Oct. 28, 1947. M. W. PACE 2,429,768

AMUSEMENT RIDE

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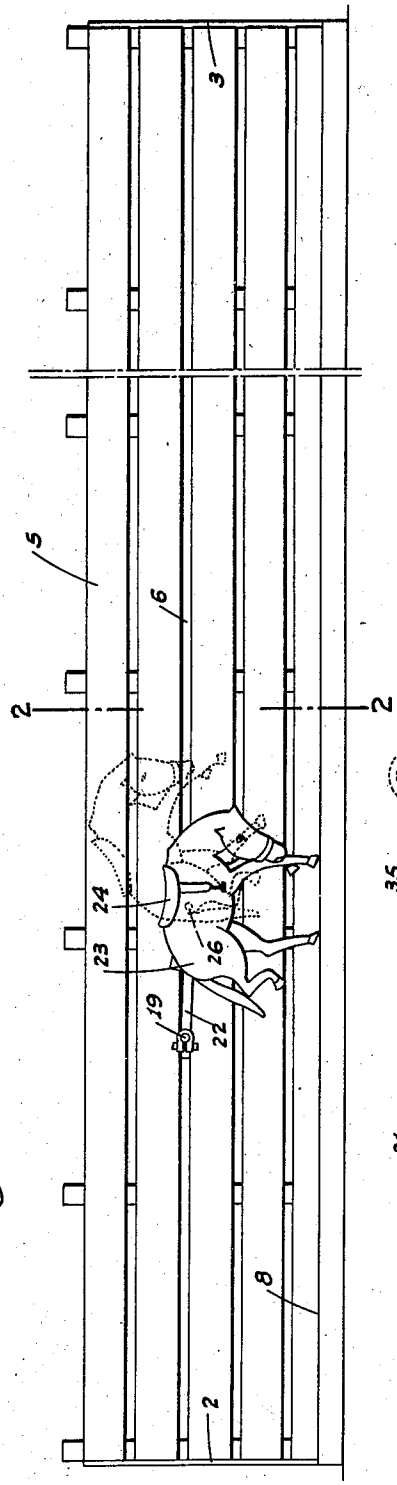

Fig. 1

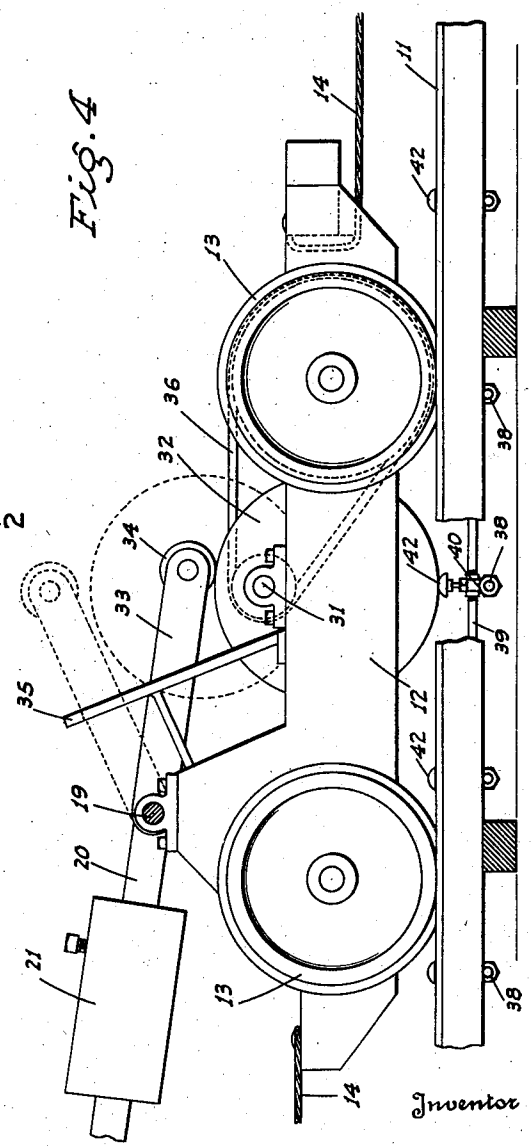

Fig. 4

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Fig. 2

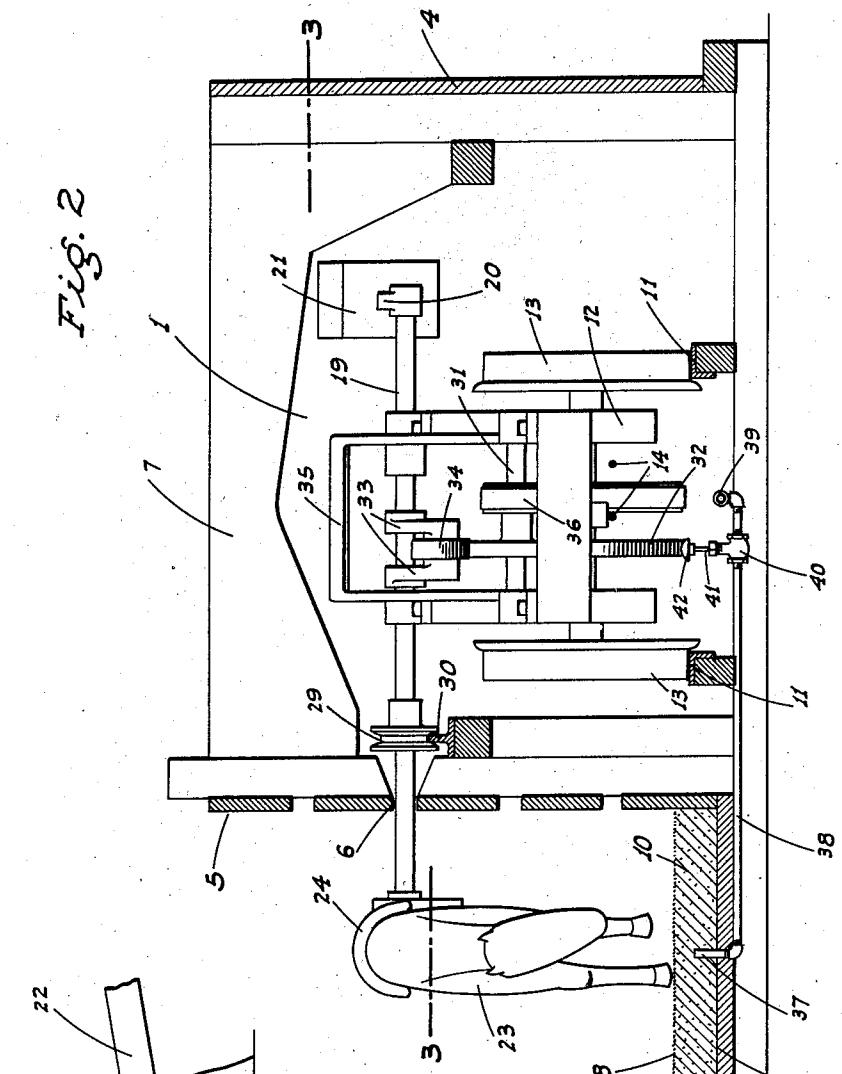
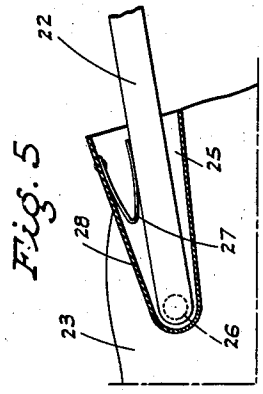


Fig. 5



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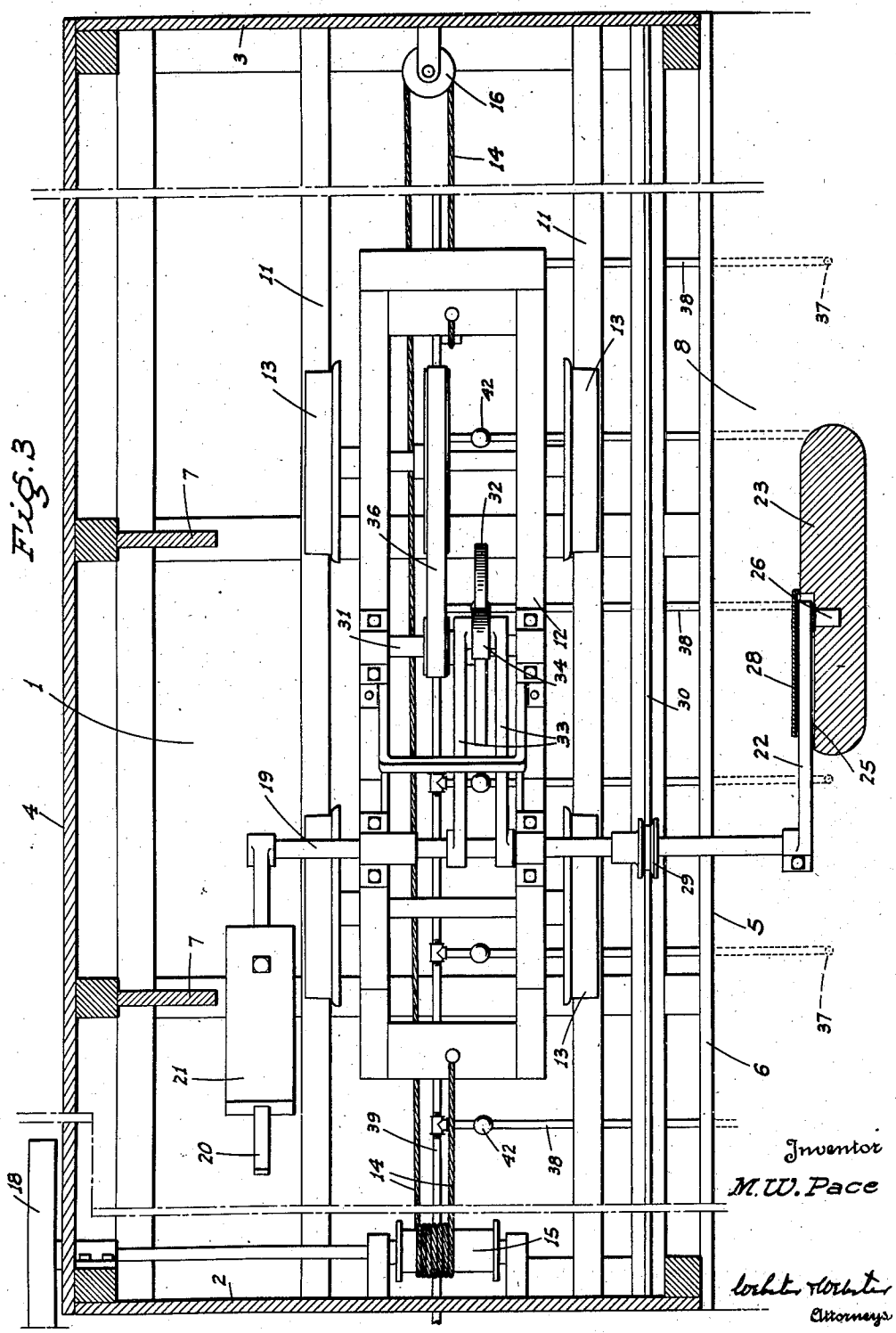

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2,429,768

AMUSEMENT RIDE

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Application July 22, 1944, Serial No. 546,106

11 Claims. (Cl. 272—1)

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This invention relates in general to, and it is an object to provide, a novel power driven amusement ride for carnivals, amusement parks, rodeos, etc.; the ride being arranged to simulate, mechanically, an actual ride on a bucking horse as at a rodeo and in similar surroundings.

An additional object of the invention is to provide an amusement ride, as above, which includes a mechanically actuated horse mounted and actuated so that such horse traverses a predetermined path with a bucking action, whereby to give the rider all the thrills of an actual bucking horse ride at a rodeo; the driving apparatus being enclosed so as to not detract from the fun of the ride and to make the simulation as life-like as possible. The driving apparatus is arranged in the main behind a fence which is designed to represent the side of a corral or rodeo arena.

An additional object is to provide means to 'kick up the dust" beneath the horse at predetermined points in the length of the path of travel; such means functioning each time the horse approaches the ground.

A further object of the invention is to provide a simple and inexpensive device and yet one which will be exceedingly effective for the purpose for which it is designed.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views:

Figure 1 is a side elevation of my novel amusement ride.

Figure 2 is an enlarged cross section on line 2—2 of Fig. 1.

Figure 3 is a fragmentary sectional plan taken on line 3—3 of Fig. 2.

Figure 4 is an enlarged, fragmentary side elevation of the carriage.

Figure 5 is an enlarged, fragmentary side elevation illustrating the connection between the supporting arm and the simulated horse.

Referring now more particularly to the characters of reference on the drawings, my novel amusement ride comprises a relatively long enclosure 1 which includes end walls 2 and 3, a back wall 4, and a front wall 5; the latter being formed to simulate the fence of a corral or rodeo arena. Such front wall 5 includes intermediate the top and bottom thereof a horizontal longitudinally extending slot 6 which is unobstructed from end to end; the portion of the front wall or fence above said slot being supported by the roof structure which includes transversely extending longitudinally spaced arch members 7.

Outwardly of the front wall 5 and at substantially ground level I provide a pathway 8 which extends full length of the front wall and is formed

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as a relatively shallow trough 9 filled with loose material such as sand or sawdust 10.

Within the enclosure a pair of transversely spaced parallel rails 11 are mounted adjacent ground level and extend for the full length of said enclosure. The rails 11 support a carriage, indicated generally at 12, which includes longitudinally spaced pairs of rail engaging wheel trucks 13.

The carriage 12 is adapted to be power advanced in either direction from end to end of the rails 11 by means of an endless cable or rope 14 in which said carriage is interposed; said cable extending about a windlass 15 at one end of the enclosure and about a direction-changing pulley 16 at the other end of said enclosure. The windlass 15 is mounted on a cross shaft 17 which projects through the back wall 4, where it is reversibly and selectively driven by manually controlled means indicated diagrammatically at 18.

The carriage 12 includes a transversely extending rock shaft 19 provided at its inner end with a fixed radial arm 20 which normally extends at an upward and rearward incline, said arm adjustably supporting thereon a relatively heavy counterweight 21. The other end of the shaft is elongated, and projects through the slot 6 to a termination above the pathway 8 exteriorly of the front wall 5. At said other end the rock shaft 19 is provided with a fixed radial arm 22 which extends in a forward direction and opposite to the radial arm 20. At its forward end the radial arm 22 supports a full-sized simulation of a bucking horse, indicated generally at 23, and which includes a saddle 24 for the rider. The horse 23 is attached to the arm 22 as follows:

On the inner side said simulated horse 23 is recessed lengthwise, as at 25, and the arm 22 extends into said recess and includes a pivot 26 on which the horse 23 is adapted to rock in a vertical plane, but to a limited extent. A leaf spring 27 between the upper edge of arm 22 and the top of recess 25 tends to cushion the rocking action of the horse relative to the arm 22. An outside sheath 28 overlies the recess 25 and protects the rider from the above described mount for the horse.

Directly inwardly of the front wall 5 the rock shaft 19 is provided with a wheel 29 which rides in shaft supporting relation on a horizontal longitudinally extending rail 30.

In order to rock the shaft 19 with advance of the carriage 12 from one end to the other of the amusement ride, with resultant simulation of bucking of the horse 23, I provide the following arrangement:

A cross-shaft 31 is journaled on the carriage 12 and intermediate its ends said shaft carries a circular but eccentrically mounted cam 32. A radial arm unit 33 is fixed on cross shaft 19 and

projects in overhanging relation to the cam 32, said arm unit including a roller 34 at its outer end adapted to cooperatively engage with the periphery of said cam; the counterweight 21 being set, however, to normally maintain said arm in a position, as shown in dotted lines in Fig. 4, clear of the cam when no rider is on the horse, and in this position the arm unit 33 engages an upstanding U-shaped stop 35.

The cross shaft 31 is driven from one of the wheel trucks 13 by means of a pulley and endless belt assembly, indicated generally at 36.

When the above described amusement ride is in use the horse 23, together with the carriage and related parts, is disposed at the forward end of the front wall 5, here shown as being the left hand end. When a rider is seated on the saddle 24 the windlass 15 is driven in a direction to advance the carriage 12 along the rails 11 to a point adjacent the other end of said fence. During this length of travel the horse is moving above the pathway 8 and recurringly bucks up and down in a manner closely simulating, mechanically, an actual ride on a bucking horse. This bucking action is caused by the cam 32 actuating the arm unit 33 in an up and down direction, which produces rocking of the shaft 19 and the simulated bucking motion of the horse 23. During the length of the ride, and each time that the forward end of the horse 23 approaches the ground a spurt of the sand or sawdust 10 arises from the pathway 8, to simulate "kicking up the dust" by the horse. This is accomplished by the use of a plurality of longitudinally spaced air jets 37 embedded in the pathway and each connected to a lateral supply pipe 38 which leads from a common supply pipe 39 disposed between the rails 11. Each of the lateral supply pipes 38 includes a valve 40 and an upstanding depressible valve control stem 41 including a head 42 disposed in the path of the cam 32. The pipes 38 and valves 40 are spaced so that with each rotation of the cam it engages one of the heads 42 and momentarily opens the valve 40. This permits a short blast of air to pass through the corresponding pipe 38 and into the jet 37, producing the desired disturbance of the material in the trough 9.

From the above description it will be evident that a rider on the horse 23 will be given a ride which in many respects closely approaches an actual ride on a bucking horse at a rodeo or the like, yet the device is very safe for the reason that the speed of advance of the carriage 12 can be manually controlled, and further should a rider fall the material which forms the pathway 8 would serve as a cushion. At the end of the ride and when the horse 23 is retracted no bucking action occurs, for the reason that the rider has previously dismounted, and whereupon the arm unit 33 is raised by the counterweight 21 to a position clear of the cam 32.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

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

1. An amusement ride comprising a simulated horse upon which a rider is adapted to be seated, means supporting the horse for movement along a predetermined path, said means being operative, when the horse is so moved, to impart a bucking action thereto, and loose material on said path; there being means operative at longitudinally spaced points along said path to kick up a quantity of such material adjacent the horse in timed relation to the bucking action of the simulated horse.

2. An amusement ride comprising a simulated horse upon which a rider is adapted to be seated, means supporting the horse for movement along a predetermined path, said means being operative, when the horse is so moved, to impart a bucking action thereto, and loose material on said path; there being air jets disposed at longitudinally spaced points along said path, and in said material, operative to kick up a quantity of such material adjacent the horse in timed relation to the bucking action of the simulated horse.

3. An amusement ride comprising a carriage supported for movement along a predetermined path, power means to drive the carriage along said path, a simulated horse adapted to support a rider, a rock shaft mounted transversely on the carriage and projecting to a termination at one end beyond one side of said carriage, means mounting the horse in connection with said one end of the rock shaft and lengthwise of the carriage, and means to rock the shaft upon advance of the carriage; said last named means comprising a driven cross shaft on the carriage parallel to but spaced from the rock shaft, a cam on the cross shaft, and a cam actuated radial arm on the rock shaft.

4. A device as in claim 3 in which the carriage includes a wheel truck, and means driving the cross shaft from said truck.

5. An amusement ride comprising a carriage supported for movement along a predetermined path, power means to drive the carriage along said path, a simulated horse adapted to support a rider, a rock shaft journaled transversely on the carriage, radial arms projecting in generally opposite directions from said rock shaft, one arm being disposed to the side of the carriage, means mounting the horse on said one arm lengthwise of the carriage, a counterweight on the other arm, and means to rock said shaft upon advance of the carriage.

6. An amusement ride comprising a carriage supported for movement along a predetermined path, power means to drive the carriage along said path, a simulated horse adapted to support a rider, a rock shaft journaled transversely on the carriage, radial arms projecting in generally opposite directions from said rock shaft, one arm being disposed to the side of the carriage, means mounting the horse on said one arm lengthwise of the carriage, a counterweight on the other arm, and means to rock said shaft upon advance of the carriage; said last named means comprising a driven cross shaft on the carriage parallel to but spaced from the rock shaft, a cam on the cross shaft, and a radial arm unit on the rock shaft in position to cooperatively engage the cam.

7. A device as in claim 6 in which the arm unit can swing clear of the cam, and a stop to limit movement of the arm unit to a predetermined distance away from the cam; the counterweight normally acting to swing the arm unit clear of the cam and the weight of a rider on the horse acting to engage the arm unit with the cam.

8. An amusement ride comprising a carriage

supported for movement along a predetermined path, a simulated horse adapted to support a rider, means mounting the horse in connection and for movement with the carriage, and power driven means to advance and retract the carriage; said power driven means including a longitudinally extending, endless drive assembly in which the carriage is interposed, said assembly including a manually controlled, reversibly driven power shaft.

9. An amusement ride comprising an elongated enclosure including a front wall bordering a predetermined path exteriorly thereof, said wall having a longitudinal, wholly unobstructed slot extending therethrough for substantially its full length, a rail supported carriage disposed in the enclosure for lengthwise movement parallel to said path, a transverse rock shaft journaled on the carriage and projecting at one end through the slot, a simulated horse adapted to support a rider, means mounting the horse on the end of the rock shaft above said path, means to rock said shaft upon advance of the carriage, and means to advance the carriage for substantially the full length of the enclosure; said path having loose material thereon, air pipes running laterally from within the enclosure into and terminating within said material at longitudinally spaced points in said path, a main air pressure pipe extending lengthwise in the enclosure, a valve in each of said lateral pipes at a point in the enclosure adjacent the path of the carriage, a trigger on each valve, and an element on the carriage positioned to successively engage the triggers as the carriage advances.

10. A device as in claim 9 in which the shaft rocking means includes a cross shaft having a cam thereon; said cam comprising the trigger engaging element on the carriage.

11. In combination, a path of loose material, a main air supply pipe substantially paralleling said path, a plurality of discharge pipes connected to said main pipe, and extending laterally to substantially equally spaced points of discharge in said loose material, a trip valve at the juncture of each lateral pipe with the main supply pipe and normally closing communication between the two, a carriage movable longitudinally and in substantial parallelism with the path, a rock shaft carried by the carriage, and projecting over the path, a simulated horse mounted on the rock shaft above the path, a cam mounted on and operable through movement of the carriage, operable connections between the cam and shaft to rock the latter to alternately carry the simulated horse close to and then up from the path, such cam being so contoured as to engage one of said trip valves each time the simulated horse moves close to the path.

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