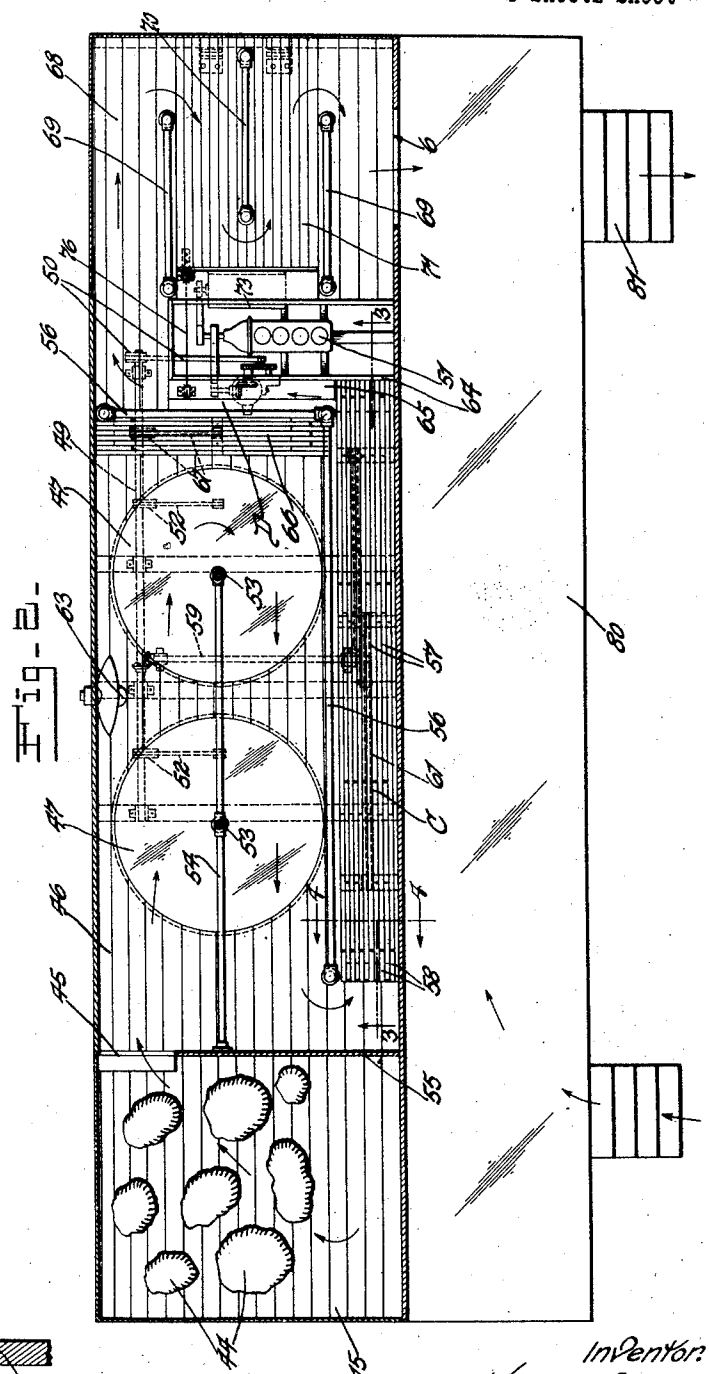

Fig. 2.

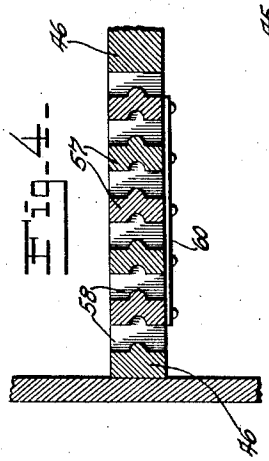

Fig. 4.

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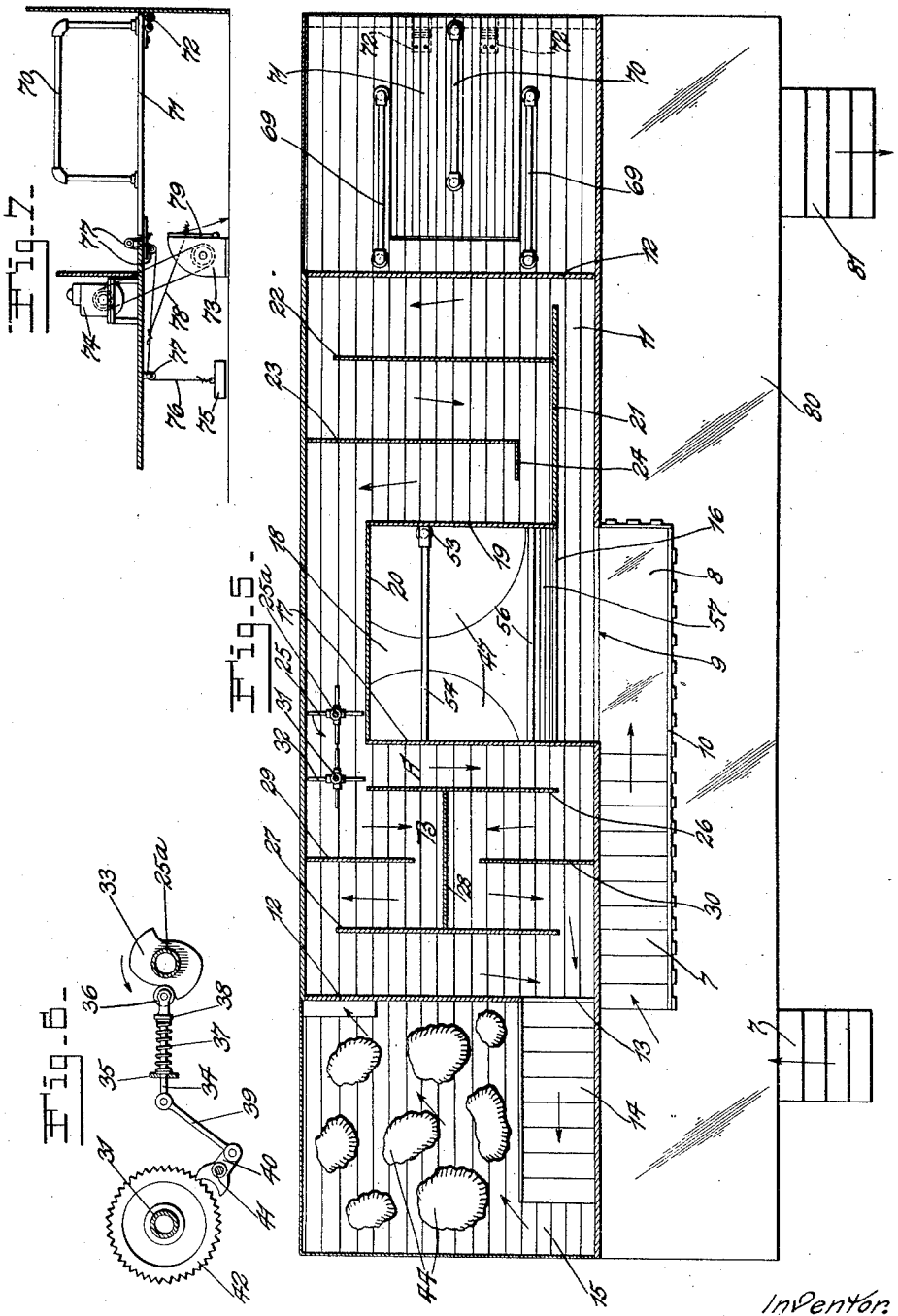

Fig. 7.

Fig. 5.

Fig. 6.

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UNITED STATES PATENT OFFICE.

JAMES WHITELEY, OF NORTH TONAWANDA, NEW YORK.

AMUSEMENT APPARATUS.

Application filed April 21, 1926. Serial No. 103,429.

This invention relates to amusement apparatus, and comprises a building having interior construction and equipment for the entertainment and amusement of persons passing through the building.

An object of the invention is to provide an amusement apparatus comprising a building or enclosure having an entrance and an exit, tortuous passages from the entrance to the exit, turnstile gates controlling the passages and provided with equipment for compelling their operation alternately in opposite directions to require the persons passing the turnstiles to pass into separated passages, and mechanism for oscillating parts of the floors to make walking through the building difficult.

Another object of the invention is to provide amusement apparatus comprising a building or enclosure having a translucent screen in an opening in one wall thereof, and oscillating floor construction within the building adjacent to said screen over which a person must pass to reach the building exit, and illuminating means for producing upon the screen the shadow of the person passing over the floor so that the shadow may be observed by persons outside of the building.

Another object of the invention is to provide amusement apparatus of the type mentioned having a floor provided with a trap door device over which persons passing to the exit must walk, with the result that the trap door is operated and the persons thereon are dropped into the path of air currents artificially created.

Another object of the invention is to provide an amusement apparatus having improved oscillating floor construction for obtaining amusing motions on the part of the persons passing therethrough, and means for casting shadows of such persons upon a screen visible from the exterior of the building.

Various other objects will appear from the following description, reference being made to the accompanying drawings, in which

Fig. 1 is an elevation of the building structure forming a part of the apparatus.

Fig. 2 is a plan view of the upper floor of the apparatus.

Fig. 3 is a view showing a part of the oscillating floor mechanism seen from the line 3—3 of Fig. 2.

Fig. 4 is an enlarged cross sectional view of a part of the oscillating floor on the line 4—4 of Fig. 2.

Fig. 5 is a plan view of the upper floor and parts of the lower floor visible at the ends and at the middle.

Fig. 6 is a view showing the device for controlling alternate reverse operation of the turnstile.

Fig. 7 is a view showing a trap door and air blower.

The building shown resembles a barn having various accessories and images arranged and designed to attract attention. Specifically, a number of images 1 are mounted upon the roof of the building; a number of images 2 are visible through openings in the front wall of that part of the building enclosing the loft of a barn, and a number of images 3 are visible through openings in the lower portion of the wall of the building considered as enclosing the stable. Between the images 3 and the wall of the building is an opening which is filled with a translucent screen 4 and above the images 3 and screen 4 an opening into the wall is filled with lattice work 5 through which the head and upper portion of the body of a person passing to the exit 6 of the building may be seen from the outside. A flight of steps 7 lead to a platform 8 at the entrance 9 of the building, a ballister rail 10 being provided for the platform and the upper portion of the stairway. The entrance 9 opens to the second floor 11 of the building constituting the floor of a room having end walls 12, one of which has an opening 13 to a flight of steps 14 leading to the lower floor 15 at or near one end of the building.

A wall or rail 16 extends from a transverse wall 17 connected with the front wall of the building at one side of the entrance 9 and terminates at a height (Fig. 1) permitting the persons entering the building to look through the opening 18 in the upper floor 11 to the lower floor to observe the amusing activity of the persons who have entered the building and passed to the lower floor. From the opposite end of the low wall 16 a transverse wall 19 extends to con-

nection with a wall 20 which is connected with the rear end of the wall 17. Thus the persons passing through the building are prevented from looking through the opening 18, except at the side adjacent to the entrance 9.

On entering the building, the persons are required to pass through a tortuous passage formed by a longitudinal wall 21 extending from the front end of the wall 19 and terminating at a distance away from the wall 12; a transverse wall 22 extending rearwardly from the wall 21 and terminating a short distance away from the rear wall of the building; a transverse wall 23 extending from the rear wall of the building and terminating a distance away from the wall 21 and an L or lateral extension 24 terminating at a distance from the wall 19. This wall construction forms a tortuous passage through which the persons must pass as indicated by the arrows. The walls are preferably opaque so that the passage is dark, thus confusing the persons with the result that they find it more or less difficult to follow the passage. The passage continues between the wall 20 and the rear wall of the building and that portion of the passage is controlled by a turnstile 25 attached to a shaft 25^a. The turnstile 25 is arranged adjacent to the end of the wall 20. The space beyond the turnstile 25 and the wall 17 is divided into two tortuous passages, both leading to the stairway 14, which passages are formed by a transverse wall 26 spaced a sufficient distance from the wall 17 to form a passage between them; a transverse wall 27 spaced from the wall 12 a sufficient distance to form a passage; a longitudinal wall 28 joining the walls 26 and 27 approximately midway between the front and rear walls of the building; a transverse wall 29 extending from the rear wall of the building between the walls 26 and 27 and terminating a distance from the wall 28; and a transverse wall 30 extending from the front wall of the building between the walls 26 and 27 and terminating a distance from the wall 28.

The walls arranged in this manner form one tortuous passage A and another tortuous passage B, both of which terminate at the opening 13 to the stairway 14. The turnstile 25 is constructed and arranged to accommodate only one person between each adjacent pair of arms thereof, and is rotative only in one direction indicated by the arrow applied thereto (Fig. 5).

A rotary shaft 31 supports a turnstile 32 controlling the entrances to both passages A and B after the persons pass the turnstile 25. The shaft 31 is provided with equipment controlled by the turnstile 25 requiring the shaft 31 to be turned alternately in opposite directions, rendering it impossible for two persons successively to enter the same passage A or B. This equipment may be of any approved or known construction, one form thereof being shown in Fig. 6. As there shown, a cam or eccentric 33 is attached to the shaft 25^a and is arranged to operate in one direction a rod 34 mounted for sliding movements in a support 35 and having on one end a roller 36 operating against the cam or eccentric 33. A spring 37 on the rod 34 has one end bearing against the support 35 and the opposite end against an abutment 38 on the rod 34, thereby actuating said rod in a direction to hold the roller 36 against the cam or eccentric 33. The opposite end of the rod 34 is pivoted to one end of a link 39 having its opposite end pivoted to an escapement dog 40 pivoted on a support 41 and having its arms arranged to engage alternately with a ratchet wheel 42 attached to the shaft 31 of the turnstile 32.

This construction permits and requires that the turnstile 32 be operated alternately in opposite directions. The turnstile 32 is designed and arranged to accommodate only one person between any two adjacent arms thereof at any one time, so that it is thus made necessary for one person to enter the passage A, and the next following person to enter the passage B, and so on.

From the dark maze or labyrinth on the second floor the persons pass down the stairway 14 to the room 15 containing numerous impediments 44 and having an exit 45 to a large central room 46 having in and forming a part of the floor thereof a number of oscillating discs 47. The stairway 14 is sufficiently lighted through a latticed opening 48. A shaft 49 below the lower floor of the building is rocked by a crank and link connection 50 operated by a motor 51 by means of suitable mechanism, the specific details of which are unimportant and need not be particularly described. The rock shaft 49 is connected with the respective discs 47 by crank and link connections 52 whereby the discs 47 are oscillated on their horizontal axes 53 to the upward extensions of which a a rail 54 extending from the end wall 55 of the room 46 is attached.

This requires the persons going through the building to follow the course indicated by the arrows (Fig. 2) and encounter the difficulties of walking over the oscillating discs at both sides of the rail or partition 54. A rail or partition 56 extends longitudinally between the front wall of the building and the rail 54, and thence laterally to a connection with the rear wall of the building leaving a passage C between said rail 56 and the front wall of the building.

The floor of the passage C consists of series of overlapping floor pieces 57 having tongue and groove connection at their overlapping ends and each end series having

sliding tongue and groove connection with similarly constructed rigid floor pieces 58. This permits relative sliding movements of each series of floor pieces 57 which may be supported on rollers 57ª. Sliding movements are imparted to said floor pieces 57 by connections driven from a rock shaft 59 operated from the rock shaft 49.

A bracket device 60 is attached to the undersides of the strips or pieces 57 of each series, and said brackets 60 are connected by links 61 (Fig. 3) with a lever 62 attached to the rock shaft 59. Thus the different series of floor pieces 57 are moved longitudinally so that the persons walking thereover are required to preform gyrations plainly portrayed on the screen 4 by a lamp and reflector 63 (Fig. 2), so that the shadows of the persons are plainly visible from the outside.

Leaving the passage C the persons may pass through a passage D (Fig. 2) between the transverse part of the rail 56 and a transverse partition 64. The passage D is provided with a longitudinal seat 65 and the floor adjacent thereto is provided with oscillating floor strips 66 arranged transversely and connected for operation with the shaft 59 by link connection 67 similar to the link connections 52, whereby oscillating movements are imparted to the discs 47. From the passage D the persons enter a room 68 having a tortuous passage formed by rails 69 secured to the floor of the room, and a rail 70 secured to a trap door 71. The trap door 71 is pivoted on a support 72 (Fig. 7) and, as the persons pass around the end of the rails 70, the trap door drops to an inclined postion, placing the persons thereon opposite a blower 73 operated by a motor 74. The trap door 71 is normally held flush with the floor by a weight 75 attached to a flexible connection 76 passing around pulleys 77 to connection with the trap door.

A branch 78 of the connection 76 leads to a control device 79 of the blower, so that when the trap door is up the blower is maintained idle, but when the trap door is lowered the blower operates against the persons on the inclined trap door. As the persons ascend the inclined trap door it is raised by the weight 75 to position for another operation by the persons following. The persons leave the room 68 through the exit 6 to a veranda 80 from which a flight of steps 81 descend.

An amusement apparatus of this type is extremely popular and entertaining and may be constructed in units so that it may be readily taken apart and transported from place to place and re-assembled.

I am aware that various features of the apparatus may be modified without departure from the nature and principle of the invention, and I do not restrict myself unessentially, or to specific details other than set forth in the appended claims.

What I claim and desire to secure by Letters Patent is:—

1. An amusement apparatus comprising a dark room having an entrance and an exit, partitions dividing the room into a maze, a turnstile controlling the exit from the room, and means controlling said turnstile permitting the same to be turned alternately in opposite directions and preventing turning of the turnstile successively in the same direction.

2. An amusement apparatus comprising a dark room having an entrance and an exit, partitions dividing the room into a maze, a turnstile controlling the exit from the room, means controlling said turnstile permitting the same to be turned alternately in opposite directions and preventing turning of the turnstile successively in the same direction, and two maze passages arranged respectively to receive persons successively passing said turnstile when said turnstile is turned alternately in opposite directions as aforesaid.

3. Amusement apparatus comprising a dark maze having an entrance and an exit, a pair of maze openings having their entrances opening at said exit, a turnstile at the exit from said first maze controlling the entrances to said second maze, and means preventing said turnstile from turning successively in the same direction and permitting the same to be turned alternately in opposite directions.

4. Amusement apparatus comprising a dark maze having an entrance and an exit, a pair of maze openings having their entrances opening at said exit, a turnstile at the exit from said first maze controlling the entrances to said second maze, means preventing said turnstile from turning successively in the same direction and permitting the same to be turned alternately in opposite directions, and a single exit from said pair of mazes.

5. Amusement apparatus comprising a dark maze having an entrance and an exit, a pair of maze openings having their entrances opening at said exit, a turnstile at the exit from said first maze controlling the entrances to said second maze, means preventing said turnstile from turning succesively in the same direction and permitting the same to be turned alternately in opposite directions, a single exit from said pair of mazes, a room into which said last named exit opens, and oscillating floor sections in said room.

6. Amusement apparatus comprising a dark maze having an entrance and an exit, a pair of maze openings having their entrances opening at said exit, a turnstile at

the exit from said first maze controlling the entrances to said second maze, means preventing said turnstile from turning successively in the same direction and permitting the same to be turned alternately in opposite directions, a single exit from said pair of mazes, a room into which said last named exit opens, oscillating floor sections in said room, and means requiring the persons passing through said room to pass upon said oscillating floor sections.

7. Amusement apparatus comprising a room, circular floor sections in said room rocking on vertical axes, an oscillating floor section in said room, means for oscillating said second floor section horizontally, a translucent screen forming a portion of the wall of said room opposite said oscillating floor section, means dividing said room into a passage leading over all of said floor sections, and illuminating means in said room opposite said screen and said second floor section.

8. In an amusement apparatus an enclosure having spaced floor portions, a trap door hinged between said floor portions, means in said enclosure forming a passage leading to said trap door, means normally supporting said trap door flush with said floor portions and arranged to yield to the weight of persons on said trap door to permit said trap door to drop to an inclined position, and a blower device controlled by said trap door to operate when said trap door is in an inclined position.

9. Amusement apparatus comprising an enclosure having a translucent screen forming a part of one wall thereof, a stationary floor portion in said enclosure, a number of movable floor sections in said enclosure opposite said screen in the same plane with said stationary floor portion, mechanism for turning alternately in opposite directions one of said movable floor sections, mechanism for oscillating another one of said movable floor sections, a partition element separating said turning and oscillating floor sections, and illuminating means in said enclosure opposite said movable floor sections and said screen.

10. Amusement apparatus comprising a room having a stationary floor section, a horizontal floor section arranged to turn upon a vertical axis, means for imparting horizontal turning movements to said second floor section, means extending diametrically across said second floor dividing said room into a tortuous passage, a reciprocating floor section spaced from said second floor section, and a rail in said room supported above the space separating said second floor section from said reciprocating floor section.

11. In an amusement apparatus an enclosure having spaced floor portions, a trap door hinged at one end in the space between said floor portions, elements normally supporting the opposite end of said trap door approximately level with said floor portions and arranged to yield to the weight of persons on said opposite end of said trap door to permit said trap door to drop to an inclined position, means forming a tortuous passage over said trap door across the end of said trap door opposite from the hinged end, and a blower controlled by said trap door to operate when said trap door is in an inclined position.

12. In an amusement apparatus an enclosure having spaced floor portions, a trap door hinged at one end in the space between said floor portions, elements normally supporting the opposite end of said trap door approximately level with said floor portions and arranged to yield to the weight of persons on said opposite end of said trap door to permit said trap door to drop to an inclined position, means forming a tortuous passage over said trap door across the end of said trap door opposite from the hinged end, a blower controlled by said trap door to operate when said trap door is in an inclined position, and automatic means for raising said trap door from inclined position to a position approximately level with said floor portions.

13. In an amusement apparatus an enclosure having spaced floor portions, a trap door hinged at one end in the space between said floor portions, elements normally supporting the opposite end of said trap door approximately level with said floor portions and arranged to yield to the weight of persons on said opposite end of said trap door to permit said trap door to drop to an inclined position, means forming a tortuous passage over said trap door across the end of said trap door opposite from the hinged end, a blower controlled by said trap door to operate when said trap door is in an inclined position, automatic means for raising said trap door from inclined position to a position approximately level with said floor portions, and means for stopping operation of said blower device when said trap door is raised as aforesaid.

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