Nov. 21, 1939. C. A. HILL 2,180,416

GAME APPARATUS

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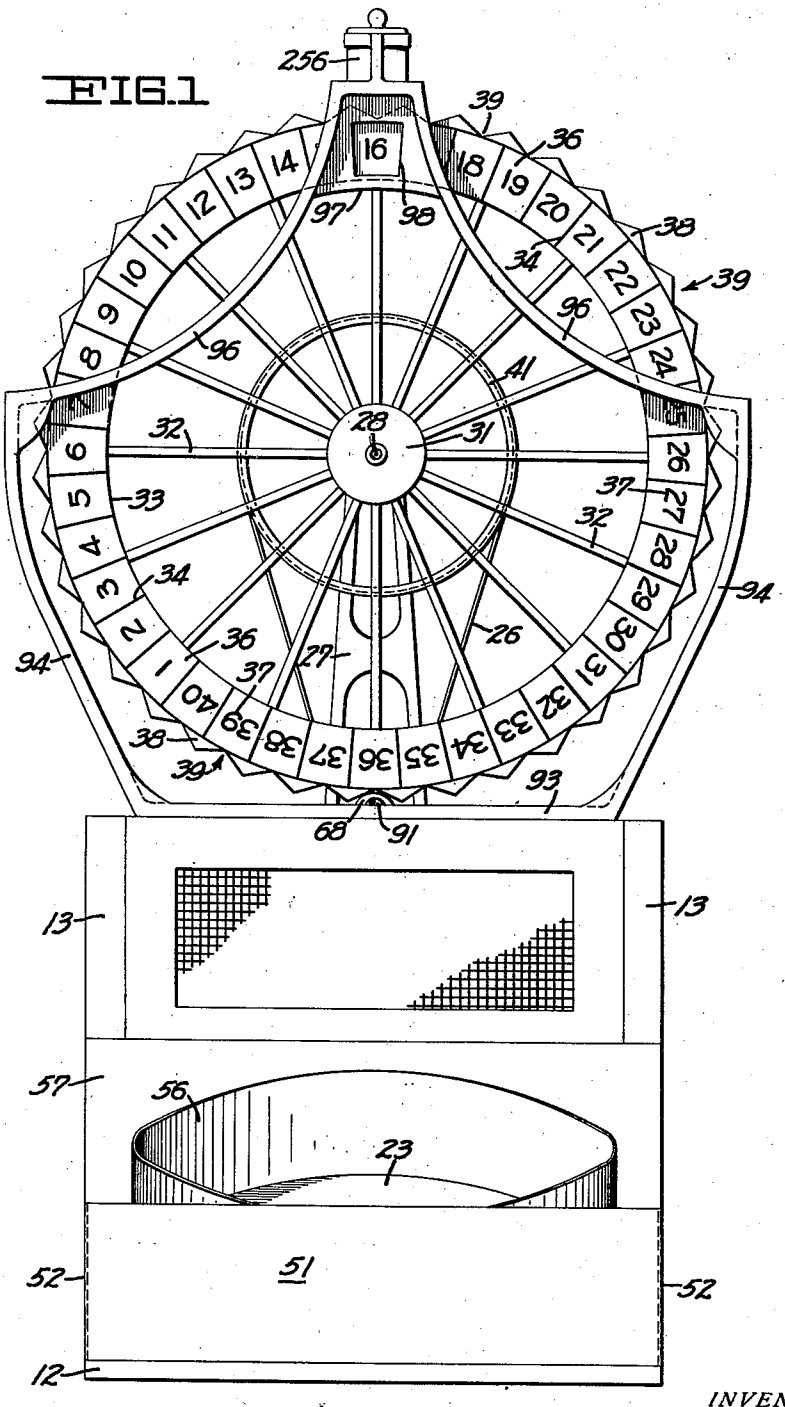
FIG. 1



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Nov. 21, 1939. C. A. HILL 2,180,416

GAME APPARATUS

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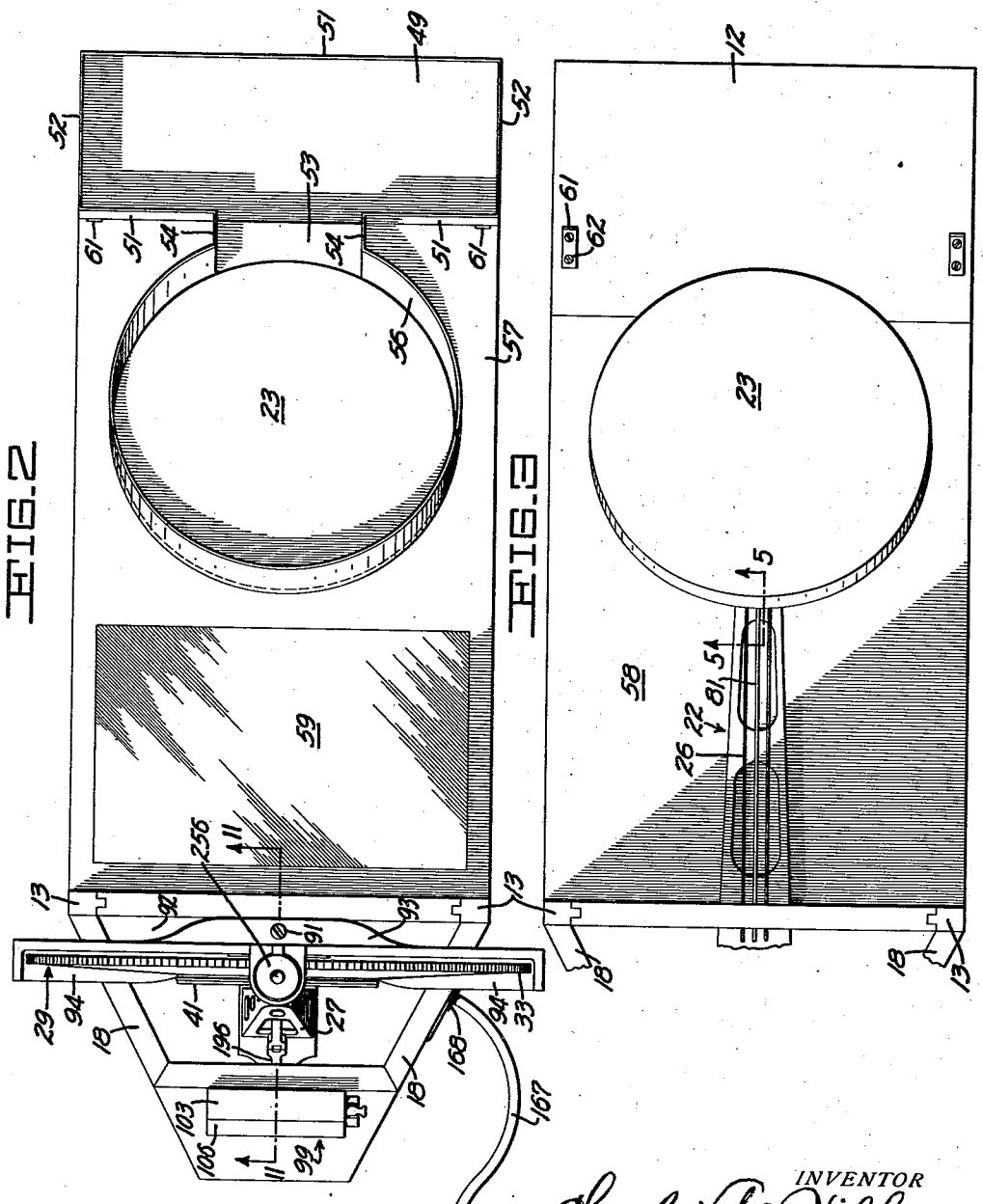

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GAME APPARATUS

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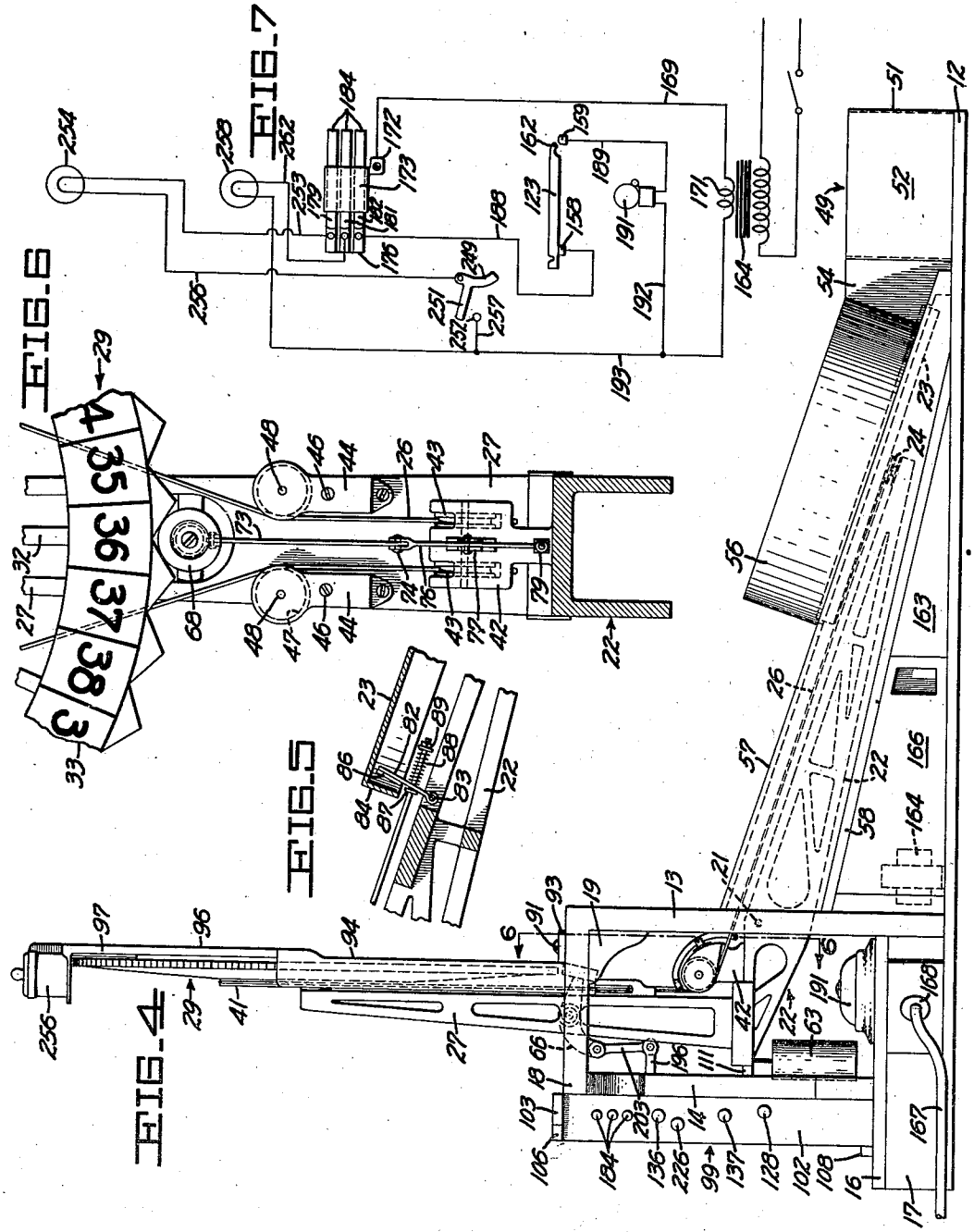

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GAME APPARATUS

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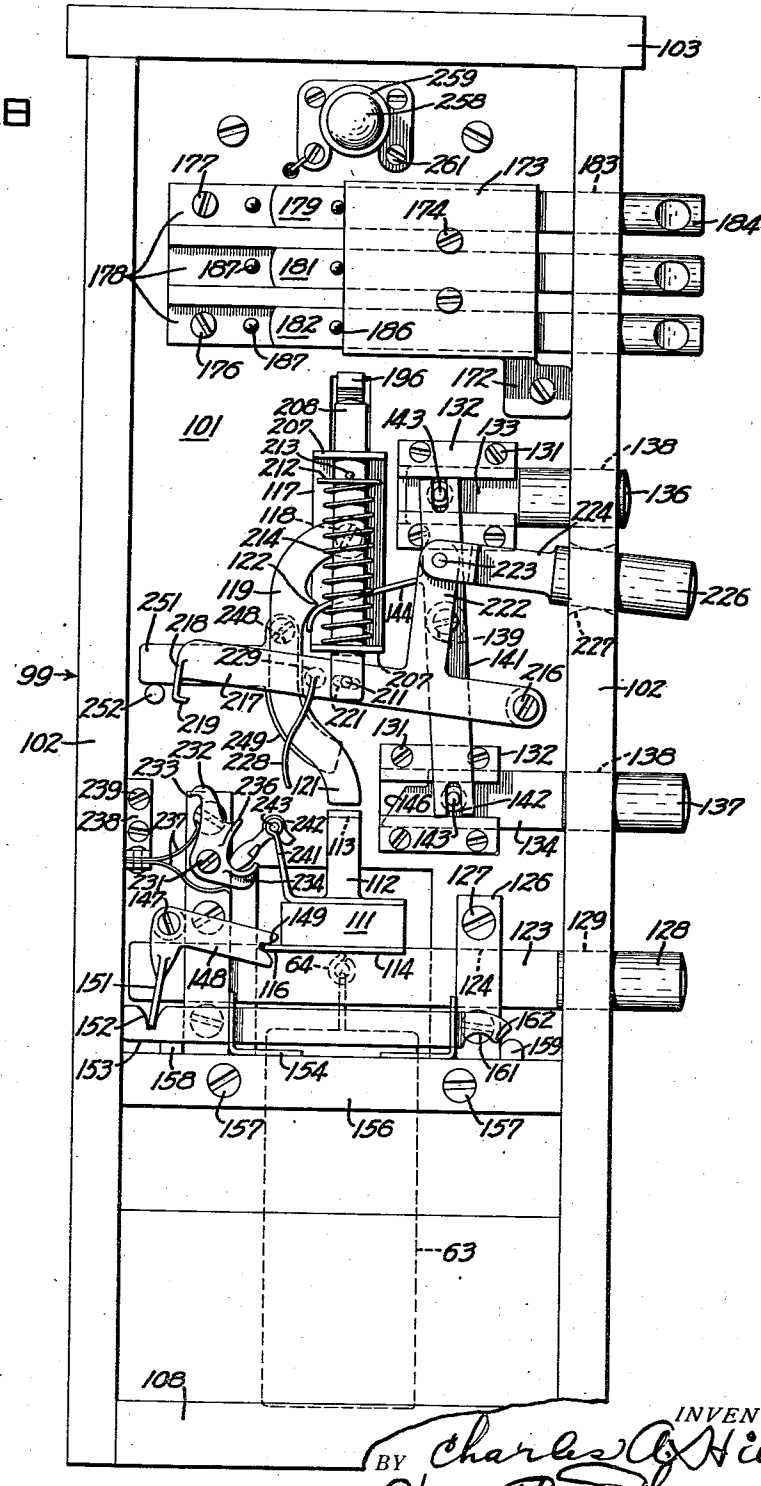
FIG. 8



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GAME APPARATUS

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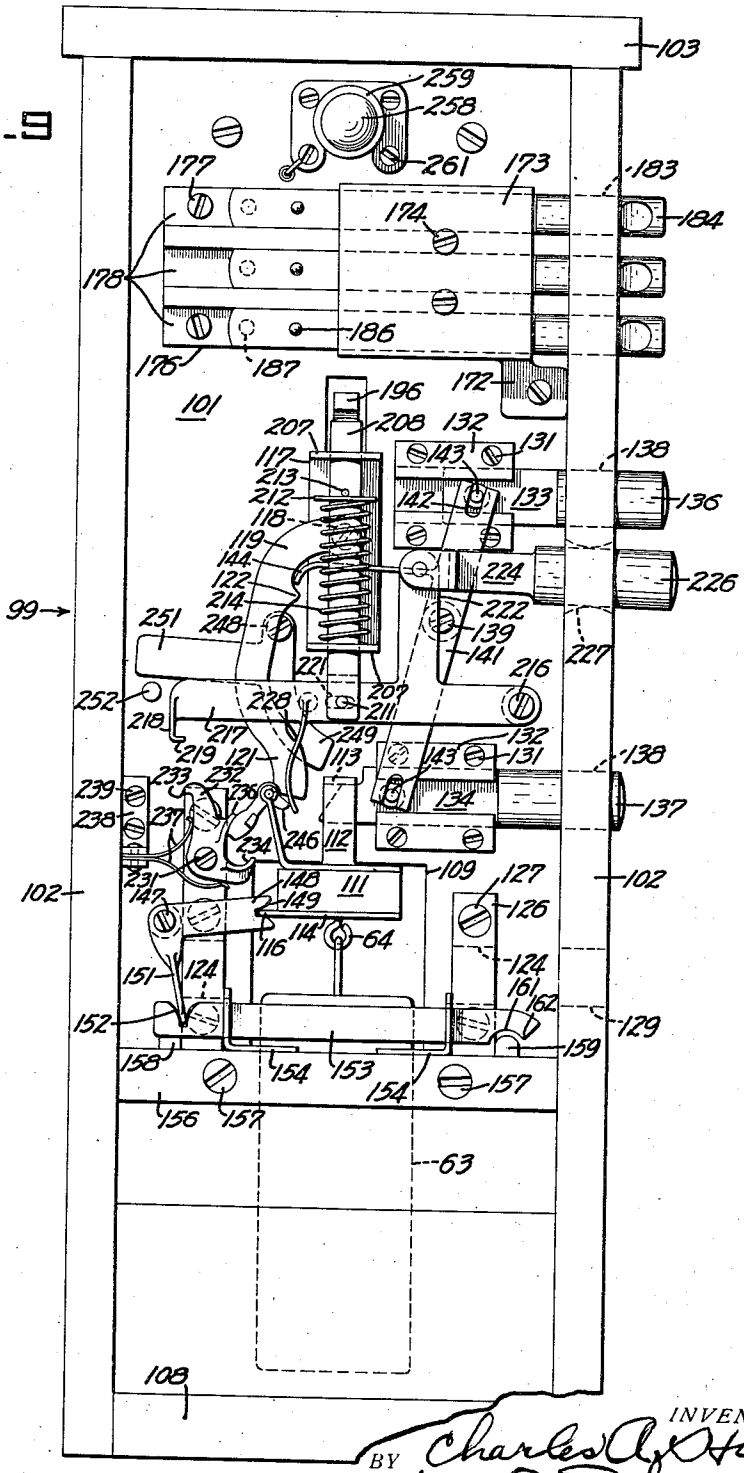
FIG. 9



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GAME APPARATUS

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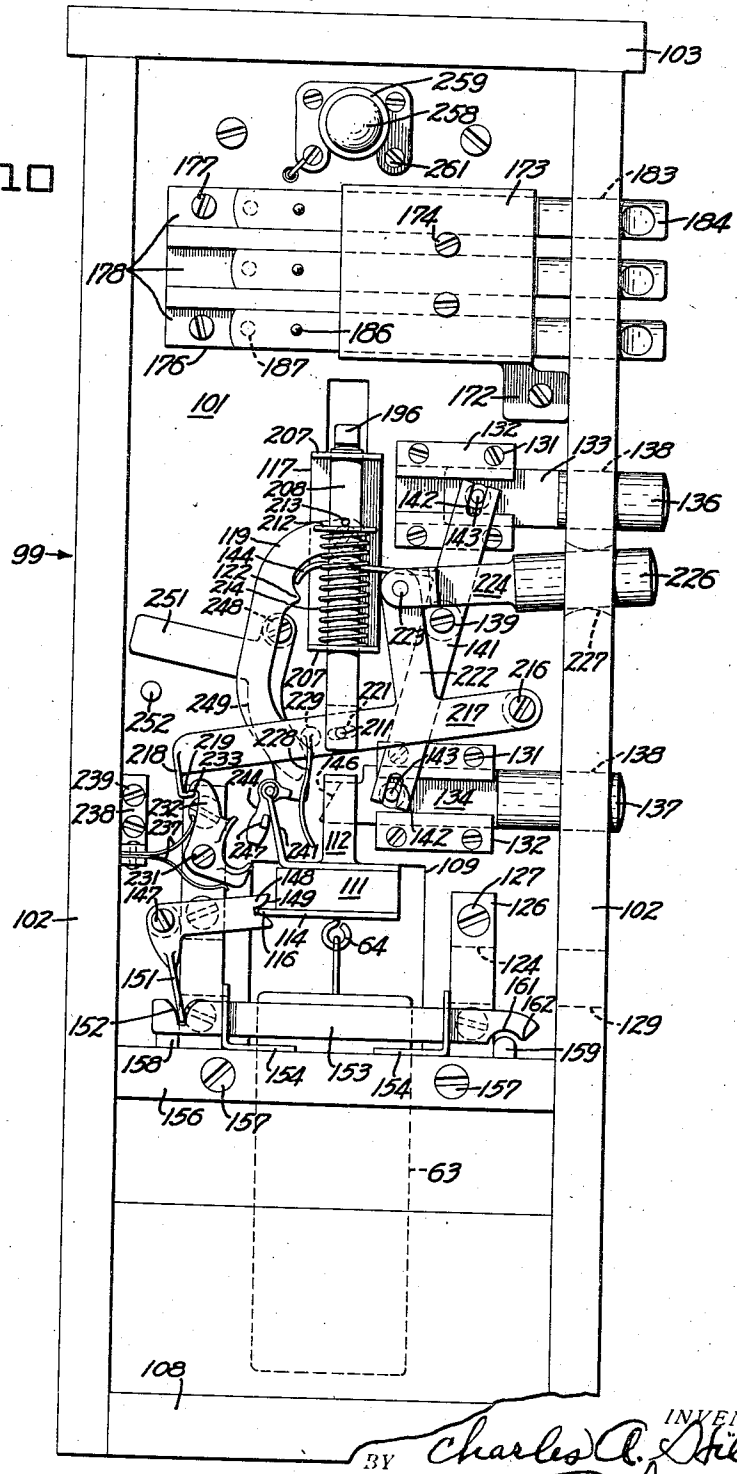
FIG.10



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GAME APPARATUS

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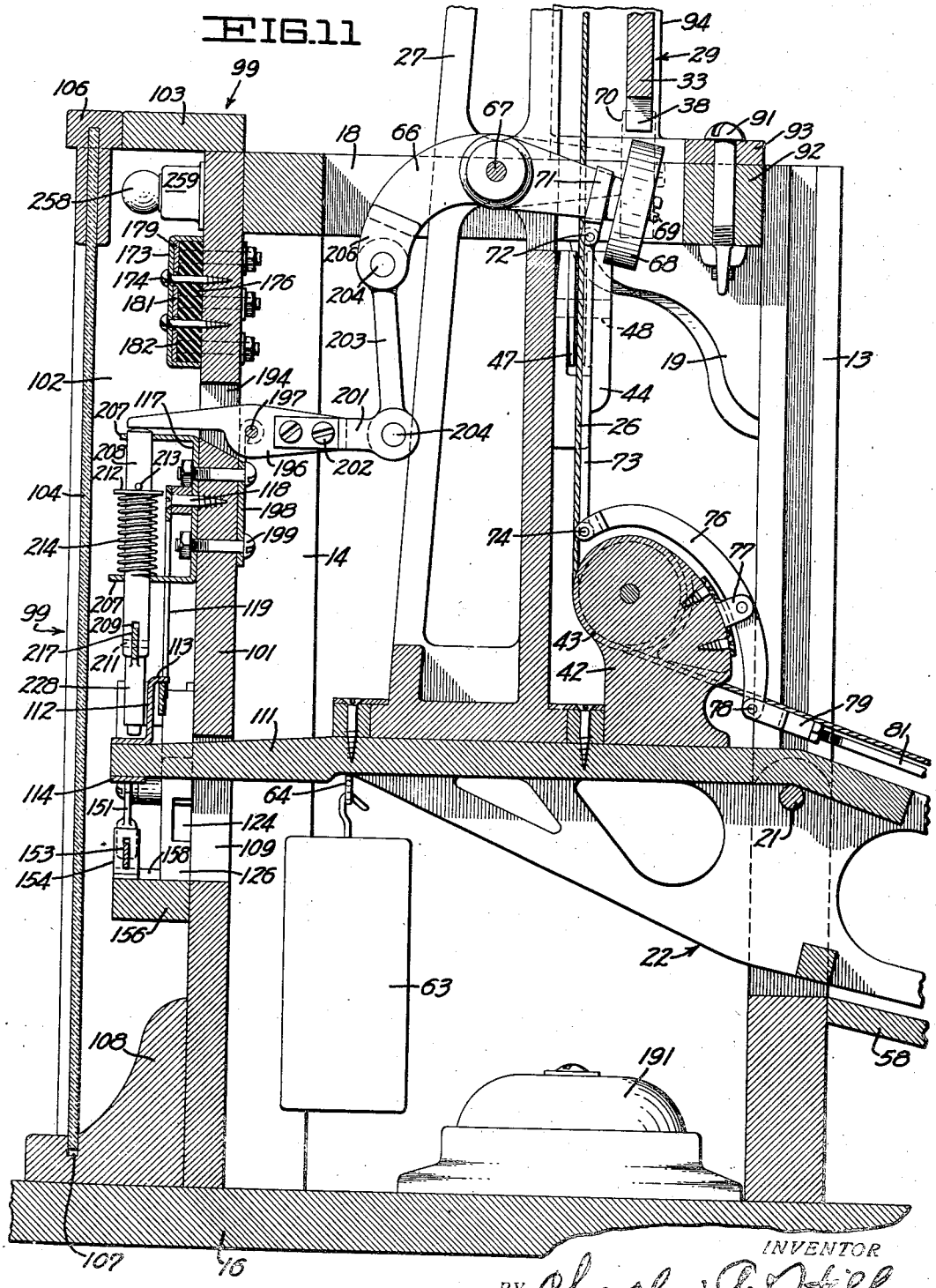
FIG. 11



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Patented Nov. 21, 1939 2,180,416

UNITED STATES PATENT OFFICE

2,180,416

GAME APPARATUS

Charles A. Hill, Oakland, Calif.

Application January 10, 1939, Serial No. 250,190

11 Claims. (Cl. 273—142)

This invention relates to apparatus for the chance selection of a game character from a prearranged group thereof.

It is an object of the invention to provide apparatus of the class described whose operation to select a game character is governed solely by the unpredictable movements of an animal.

Another object of the invention is to provide apparatus of the class described wherein the various important parts thereof are at all times visible to the players so that the latter may be assured that the attendant in no way controls the selection of the game character.

A further object of the invention is to provide, in apparatus of the class referred to, means for positively controlling the selection of a game character so that the simultaneous indication of more than one of the latter may not be had.

A still further object of the invention is to provide, in apparatus of the class described, trip mechanism which is controlled by the weight of the animal.

The invention possesses other objects and features of advantage, some of which, together with the foregoing, will be specifically set forth in the detailed description of the invention hereunto annexed. It is to be understood that the invention is not to be limited to the specific embodiment thereof herein shown and described as various other forms thereof may be employed within the scope of the appended claims.

Referring to the drawings:

Figure 1 is a front elevational view of the game apparatus of my invention.

Figure 2 is a top plan view of the structure illustrated in Figure 1.

Figure 3 is a top plan view of a portion of the structure illustrated in Figure 2 with the deck cover removed. A portion of the view, already shown in Figure 2, has been omitted to shorten the view.

Figure 4 is a side elevational view of the game apparatus.

Figure 5 is a vertical sectional view of a portion of the game apparatus showing the turntable brake. The plane of section in which the view is taken is indicated by the line **5—5** of Figure 3.

Figure 6 is a vertical sectional view, shown in an enlarged scale and for the most part in elevation showing the indicator dial, its drive and its brake. The plane in which the view is taken is indicated by the line **6—6** of Figure 4.

Figure 7 is a schematic wiring diagram showing the electrical connections between the audible and visual signal devices.

Figure 8 is a front elevational view of the tripping mechanism showing the parts in the positions that they occupy prior to being set and after being tripped.

Figure 9 is a view, similar to Figure 8, showing the positions of the parts when the push-button **137** is depressed.

Figure 10 is a view, similar to Figures 8 and 9, showing the positions of the parts when the push-button **226** is depressed, to release the dial and turntable brakes.

Figure 11 is a vertical sectional view, to an enlarged scale, of that portion of the apparatus lying in the plane indicated by the line **11—11** of Figure 2.

Broadly stated, the invention comprises a substantially centrally-fulcrumed lever arm or walking beam having journaled at one end thereof a wheel bearing peripherally spaced game numbers or characters which, when the wheel is rotated, are adapted to successively register with a fixed selector or indicator element. At the opposite end of the lever arm or walking beam is journaled a turntable whose top surface is inclined with respect to the horizontal so that when a small animal such as, for example, a mouse, is allowed to run on the surface of the turntable, gravity acting on the body of the mouse will cause the turntable to be rotated. Means is provided gearing the game wheel and the turntable for rotation together so that the former wheel will be rotated as long as the animal is running on the turntable, and means is provided which overbalances the lever arm and sets brakes to stop the game wheel and turntable as soon as the animal leaves the surface of the turntable. The game wheel brake is aranged to stop the wheel so that the fixed indicator will register exactly with any one of the game characters and means is provided, at all times visible to the participants in the game, for setting the mechanism for operation and for conditioning the mechanism to be tripped while the animal is on the turntable. Means are also provided for automatically actuating visible and audible signals which indicate the time limits within which players may select characters on the game wheel which they believe will register with the fixed indicator when the game wheel stops rotating. Means is further provided for locking the mechanism against operation after the animal has left the turntable so that in the event the animal immediately returns to the turntable,

the position of the game wheel and the indicated winning character thereon will not be disturbed.

In greater detail, the apparatus, as is probably best illustrated in Figure 4, is constructed almost entirely of wood for lightness and comprises a base plate 12 on and adjacent the rear end of which is provided an upwardly rising supporting frame consisting of a spaced pair of forward posts 13, a spaced pair of rear posts 14 which rest on the top 16 of an elevated platform 17, and horizontal top rails 18 which tie the posts 13 and 14 together at their respective upper ends. Suitable gusset brackets 19 are provided to lend stability to the supporting frame.

Mounted on the forward posts 13, and extending horizontaly therebetween and substantially medially of the height thereof, is a shaft 21 upon which is pivotally mounted a walking beam 22 having a relatively short arm projecting from the shaft toward the rear of the base plate 12 and a materially longer arm formed integrally with the shorter arm and extending forwardly and downwardly toward the forward end of the base plate. The walking beam may oscillate, between limits, about the axis of the pivot shaft 21. Fixed to and rising from the distal end of the longer arm of the walking beam is a stub shaft upon which is journaled a circular turntable 23 having attached to the bottom thereof, and concentric therewith, a peripherally grooved pulley 24 over which is trained a cord drive belt 26 whose function will be presently described. The arrangement of the walking beam arm, the stub shaft and the turntable 23 is such that the upper surface of the latter is angularly inclined with respect to the horizontal and toward the front of the game aparatus.

Attached to and rising from the distal end of the shorter arm of the walking beam 22 is a vertical mast 27 fixed to and extending horizontally from the upper end of which, and toward the forward end of the base plate 12, is a stub shaft 28 upon which is journaled the game wheel generally indicated by the numeral 29. This wheel comprises a central hub 31 from which radiates a plurality of spokes 32 each connected, at their respective distal ends, with a circular rim 33. The surface of the rim 33, which faces the front of the game apparatus, is divided by lines 34 into a plurality of zones 36, each bearing a numeral or character 37, and the periphery of the rim is provided with an equivalent number of protuberances 38, each pair of which provides a V-shaped depression 39 the bottom of which centrally registers with a character zone 36. On the back of the game wheel and attached to the spokes 32 thereof, so that it is concentric with the wheel, is a circular, peripherally grooved, pulley 41 over which the cord drive belt 26 is trained. Also rising from the short arm of the walking beam 22, and disposed intermediate the mast 27 and the walking beam pivot shaft 21, is a block 42 which carries a spaced pair of sheaves 43 and separate bearing blocks 44, each secured by screws 46 to the forward surface of the mast 27, carry sheaves 47 which are journaled in the bearing blocks by pivot pins 48. The cord belt 26, which is formed as an endless loop, passes below and over the sheaves 43, upwardly to engage the spaced sheaves 47, and around the game wheel pulley 41. It will be seen, therefore, that when the turntable 23 is rotated it will transmit power through the belt 26 to rotate the game wheel 29. The relative sizes shown of the turntable pulley 24 and the game wheel pulley 41 provide a ratio of about 8.5 to 1, which has been found to be satisfactory. It is, however, obvious that other ratios may be advantageously used.

Situated at the extreme forward end of the base plate 12 is an enclosure 49 having side and end walls 51 and 52 respectively which are high enough that a small animal, such as a mouse, placed in the enclosure may not escape therefrom by jumping over the walls. The rear side wall is provided with an opening 53, and side walls 54 are provided at each side thereof which connect at one end with the side wall 51 and at the other end with a circular fence 56 which is concentric with the turntable 23 and is mounted on a cover 57 which rests on the top of a sloping deck 58 extending from a point on the base plate 12 below the turntable upwardly and rearwardly to the forward posts 13 to which it is secured. The cover 57 encloses the longer arm of the walking beam, is provided with a circular opening concentric with the turntable and through which the latter is free to move vertically, and has a sight opening covered by a pane of glass 59 through which the movement of the walking beam may be observed. Suitable mounting clips 61, secured to the base plate 12 by screws 62, are provided for holding the cover 57 in place. The mouse contained within the enclosure is free at all times to pass through the opening 53 onto the surface of the turntable or return to the enclosure. It will be evident that when the mouse is running on the turntable adjacent the periphery thereof and on the more elevated portions of the surface thereof, gravity acting on the body of the mouse will cause the turntable to rotate, which rotation will be transmitted, as described above, to the game wheel 29.

Means is provided for loading the walking beam so as to govern movement thereof when the weight of the mouse is imposed on and removed from the turntable. The entire structure of the turntable 23, the walking beam 22, the mast 27, and the game wheel 29 is composed of light weight material such as spruce or balsa wood so that a minimum of force is required to overcome its inertia and cause it to move about the pivot shaft 21, and the weight distribution is such that that portion of the structure including the longer arm of the walking beam and the turntable materially overbalances the rest of the structure. Thus the turntable would normally assume a depressed position at the extreme lower limit of its travel through the aperture of the cover 57. To counteract this overbalance, however, a counterweight 63 is provided which is hung from an eyelet 64 secured beneath the shorter arm of the walking beam and spaced rearwardly from the axis of the pivot shaft 21. The bulk of metal in the counterweight is calculated so that when the mouse is on the turntable the latter will be maintained, by the weight of the animal in its lowermost position and as soon as the mouse leaves the turntable the latter will be moved, by the counterweight 63 to its uppermost position. By substituting counterweights possessing varying degrees of bulk, it will be seen that various fine adjustments of balance of the walking beam may be effected.

Means are provided for braking both the turntable 23 and the game wheel 29 so that free rotation of each may obtain only when desired. As is probably best shown in Figure 11, a lever arm 66 is pivotally mounted by a fixed shaft 67 on the mast 27 and a roller 68 is journaled, by a screw 69, at the end of the arm nearest the game wheel

29. Oscillating motion of the lever arm about the shaft 67 will cause the roller 68 to be moved from the position indicated in full lines in Figure 11, wherein the roller clears the periphery of the game wheel so that the latter may be freely rotated, to the position indicated by the dotted lines 70 wherein the roller may enter the depressions 39 between the protuberances 38, as shown in Figures 1 and 6, to secure the game wheel against rotation. Attached to the end of the lever arm adjacent the roller 68 is a collar 71 provided with depending ears 72 which carry a pivot pin to which is attached one end of a connecting link 73. The lower end of the connecting link 73 is attached by a pivot pin 74 to one end of a rocker lever 76 which is mounted for pivotal movement on the block 42 by a fulcrum bracket 77. Pivotally secured to the lower end of the rocker lever 76, by a pivot pin 78, is a clevise 79 which is secured to one end of a pull rod 81 extending along and parallel with the upper surface of the longer arm of the walking beam. The other end of the pull rod 81, as is best shown in Figure 5, passes freely through an aperture formed in a brake lever 82 which is pivotally mounted by a pivot pin 83 on the arm of the walking beam and extends upwardly to a position overlying the inner surface of the peripheral flange or rim 84 formed on the turntable. A pad 86 of leather or other friction material is fixed to the distal end of the brake lever 82 and faces the surface of the turntable rim. Fixed to and adjacent the end of the pull rod 81 and resting against the side of the brake lever 82 is a collar 87 and a coil spring 88 is disposed about the rod on the opposite side of the brake lever and engages the latter at one end, at the other end, a nut 89 which is threaded onto the end of the rod. It will be seen that as the lever arm 66 swings upwardly to move the roller 68 into one of the depressions on the periphery of the game wheel 29 thus braking the latter, the connecting link 73 will also be moved thereby causing the rocker lever 76 to swing about its pivot and to move the pull rod 81 to swing the brake lever and the pad 86 into contact with the turntable rim 84 thereby braking the latter. Movement of the lever 66 to move the roller 68 out of the peripheral depressions of the game wheel will, of course, simultaneously release the turntable whereupon both the turntable and game wheel are free to be rotated.

Means is provided for indicating one of the game wheel characters 37. Secured by suitable bolts 91 to a cross member 92 joining the forward posts 13, is a base 93 from the opposite ends of which rise uprights 94. These uprights terminate slightly above the center of the game wheel and are provided with extension arms 96 which pass across the forward face of the game wheel and upwardly to a point adjacent the uppermost portion of the wheel periphery where they are joined together by means of a plate 97. This plate has therein an aperture 98 corresponding in shape with, though slightly smaller than, the zones 36 upon which the game characters 37 are displayed. The position of the aperture 98 is such that when the roller 68 is seated in one of the peripheral depressions of the game wheel, one of the zones 36 will be centered with the aperture so that only the numeral carried by the zone appears in the aperture. This is clearly shown in Figure 1. By this arrangement it is not possible for more than one member to show through the aperture when the game wheel is stopped since it is impossible for the roller, which is spring-pressed as will hereinafter appear, to rest upon the apex of any of the peripheral protuberances 38 of the game wheel.

Means is provided for manually moving the walking beam from a normal position, wherein the turntable is elevated, to a position wherein the latter is lowered and means is also provided interconnecting the walking beam and the above described brakes whereby the brakes are released when the turntable is in its lowered position and are applied to stop rotation of the turntable and game wheel when the turntable is moved to its elevated position. Disposed at the rear of the top 16 of the platform 17 is a rectangular housing generally indicated by the numeral 99 and comprising an upright end wall 101 which is secured to the rear posts 14, side walls 102 joined to the end wall 101 at the respective vertical edges thereof, a top 103, and a glass cover plate 104. The glass cover plate is slidably mounted in suitable grooves formed adjacent the rear edges of the side walls 102 and is provided at its upper end with a cap 106 which may be grasped to draw the cover plate vertically out of the grooves. The lower end of the cover plate rests in a groove 107 provided in a block 108 which forms the bottom of the housing 99. Formed in the rear wall 101 of the housing, and substantially in horizontal alinement with the shorter arm of the walking beam, is an aperture 109 through which an extension 111 of the said shorter walking beam arm may pass into the housing 99 and in which the extension may move vertically as the walking beam is oscillated about the pivot shaft 21. Mounted on the upper surface of the extreme end of the extension 111 is a vertically rising bracket 112 having at its upper end a horizontal flange 113, which is directed toward the end wall 101, and on the lower surface of the end of the extension is mounted a plate 114 having an extended portion 116 thereof projecting beyond the side of the extension 111.

Reference is now had to Figures 8, 9 and 10. Secured to the end wall 101, a distance above the extension 111, is a bracket 117 having therein a pivot screw 118 from which depends a locking lever 119 provided at its lower end with an offset portion 121, which immediately overlies the flange 113 of the bracket 112, and at one side thereof with a protuberance 122. The overlying portion 121 of the lever prevents upward movement of the extension 111 and consequently prevents oscillatory motion of the walking beam. A bar 123 which lies beneath the extension 111 and which slidably passes through apertures 124 provided in brackets 126, which are secured to the end wall 101 by screws 127, is provided with a head 128 which may be grasped to withdraw the bar through a suitable aperture 129, formed in one of the side walls 102, which is axially alined with the apertures 124. The bar 123, when inserted, prevents downward movement of the extension 111. To one side of the bracket 117 and the end of the extension 111, and mounted by screws 131 on the end wall 101, are vertically spaced guides 132 in which are slidably mounted plungers 133 and 134 respectively each being provided with pushbuttons 136 and 137 extending through and slidable in suitable apertures 138 formed in the side wall 102. Mounted for pivotal movement on a pivot screw 139 secured in the end wall 101 and positioned substantially midway between the guides 132, is a lever 141 having at each end elongated notches 142, which engage pins 143 fixedly mounted on and movable

with the plungers 133 and 134, and also provided with an arm 144 extending from one side thereof and resting, at its distal end, against the lower surface of the protuberance 122 of the locking lever 119. The inner end of the plunger 134 is shaped to provide an angularly inclined surface 146 facing the bracket 112 of the extension 111. It will be seen that when the pushbutton 137 is depressed, the lever 141 will be caused to swing about the axis of the pivot screw 131 thereby raising the arm 144 which, bearing against the protuberance 122 during its motion, causes the locking lever 119 to swing so that the offset end 121 thereof is moved from its position overlying the flange 113 of the extension bracket 112 to clear the latter so that the extension is free to move upwardly. This is clearly illustrated in Figure 9. As the plunger 134 advances, the lower end of the sloping surface 146 thereof passes below and engages the lower surface of the bracket flange 113 causing the flange to ride upwardly along the sloping surface until the plunger has reached the innermost limit of its travel. This is also shown in Figure 9. This operation of depressing the pushbutton 137 and raising the extension 111 causes the walking beam to move about the axis of its pivot shaft 21 so that the turntable 23 is moved from its extreme upper position to its lowered position wherein its upper surface lies substantially in the plane of the upper surface of the cover 57.

Means is provided for sounding an audible signal when the turntable is lowered. Mounted on a pivot screw 147, secured in the end wall 101 and positioned to one side of the extension 111, is a bell crank, one arm 148 of which extends toward and is provided in its distal end with a notch 149 which engages the extended portion 116 of the plate 114, and the other arm 151 of which extends downwardly into a notch 152 formed in the upper edge and adjacent one end of a metallic switch bar 153 which is slidably mounted in brackets 154 carried by a cross member 156 secured to the end wall 101 by suitable screws 157. A metallic terminal block 158 secured to the top surface of the cross member 156 contacts the lower edge of the switch bar 153. A metallic contact block 159 is also secured to the upper surface of the cross member and spaced from the end of the switch bar. When the pushbutton 137 is depressed to move the walking beam, upward movement of the extension 111 will cause the bell crank to move thereby sliding the switch bar 153 longitudinally in the brackets 154 and causing the end of the switch bar to pass across and momentarily contact the contact block 159. The end of the switch bar is provided with a semi-circular notch 161 which forms at the end of the bar a contact point 162 which engages the contact block 159 during motion of the bar, the notch providing, as is shown in Figure 9, insulation of the contact bar from the contact block when the bar is in its extreme right-hand position. There is, of course, sufficient leeway in the apertures of the brackets 154 so that slight vertical movement of the switch bar will be permitted as the contact point 162 passes over the contact block 159. As is shown in Figure 4, the space below the deck 58 is enclosed by sides 163 to form a chamber within which may be conveniently mounted a voltage reducing transformer 164, and a removable door 166 is provided in one of the sides 163 so that the chamber may be opened to permit inspection or replacement of the transformer. A power cord 167 which passes through an insulating bushing 168 mounted in the side of the platform 17 is connected to the input terminals of the transformer. Referring now to Figure 7, it will be seen that a conductor 169 connects one end of the transformer secondary winding 171 with a lug 172 formed integrally with a cap 173 which surrounds and is fastened by screws 174 to a block 176 of insulating material which is secured to the wall 101 and at the upper end of the housing 99 by suitable screws 177. Formed in the surface of the block 176 is a plurality of spaced grooves 178 in which, and in contact with the metallic cap 173, is slidably mounted switch blades 179, 181 and 182. Each switch blade is extended through suitable apertures 183 formed in the side wall 102 and is provided with a pushbutton 184 which projects exteriorly of the housing. By moving the pushbuttons 184 toward and from the side wall 102, the switch blades 179, 181 and 182 may be selectively moved in their guide grooves 178. A small rivet 186 fastened in each switch blade is adapted to contact the edge of the cap 173 when the switch blades are moved toward the right, as viewed in Figures 8, 9 and 10, so that movement of the switch blades will be limited in this direction. In the bottom of each groove 178, and spaced from the ends of the switch blades, are contacts 187 which are engaged by the switch blades as the latter are moved toward the left. Referring again to Figure 7, the lowermost contact 187 of the group is connected by a conductor 188 with the terminal block 158, the contact block 159 is connected by a conductor 189 with one input terminal of a bell 191 which, as shown in Figure 4, is mounted on the platform 16 between the front and rear posts 13 and 14, and a conductor 192 connects the other input terminal of the bell with the supply lead 193 which is connected to the secondary winding 171 of the transformer 164. It will be seen that when the lower switch of the group is closed and the switch bar 123 is moved to the right as the extension 111 rises, the bell 191 will sound during the short interval in which the contact point 162 is passing over the contact block 159 and also when the contact point returns across the contact block as the extension 111 is lowered.

Extending through an aperture 194 formed in the wall 101 of the housing 99 is a lever 196 pivotally mounted on a shaft 197 which is supported by a bracket 198 mounted on the wall 101 by suitable bolts 199 which also serve to secure the bracket 117 within the housing. One end of the lever projects through the aperture 194 into the housing and the other end of the lever is fitted with a clevis 201 secured to the lever by screws 202. A link 203 is pivotally connected by pins 204 to the clevis 201 and to a clevis 206 formed at the distal end of the lever 66. Formed integrally with and at each end of the bracket 117 are flanges 207 each being apertured to slidably receive a cylindrical plunger 208 whose upper end lies immediately under the end of the lever 196 and whose lower end is provided with a notch 209 across which extends a pin 211 fixed in the plunger. A collar 212 surrounds the plunger, being spaced from the upper end of the latter and held in place by a pin or cotter 213 which is secured in the plunger. A coil spring 214 surrounds the plunger and bears at its respective ends against the collar 212 and against the lower flange 207 of the bracket 117, the spring being of the expansion type for normally urging the

plunger upwardly. Pivotally mounted on a pivot pin 216 which is fastened in the wall 101 to the right of the plunger 208 is a latch lever 217 having at its extreme end a downwardly projecting flange 218 which is provided at its lower end with an inturned lip 219. The latch lever is also provided intermediate its ends with an elongated slot 221 which engages the pin 211 at the lower end of the plunger 208 so as to pivotally connect the latter and the latch lever together, is further provided intermediate the slot 221 and the pivot screw 216 with an upwardly rising arm 222 which is connected by means of a pivot pin 223 with the shank 224 of a pushbutton 226 which extends exteriorly of the housing through an aperture 227 formed in the side wall 102 thereof, and is still further provided intermediate the slot 221 and the flange 218 with a downwardly extending resilient arm 228. This latter arm is preferably a piece of spring steel or brass welded or brazed to the lower edge of the latch lever. A pin 229 is fastened to and extends horizontally from the rear surface of the latch lever.

Pivotally mounted on a screw 231, which is fastened in an upward extension of one of the brackets 126, is latch having an upwardly projecting arm 232 which is provided at its distal end with a lip 233, a horizontally extending trip arm 234, and a protuberance 236 which projects from side of the latch intermediate the vertical and horizontal arms 232 and 234 thereof. A pair of leaf springs 237, which are secured at one end to a common bracket 238 which is secured to the wall 101 by suitable screws 239, serve to maintain the latch resiliently in substantially the position in which it is shown in Figure 8. When the pushbutton 226 is depressed, the latch lever 217 will be swung downwardly until the lip 219 engages the lip 233 of the latch whereupon the latter will be swung aside allowing the lip 219 to pass, whereupon the latch lip 233 will snap over the lip 219 and hold the latch lever in depressed position. The lever is shown in latched position in Figure 10. Simultaneously with downward movement of the latch lever, the plunger 208 is also drawn downwardly compressing the spring 214 and allowing the lever 196 to swing about its pivot shaft 197. This movement of the lever 196 allows the lever 66 to swing to move the roller 68 downwardly to a position wherein it clears the periphery of the game wheel as shown in Figure 11.

Means is provided operative during movement of the walking beam to release the latch lever 217. Extending upwardly from the base of the bracket 112 is an arm 241 having, at its distal end, eyes 242 which engage a pivot pin 243 upon which is pivotally mounted a trip dog consisting of a depending arm 244 and a horizontally extending lug 246. A protuberance 247 projecting from one side of the depending arm 244 is adapted to strike against the arm 241 as the trip dog is swung about its pivot to limit movement of the dog in one direction. When the extension 111 of the walking beam is in its uppermost position, as shown in Figure 10, the arm 244 of the trip dog will lie substantially vertically with the protuberance 247 resting against the side of the arm 241, and with the lower end of the arm 244 positioned directly above the end of the horizontally extending trip arm 234. When the extension 111 is allowed to descend, the arm 244 will move downwardly until the lower end thereof engages the trip arm 234 whereupon the latch will be swung about its pivot to release the engaged lips 219 and 233. This releases the latch lever 217 which may, under the influence of the expanding spring 214, move upwardly thereby causing the plunger 208 to also move upwardly. This movement of the plunger swings the lever 196 about its pivot shaft to move the roller 68 upwardly into a peripheral depression 39 of the game wheel, whereupon the game wheel will be locked against rotation, and also, through the connection between the lever 66 and the turntable brake, sets the latter so that it may not be rotated.

Visual means is provided for indicating when the latch lever is set to free the game wheel and turntable brakes and for indicating when the brakes are engaged with their respective elements. Secured in the wall 101, to one side of and adjacent the bottom of the bracket 117, is a pivot screw 248 journaled on and depending from which is a switch lever having a downwardly extending arcuate arm 249 and a horizontally extending arm 251. A metallic contact stud 252 secured in the wall 101 underlies the end of the arm 251. In Figure 7 it will be seen that a conductor 253 connects the contact 187 of the top switch of the group mounted in the upper portion of the housing 99, with one input terminal of a lamp 254 which is contained in a hood 256 mounted at the upper ends of the extension arms 96. The bottom of the hood is open so that light rays from the lamp 254 may fall on the rim of the game wheel to illuminate the zone 36 thereof behind the sight aperture 98. A conductor 256 connects the other input terminal of the lamp 254 with the pivot screw 248 and a conductor 257 connects the contact stud 252 with the supply lead 193. Before play is started and the parts of the control apparatus are in their respective neutral positions, as shown in Figure 8, the arm 251 will be in engagement with the contact stud and, if the top switch of the aforementioned group is closed, current will flow to the lamp 254. As soon as the operator depresses the pushbutton 137, however, the forward movement of the mast 27, as the walking beam 22 is lowered, will transmit motion through the link 203 to the lever 196, lowering the end thereof which projects into the housing 99 and slightly depressing the plunger 208. This will, of course, cause slight downward movement of the latch lever 217. As the latch lever descends, the pin 229 extending from the rear surface thereof will engage the arcuate edge of the arm 249 thereby causing the arm 251 to swing slightly upwardly away from the contact stud 252. This interrupts the circuit to extinguish the lamp 254. After the cycle of operation has occurred completing one game and the parts return to their neutral positions, the arm 251 will reassume engagement with the contact stud 252 to light the lamp so as to illuminate the lucky number appearing in the sight aperture 98.

A lamp 258, which is mounted in a socket 259 secured by screws 261 at the upper end of and within the housing 99, is provided for illuminating the interior of the housing so that the operation of the set and trip mechanism may at all times be perfectly visible to the players through the glass cover 104. The center switch of the group adjacent the upper end of the housing controls the lamp 258, one input terminal of which is connected by a conductor 262 with the contact 187 of this switch and the other input terminal of which is connected to the supply lead 193.

Before play is started the stop bar 123 shown in Figure 8 is entirely removed and a mouse is placed in the enclosure 49. The pushbutton 137 is now

depressed to tilt the walking beam so that the turntable 23 is lowered substantially to the level of the top of the cover 57. As the pushbutton 137 was depressed, the bell 191 sounded to signify the start of a game. The players may now choose the character 37 on the game wheel which they believe will appear in the sight aperture 98 after the wheel stops spinning. After all choices have been made, the operator depresses the pushbutton 226 to set the latch lever 217 and to release both the game wheel and turntable brakes. The operator now waits until the mouse passes from the enclosure onto the turntable whereupon the former depresses the pushbutton 136. This action moves the plunger 134 out from under the flange 13 which has held the turntable in its lowermost position. The walking beam is now free of any holding means but is retained in position by the weight of the mouse on the turntable. After the mouse moves onto the turntable, the former will start running. This, as was explained above, will cause the turntable, and the game wheel operatively connected therewith to rotate. As soon as the mouse leaves the turntable to reenter the enclosure 49, the removal of its weight from the turntable will cause the counterweight 63 to slowly drop thereby swinging the walking beam about its pivot shaft 21. This movement of the walking beam will cause the extension 111 of the latter to descend and, as has been previously described, to release the trip lever 217 to stop the game wheel and the turntable. When this occurs, the game character which stops in registry with the sight aperture 98 wins the game.

I claim:

1. A game apparatus comprising a support, an element pivotally mounted intermediate its ends on said support, a game wheel rotatably mounted at one end of said element, a turntable rotatably mounted at the other end of said element onto which an animal may run to rotate said turntable and by its weight to move said element about its pivot in one direction, means connecting said game wheel and turntable for rotation together, and means operative upon movement of said element about its pivot in the other direction after passage of said animal from said turntable for stopping said rotation.

2. A game apparatus comprising a support, an element pivotally mounted intermediate its ends on said support, a game wheel rotatably mounted at one end of said element, a turntable rotatably mounted at the other end of said element onto which an animal may run to rotate said turntable and by its weight to move said element about its pivot in one direction, means connecting said game wheel and turntable for rotation together, brakes operatively engageable with said game wheel and turntable to stop rotation thereof, manually operated means for releasing said brakes to allow rotation of said game wheel and turntable, and means operative upon movement of said element about its pivot in the other direction after passage of said animal from said turntable for setting said brakes to stop rotation of said game wheel and said turntable.

3. A game apparatus comprising a support, a substantially horizontally disposed walking beam pivotally mounted intermediate its forward and rear ends on said support, a turntable mounted for rotation on and adjacent the forward end of said walking beam, a pulley secured to and rotatable with said turntable, a vertically disposed mast secured to and adjacent the rear end of said walking beam, a game wheel rotatably mounted on and adjacent the upper end of said mast, a pulley secured to and rotatable with said game wheel, a flexible belt tractionally engaging the pulleys of said turntable and game wheel whereby said turntable and game wheel are connected for rotation together, a weight carried on the rear end of said walking beam for normally depressing said rear end of the walking beam to yieldably maintain the forward end thereof in an elevated position, a fence rising from said support and defining an enclosure including the surface of said turntable for confining an animal which may pass freely from said enclosure onto the surface of said turntable to run on said surface to rotate said turntable and game wheel and thereafter return to said enclosure, said animal being of sufficient weight to overbalance, when on said turntable, the said weight carried on the rear end of said walking beam whereby said turntable is maintained in a lowered position, manually operated means for moving and retaining said walking beam and said turntable in its lowered position while said animal is within said enclosure, means for releasing said walking beam retaining means after said animal has passed onto said turntable from said enclosure, brakes for securing said turntable and game wheel against rotation, means for releasing said brakes to permit rotation of said turntable and game wheel while said animal is running on the surface of said turntable, and means operative upon movement of said walking beam after said animal has passed from said turntable into said enclosure for setting said brakes to stop rotation of said turntable and game wheel.

4. A game apparatus comprising a support, a substantially horizontally disposed walking beam pivotally mounted intermediate its forward and rear ends on said support, a turntable mounted for rotation on and adjacent the forward end of said walking beam, a pulley secured to and rotatable with said turntable, a vertically disposed mast secured to and adjacent the rear end of said walking beam, a game wheel rotatably mounted on and adjacent the upper end of said mast, a pulley secured to and rotatable with said game wheel, a flexible belt tractionally engaging the pulleys of said turntable and game wheel whereby said turntable and game wheel are connected for rotation together, a weight carried on the rear end of said walking beam for normally depressing said rear end of the walking beam to yieldably maintain the forward end thereof in an elevated position, a fence rising from said support and defining an enclosure including the surface of said turntable for confining an animal which may pass freely from said enclosure onto the surface of said turntable to run on said surface to rotate said turntable and game wheel and thereafter return to said enclosure, said animal being of sufficient weight to overbalance, when on said turntable, the said weight carried on the rear end of said walking beam whereby said turntable is maintained in a lowered position, manually operated means for moving and retaining said walking beam and said turntable in its lowered position while said animal is within said enclosure, means for releasing said walking beam retaining means after said animal has passed onto said turntable from said enclosure, brakes for securing said turntable and game wheel against rotation, means for releasing said brakes to permit rotation of said turntable and game wheel while said animal is

running on the surface of said turntable, audible and visual signals carried by said support, means operative upon movement of said walking beam after said animal has passed from said turntable into said enclosure for actuating said signals, and means operative upon said movement of the walking beam for setting said brakes to stop rotation of said turntable and game wheel.

5. A game apparatus comprising a support, a substantially horizontally disposed walking beam pivotally mounted intermediate its forward and rear ends on said support, a turntable mounted for rotation on and adjacent the forward end of said walking beam, a pulley secured to and rotatable with said turntable, a vertically disposed mast secured to and adjacent the rear end of said walking beam, a game wheel rotatably mounted on and adjacent the upper end of said mast, a pulley secured to and rotatable with said game wheel, said game wheel being provided with a plurality of spaced peripheral depressions, a brake element mounted on said mast and movable from a position clearing the periphery of said game wheel to a position within any of the depressions thereof, a flexible belt tractionally engaging the pulleys of said turntable and game wheel whereby said turntable and game wheel are connected for rotation together, a weight carried on the rear end of said walking beam for normally depressing said rear end of the walking beam to yieldably maintain the forward end thereof in an elevated position, a fence rising from said support and defining an enclosure including the surface of said turntable for confining an animal which may pass freely from said enclosure onto the surface of said turntable to run on said surface to rotate said turntable and game wheel and thereafter return to said enclosure, said animal being of sufficient weight to overbalance, when on said turntable, the said weight carried on the rear end of said walking beam whereby said turntable is maintained in a lowered position, manually operated means for moving and retaining said walking beam and said turntable in its lowered position while said animal is within said enclosure, means for releasing said walking beam retaining means after said animal has passed onto said turntable from said enclosure, means for moving said brake element to clear the periphery of said game wheel to permit free rotation thereof while said animal is running on said turntable, and means operatively connecting said brake element and said walking beam together whereby upon movement of said walking beam after said animal has passed from the turntable into said enclosure for moving said brake element into a peripheral depression of said game wheel.

6. A game apparatus comprising a support, a substantially horizontally disposed walking beam pivotally mounted intermediate its forward and rear ends on said support, a turntable mounted for rotation on and adjacent the forward end of said walking beam, a pulley secured to and rotatable with said turntable, a vertically disposed mast secured to and adjacent the rear end of said walking beam, a game wheel rotatably mounted on and adjacent the upper end of said mast, a pulley secured to and rotatable with said game wheel, said game wheel being provided with a plurality of spaced peripheral depressions, a brake element mounted on said mast and movable from a position clearing the periphery of said game wheel to a position within any of the depressions thereof, a normally expanded spring connected with said brake element for urging said element into said depressions, means for releasably holding said spring in compression whereby said brake element is maintained in a position clearing the periphery of the game wheel, a flexible belt tractionally engaging the pulleys of said turntable and game wheel whereby said turntable and game wheel are connected for rotation together, a weight carried on the rear end of said walking beam for normally depressing said rear end of the walking beam to yieldably maintain the forward end thereof in an elevated position, a fence rising from said support and defining an enclosure including the surface of said turntable for confining an animal which may pass freely from said enclosure onto the surface of said turntable to run on said surface to rotate said turntable and game wheel and thereafter return to said enclosure, said animal being of sufficient weight to overbalance, when on said turntable, the said weight carried on the rear end of said walking beam whereby said turntable is maintained in a lowered position, manually operated means for moving and retaining said walking beam and said turntable in its lowered position while said animal is within said enclosure, means for releasing said walking beam retaining means after said animal has passed onto said turntable from said enclosure, manually operable means for compressing said spring to move said brake element to said position clearing the periphery of the game wheel to permit free rotation of the game wheel while said animal is running on the surface of said turntable, and means operatively connecting said spring-holding means and said walking beam together whereby, upon movement of said walking beam after said animal has passed from the surface of the turntable into said enclosure, said spring-holding means is released to move the brake element into a peripheral depression of the game wheel.

7. A game apparatus comprising a support having a housing mounted on and rising from an end thereof, a substantially horizontally disposed walking beam pivotally mounted intermediate its forward and rear ends on said support and having said rear end entering said housing, a turntable mounted for rotation adjacent the forward end of said walking beam, a pulley secured for rotation with said turntable, a turntable brake lever pivotally mounted adjacent the forward end of said walking beam and extending toward said turntable, said turntable brake lever having a pad thereon adapted, when said lever is moved, to frictionally engage a portion of said turntable to arrest rotation of the turntable, a vertically disposed mast secured to and adjacent the rear end of said walking beam, a game wheel rotatably mounted on and adjacent the upper end of said mast, a pulley secured for rotation with said game wheel, a flexible belt tractionally engaging the pulleys of said turntable and said game wheel for connecting said turntable and game wheel for rotation together, a fence rising from said support, bordering said turntable and defining on the support an enclosure opening onto the surface of the turntable in which may be confined an animal which is free to pass from the enclosure onto the turntable, which may run on the turntable to rotate the latter and the game wheel, and which by its weight and while it is upon the turntable maintains the forward end of the walking beam in a lowered position, a counterweight secured to the rear end of said walking beam for raising the forward end of the walking beam after said

animal has passed from the surface of the turntable into said enclosure, a game wheel brake lever pivotally mounted on said mast and having an end thereof engageable with said game wheel to arrest rotation of the latter, means connecting said game wheel to brake lever and said turntable brake lever together whereby the brakes are simultaneously engaged or released, means for releasably holding said game wheel brake lever in a position wherein the end thereof is out of engagement with the game wheel, and means within said housing and operative upon movement by the counterweight of the rear end of said walking beam extending thereinto after said animal has passed from the surface of the turntable into said enclosure for releasing said game wheel brake lever whereby the end of the latter may move into intimate engagement with the game wheel.

8. A game apparatus comprising a support having a housing mounted on and rising from an end thereof, a substantially horizontally disposed walking beam pivotally mounted intermediate its forward and rear ends in said support and having said rear end entering said housing, a turntable mounted for rotation adjacent the forward end of said walking beam, a pulley secured for rotation with said turntable, a turntable brake lever pivotally mounted adjacent the forward end of said walking beam and extending toward said turntable, said turntable brake lever having a pad thereon adapted, when said lever is moved, to frictionally engage a portion of said turntable to arrest rotation of the turntable, a vertically disposed mast secured to and adjacent the rear end of said walking beam, a game wheel rotatably mounted on and adjacent the upper end of said mast, a pulley secured for rotation with said game wheel, a flexible belt tractionally engaging the pulleys of said turntable and said game wheel for connecting said turntable and game wheel for rotation together, a fence rising from said support, bordering said turntable and defining on the support an enclosure opening onto the surface of the turntable in which may be confined an animal which is free to pass from the enclosure onto the turntable, which may run on the turntable to rotate the latter and the game wheel, and which by its weight and while it is upon the turntable maintains the forward end of the walking beam in a lowered position, a counterweight secured to the rear end of said walking beam for raising the forward end of the walking beam after said animal has passed from the surface of the turntable into said enclosure, a game wheel brake lever pivotally mounted on said mast and having an end thereof engageable with said game wheel to arrest rotation of the latter, means connecting said game wheel brake lever and said turntable brake lever together whereby the brakes are simultaneously engaged or released, an operating lever pivotally mounted on said housing, said operating lever having one end thereof extending within the housing, a connecting rod joining the other end of said operating lever and an end of said game wheel brake lever, a plunger slidably mounted within said housing and engageable with the end of the operating lever extending into the housing whereby upon movement of the plunger in one direction the operating lever will be moved, a latch engaging said plunger for maintaining the latter in a retracted position, means operable upon movement of the rear end of said walking beam extending into the housing for releasing said plunger latch, and pressure means for moving said plunger to engage the end of said operating lever.

9. A game apparatus comprising a support having a housing mounted on and rising from an end thereof, a substantially horizontally disposed walking beam pivotally mounted intermediate its forward and rear ends on said support and having said rear end entering said housing, a turntable mounted for rotation adjacent the forward end of said walking beam, a pulley secured for rotation with said turntable, a turntable brake lever pivotally mounted adjacent the forward end of said walking beam and extending toward said turntable, said turntable brake lever having a pad thereon adapted, when said lever is moved, to frictionally engage a portion of said turntable to arrest rotation of the turntable, a vertically disposed mast secured to and adjacent the rear end of said walking beam, a game wheel rotatably mounted on and adjacent the upper end of said mast, a pulley secured for rotation with said game wheel, a flexible belt tractionally engaging the pulleys of said turntable and said game wheel for connecting said turntable and game wheel for rotation together, a fence rising from said support, bordering said turntable and defining on the support an enclosure opening onto the surface of the turntable in which may be confined an animal which is free to pass from the enclosure onto the turntable, which may run on the turntable to rotate the latter and the game wheel, and which by its weight and while it is upon the turntable maintains the forward end of the walking beam in a lowered position, a counterweight secured to the rear end of said walking beam for raising the forward end of the walking beam after said animal has passed from the surface of the turntable into said enclosure, a game wheel brake lever pivotally mounted on said mast and having an end thereof engageable with said game wheel to arrest rotation of the latter, means connecting said game wheel brake lever and said turntable brake lever together whereby the brakes are simultaneously engaged or released, an operating lever pivotally mounted on said housing, said operating lever having one end thereof extending within the housing, a connecting rod joining the other end of said operating lever and an end of said game wheel brake lever, a plunger slidably mounted within said housing and engageable with the end of the operating lever extending into the housing whereby upon movement of the plunger in one direction the operating lever will be moved, a latch engaging said plunger for maintaining the latter in a retracted position, means operable upon movement of the rear end of said walking beam extending into the housing for releasing said plunger latch, manually operable means extending from said housing for elevating the rear end of said walking beam, and pressure means for moving said plunger to engage the end of said operating lever.

10. A game apparatus comprising a support having a housing mounted on and rising from an end thereof, a substantially horizontally disposed walking beam pivotally mounted intermediate its forward and rear ends on said support and having said rear end entering said housing, a turntable mounted for rotation adjacent the forward end of said walking beam, a pulley secured for rotation with said turntable, a turntable brake lever pivotally mounted adjacent the forward end of said walking beam and extending

toward said turntable, said turntable brake lever having a pad thereon adapted, when said lever is moved, to frictionally engage a portion of said turntable to arrest rotation of the turntable, a vertically disposed mast secured to and adjacent the rear end of said walking beam, a game wheel rotatably mounted on and adjacent the upper end of said mast, a pulley secured for rotation with said game wheel, a flexible belt tractionally engaging the pulleys of said turntable and said game wheel for connecting said turntable and game wheel for rotation together, a fence rising from said support, bordering said turntable and defining on the support an enclosure opening onto the surface of the turntable in which may be confined an animal which is free to pass from the enclosure onto the turntable, which may run on the turntable to rotate the latter and the game wheel, and which by its weight and while it is upon the turntable maintains the forward end of the walking beam in a lowered position, a counterweight secured to the rear end of said walking beam for raising the forward end of the walking beam after said animal has passed from the surface of the turntable into said enclosure, a game wheel brake lever pivotally mounted on said mast and having an end thereof engageable with said game wheel to arrest rotation of the latter, means connecting said game wheel brake lever and said turntable brake lever together whereby the brakes are simultaneously engaged or released, an operating lever pivotally mounted on said housing, said operating lever having one end thereof extending within the housing, a connecting rod joining the other end of said operating lever and an end of said game wheel brake lever, a plunger slidably mounted within said housing and engageable with the end of the operating lever extending into the housing whereby upon movement of the plunger in one direction the operating lever will be moved, a latch engaging said plunger for maintaining the latter in a retracted position, manually operable means extending from said housing for elevating the rear end of said walking beam, manually operable means extending from said housing for setting said plunger latch, pressure means for moving said plunger to engage the end of said operating lever, and means carried by said walking beam and engageable with said latch during movement of said walking beam for releasing the latch.

11. A game apparatus comprising a support having a housing mounted on and rising from an end thereof, a substantially horizontally disposed walking beam pivotally mounted intermediate its forward and rear ends on said support and having said rear end entering said housing, a turntable mounted for rotation adjacent the forward end of said walking beam, a pulley secured for rotation with said turntable, a turntable brake lever pivotally mounted adjacent the forward end of said walking beam and extending toward said turntable, said turntable brake lever having a pad thereon adapted, when said lever is moved, to frictionally engage a portion of said turntable to arrest rotation of the turntable, a vertically disposed mast secured to and adjacent the rear end of said walking beam, a game wheel, rotatably mounted on and adjacent the upper end of said mast, a pulley secured for rotation with said game wheel, a flexible belt tractionally engaging the pulleys of said turntable and said game wheel for connecting said turntable and game wheel for rotation together, a fence rising from said support bordering said turntable and defining on the support an enclosure opening onto the surface of the turntable in which may be confined an animal which is free to pass from the enclosure onto the turntable, which may run on the turntable to rotate the latter and the game wheel, and which by its weight and while it is upon the turntable maintains the forward end of the walking beam in a lowered position, a counterweight secured to the rear end of said walking beam for raising the forward end of the walking beam after said animal has passed from the surface of the turntable into said enclosure, a game wheel brake lever pivotally mounted on said mast and having an end thereof engageable with said game wheel to arrest rotation of the latter, means connecting said game wheel brake lever and said turntable brake lever together whereby the brakes are simultaneously engaged or released, an operating lever pivotally mounted on said housing, said operating lever having one end thereof extending within the housing, a connecting rod joining the other end of said operating lever and an end of said game wheel brake lever, a plunger slidably mounted within said housing and engageable with the end of the operating lever extending into the housing whereby upon movement of the plunger in one direction the operating lever will be moved, a latch lever pivotally mounted at its proximal end in said housing, said latch lever being pivotally connected intermediate its ends with said plunger and being provided at its distal end with a lip, a latch pivotally mounted in said housing below said latch lever, said latch having at one end thereof a lip releasably engageable with the lip of said latch lever and at the other end thereof having an outwardly extending arm, an arm rising upwardly from said latch lever, a pushbutton pivotally connected with said latch lever arm and extending exteriorly of said housing, said pushbutton being manually movable to move the lip of said latch lever toward and to engage the lip of said latch, an arm rising from the end of said walking beam extending into said housing, a trip dog pivotally mounted at the end of said walking beam arm, said trip dog, upon movement of said walking beam, being engageable with the extended arm of said latch for moving the latch to release said latch lever, and a spring operatively connected with said plunger for urging the latter against the end of said operating lever.

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