L. O'NEILL, SR., AND L. O'NEILL, JR.

STEEPLECHASE DEVICE.

APPLICATION FILED JULY 16, 1920.

1,427,010. Patented Aug. 22, 1922.

3 SHEETS—SHEET 1.

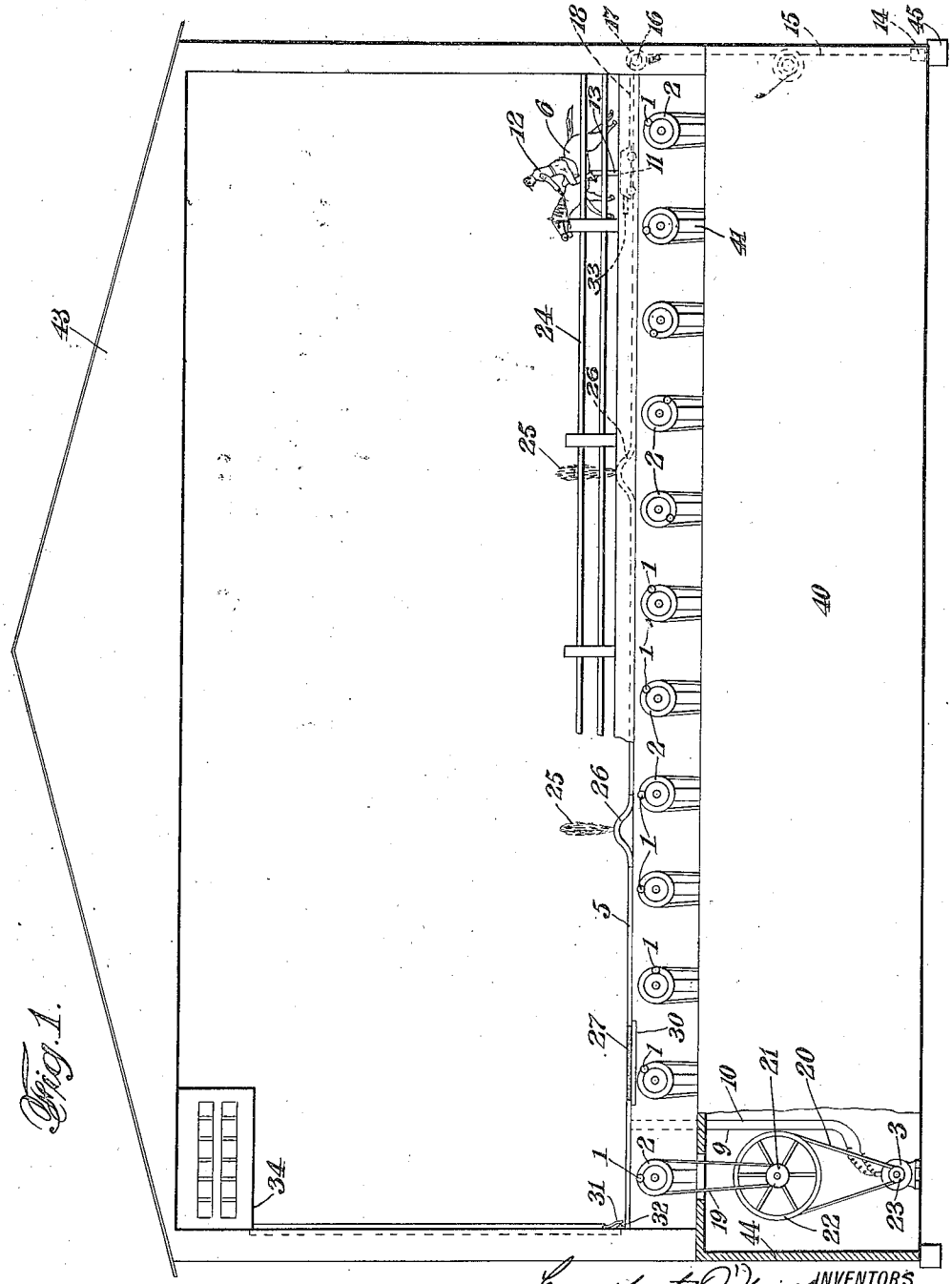


Fig. 1.

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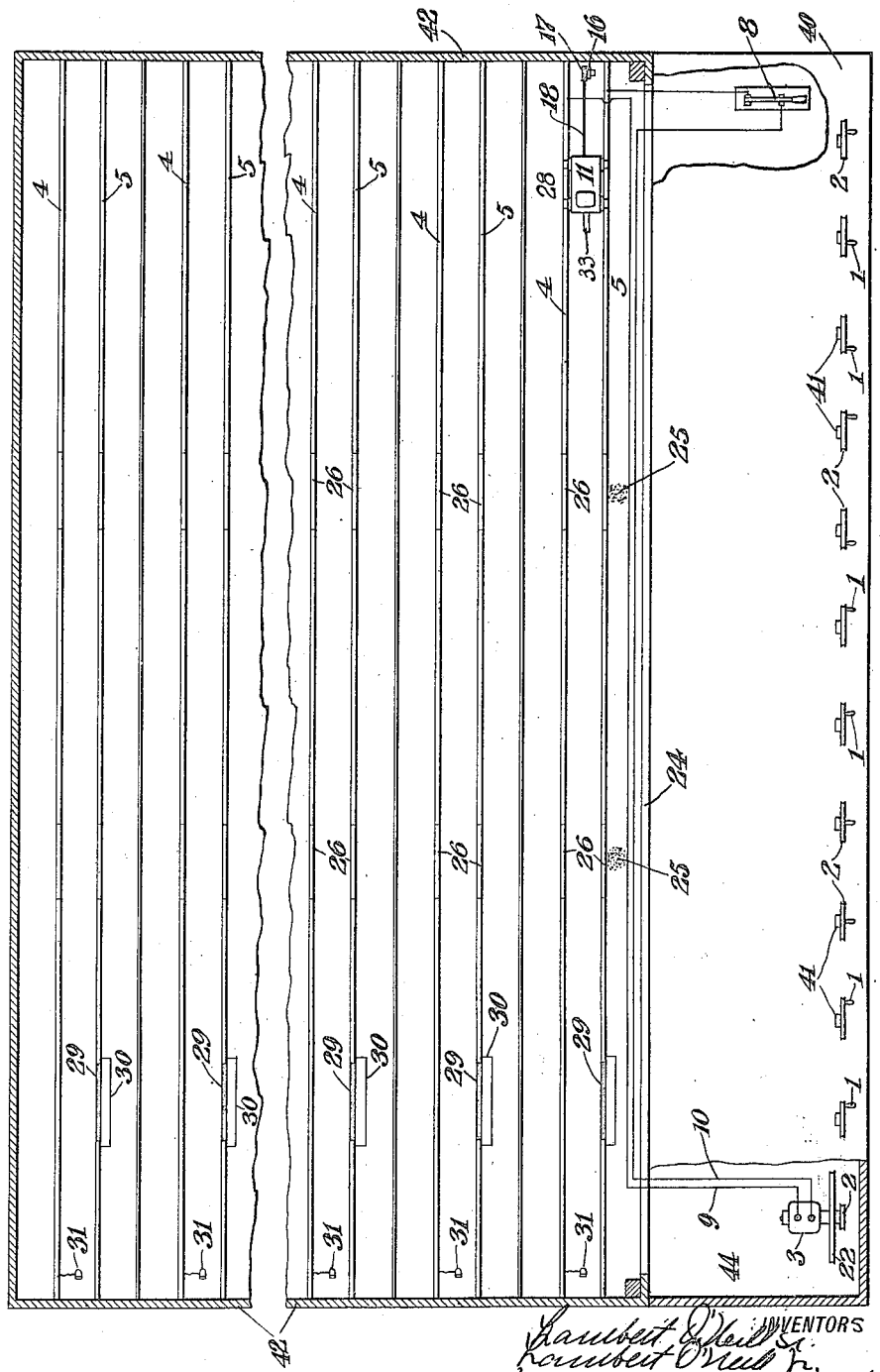
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3 SHEETS—SHEET 2.

Fig. 2.



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3 SHEETS—SHEET 3.

Fig. 3.

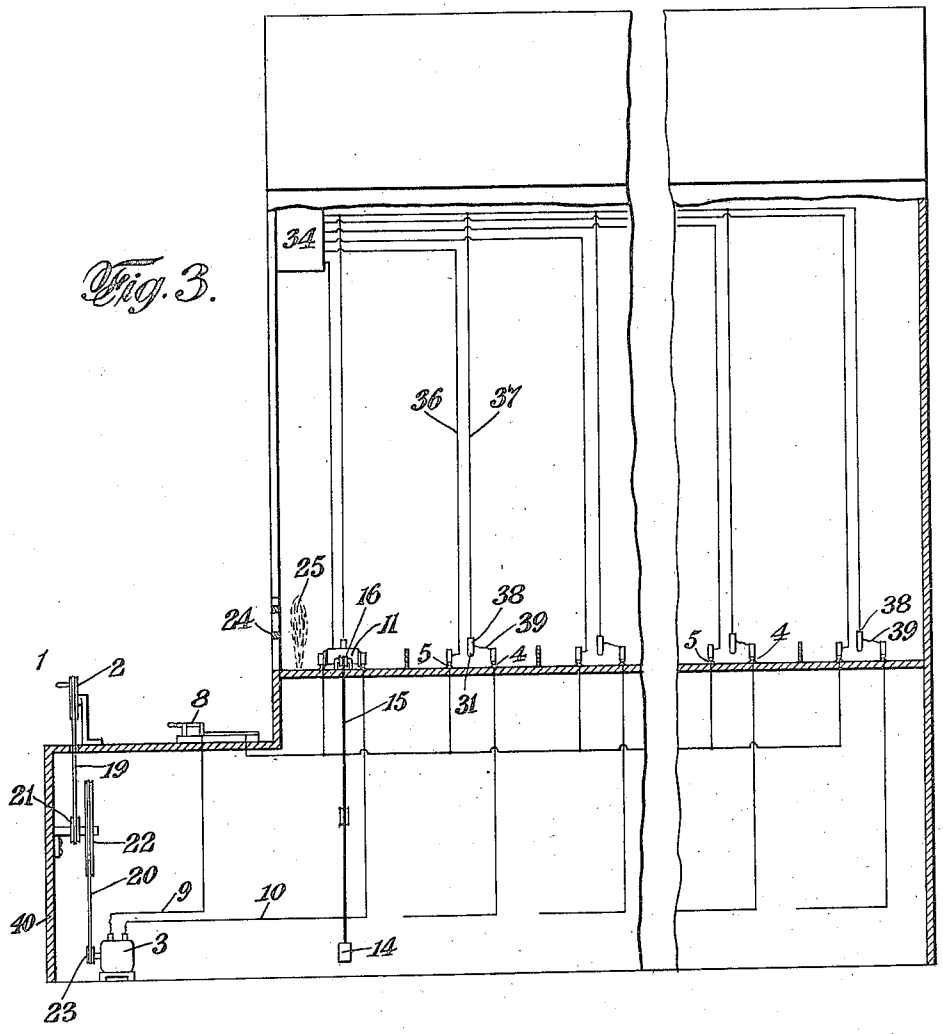
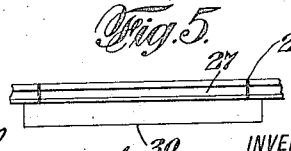


Fig. 4.



Fig. 5.



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UNITED STATES PATENT OFFICE.

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STEEPLECHASE DEVICE.

1,427,010. Specification of Letters Patent. Patented Aug. 22, 1922.

Application filed July 16, 1920. Serial No. 396,765.

To all whom it may concern:

Be it known that we, LAMBERT O'NEILL, Sr., and LAMBERT O'NEILL, Jr., citizens of the United States, residing in the borough of Richmond, county of Richmond, city and State of New York, have invented certain new and useful Improvements in Steeplechase Devices, of which the following is a specification.

This invention relates to games of skill and is herein disclosed as applied to a steeple-chase device in which images, such as horses, are raced along tracks by spectators who usually pay a fee for the privilege of entering the competition and driving or operating the horses.

Such devices are usually only set up temporarily, moving from place to place, according to the season of the year, or accompanying a circus or travelling carnival. Hitherto many devices were put out for such purposes which were easily manipulated by the showman or owner in favor of one or another of the spectators or operators, with the result that extremely stringent laws and ordinances have been passed in many States and places restricting the devices used, to those that were dependent entirely upon the skill of the spectator taking part in the operation of the device. Many devices hitherto used fail to conform to such laws and ordinances. Other devices were dependent upon electric power derived from a power station, with the result in moving to a new place, the device failed to work because the power current was furnished at the wrong voltage. Other devices involved other difficulties, and often required the frequent attendance of an expert mechanic or electrician.

According to the present invention all these and other troubles may be avoided. In the form of the invention herein disclosed, the images or horses run on separate tracks, each image or horse having its own track and forming part of a truck driven by a motor which takes its current from the track. The current for driving the truck motors may be provided by dynamos, there being a separate dynamo for each track, and a separate handle to enable each spectator to drive his own dynamo. As herein disclosed, the motor is mounted on the truck, thus enabling devices similar to the toy electric railroads used by boys, to be utilized in building models of this invention. The trucks may be normally drawn backward as by weights, with the result that when any truck fails to receive current, its horse travels backward. To add to the interest of the device of the present disclosure, each track may include a rail section, provided with a hump, thus giving the horse the appearance of hurdling. For similar reasons, each track may be provided with a dead section in passing which the horse or truck receives no current. Thus to carry his horse across the dead section each spectator must operate his dynamo at above a certain minimum speed.

To add to the interest, the speed at which each dynamo may be driven may be limited, as by providing a loose belt between it and the pulley by which the spectator drives it. To clearly display to the entire group of spectators, the number or the color of the winning horse, there may be provided a suitable indicator, such as an annunciator signal drop. The drops of the indicator may be operated by the current supplied by the dynamos through the tracks.

It will be seen that each spectator has absolute control of his own horse and that a certain amount of skill is required to enable the spectator to operate his dynamo at its most efficient speed. Moreover, it will be observed that by depending entirely upon the dynamos for current, the present device is absolutely independent of electric power furnished from the outside, not requiring even a battery to operate the indicator.

By having a single switch controlling all the circuits between the dynamos and their tracks, the spectator's control of his horse is absolutely independent of the wishes or designs of the showman who controls the device. Other features and advantages will hereinafter appear.

In the accompanying drawings, Figure 1 is a front view partly in section and largely diagrammatic, showing one form of the present invention.

Figure 2 is a plan view of the same, taken just above the tracks.

Figure 3 is a sectional end view.

Figure 4 is an enlarged detail of a removable hump for a track, and Figure 5 is a detail showing the dead section of track.

When the device is utilized, the showman

directs a number of spectators usually 12, to take hold of their respective handles 1, which are fast upon pulleys 2 so as to turn dynamos 3 to supply current to the tracks comprising rails 4 and 5 upon which the respective horses 6 run. When all the spectators have thoroughly started turning their respective handles, the showman throws in a single knife switch 8 which closes all the circuits from all the dynamos 3 to all the track rails 4 and 5, each rail being connected respectively to the appropriate terminal of the dynamo by its wire 9 or 10. It has been found that a so-called pony dynamo furnishing sufficient current for a four volt motor in each truck 11, makes a device which works very satisfactorily.

The motors may be such as are furnished with the toy electric railways which boys are accustomed to operate by dry batteries, thus enabling individual outfits to be economically constructed, where it is not desired to go to the expense of a more rigid and perhaps more efficient construction.

Each horse 6 may carry a rider 12 fixed thereon; the horse and the rider being carried by a post 13 on their own truck. Normally, each truck 11 is drawn back to the starting point by a device such as a weight 14. In order to enable the tracks 4 and 5 to be much longer than the distance from them to the ground, the weight 14 instead of being connected directly to its truck, may be connected thereto by a cord 15, wound upon a small pulley 16, fast to a large pulley 17, the latter pulley serving to wind up a cord 18 made fast to the truck 13.

When the spectators are all turning the handles in the manner described, to furnish current to drive their respective horses 6, the strongest armed spectator might win unless there were provided some connection to limit the speed at which the dynamos can be driven. For limiting the speed, one of the two belts 19 and 20 which drive each dynamo 3 may be adapted to slip upon its pulley 21, or 22 or 23 respectively. This furnishes a simpler method of controlling the speed than could be readily obtained in other ways.

It is found that the ratio of the pulleys 2, 22, and 23 should be such that the dynamo is turned by the spectator about 1200 to 1500 revolutions per minute when working efficiently. For this purpose, the pulley 21 which is fast to the pulley 22 is very much smaller than the latter, which in turn is very much larger than the pulley 23. To add interest to the racing of the horses there may be provided a fence 24 between the spectators and the horses and behind the fence there may be a bush or row of bushes 25 at various points across which the horses seem to hurdle, because they ride up on humps 26 which may be replaceable plates or sections in the tracks 4 and 5. The sections may be joined in the manner common in the toy railroads referred to above, in which the track rails are split or formed of double sheet metal which clasp upon each other and form good electrical contacts.

To add further interest to the racing of the horses, each track may comprise an insulated section 27, at which section the motor 28 of each truck 11 receives no current, thus requiring the truck 11 to be carried across the dead section by its inertia against the backward pull of its weight 14. The dead section may be obtained by substituting an insulating material bar 29, for one of the tracks 4 or 5, and connecting the stretch of track between the ends of the bar 29 by an outside conductor 30. The dead section 27 is advantageously placed near the winning post 31 which may take the form of a push button 32 adapted to be made effective by the striking of forwardly projecting lug 33 on its respective truck 11, thus closing a circuit to an indicator 34.

The circuits to the indicator preferably each comprise a wire 36 electrically connected to one rail, and a wire 37 connected to one terminal 38 of its push button 32, the other terminal 39 of the push button being electrically connected to the other rail of its track; thus the impact of any truck 11 against its push button operates its signal in the indicator by the current flowing from its dynamo. When the indicator thus shows that any horse 12 has won, the showman easily opens the switch 8 and all the horses are drawn back to the starting point by their weight 14.

The handles 1 are mounted above a counter 40 and brackets 41 on the counter furnish journals for their pulleys 2. The counter 40 may form a front extension of a frame 42 having sides and a suitably ornamented top 43. The ends of the counter 40 may be supported by vertical ends 44, provided at their bottom with rests 45 adapted to be set upon the ground or upon the floor of an exhibition hall.

Various details of certain embodiments or features of the present invention have been described in considerable detail to enable those skilled in the art to appreciate some of its advantages; but what is claimed is:

1. In a game of skill a plurality of tracks, a separate dynamo for each track, means for driving each dynamo, a motor driven device on each track normally tending to return to the starting point but adapted to be driven by the dynamo, and means for limiting the speed of a given dynamo upon increasing the speed of its driving means whereby the motor driven device, operating upon the track to which is connected the dynamo having its speed limited, is con-

trolled in its operation independently of the speed at which the other dynamos are operated.

2. In a game of skill a plurality of tracks, a separate dynamo for each track, a handle for manually driving each dynamo, a motor driven device on each track normally tending to return to the starting point but adapted to be driven by the dynamo, a slip belt between each handle and its dynamo, and a dead section for each track over which the device may be carried when driven at high speed.

3. In a game of skill a plurality of tracks, a separate dynamo for each track, means for driving each dynamo, a motor driven device on each track normally tending to return to the starting point but adapted to be driven by the dynamo and a dead section for each track over which the device may be carried when driven at high speed.

4. In a game of skill, a plurality of tracks, a separate dynamo for each track, a slip driving connection connected to each dynamo, said slip driving connection being adapted to be driven to operate the dynamo to which it is connected and to slip when driven at a speed exceeding a predetermined value, and a motor driven device on each track normally tending to return to the starting point but adapted to be driven by the dynamo.

5. In a game of skill, a plurality of tracks, a separate dynamo for each track, a slip driving connection connected to each dynamo, said slip driving connection being adapted to be driven to operate the dynamo to which it is connected and to slip when driven at a speed exceeding a predetermined value, a motor driven device on each track normally tending to return to the starting point but adapted to be driven by the dynamo, and a dead section for each track over which the device may be carried when driven at a high speed.

6. In a game of skill, a plurality of tracks, a separate dynamo for each track, means for driving each dynamo, a motor driven device on each track normally tending to return to the starting point but adapted to be driven by the dynamo, means for limiting the speed of a given dynamo upon increasing the speed of its driving means whereby the motor driven device, operating upon the track to which is connected the dynamo having its speed limited, is controlled in its operation independently of the speed at which the other dynamos are operated, and a dead section for each track over which the device may be carried when driven at a high speed.

7. In a game of skill, a plurality of tracks, a separate dynamo for each track, means for driving each dynamo, a motor driven device on each track normally tending to return to the starting point but adapted to be driven by the dynamo, means for limiting the speed of a given dynamo upon increasing the speed of its driving means whereby the motor driven device, operating upon the track to which is connected the dynamo having its speed limited, is controlled in its operation independently of the speed at which the other dynamos are operated, a dead section for each track over whch the device may be carried when driven at a high speed, and hurdle sections over which said motor driven devices are adapted to pass.

8. In a game of skill a plurality of tracks, a separate dynamo for each track, a handle for manually driving each dynamo, a motor driven device on each track normally tending to return to the starting point but adapted to be driven by the dynamo, and a slip belt between each handle and its dynamo and a dead section for each track over which the device may be carried when driven at high speed and a removable section in each track adapted to form a hurdle and automatically electrically connecting itself to the body of the track.

9. In a game of skill a plurality of tracks, a separate dynamo for each track, a handle for manually driving each dynamo, multiplying pulleys between each dynamo and its handle, a slip belt for each set of pulleys, a motor driven device on each track taking its current from the track, and electric connections from each dynamo to its track.

10. In a game of skill a plurality of tracks, a separate dynamo for each track, a handle for manually driving each dynamo, multiplying pulleys between each dynamo and its handle, a slip belt for each set of pulleys, a motor driven device on each track taking its current from the track, and electric connections from each dynamo to its track, a dead section in each track intermediate its ends, and an indicator for indicating the arrival of the devices at their track ends.

11. In a game of skill a plurality of tracks, a separate dynamo for each track, a handle for manually driving each dynamo, multiplying pulleys between each dynamo and its handle, a slip belt for each set of pulleys, a motor driven device on each track taking its current from the track, and electric connections from each dynamo to its track, a dead section in each track intermediate its ends, and an indicator operated by the dynamo currents for indicating the arrival of the devices at their track ends.

12. In a game of skill a plurality of tracks, a separate dynamo for each track, a handle for manually driving each dynamo, multiplying pulleys between each dynamo and its handle, a slip belt for each set of pulleys, a motor driven device on each track taking its current from the track, and electric connections from each dynamo to its

track, and a weight for each device connected to return it when its dynamo fails to deliver sufficient current to drive it.

13. In a game of skill a plurality of tracks, a separate dynamo for each track, a handle for manually driving each dynamo, multiplying pulleys between each dynamo and its handle, a slip belt for each set of pulleys, a motor driven device on each track taking its current from the track, and electric connections from each dynamo to its track, a dead section in each track intermediate its ends, and an indicator for indicating the arrival of the devices at their track ends, a hurdle section in each track, and a single switch controlling the electric connections of all the dynamos to their tracks.

In testimony whereof, we have affixed our signatures to this specification.

LAMBERT O'NEILL, SR.
LAMBERT O'NEILL, JR.