

PATENT SPECIFICATION

749,891



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COMPLETE SPECIFICATION

Improvements in Amusement Apparatus

I, WILLIAM EDWARD BRYAN, of 10, London Road, Kegworth, Derby, a British Subject, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to improvements in amusement apparatus and is particularly concerned with apparatus for providing a plurality of different movements which may be transmitted to a predetermined member such as for example a member which may support or be connected to a seating unit on which a person to be amused may sit.

The invention is particularly concerned with amusement apparatus for providing a ride which simulates that of a horse and in this connection the invention is concerned with providing apparatus for transmitting to a seating unit such as for example a horse motion which will move the seating unit in a manner similar to a horse.

The invention is also concerned with providing movements to a seating unit in which it is moved in a manner similar to a horse when walking, when trotting and when galloping. The invention is also concerned with apparatus which is coin actuated.

More particularly the invention is concerned with coin-operated apparatus whereby a person may insert an appropriate coin into appropriate mechanism and be able to select at will any one of a plurality of different movements for a seating unit.

With the above and other objects in view the invention provides apparatus for transmitting different movements to a seating unit such as for example a horse comprising at least one support member for the unit which member is pivoted to an arm, said arm being pivotally supported at one end and free at the other, means for providing movement of the arm about its pivot point. Preferably the support member is arranged vertical so that any movement of the support member about its pivot point is movement through a vertical arc whereas the arm is supported such that it is

normally in a substantially horizontal attitude. Preferably means are provided for securing the arm while at the same time permitting movement of the support member.

More specifically the invention provides apparatus having two support members, each member separately pivotally supported on an independent arm and each arm pivotally supported at one end and free at the other, means for providing movement of the support members in unison about their pivot points and means for providing movement of the arms independently about their pivot points. Similar means may be provided for securing each of the arms independently of each other and at the same time permitting movement of the support members about their pivot points. Preferably means are provided for securing and releasing each of the arms while the machine is operating so that change over from one movement to another is automatically effected.

In order that a variety of different motions may be obtained when both arms are allowed to move about their pivot points the means actuating said arms are operating at different speeds. In a convenient construction two cranks are provided, one a fast crank, the other a slow crank and one of the arms is connected to the fast crank while the other is connected to the slow crank.

In the application of the present invention the coin operated machinery there is provided means actuated upon insertion of a coin operable for a predetermined period and which actuates to switch "off" and "on" the apparatus.

Furthermore means may be provided for varying the operation of said timing means consequent upon insertion of coins of different value. Thus the apparatus may be set in motion for a predetermined period consequent upon insertion of a coin of one value and for a longer period consequent upon insertion of a coin of greater value. Conveniently the timing means comprise a ratchet wheel intermittently rotated by a pawl or the like and the position of the pawl may be arranged such that upon insertion of a coin of one value the wheel is rotated by

[Price 3s. 0d.]

a predetermined number of teeth and upon insertion of a coin of another value it is rotated by another predetermined number of teeth.

Control means are provided for the apparatus which include an "on" and "off" control switch and may also include means for varying the movement of the aforementioned arms.

Conveniently means are provided for preventing insertion of a coin until the control lever is in the "off" position thus preventing insertion of a coin which immediately sets the apparatus in motion.

The above and other features of the invention set out in the appended claims are incorporated in the constructions which will now be described as specific embodiments with reference to the accompanying drawings, in which:—

Figure 1 is a perspective view of a coin-operated machine according to the present invention.

Figure 2 is a sectional side elevation of apparatus according to the present invention.

Figure 3 is a plan thereof.

Figure 4 is a detailed view of a part of Figure 2 with the mechanism in one position

Figure 5 is a detailed view of a part of Figure 2 with the mechanism in another position.

Figure 6 is a side elevation of a coin-operated mechanism with the parts in one position.

Figure 7 is a view similar to Figure 6 with the parts in another position.

Figure 8 is an alternative construction for varying the timing means according to the value of an inserted coin.

Figure 9 is a plan thereof

Figure 10 is an enlarged sectional view of the coin slot mechanism

Figure 11 is a view of Figure 10 in the direction of the arrow A.

Referring firstly to Figure 1 a seating unit in the form of a horse 1 is provided with rear legs 2 pivotally connected thereto and with fore legs 3 similarly connected thereto. The unit is provided with a portion 4 on which a rider may sit. Other embellishments may be provided such as for example reins and irons.

The horse is supported on two support members 5 and 6 extending into a base casing 7. A column 8 mounting a control handle 9 is situate adjacent the rider 1 such that control

of the mechanism can be effected while the ride is in progress. Shields 11 are provided on the support members 5 and 6 and the support members are arranged to slide within a slot in the casing 7 which is shrouded by a track 10

such that at all times an obtuse angle is formed between the shields 11 and the track 10. Thus any person who inadvertently places a limb, such as for example a finger, adjacent to the members 5 and 6 as they are sliding in

the track cannot have that finger trapped

between the casing 7 and the supports 5 and 6: it will be pushed out of engagement therewith and be forced up the shield 11. For similar reasons of safety the hind and fore legs 2 and 3 are pivotally connected to the unit 1. Thus if any person should inadvertently be placed immediately beneath either the hind or fore legs when the unit is in movement they will not thereby be trapped beneath said legs since the legs may pivot upwardly.

Referring to Figure 2 the supports 5 and 6 are braced by a member 12 to which the unit 1 may be bolted or otherwise secured. The casing 7 has a main cross stay 13 extending across its width and which carries a plurality of shafts. A crank 15 is pivotally connected to a connecting link 14 which is pivotally connected to the support member 6. The support member 6 is pivotally connected by pin 21 to

an arm 53 which is pivotally supported at the end remote from the pin 21 by a pin 20. The support member 5 is pivotally supported by a pin 19 to an arm 18 similarly pivotally supported by the pin 20 in the position shown in

Figure 2. The arm 53 is located in a substantially horizontal position by a cut-out in a locking strut 26 engaging a catch 29 mounted

on the arm 53. The arm 18 is similarly held in a substantially horizontal position by a recess formed in another locking strut 25

engaging a catch 28 mounted on the arm 18. A crank 22 is pivotally connected to a centre slotted member 23, the slot of which embraces

a pin 24 mounted on the arm 53. Another centre slotted member 16 is connected to the

end of the crank 15, the centre slot of which member embraces a pin 17 on the arm 18. A recessed catch member 27 is pivotally mounted

on a stay connected to the cross stay 13 and an arm 62 depends downwardly at an angle from said member 27. The members 25 and 26 are spring biased into engagement with

their respective catches by springs 30 and 31 respectively. Chains 32 and 33 are connected to

said members 25 and 26 respectively, the other end of said chains being connected to

tension springs which are secured to an arm 38. The arm 38 is secured to a lever 37 which

is pivotally connected to a lever 36 which in turn is pivotally connected to a lever 35 which

in turn is connected to a crank 59 mounted on a strut 56 rotatable by the control knob

9. The arm 38 has a catch 101 for engagement with notches provided in an arm 39. An electric motor 34 is mounted in a cradle comprised

by two levers 102 and 103 pivotally connected to the cross stay 13 and a further two levers

102 and 103 pivotally connected to a second cross stay the levers 102, 103 pivotally supporting a plate 104. Said motor is provided

with a pulley 40 which by means of a belt drives a pulley 41 mounted on a shaft having at the other end a chain wheel 42 which in turn drives a chain wheel 43 mounted on a shaft 44; also mounted on the said shaft 44

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is a chain wheel 45 which drives a chain wheel 46 mounted on a shaft 47; mounted on said shaft 47 is the crank 15 which is hereinafter referred to as the fast crank. On the shaft 47 is a chain wheel 48 which drives a larger chain wheel 49 mounted on a shaft 50 which also carries the crank 22 hereinafter referred to as the slow crank. A pin 51 is mounted on said chain wheel 49 for engaging a pivot lever 52.

5 The drive between the pulleys 40 and 41 is maintained by the cradle of the motor 34 being biased by a tension spring 105. The motions of the support members 5 and 6 are most clearly illustrated in Figures 4 and 5.

10 For the purpose of this description it is assumed that the motor 34 is running and through the train of pulleys and chain wheels the fast crank 15 is rotating at a higher speed than the slow crank 22.

15 It will be appreciated that if as in Figure 2 the arms 18 and 53 are supported in position by their respective locking members 25 and 26 then rotation of the fast crank 15 by the coupling member 14 produces a reciprocating motion in unison of the support members 5 and 6 respectively pivoting about pins 19 and 21. In Figure 4 securing member 25 has been pulled by the chain 32 out of engagement with the catch 28 thus permitting the arm 18 to pivot about the pin 20 and thus permitting its free end to fall. The said arm 18 falls until the pin 17 engages the bottom of the slot in the member 16. Since the member 16 is connected to the fast crank 15 the arm 18 is caused to pivot in an up and down motion about the pivot point 20, at the same time carrying the pin 19 of the support member 5. Also at the same time the fast crank 15 is reciprocating the support member 6 by the connecting member 14 and thus a movement is obtained in which both the support members 5 and 6 are reciprocated backwards and forwards about their pivot points 19 and 21, while at the same time the support member 5 is reciprocated up and down in an arcuate motion on a radius of the length between the pivot point 20 and the pivot point 19.

20 It will be appreciated that considerable weight due to the weight of the seating unit and/or a person sitting thereon will be applied to both support members 5 and 6 and similarly to the arms 18 and 53. The member 25, therefore, will not immediately disengage the catch 28 as soon as force is applied to the chain 32 but will wait until the crank 15 is at top dead centre at which position the slotted member 16 will just engage the pin 17 and will take the weight of the arm 18 and thus enable the member 25 to be influenced by the pull on the chain 32 and thus to move out of position and enable the arm 18 to move thereafter in accordance with the slotted member 16. If it is desired to secure the arm 18 release of the pull of the chain 32 will permit the member 25 to move back into position under the

influence of the spring 30 such that when the arm 18 is pulled to the top of its movement i.e. when the crank 15 is at top dead centre again the member 25 will slide into engagement with the catch 28.

70 In Figure 5 it will be observed that the member 26 has been dis-engaged from the catch 29 on the arm 53 and thus the arm 53 is moving in accordance with the slow crank 22 connected to the slotted member 23 supporting the arm 53 by the pin 24. The movement obtained in this position thus is that the members 5 and 6 are reciprocated forwards and backwards by the fast crank 15 and the connecting member 14. The pivot pin 19 of the member 5 is moving up and down in accordance with the fast crank 15 and the slotted member 16 and the pivot point 21 of the support member 6 is moving up and down in accordance with the slow crank 22 and the slotted member 23. It has been noted that the support member 5 which is located rearwardly of the seating unit carries the greater load and if a rider of a horse unit leans backwards of said unit substantially the whole of the downward force is applied to the support member 5 and indeed some upward tension may be applied to the support member 6. If this were to occur at a time when the rider had moved the control knob 9 to impart tension to the chain 33 to move the member 26 out of engagement with the catch 29 said member could move from said catch and on the rider leaning forward the arm 53 could descend the full length of the slotted member 23. In order to prevent this undesirable occurrence a locking catch comprised by the member 27 and the arm 62 is provided. Thus the locating member 26 cannot be brought out of engagement with the catch 29 until tension has been applied to the chain 33 pulling the member 26 out of engagement with said catch and the crank 22 is at top dead centre at which position the pin 24 which extends beyond the width of the slotted member 23 engages the arm 62 and forces the member 27 out of engagement with the top end of the member 26.

85 It will be appreciated that by the mechanism described aforesaid three entirely separate movements are obtained and it is possible for a rider to change from one movement to another by movement of the control knob 9 which in turn applies or releases tension to the chains 32 and 33 thus either pulling out of engagement from the members 25 and 26 or releasing said members such that when the arms 18 or 53 are lifted to their uppermost positions said members may again engage their respective catches 28 or 29.

90 In Figures 6 and 7 a mercury switch 83 is mounted on an L shaped member 84 such that by the action of gravity the switch swings into a position of "on". A lever 91 is tensioned by a spring 92 so as in the normal position to bias the member 84 to the "off" position of

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the mercury switch. A chain 94 connected through a coil spring 93 is attached to the lever 91 so that by applying tension to the chain 94 the lever 91 may be pulled away from the member 84 and thus permit the switch to move into the "on" position, as shown in Figure 7. The switch 83 is the "on" and "off" switch for the motor 34. The pin 51 (Figure 2) which raises the lever 52 as the wheel 49 rotates applies a rocking movement to the shaft 97. The shaft 97 is coupled to an arm 72 having a lever 73 with a pin at the end thereof. Said pin 74 is arranged to engage teeth on a wheel 75 having a pin 98 mounted thereon. The pin 98 is arranged such that on rotation of the wheel 75 it engages an arm 82 spring biased by a coil spring 88 and a coil spring 108. Pivotaly coupled to the arm 82 is a lever 80 joined by a pivot pin 81 to a lever 79. An arm 76 is pivoted about pin 77 and is balanced by a counter-weight 78 and is provided with a projection 95 immediately below the pin 81. The end of the arm 76 is bent at right angles to the length of the arm such that said bent portion extends into a coin track 67. A lever 86 is provided with pegs 85 and 87 and with a cut-out 90 for co-operation with a catch 89 mounted on a stay 107. The peg 85 abuts the top end of the member 84 and the peg 87 abuts the arm 82. Pivotaly mounted at the lower end of the arm 82 is a lever 99, the other end of which extends into the lower end of the coin track 67 for engagement with a coin 68. Immediately below the coin track is located an arm 69 pivoted about a point 70 and having a pin 71 at the other end for co-operation with an arm 96 pivotaly connected to the arm 72. Two coin tracks 60 and 61 which extend up to the respective coil slots connect with a coin track 63 which leads into an open coin track 64 and thereafter into a common coin track 65 for leading into the vertical coin track 67. A buffer 66 is provided for preventing coins from running beyond the coin track 65 and thus acts to direct the coins into the track 67. The open coin track 64 is provided such that if a coin of insufficient diameter is inserted into the wrong slot the coin will fall out at the point 65. Preferably the track 65 is inclined at an angle and thus the coin has to be of the correct diameter to be maintained within the track by means of flanges provided at either side of the track. Thus in one instance the two coin slots may be 3d. and 6d. and if 6d. is inserted into the 3d. coin slot it will not be maintained in the track 64 since the diameter of a 6d. coin is less than that of a 3d. coin and will fall out into a suitable reject coin chute.

Figure 6 illustrates the arrangement of the parts at the position of motor switch "off" and no coin inserted. On insertion of a coin it will travel down either of the tracks 60 or 61 and into the vertical track 67 where it will depress the arm 76 which will cause the pin 81

to rise and to break the two members 79 and 80. In consequence the arm 82 will move under the influence of the spring 108 and these parts will thus adopt a position as shown in Figure 7. The arm 76 will return to its normal position under the influence of the counter-weight 78. As the arm 82 moves it will force the lever 86 to move to the left by abutment against the pin 87 under influence of the spring 88. The lever 86 is located in said position by engagement of the recess 90 in the catch 89. The movement of the lever 86 to the left moves the pin 85 to the left and thus enables the member 84 to move under the influence of gravity to permit the switch 83 to make contact. The member 84, however, may not move until tension is applied to the chain 94 and the lever 91 moves out of engagement with the member 84. A rider moving the control switch to apply tension to the chain 94 after insertion of a coin thus has the final control over starting the apparatus. When the motor starts the shaft 97 is reciprocated and in consequence of the pivot about the lever 96 the lever 73 is caused to move up and down and to engage the teeth of the wheel 75 rotating the wheel 75 in a clockwise direction. As the pin 98 moves in a clockwise direction it abuts the arm 82 and returns the arm 82 to the position illustrated in Figure 6. The arm 82 is located in said position by the levers 79 and 80 forming a continuous locking lever as the pin 81 is in line with the ends of said lever 79 and 80. Thus these parts 79, 80, 81 and 82 return to the positions shown in Figure 6. The pin 98 continues to rotate under the influence of the member 73 until it engages the arm 86 and lifts the slot 90 out of engagement with the catch 89 and permits the lever to move to the right under the influence of the spring 108. In so doing the pin 85 engages the member 84 and moves the switch 83 to the "off" position. Thus at the end of a predetermined period the apparatus is switched off. It will be appreciated that at any other time by release of the tension chain 94 the lever 91 may be moved into the position shown in Figure 6 to move the member 84 again to the "off" position. The number of reciprocating movements of the shaft 97 to rotate the wheel 75 one complete revolution may be adjusted by means of the position of the pivot point of the arm 72.

The invention provides means for enabling a different period of time during which the wheel 75 makes one complete revolution according to different values of coins which are inserted. In Figures 6 and 7 the arm 69 is for the instance where the coin of greatest value is of largest diameter, for example a shilling and sixpenny combination. The coin 68 descends the coin track 67 and is held in the position shown in Figure 6 where it abuts a projection on the arm 69 which forces the arm about the pivot pin 70 and moves the pin 71

upwards carrying the arm 96 therewith. Raising the arm 96 lifts the arm 72 and reduces the extent of the reciprocating motion of the shaft 97. Thus at each reciprocatory movement of the shaft 97 the number of teeth of the wheel 75 to which the pin 74 descends is reduced. For example on insertion of a shilling the arm 96 may be arranged to raise the arm 72 such that the wheel 75 is racked only two teeth at a time upon each reciprocatory movement of the shaft 97. On insertion of a sixpenny piece into the coin track 67 the sixpenny piece is not sufficiently large to abut the end of the arm 69 and in consequence the arm 96 is not raised. In this instance the pin 74 may be arranged to rack four teeth of the wheel 75 upon each reciprocatory movement of the shaft 97.

An alternative construction designed for the instance where the coin of largest value is of smallest diameter for example a threepenny piece and sixpenny piece combination is illustrated in Figures 8 and 9. An arm 118 is pivoted about a pillar 110 and has a shaped end 111 which extends into the coin track 67. The other end of the arm 118 is arranged to abut pegs provided on the arm 96. The arm 108 is biased by a coil spring 117 such that the arm 96 is supported by one of the pegs 109 resting on the arm 108. The arm 96 is in the position arranged to provide the longest period of time. That is to say for example the pin 74 is arranged to rack two teeth of the wheel 75 consequent upon each reciprocatory motion of the shaft 97. The end 111 is positioned such that the coin of smaller diameter for example 6d. does not contact it. Upon insertion of a coin of less value but larger diameter, for example a 3d. the coin abuts the end 111 forcing the arm 118 to swing about the pin 110 and in consequence to release the arm 96 such that said arm may drop under the influence of gravity taking the arm 72 therewith. The position to which the arm 72 falls may be arranged such that the pin 74 racks four teeth of the wheel 75 upon each reciprocatory motion of the shaft 97.

Conveniently the coin 68 is arranged to be held at the lower end of the coin track at least during the major part of the paid cycle for the apparatus and for this purpose the lever 99 is arranged to extend into the coin track 67 as the pin 98 moves the arm 82 to its original position and to push the coin out of the coin track into a coin collecting box.

In Figures 10 and 11 two coin slots 54 are shown and preferably a cover plate 112 is provided with which may be provided two different dimensions of coins stamped on either face thereof such that in Figure 11 the member 112 is secured to the frame by means of a screw 113 and displays 3d. indicating that into the coin slot 54 a threepenny piece must be inserted. On reversing the member 112 it may display 6d. and into the coin slot 54a a six-

penny piece should be inserted. The respective slots 54 and 54a lead into the coin tracks 61 and 60. Mounted on the same shaft 56 which is controlled by the control knob 9 is an arm 115; a blocking plate 57 is mounted about a pivot pin 114 and is spring biased by a coil spring 116. Upon movement of the control lever 9 in an anti-clockwise direction (Figure 10), that is from the "off" position to the motor "on" position, the lever 115 will move upwards and will abut the inclined face of the blocking plate 57 and will urge it across the coin slots 54 and 54a thus preventing insertion of another coin. By these means a coin can only be inserted into either of the coin slots when the lever 9 is in the "off" position.

The operation of the apparatus may be briefly summarized as follows: it is necessary to move the control knob 9 to the "off" position before a selected coin may be inserted into either of the coin slots 54 or 54a and if the wrong coin is inserted such as for example a sixpenny piece into a 3d. coin slot the coin will fall out of the inclined coin track and be taken from a rejected coin chute in the frame. The correct coin trips the arm 76 which enables the member 84 to be subject solely to the influence of the control lever 91. On movement of the control knob 9 firstly tension is applied to the chain 94 which enables the switch 83 to move to the "on" position. The motor 34 is then started. Since no tension is immediately applied to either of the chains 32 or 33, the locking struts 25 and 26 will move into their locking position and the mechanism will operate under the influence of the fast crank 15 and the support members pivoting about their pins 19 and 20 as shown in Figure 2. On further movement of the control lever the arm 18 may be brought under the influence of the fast crank 15 by the slotted member 16 and again on still further movement of the control knob 9 the arm 53 may be brought under the influence of the slow crank 22 by the slotted member 23. The mechanism will continue to operate until the wheel 75 has made one complete revolution whereupon the peg 85 forces the member 84 into "off" position and immediately stops the motor. If the motor is stopped while the control lever is in a position applying tension to both chains 32 and 33 no further coins may be inserted until the control lever has moved to rest. Thus the mechanism may not be restarted at its most complicated movement by insertion of a coin. The mechanism may be stopped at any time by movement of the control lever to the stop position thus bringing the member 84 under the influence of the lever 91. Should a person insert a coin and start the machinery for a short period and then return the control lever to the stop position thus purchasing only a part of the available time and a second person then inserts an appropriate coin into the mechanism the newly purchased period of operation plus

the unexpired part of the previous purchased operation will be available providing the lever 79 and 80 have been re-set to the position shown in Figure 6 and available for tripping by the arm 76.

5 It will be appreciated that the present invention provides an amusement ride in which the purchaser may select three different movements of a seating unit and that as herein described numerous safety devices are provided for preventing abuse of the apparatus.

10 The invention is particularly applicable to a seating unit in the form of a horse and the apparatus is particularly applicable for the amusement ride for use by children. A unit according to the present invention may be provided at fairgrounds or on seaside promenades where a source of electricity is available for the motor, and it is not necessary for there to be any person in attendance to control or regulate the machinery. Each ride may be separately purchased by insertion of an appropriate coin or alternatively one or other of the coin slots may be blocked so that only one type of coin 15 may be inserted. Means are provided for adjusting the length of time purchased by the insertion of a given coin so that one owner of machinery may adjust the mechanism to provide the same length of time upon insertion of that coin as say another owner does for a coin of different value.

20 It will be appreciated that the apparatus as herein described may be modified and adjusted such that other coins than those specifically mentioned may be operated and that the mechanism may be set so that only one or two of the three movements herein described can be obtained. Seating units other than horses may be mounted on support members.

40 What I claim is:—

1. Apparatus for providing different movements of a seating unit such as for example a horse comprising at least one support member for the unit, which member is pivoted to an arm, said arm being pivotally supported at one end and free at the other, means for providing movement of the support member about its pivot point and means for providing movement of the arm about its pivot point.

50 2. Apparatus for providing different movements of a seating unit such as for example a horse comprising two support members for the unit, each support member being separately pivoted to an arm, each arm being pivotally supported at one end and free at the other, means for providing movement of the support members about their respective pivot points in unison and means for independently providing movement of each arm about its pivot point.

3. Apparatus according to any of the preceding claims wherein the support members are normally substantially vertical and the arms are normally substantially horizontal.

4. Apparatus according to any of the preceding claims having means for securing the arm 65 or arms about its/their pivot point while at the same time permitting movement of the support member/members about its/their pivot point.

5. Apparatus according to claim 3 or 4 70 having means for moving the arms at different speeds about their pivot points.

6. Apparatus according to any of the preceding claims having coin operated mechanism comprising means actuated upon insertion of a 75 coin for switching "on" the apparatus and after a predetermined period of time, switching "off" the apparatus.

7. Apparatus according to claim 6 having means for varying the period of time between 80 switching "on" and "off" consequent upon insertion of coins of different value.

8. Apparatus according to either claim 6 or claim 7 wherein said means comprise a ratchet wheel intermittently rotated.

9. Apparatus according to any of the claims 6—8 having a single control lever functioning to control the switching "on" and switching "off" of the apparatus and for controlling the locking and unlocking of the said arms.

10. Apparatus according to claim 9 having means for preventing the insertion of a coin except when said control lever is in the "off" position.

11. Apparatus according to any of the preceding claims wherein the seating unit is a horse provided with fore and hind legs pivotally connected thereto so as to permit upward movements of the free ends of said legs.

12. Apparatus according to any of the preceding claims wherein the support members reciprocate in a slot shrouded by an arcuate track, said support members having shields such that at all times there is formed an obtuse angle between the support members and the 105 track.

13. Apparatus substantially as described and illustrated herein with reference to Figures 1 to 5.

14. Apparatus substantially as described and 110 illustrated herein with reference to Figures 6 to 9.

15. Apparatus substantially as described and illustrated with reference to Figures 10 to 11.

ERIC POTTER & CLARKSON,
Chartered Patent Agents.

PROVISIONAL SPECIFICATION
No. 35135, A.D. 1953.

Improvements in Amusement Apparatus

115 I, WILLIAM EDWARD BRYAN, 10, London Road, Kegworth, Derby, a British Subject, do

hereby declare this invention to be described in the following statement:—

This invention relates to the kind of mechanism where a wooden horse, for instance, is moved, by mechanical means, in a realistic manner, thus providing an entertaining ride for a child or adult person.

In this particular invention, the mechanism is released for a predetermined period by the insertion of coins or discs. It is proposed that the construction of the complete device be such as to enable the wooden horse to be removed from the machine and another article, for instance, another model animal, or a boat, or similar shaped object, or any other form on, or in, which a child or adult might ride for amusement.

It is proposed to obtain the realistic movement of the wooden horse, which may be described as a ride, by fixing it to two or more oscillating and sliding arms by joints which allow freedom of movement in any direction. The arms to be also connected to cranks or cams driven at different speeds. A system of slotted connecting rods, along with moveable

propping levers to be so arranged as to cause the ride to move differently, according to which part of the mechanism is restrained from moving by the action of the propping levers. The propping levers to be placed in and out of action by a lever situated adjacent to the ride so that the rider, or a person in charge of the ride, can operate them. Another lever, or push-button to also be so arranged as to allow the propping levers and the mechanism to be moved to a zero position, stopping the machine.

The coins inserted in the machine operate an electrical switch, setting part of the mechanism in motion, that part then being connected to the arms operating the ride by the already mentioned control lever. A toothed wheel, ratcheted round by the movement of the main mechanism, causes a cam, attached to the tooth wheel, to operate the electric switch after a predetermined movement of the ride, thus stopping the complete mechanism.

W. E. BRYAN.

PROVISIONAL SPECIFICATION
No. 17624, A.D. 1954.

Improvements in Amusement Apparatus

I, WILLIAM EDWARD BRYAN, 10, London Road, Kegworth, Derby, a British Subject, do hereby declare this invention to be described in the following statement:—

This invention relates to the kind of mechanism described in my application for a Patent No. 35135 and dated 17 December, 1953.

In this particular invention it is proposed to obtain the variable movement of the riding

device by coupling and uncoupling the oscillating and sliding arms to and from the cranks or cams running at different speeds, all controlled by a control rod which can also switch on and off the driving motor, irrespective of whether the mechanism is coin operated or not.

W. E. BRYAN.

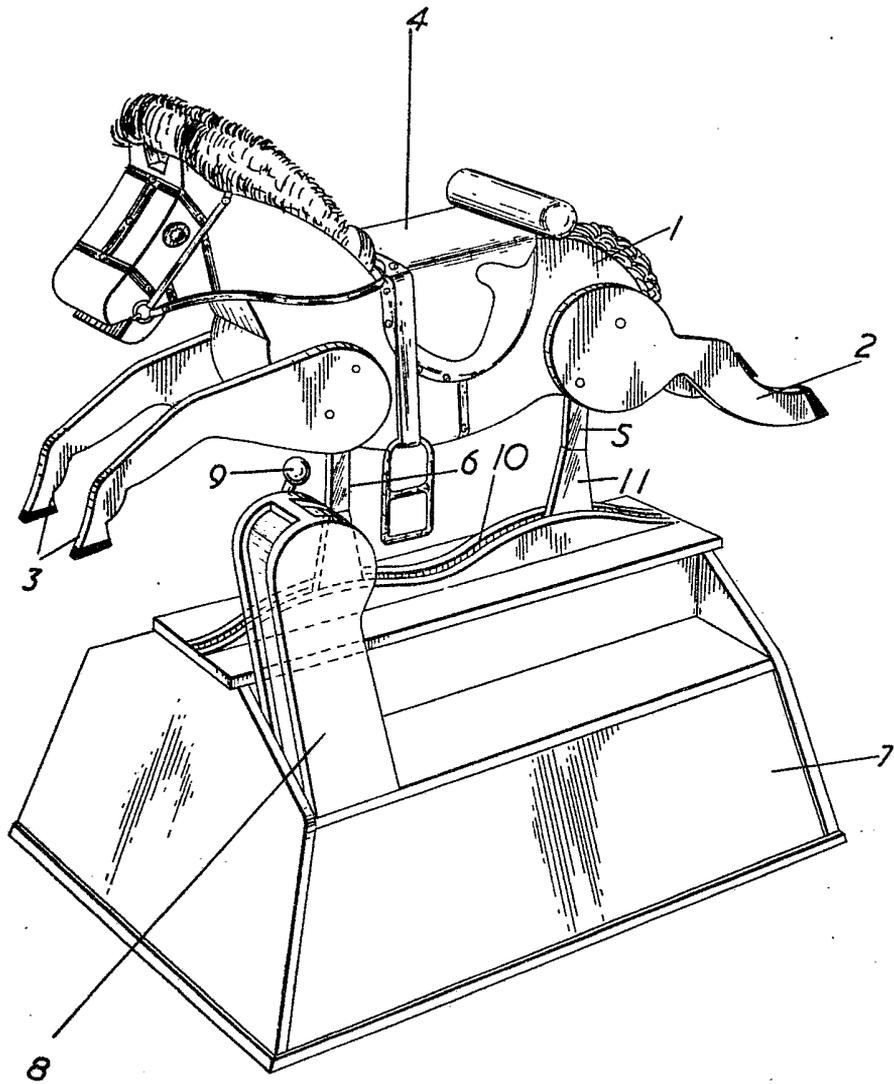
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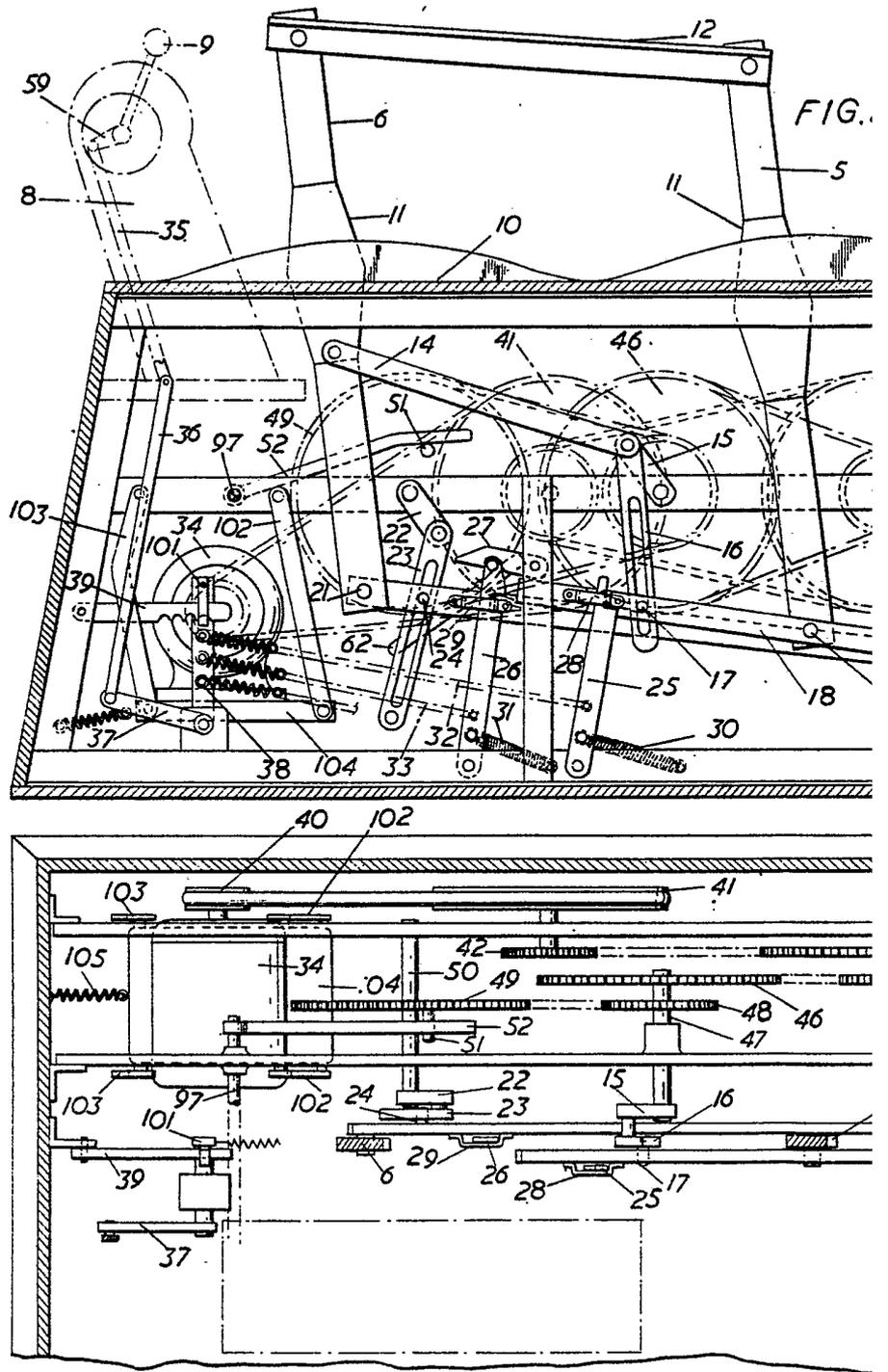
4 SHEETS

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the Original on a reduced scale.

SHEET 1

FIG. 1.





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SHEET 2

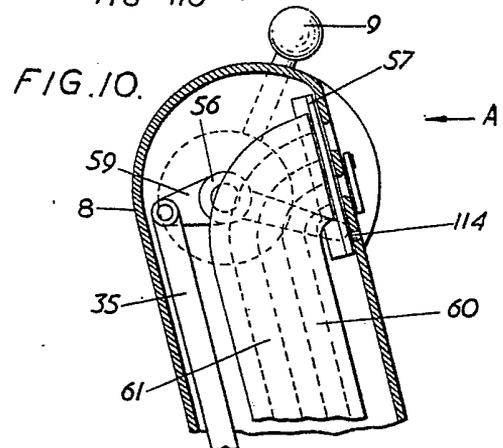
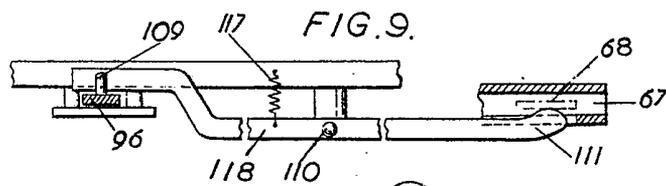
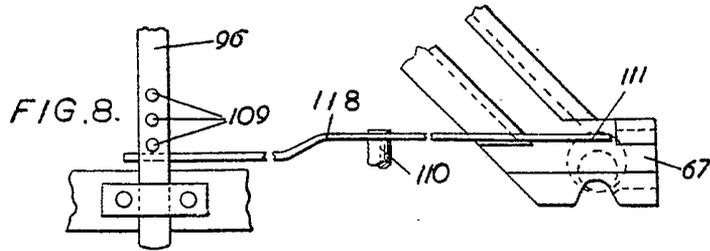
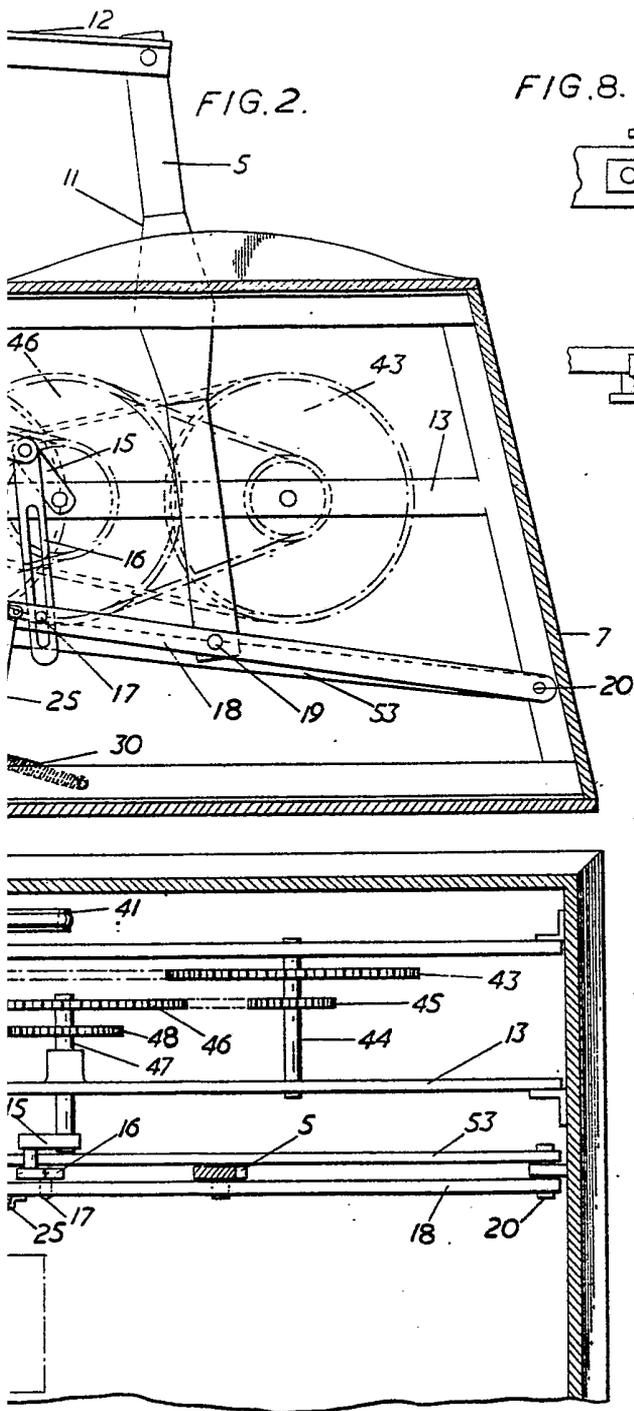
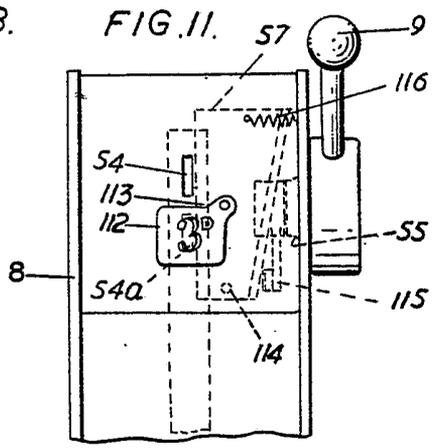


FIG. 3.

FIG. 11.



749891 COMPLETE SPECIFICATION
 4 SHEETS This drawing is a reproduction of
 the Original on a reduced scale.
 SHEET 2

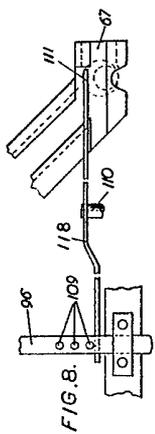


FIG. 8.

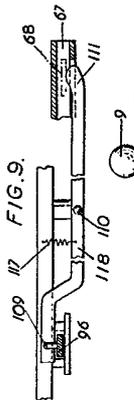


FIG. 9.

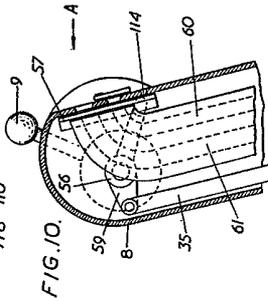


FIG. 10.

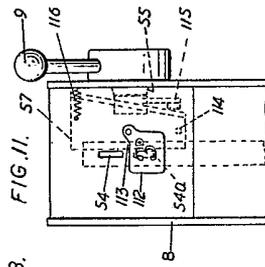


FIG. 11.

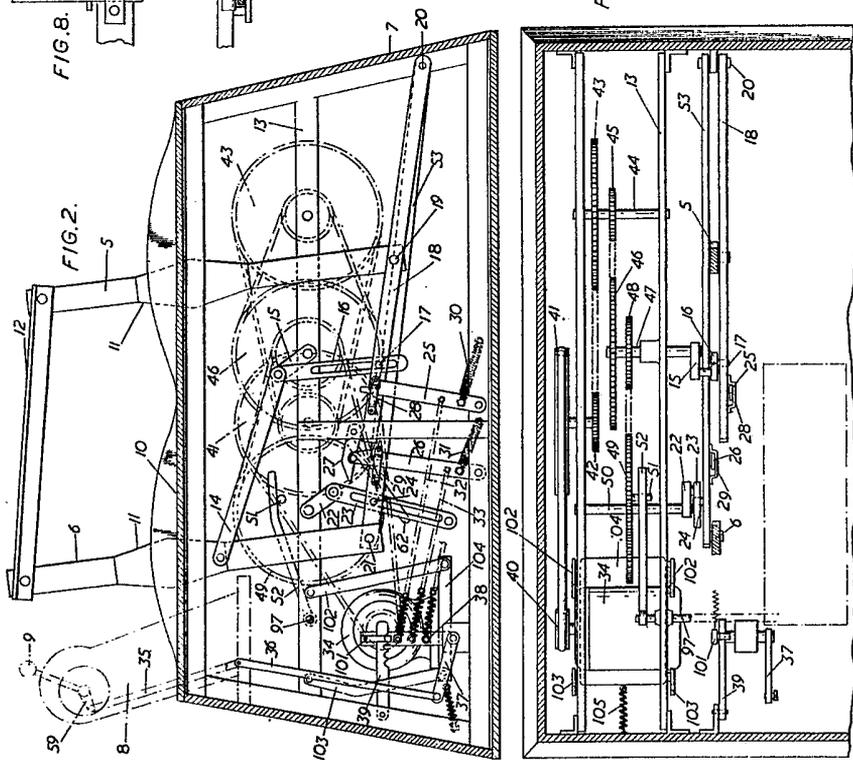


FIG. 2.

749,891 COMPLETE SPECIFICATION
 4 SHEETS This drawing is a reproduction of
 the Original SHEETS 3 & 4.

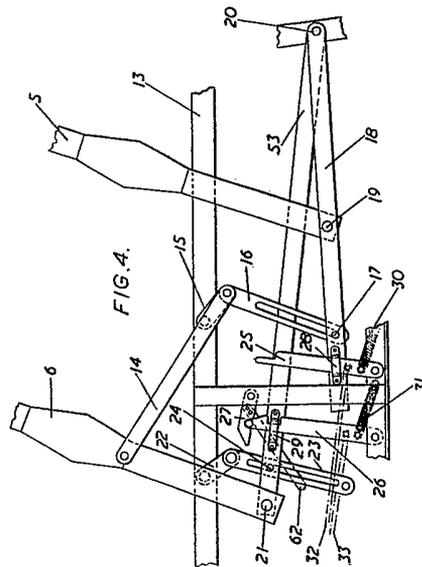


FIG. 4.

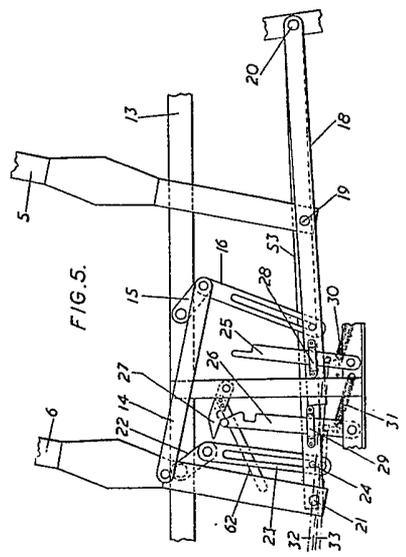


FIG. 5.

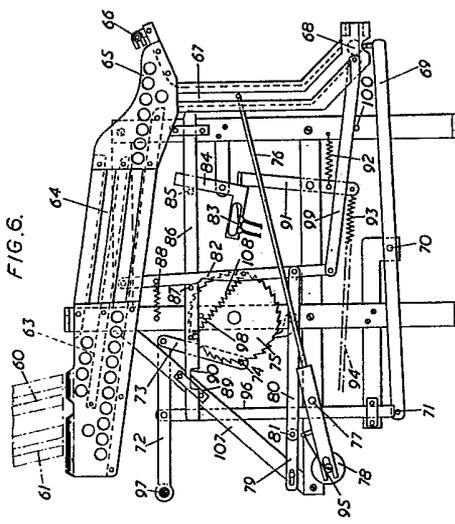


FIG. 6.

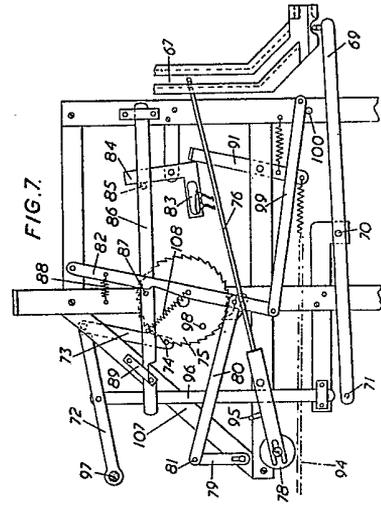


FIG. 7.