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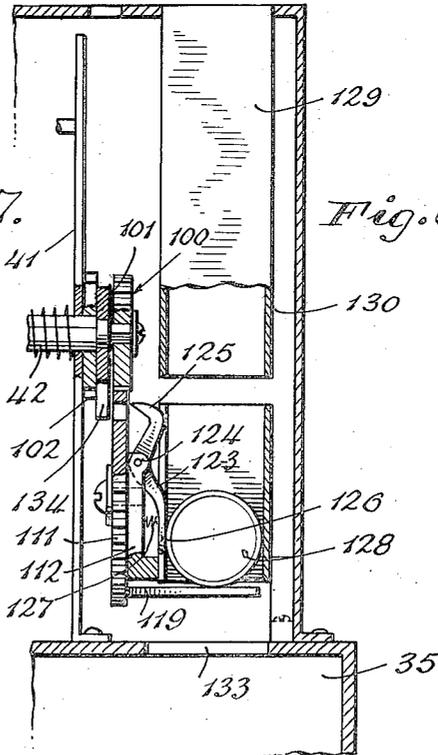
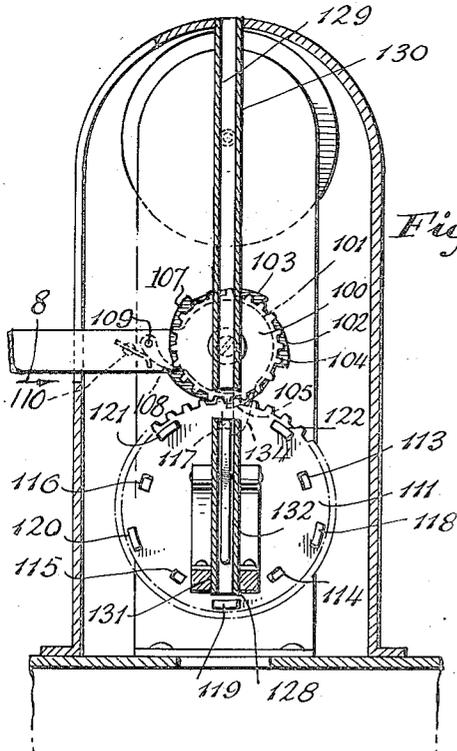
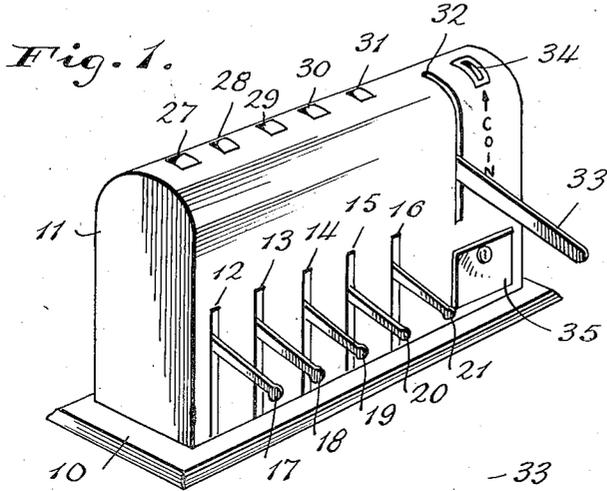
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2,056,515

GAME

Filed Jan. 3, 1935

3 Sheets-Sheet 1



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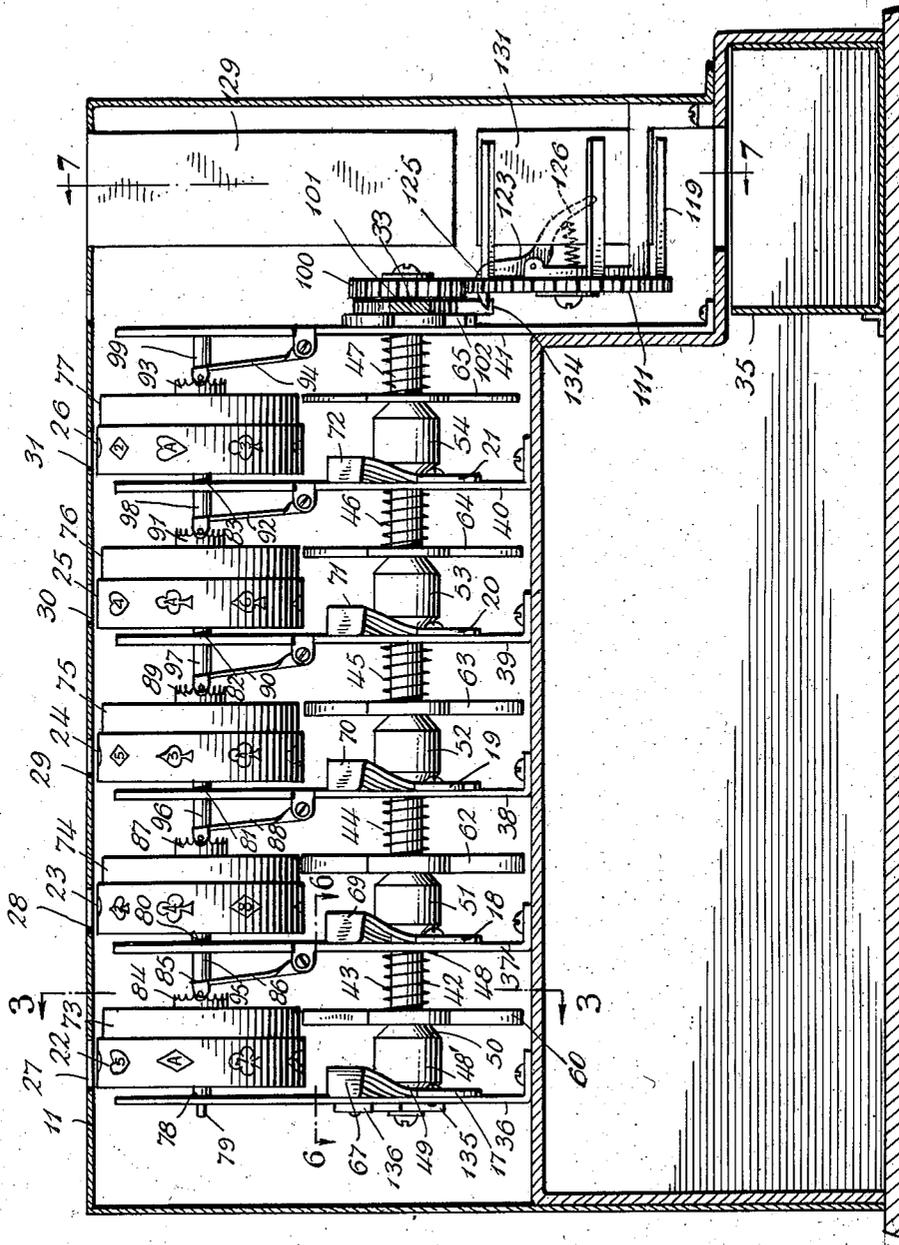
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3 Sheets-Sheet 2

Fig. 2.



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3 Sheets-Sheet 3

Fig. 3.

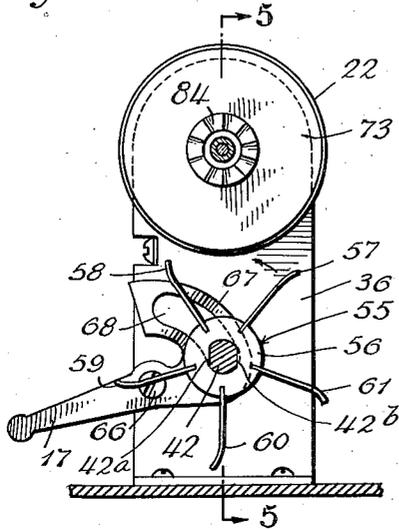


Fig. 4.

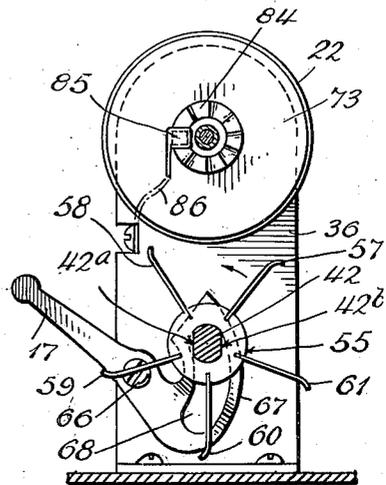


Fig. 5.

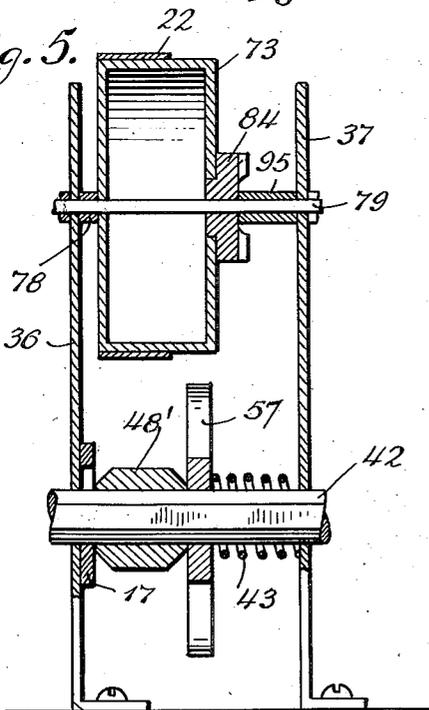
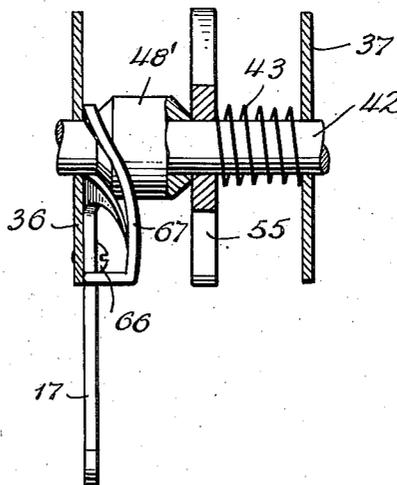


Fig. 6.



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UNITED STATES PATENT OFFICE

2,056,515

GAME

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Application January 3, 1935, Serial No. 216

10 Claims. (Cl. 273—143)

This invention relates to a mechanical game and refers more particularly to a device adapted to be released by the insertion of a coin and used for amusement purposes.

5 An object of the present invention is the provision of a device of simple and inexpensive construction which can be easily manipulated by a player and which may serve as a substitute for various card games, such as poker, and/or other
10 games of chance which are based on the principle of different combinations of numerals and/or signs obtained by the different players.

The above and other objects of this invention may be realized through the provision of a device
15 comprising a number of wheels bearing different signs and/or numerals which rotate through a manipulation of a lever released by the insertion of a coin, said wheels after having completed their rotation indicating various combinations of
20 signs and/or numerals to a player.

The invention will appear more clearly from the following detailed description when taken in connection with the accompanying drawings, showing a preferred embodiment of the inventive
25 idea.

In the drawings:

Figure 1 is a perspective view of the device constructed in accordance with the present invention.

30 Figure 2 is a longitudinal section through the device shown in Figure 1, the parts being shown in their respective positions before insertion of the releasing coin.

35 Figure 3 is a cross section along the line 3—3 of Fig. 2, looking in the direction of the arrows.

Figure 4 is a view similar to Fig. 3 and shows the shifting lever in a different position.

40 Figure 5 is a section along the line 5—5 of Fig. 3, looking in the direction of the arrows.

Figure 6 is a section along the line 6—6 of Fig. 2.

Figure 7 is a section along the line 7—7 of Fig. 2.

45 Figure 8 is a view in the direction of the arrow 8 of Fig. 7, some parts being shown in section, and others being removed for the sake of clearness.

The device illustrated in the drawings comprises a support 10 carrying a casing 11 (Fig. 1). In the example illustrated the casing 11 comprises
50 five vertical slots 12, 13, 14, 15, and 16 through which project the shifting levers 17, 18, 19, 20, and 21.

55 As shown more clearly in Figure 2 of the drawings, five rotary wheels 22, 23, 24, 25, and 26 are

situated within the casing 11, and each of the shifting levers 17 to 21 is used for shifting and releasing a separate wheel. Obviously, the number of the wheels may be varied at will. The cylindrical side surfaces of the wheels are provided with various letters, numerals and/or signs. The casing 11 is provided with five openings 27, 28, 29, 30, and 31. The dimensions of the numerals or signs carried by the cylindrical side surfaces of the wheels 22 to 26 should correspond
10 to the dimensions of the openings 27 to 31. As will be described hereinafter, the wheels 22 to 26 are mounted in such manner that when they are at a standstill, the signs or numerals are situated opposite the openings 27 to 31, so that
15 the player cannot see more than one sign or numeral through each opening. The openings 27 to 31 may be covered by glass, cellophane or any other suitable transparent material.

The casing 11 is provided with a long vertical slot 32 for the operating lever 33 and a slot 34 for the insertion of a coin (Fig. 1). A container 35 for the coins which is carried by the support 10, is situated under the slot 34.

20 As shown in Fig. 2, a number of supports or brackets 36, 37, 38, 39 and 40 and 41, are used for supporting a rotatable shaft 42 which passes through openings formed in these brackets. A number of coiled springs 43, 44, 45, 46, and 47 surround the shaft 42. The end 48 of the spring 43 bears against the adjacent surface of the support 37. Corresponding ends of the springs 44, 45, 46, and 47 bear against the adjacent supports
25 38, 39, 40, and 41 respectively.

30 As shown more clearly in Figs. 3 and 4, the shaft 42 is not round in cross-section, but is provided with parallel flat side surfaces 42a and 42b.

The shaft 42 carries a sleeve 48' which is provided with a cylindrical inner surface. The sleeve 48' is rotatably and slidably mounted upon the shaft 42 below the wheel 22 and has outer conical end surfaces 49 and 50. Similar sleeves 51, 52, 53, and 54 are situated under the wheels
40 23, 24, 25, and 26 respectively.

45 A driving member 55 is slidably mounted upon the shaft 42 adjacent to the sleeve 48'. As shown in Figs. 3 and 4, the member 55 comprises a disc 56 having inner surfaces which correspond to the surfaces of the shaft 42, so that it is rotatable along with the shaft 42. The disc 56 carries
50 radially disposed leaf springs 57, 58, 59, 60, and 61, which are adapted to impart a rotary motion to the wheel 22, as will be described hereinafter.

The sleeves 51, 52, 53, and 54 are in contact with similar driving members 62, 63, 64, and 65
55

(Fig. 2). The coiled springs 43 to 47 which are situated between the brackets 37 to 41 and the driving members 55 and 62 to 65, respectively, press each of the driving members against the adjacent sleeve.

The shifting lever 17 which is used for shifting and releasing the wheel 22 is carried by a pivot 66, which is mounted in the support 36 (Figs. 3, 4, and 6). The end 67 of the lever 17 surrounds the shaft 42 and forms an arcuate opening 68. As shown more clearly in Fig. 6, the end 67 of the lever 17 has the shape of a curved cam surface by means of which the sleeve 48' may be shifted along the shaft 42 when the lever 17 is moved upward around its pivot 66 in a direction toward the wheel 22.

The levers 18, 19, 20, and 21 are provided with similar cam surfaces 69, 70, 71, and 72 used for causing a sliding movement of the sleeves 51, 52, 53, and 54 along the shaft 42.

The wheel 22 situated above the sleeve 48' is made of a single piece or firmly connected with the wheel 73, having a smaller diameter than the wheel 22. As shown in Figs. 2, 3, and 4, the diameter of the wheel 73 should be such that the leaf springs 57 to 61 of the driving member 55 can come in contact with the cylindrical side surface of the wheel 73 and cause a rotation of the wheel 73 and of the wheel 22 which is rigidly connected with the wheel 73.

The wheels 23, 24, 25, and 26 are connected with wheels 74, 75, 76, and 77, respectively, the last-mentioned wheels being similar to the wheel 73 (Fig. 2). The wheels 22 to 26 and 73 to 77 are rotatably mounted upon a shaft 79 which is carried by the brackets 36 to 41 and which is substantially parallel to and above the shaft 42. A sleeve or distancing piece 78 is mounted upon the shaft 79 between the wheel 22, 73 and the bracket 36. Similar sleeves 80, 81, 82, and 83 are situated between the other wheels and the brackets 37 to 40, respectively.

The wheel 22, 73 is rigidly connected with a pinion 84. The end 85 of a resilient lever 85 carried by the support 37, slides over the teeth of the pinion 84 when the pinion 84 is rotated along with the wheel 22, 73. However, when the rotation of the wheel 22, 73 comes to an end, the lever 86 will cause it to stop in such a position that the end 85 of the lever 86 will be situated between two teeth of the pinion 84. Due to this arrangement the numerals or signs situated upon the side surface of the wheel 22 may be arranged in such manner, that when the wheel 22 is at rest, only one sign or numeral will be seen through the opening 27.

A similar lever 88 carried by the bracket 38 is in contact with a pinion 87 rigidly connected with the wheel 74. The wheel 75 is rigidly connected with a pinion 89 which is in contact with a lever 90 carried by the support 39. The wheel 76 is rigidly connected with a pinion 91 which is in contact with a lever 92 carried by the support 40, while the wheel 77 carries a similar pinion 93, in contact with a lever 94 carried by the support 41.

A sleeve 95 freely mounted upon the shaft 79 is used for maintaining the wheel 22 at a predetermined distance from the support 37. Another sleeve 96 is situated between the pinion 87 and the support 38. A sleeve 97 is situated between the pinion 89 and the support 39, the sleeve 98 is situated between the pinion 91 and the support 40, and the sleeve 99 is situated between the pinion 93 and the support 41.

As shown more clearly in Figs. 7 and 8 of the drawings, the shaft 42 carries a pinion 100 which is rotatable along with the shaft. The operating lever 33 comprises an annular portion 101 surrounding the shaft 42. The lever 33 is movable within certain limits with respect to the shaft 42, as will be described more fully hereinafter.

A ratchet wheel 102 is carried by the shaft 42 between the support 41 and the annular portion 101 of the lever 33. The wheel 102 is rigidly connected with the shaft 42 and is rotatable along with said shaft. In the example illustrated in Fig. 8, the ratchet wheel 102 is provided with five teeth 103, 104, 105, 106, and 107.

A pawl 108 is mounted upon a pivot 109 which is carried by the lever 33. The pawl 108 is pressed by a spring 110 carried by the lever 33 against the teeth 103 to 107 of the ratchet wheel 102.

The pinion 100 meshes with a toothed wheel 111 which is supported by a bracket 112. As shown in Fig. 7, the toothed wheel 111 is provided with several angular holes 113, 114, 115, 116, and 117. The wheel 111 also carries several projecting members 118, 119, 120, 121, and 122 extending substantially parallel to the axis of rotation of the toothed wheel 111. The openings 113 to 117 and the projections 118 to 122 are disposed symmetrically upon the wheel 111.

A lever 123 is supported intermediate its ends by a pivot 124 carried by the support 112. The end 125 of the lever 123 has the shape of a projection fitting into any one of the openings 113 to 117 of the wheel 111. The opposite end 126 of the lever 123 is in contact with a spring 127 which is carried by the support 112 and which presses the end 126 of the lever 123 in a direction away from the support 112, thereby pressing the end 125 of the lever 123 against the wheel 111.

A coin 128 inserted through the slot 34 passes between two pairs of rails or guides 129, 130, and 131, 132. In the position shown in Figs. 7 and 8, the projection 119 is situated underneath the guiding rails 131 and 132, so that it supports the coin 128 situated between these rails. As soon as the projection 119 is removed the coin 128 falls through the slot 133 into the container 35.

When the end 125 of the lever 123 is situated in one of the openings 113 to 117, it projects into the path of the abutment 134 forming a part of the annular portion 101 of the lever 33, thereby preventing an upward movement of the lever 33, as shown in Figs. 2 and 7.

Another ratchet wheel 135 shown in Fig. 2 is rotatable along with the shaft 42 and is mounted upon said shaft close to the bracket 36. A pawl 136 pivotally mounted upon the bracket 36 meshes with the teeth of the wheel 135 and is pressed against these teeth by a spring not shown in the drawings. These parts prevent rotation of the shaft 42 in a clockwise direction, as viewed in Fig. 7. The driving elements or units carried by shaft 42, are therefore supported for rotation in only one direction, that is, in counter-clockwise direction as viewed in Fig. 7.

The device is operated as follows:

When the shifting device is situated in the position shown in Fig. 2 of the drawings, the end 125 of the lever 123 passes through the opening 117 so that the wheel 111 is prevented from rotating. The end 125 of the lever 123 is also situated in front of the path of the abutment 134 so that the lever 33 cannot be moved upward far enough to bring the pawl 108 into engagement with one of the teeth of the ratchet wheel 102

in order to turn the shaft 42. In this position the device is locked so that it is impossible to operate it without first inserting a coin into the slot 34.

A coin 128 inserted into the slot 34 will drop between the rails 129 and 130 and between the rails 131 and 132 until it strikes against the end 126 which is situated within the space between the two rails 131 and 132 (Fig. 2). The coin 129 striking against the end 126 of the lever 123 will swing the lever 123 around its pivot 124, moving the end 126 toward the support 112 and pulling the end 125 of the lever 123 out of the opening 117 of the wheel 111. This position is shown in Fig. 8 of the drawings.

Due to the withdrawal of the end 125 out of the opening 117, the abutment 134 of the lever 33 is freed so that the lever 33 can be swung around the shaft 42. If the lever 33 is swung upward the pawl 108 will pass over the tooth 107 of the ratchet wheel 102. Then the spring 110 will press the pawl 108 against the inner surface of the tooth 107, thereby establishing an operative connection between the lever 33 and the ratchet wheel 102.

In order to operate the device the player has to pull the lever 33 downwardly. Since the pawl 108 engages the ratchet wheel 102, this wheel will be rotated along with the annular portion 101 of the lever 33. As has been mentioned already, the ratchet wheel 102 is firmly connected with the shaft 42 and with the pinion 100, so that a rotation of the ratchet wheel 102 by the lever 33 will cause a rotation of the shaft 42 and of the pinion 100.

As shown more clearly in Figs. 2, 3, and 4 of the drawings, the driving members 55, 62, 63, 64 and 65, which are slidably mounted upon the shaft 42, are rotatable along with this shaft.

In the position shown in Fig. 2, the leaf springs 57 to 61 of the driving members are adapted to come in contact with the cylindrical surfaces of the wheels 73 to 77. When the lever 33 is pulled downwardly the shaft 42 performs one-fifth of a complete revolution and in rotating it will rotate along with it the driving members 55 and 62 to 65. One of the leaf springs 57 to 61 of each of these members will come in contact with the cylindrical surfaces of each of the wheels 73 to 77 and will impart a rotary movement to these wheels.

Since the wheels 73 to 77 which are rigidly connected with the wheels 22 to 26, respectively, are freely mounted upon the shaft 79, these wheels will rotate until they are stopped by friction and by the sliding contact between the ends of the levers 86, 88, 90, 92, and 94, and the pinions 84, 87, 89, 91, and 93. Due to the provision of these levers the rotation of the wheels 22 to 26 will come to an end when these ends of the levers 86, 88, 90, 92, and 94 are situated between a pair of adjacent teeth of the pinions 84, 87, 89, 91, and 93.

In the example illustrated in the drawings, the device comprises five wheels 22 to 26 which are rotated by depressing the lever 33. On many occasions it may be desirable to operate the device in such manner that only some of the wheels 22 to 26 are rotated when the lever 33 is depressed. In accordance with the present invention the shifting levers 17 to 21 are used for the purpose of shifting any desired number of wheels 22 to 26.

In the position shown in Figs. 1 and 2, the shifting levers 17 to 21 are depressed. In this position the driving members 55 and 62 to 65

are situated directly underneath their respective wheels 73 to 77 so that all of said wheels are rotated when the lever 33 is depressed. In order to disengage one of these wheels it is merely necessary to move the corresponding shifting levers upwardly from the position shown in Fig. 3 to the position shown in Fig. 4 of the drawings.

When, for instance, the lever 17 is swung upward around its pivot 66, the cam surface 67 of the lever 17 will move along the conical surface 49 of the sleeve 48', and will push the sleeve 48' to the right (looking in the direction of Fig. 6) thereby compressing the spring 43. Since the driving member 55 is in contact with the sleeve 48', the driving member 55 will move along with the sleeve until it is placed in such a position between the wheel 73 and the support 37 that when the shaft 42 is rotated the leaf springs 57 to 61 of the driving member 55 will not come in contact any more with the wheel 73. When the driving member 55 is situated in this position (Fig. 4) the rotation of the shaft 42 will not cause any rotation of the wheel 22, since the springs 57 to 61 will not come in contact with the associated wheel 73.

In order to put the wheel 22 into the play it is merely necessary to move the lever 17 downwardly from the position shown in Fig. 4 to the position shown in Fig. 3. When the lever 17 is moved in this direction the connection between the cam surface 67 and the conical surface 49 is interrupted so that the spring 43 will push the driving member 55 back into the position shown in Fig. 2, in which position one of the springs 57 to 61 of the driving member 55 will come in contact with the wheel 73 and will cause a rotation of this wheel as soon as the shaft 42 is rotated.

Since the pinion 100 (Figs. 7 and 8) is rotated along with the shaft 42 a rotation of the lever 33 will also cause a rotation of this pinion, which will drive the toothed wheel 111. As has been mentioned already, each depression of the lever 33 will cause a turning of the pinion 100 to one-fifth of a complete revolution. Since the projection 119 supporting the coin 128 rotates along with the wheel 111, the coin 128 will drop through the opening 133 into the coin box 35 as soon as the projection 119 has passed beyond the guiding rails 131 and 132.

In the example illustrated, when the lever 33 has been fully depressed, in making a play, the end 125 of the lever 123 will be between the openings 116 and 117. On the next play, however, the opening 116 will be in a position to receive the end 125 of the lever 123. Due to the pressure of the spring 127 the end 125 of the lever 123 will pass through the opening 116 and will lock the wheel 111. At the same time the end 125 will prevent the lever 33 from being swung upwards so that the pawl 108 of the lever 33 will not be able to engage one of the teeth of the ratchet wheel 108 in order to rotate the shaft 42. The device will be locked again and the insertion of another coin will be necessary to resume the game. It will therefore be seen, that, depending upon the ratio between the gears 100 and 111, two or more plays can be made before it is necessary to insert another coin.

From the foregoing it will be seen that in my improved construction for a game of chance, there are a plurality of members, such as the wheel 22, 73 for example, supported for rotation about the axis of the shaft 79, and that there are driving units associated respectively with these mem-

bers for imparting rotary movement to the same, such as the driving unit 55 for the wheel 22, 73. These units are rotatable about the axis of the shaft 42, which is parallel to the axis of shaft 79. With reference, for example, to the driving unit 55 for the wheel 22, 73, it is important to note that the elements 57, 58, 59, 60, and 61 thereof are of spring material and that each is supported only at one end thereof and is disposed to engage its free end with peripheral surface of the associated wheel part 73. Upon rotary movement of this unit, as shown more clearly in Figs. 3 and 4, the distance between the points of support of these elements and the peripheral surface of the wheel part 73, is less than the length of these elements so that in moving the lever 33 down to make a play the element next in order first engages the wheel surface and is sprung upon continued counter-clockwise rotation of the shaft 42, as viewed in Figs. 3 and 4, and is then released to spin the member or wheel 22, 73 with a relatively quick snap action, at which time the lever 33 will have been moved to its horizontal position as shown in Fig. 1.

The lever 33 constitutes the means common with respect to the driving units for operating the same, and causes these to rotate about the axis of the shaft 42 in a step-by-step fashion in the required direction.

What is claimed is:

1. A game apparatus, comprising a plurality of rotatable wheels, a shaft carrying said wheels, another rotatable shaft situated substantially parallel to the first-mentioned shaft, a plurality of driving devices carried by the second-mentioned shaft, each driving device being adapted to actuate a separate wheel, a separate disengaging device for each of said driving devices, a driving lever rotatably mounted upon the second-mentioned shaft, and means for establishing an operative connection between said lever and the second-mentioned shaft to rotate the second-mentioned shaft and to actuate said driving devices thereby.

2. A game apparatus, comprising a plurality of rotatable wheels, a shaft carrying said wheels, another rotatable shaft situated substantially parallel to the first-mentioned shaft, a disc slidably mounted upon the second-mentioned shaft and rotatable along with it, a member carried by said disc and adapted to come in contact with one of said wheels to rotate the same when said disc is rotated, means for moving said disc along the second-mentioned shaft to bring said member out of contact with said wheels, a driving lever rotatably mounted upon the second-mentioned shaft, and means for establishing an operative connection between said lever and the second-mentioned shaft to rotate the latter.

3. A game apparatus, comprising a plurality of rotatable wheels, a shaft carrying said wheels, another rotatable shaft situated substantially parallel to the first-mentioned shaft, a plurality of discs slidably mounted upon the second-mentioned shaft and rotatable along with it, the number of said discs corresponding to that of said wheels, springs carried by said discs and adapted to come in contact with said wheels to rotate the same when the discs carrying said springs are rotated, means for moving said discs along said shaft to bring said springs out of contact with said wheels, a driving lever rotatably mounted upon the second-mentioned shaft, and means for establishing an operative con-

nection between said lever and the second-mentioned shaft to rotate the latter.

4. A game apparatus, comprising a plurality of rotatable wheels, a shaft carrying said wheels, another rotatable shaft situated substantially parallel to the first-mentioned shaft, a bracket supporting said shafts, a disc slidably mounted upon the second-mentioned shaft and rotatable along with it, a leaf spring having one end firmly connected with said disc, the other end of said leaf spring being adapted to come in contact with one of said wheels to rotate the same when said disc is rotated, a shifting lever pivotally mounted upon said bracket and having one end adapted to move said disc along the second-mentioned shaft to bring the second-mentioned end of said leaf spring out of contact with said wheels, a driving lever rotatably mounted upon the second-mentioned shaft, and means for establishing an operative connection between the second-mentioned lever and the second-mentioned shaft to rotate the latter.

5. A game apparatus, comprising a plurality of rotatable wheels, a shaft carrying said wheels, another rotatable shaft situated substantially parallel to the first-mentioned shaft, at least two brackets supporting said shafts, a disc slidably mounted upon the second-mentioned shaft and rotatable along with it, a leaf spring having one end firmly connected with said disc, the other end of said leaf spring being adapted to come in contact with one of said wheels to rotate the same when said disc is rotated, a shifting lever pivotally mounted upon one of said brackets, intermediate its ends, a coiled spring surrounding a part of the second-mentioned shaft and having one end bearing against another one of said brackets and the other end bearing against said disc, and a sleeve rotatably and slidably mounted upon the second-mentioned shaft adjacent to said disc, said lever having a cam surface adapted to come in contact with said sleeve to move said sleeve and said disc along the second-mentioned shaft to bring the second-mentioned end of said leaf spring out of contact with said wheels, a driving lever rotatably mounted upon the second-mentioned shaft, and means for establishing an operative connection between the second-mentioned lever and the second-mentioned shaft to rotate the latter.

6. In a game of chance, moveable members, means for imparting movement to said members comprising elements of spring material each supported at one end thereof and for movement to engage its free end with a surface of one of said members, the distance between the surfaces of said members and the points of support of the respective elements being less than the length of the latter whereby upon continued movement of said elements after engagement of the latter with said surfaces said elements are first sprung and are then released to impart movement to said members with a relatively quick snap action, means for selectively placing said members and the respective associated elements into or out of operative relation with respect to each other, and means common with respect to said elements for operating the same.

7. In a game of chance, members supported for rotation, means for imparting rotary movement to said members comprising rotatable units associated respectively with said members and each provided with a plurality of elements of spring material each supported only at one end thereof and each disposed to engage its free end

with a surface of the respective associated member upon rotary movement of the unit, the distance between the points of support of the elements of any unit and said surface of the respective associated member being less than the length of said elements whereby upon continued rotary movement of said unit after engagement of any element thereof with such surface the element is first sprung and is then released to spin the member with a relatively quick snap action, means for moving said units selectively in a direction along their axes of rotation to place said units into or out of operative relation with respect to the respective associated members, and means common with respect to said units for operating the same.

8. In a game of chance, members supported for rotation, means for imparting rotary movement to said members comprising elements of spring material each supported only at one end thereof and for rotary movement to engage its free end with a surface of one of said members, the distance between said surface of said members and the points of support of the respective elements being less than the length of the latter whereby upon continued rotary movement of said elements after engagement of the latter with said surfaces said elements are first sprung and are then released to spin said members with a relatively

quick snap action, means for moving said elements selectively in a direction along their axes of rotation to place said elements into or out of operative relation with respect to said members, and means common with respect to said elements for operating the same.

9. In a game of chance, a rotatable member, means for imparting rotary movement to said member and rotatable for such purpose in only one direction about a given axis, and means for causing said first-named means to rotate about said axis in a step-by-step fashion in said direction, said first-named means comprising elements of spring material extending substantially radially outwardly from said axis and having their free ends disposed to engage successively a surface of said member as a consequence of the step-by-step rotation.

10. In a game of chance, a rotatable member, means for imparting rotary movement to said member and supported for such purpose for rotary movement only in one direction about a given axis, means for imparting rotary movement to said first-named means in a step-by-step fashion in said direction and means for moving said first-named means in a direction along said axis into or out of operative association with said member.

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