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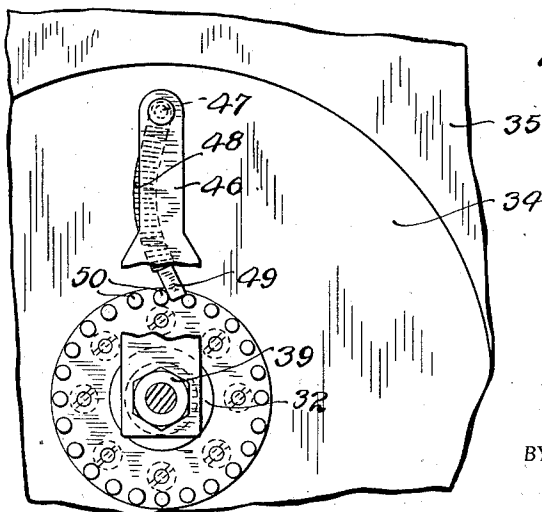
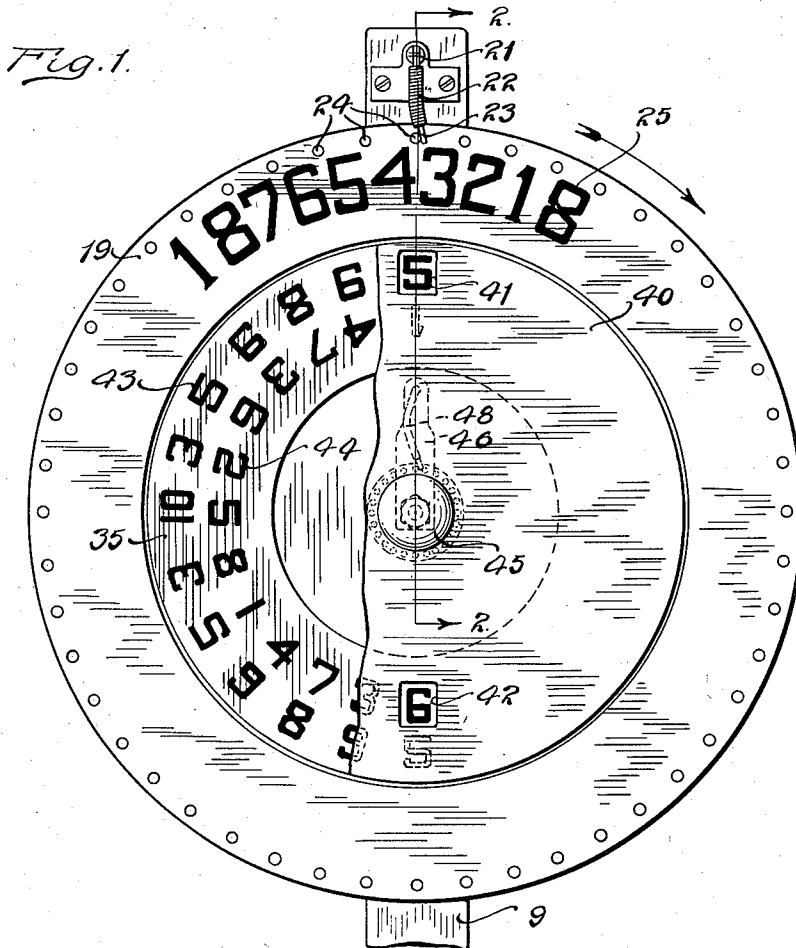
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2,095,367

GAME MECHANISM

Filed June 18, 1936

2 Sheets-Sheet 1



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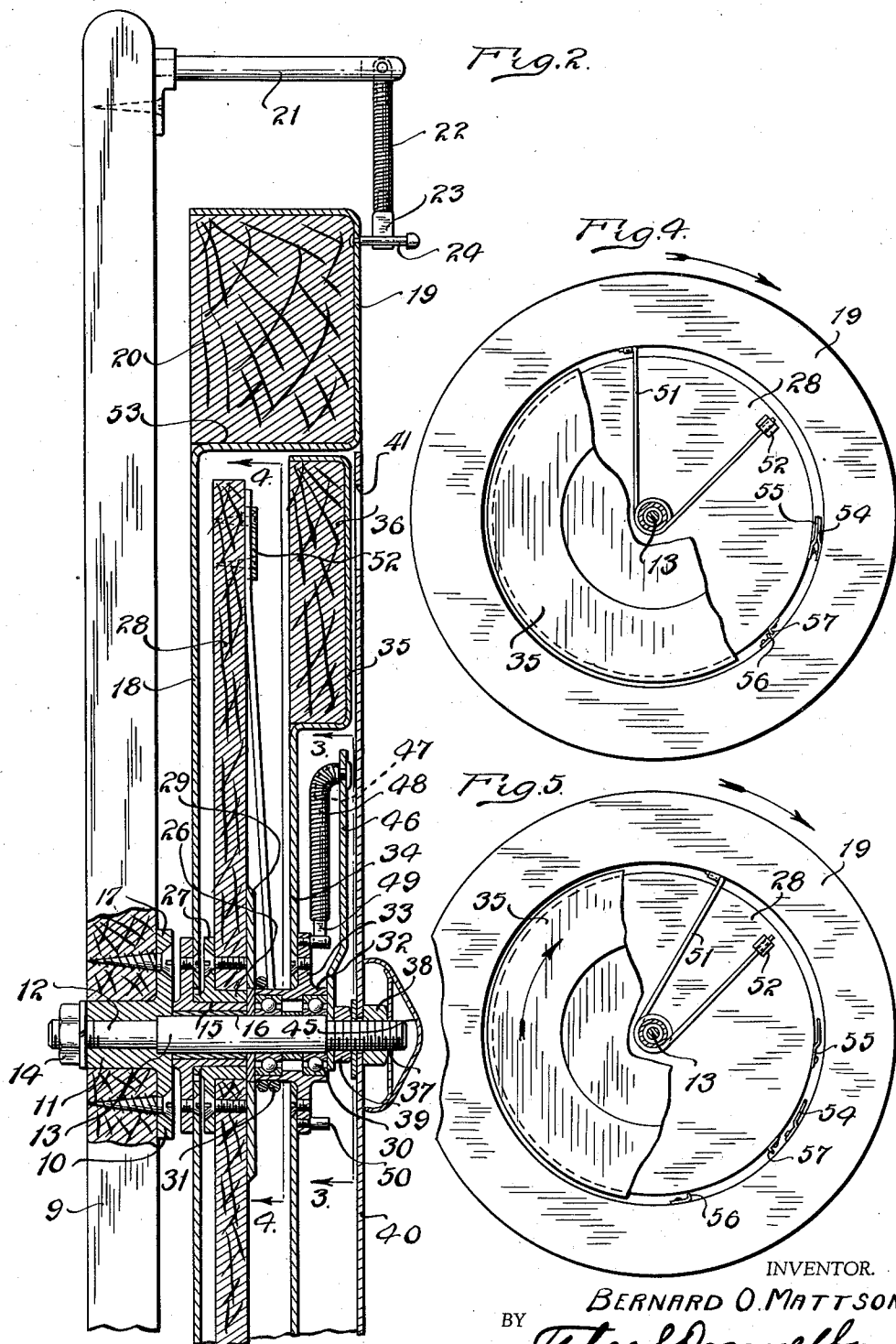
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UNITED STATES PATENT OFFICE

2,095,367

GAME MECHANISM

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Application June 18, 1936, Serial No. 85,867

9 Claims. (Cl. 273-142)

My invention relates to a new improvement in a game mechanism in a game of that type in which revolving members cooperating with each other are used to provide a selection by lot or chance. It is an object of the invention to provide a game mechanism of this class which will be simple in structure, economical of manufacture, durable, compact, highly efficient in use, and silent in operation.

Another object of the invention is the provision of a game mechanism of this class in which a pair of cooperating revolving parts are used, and one of the parts set into revolution upon a portion of the other without the use of gearing or intermediate gearing connections.

Another object of the invention is the provision of a game mechanism of this class of a pair of cooperating rotating members so arranged and constructed that upon the rotation of one the other may be set into rotation and permitted to rotate freely, independent of the other.

Another object of the invention is the provision of a game mechanism of this class of a pair of cooperating rotating members so arranged and constructed that upon the rotation of one, in one direction or relatively to the other, a third rotating member may be set into rotation and permitted thereafter to rotate independent of the other two.

Other objects will appear hereinafter.

The invention resides in the combination and arrangement of parts hereinafter described and claimed.

The invention will be best understood by referring to the accompanying drawings in which, Fig. 1 is a front illustrating view of the invention with parts broken away.

Fig. 2 is a fragmentary sectional view taken on line 2-2 of Fig. 1.

Fig. 3 is a fragmentary elevational view taken on line 3-3 of Fig. 2.

Fig. 4 is a view taken on line 4-4 of Fig. 2.

Fig. 5 is a view similar to Fig. 4 showing relative rotation of a pair of cooperating discs.

While the rotation members of the invention may be subjected to vertical and horizontal positions I have, in the drawings, taken in the invention each support on a vertical standard or supporting member 9 secured to which is a plate 10 having the hub 11 through which is projected a reduced portion 12 from the one end of the shaft 13. A nut 14 threaded on this reduced project 12 serves to secure the shaft 13 on the supporting member 14 so as to project outwardly therefrom. Rotatively mounted on the shaft 13 is a hub 15 on which is positioned a bushing 16. A peripheral flange 17 projects radially outwardly from adjacent one end of the hub 15 and secured to this flange is this secured disc 18 having its marginal portion angularly turned to provide

a U shaped structure 19 in which is singularly mounted the angular member 20 formed from wood, or other desirable material suggested to provide the necessary weight.

Projecting outwardly from one face of the supporting member 9 adjacent one end thereof is arm 21 depending from which is a flexible resilient arm 22 carrying on its lower end the contact finger 23 adapted to engage successively the pins 24 which project outwardly from the U shaped portion 29.

As shown in Fig. 1 there is displayed on the outer face of the U shaped portion 19 indicators or indicia 25, which, in the present illustration, are numbers extending from 1 to 8, and this sequence of numbers is repeated so that the face of the portion 19 carries the indicating numbers. Pins 24 project outwardly between consecutive numbers so that the contact finger 23, upon a rotation of the disc 18, will successively ride over the various pins, and when the member 18 ceases to rotate, the contact finger 23 will lay between a pair of pins 24 so as to designate a set indicator 25. By having the arm 22 flexible and resilient and the finger 23 rigid, the arm 23 will serve to bring the member 18, upon its ceasing to rotate, into a portion where the finger 23 will lie between a pair of pins and in an engagement with one of them in a tilted position.

Rotatably mounted on the hub 15 is a hub 26 which carries each adjacent one end, the peripheral radially projecting flange 27 to which is attached the disc 28. It will be noted from Fig. 2 that the disc 28 is of considerably greater thickness than disc 18, so that the disc 28 when set into rotation will be possessed of greater momentum than disc 18. A reinforcing plate 29 is mounted centrally on the disc 28 so that the center portion of the disc 28 lies between this reinforcing plate 29 and the flange 27.

Mounted on the shaft 13 is a pair of bearings, 30 and 31, on which is rotatably mounted a hub 32 extending outwardly from which is peripheral radial flange 33 to which is secured a circular disc 34 having its marginal portion angularly turned, to form the U-shaped body 35 in which is fixedly mounted the annular member 36. Mounted on the reduced portion 37 of the shaft 13 between the nuts 38 and 39 is a stationary disc or cover 40 having an opening 41 formed adjacent its upper edge, and an opening 42 formed adjacent its lower edge, diametrically opposite the opening 41. Indicia or indication members 43, corresponding to the indicia or indicating members 25 are displayed on the face of the U-shaped structure 35 adjacent to the periphery thereof. This outer row of members 43 consists of a plurality of spaced numbers, each of which is aligned with an indicating member or number 44 formed in a circumferential row on the outer

face of the U shaped structure 19 adjacent its inner edge, so that there is thus provided a pair of concentrically arranged circumferential rows of spaced indicating numbers or members, the corresponding numbers in the rows aligning. The indicators 43 are adapted to register with the opening 41 and the indicators 44 are adapted to register with the opening 42. A spring cover 45 is mounted on the reduced portion 37 of the shaft 13 so as to cover the nut 38.

Secured at one end to reduced portion 37 of the shaft 13 and projecting radially outwardly therefrom is a stationary arm 46 carrying the curved stud 47 which is embraced by one end of the flexible resilient arm 48 which is secured thereto. The opposite end of the arm 48 carries a rigid finger 49 adapted to successively engage the studs or pins 50 which project outwardly from the face of the flange 33. These pins 50 are located in relation to the spacing of the indicators 44 and 43 so that when the member 34 stops rotating it will be brought to rest through the action of the arm 48 and the finger 49 on the pins or studs 50 with one of the indicators 43 registering with opening 41, and one of the indicators 44 registering with the opening 42. It will be noted from Fig. 3 that the arm 48 is flexed in one direction and this is the normal position when the disc 34 comes to rest. Consequently, an attempt to rotate the disc 34 in an anti-clockwise direction would be resisted by the finger 49 and the arm 48. The disc 34 on account of this fixed arrangement cannot rotate anti-clockwise, whereas the disc 18 may be so rotated. The disc 18 will not affect rotation of the disc 34.

The mechanism may be used in various ways in playing games. One method would be that each person playing the game would select as his number one of the indicators 25 and when the disc 18 would come to a stop with the finger 23 indicating the number selected, the person would win and he would score. The rules may also provide that when the indicator 43 corresponding to the indicator 25 should also appear at the opening 41, the score would be increased or multiplied by the number selected. Another way in playing the game would be that when the person's indicator 25 is the winning number, the score shall be multiplied by the number which appears at the opening 41. Thus in Fig. 1, the person having selected number 3 as his indicator would score 15 points instead of merely 1. Similarly, the indicator appearing at the opening 42 may be used to multiply the number of points scored. One method of use would be to score in the form shown in Fig. 1, 11 points for number 3 instead of 1. Another method would be to multiply the indicator appearing at the opening 41 with the indicator appearing at the opening 42 so that the score for number 3 would then be 30 instead of 1. It is obvious that various forms of odds may thus be created depending upon the specific rules under which the game is being played.

In operating the device, the operator would have to grip the peripheral U shaped portion 19 of the disc 18, rotate the disc in clock-wise direction as indicated by the arrows in Fig. 4 and Fig. 5. Secured to the U shaped portion 19 is one end of a flexible member 51 which is wound about the hub 32 and secured at its opposite end by means of the plate 52 to the marginal portion of the disc 28. As the rotation of the disc 18 is made the disc 28 will rotate in unison with it. It will be noted that the periphery of the disc 28 is

spaced from the face of the bight 53 of the U shaped structure 19. Mounted at one end on the inner surface of the bight 53 is a spring arm 54 which is offset at its free end from the bight 53. Mounted at one end of the periphery of the disc 28 is a spring arm 55 which is offset at its opposite end from the periphery so that these two spring arms 54 and 55 engage each other as shown in Fig. 4. There is a frictional engagement so that disc 28 is carried with the disc 18 when it is rotated. The operator in operating the device would swing the disc 18 rapidly and with such force to cause these spring arms 54 and 55 to rotate over each other as shown in Fig. 5, so that discs 18 and 28 would move relatively to each other into position as shown in Fig. 5 whereupon they would rotate in unison with each other. At the same time the member 51 would be wound tightly around the hub 52 so that the disc 34 would be set into rotation. Due to the disc 28 having greater momentum than the disc 18, the disc 18 would come to rest quicker than the disc 28 so that a relative rotation of the discs 28 and 18 would be effected in the opposite direction to bring about an unwinding or loosening of the cord 51 on the hub 32. This relative rotation of the discs 28 and 18 would be continued. Rotation of the disc 28 in a clockwise direction after the disc 18 has come to rest, is limited by the stop members 57 and 56 carried by the discs 18 and 28 respectively. After disc 34 has been set into rotation, it will continue to rotate even after the discs 18 and 28 have ceased to rotate due to the fact that the disc 34 is of greater weight and therefore possessed of a greater momentum when set into motion.

It will thus be seen that the disc 34 is set into rotation through the rotation of the disc 18 and that there is no gearing connection between these discs, and that the disc 34 may continue to rotate independent of the disc 18. Due to the method of actuation a silent operation is effected and a compact, durable structure is provided.

It will be noted that as soon as the disc 18 is rotated there is a rotative thrust transmitted to the disc 28, but this rotative thrust increases gradually as the point of connection of the member 51 with the disc 18 approaches the point of connection of the flexible member 51 with the disc 28. In other words, as the disc 18 moves from the position shown in Fig. 4 to the position shown in Fig. 5 there is a gradual acceleration of the rotative thrust delivered to the member 28 so that the member 28 is set into rotation smoothly. This is due to the fact that the rotative force is gradually applied and gradually increased. While I have shown the invention applied to a game mechanism, it is believed obvious that this form of transmission of rotation from the disc 18 to the disc 28 may also be adaptable in various types of machines and capable of utility for different mechanisms. It is believed obvious that the use of the cord for effecting a rotation of the disc 34 may be beneficially utilized in other types of machines as well.

While I have illustrated and described the preferred form of construction, I do not wish to limit myself to precise details of the structure shown, but desire to avail myself of such variations and modifications as may come within the scope of the appended claims.

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

1. A mechanism of the class described, comprising: a supporting member; a shaft projecting outwardly from said member; a disc rotatably mounted on said shaft; a cooperating disc rotatably mounted on said shaft; a flexible member connected at one end to said first mentioned disc outwardly from its center, said flexible member being looped to surround said shaft and connected at its opposite end to said cooperating disc outwardly from its center, the rotation of said first mentioned disc in one direction effecting a rotation of said second mentioned disc in the same direction.

2. A mechanism of the class described, comprising: a supporting member; a shaft projecting outwardly from said member; a disc rotatably mounted on said shaft; a cooperating disc rotatably mounted on said shaft; a flexible member connected at one end to said first mentioned disc outwardly from its center, said flexible member being looped to surround said shaft and connected at its opposite end to said cooperating disc outwardly from its center, said cooperating disc being of greater moment of inertia than said first mentioned disc, the rotation of said first mentioned disc in one direction effecting the rotation of said cooperating disc in the same direction, said cooperating disc being free for rotation in the same direction upon the cessation of the rotation of said first mentioned disc.

3. A mechanism comprising: a supporting member; a shaft projecting outwardly from said member; a pair of cooperating discs rotatably mounted on said shaft, said discs being rotatable independently of each other; a third disc rotatably mounted on the said shaft; a sleeve-like member embracing said shaft and secured to and projecting outwardly from one face of said third disc concentrically thereof; a flexible member normally loosely wound around said sleeve and connected at one end to one of said cooperating discs outwardly of its center, and at its opposite end to the other of said cooperating discs outwardly of its center, the rotation of one of said discs relative to the other of said discs in one direction effecting a tightening of said flexible member about said sleeve sufficiently for effecting a rotation of said sleeve and said third disc in unison with and in the same direction as the rotation of the cooperating disc.

4. A mechanism comprising: a supporting member; a shaft projecting outwardly from said member; a pair of cooperating discs rotatably mounted on said shaft, each of said discs being rotatable independently of the other; a flexible member looped around said shaft and secured at one end to one of said discs outwardly of its center, and secured at its opposite end to the other of said discs outwardly of its center, the rotation of one of said discs relatively to the other effecting, through the medium of flexible said member, the rotation of the other of said discs in the same direction.

5. In a game mechanism of the class described, a pair of concentrically mounted rotatable discs, one of said discs being of greater diameter than the other, said larger disc having a plurality of indicia displayed on its face, at a position beyond the periphery of the said smaller disc, the said indicia being arranged circumferentially on said face in spaced relation, said smaller disc having

displayed on its face a plurality of indicia arranged circumferentially thereon and in spaced relation to each other; a cover plate for covering the indicia of said smaller disc and leaving the indicia on said larger disc exposed to view, said cover plate having an opening formed thereon for individually exposing the indicia on said smaller disc.

6. In a device of the class described, a pair of rotatably mounted discs, one of said discs having displayed on its face beyond the periphery of said smaller disc a plurality of separate indicia circumferentially arranged in spaced relation, said smaller disc having displayed on its face a plurality of circumferential rows of separate indicia; a stationary cover plate for covering the face of said smaller disc and leaving the indicia on said larger disc exposed to view, said cover having a plurality of openings formed therein, there being an opening formed to expose one indicium of each circumferential row of indicia for displaying successively the indicia individually upon rotation of said smaller disc relatively to said cover.

7. A device of the class described, comprising: a supporting member; a shaft projecting outwardly from said supporting member; a pair of cooperating discs rotatably mounted on said shaft and rotatable independently of each other; a display disc rotatably mounted on said shaft; a sleeve-like member embracing said shaft and secured to and projecting outwardly of one face of said display disc; a flexible member secured at one end to one of said first mentioned discs and wound around said sleeve and secured at its opposite end to said second mentioned disc, said display disc being of greater moment of inertia than either of said pair of discs, the rotation of one of said pair of discs in one direction effecting a tightening of said flexible member on said sleeve for rotating the display disc in one direction.

8. A device of the class described, comprising: a supporting member; a shaft projecting outwardly from said supporting member; a pair of cooperating discs rotatably mounted on said shaft and rotatable independently of each other; a display disc rotatably mounted on said shaft; a sleeve-like member embracing said shaft end secured to and projecting outwardly of face of said display disc; a flexible member secured at one end to one of said first mentioned discs and wound around said sleeve and secured at its opposite end to said second mentioned disc, said display disc being of greater weight than either of said pair of discs, the rotation of one of said pair of discs in one direction effecting a tightening of said flexible member on said sleeve for rotating the display disc in one direction; and means for preventing rotation of said display disc in one direction.

9. In a device of the class described, a rotatable disc; a plurality of axially directed pins arranged circumferentially of said disc and carried thereby and rotatable in unison therewith; a flexible resilient arm; an engaging member carried by said arm and successively engaging said pins upon rotation of said disc, said arm being normally flexed and preventing reverse rotation of said disc.

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