Nov. 20, 1923. 1,474,488

J. NELSON

GAME APPARATUS

Filed June 9, 1922

Fig. 1

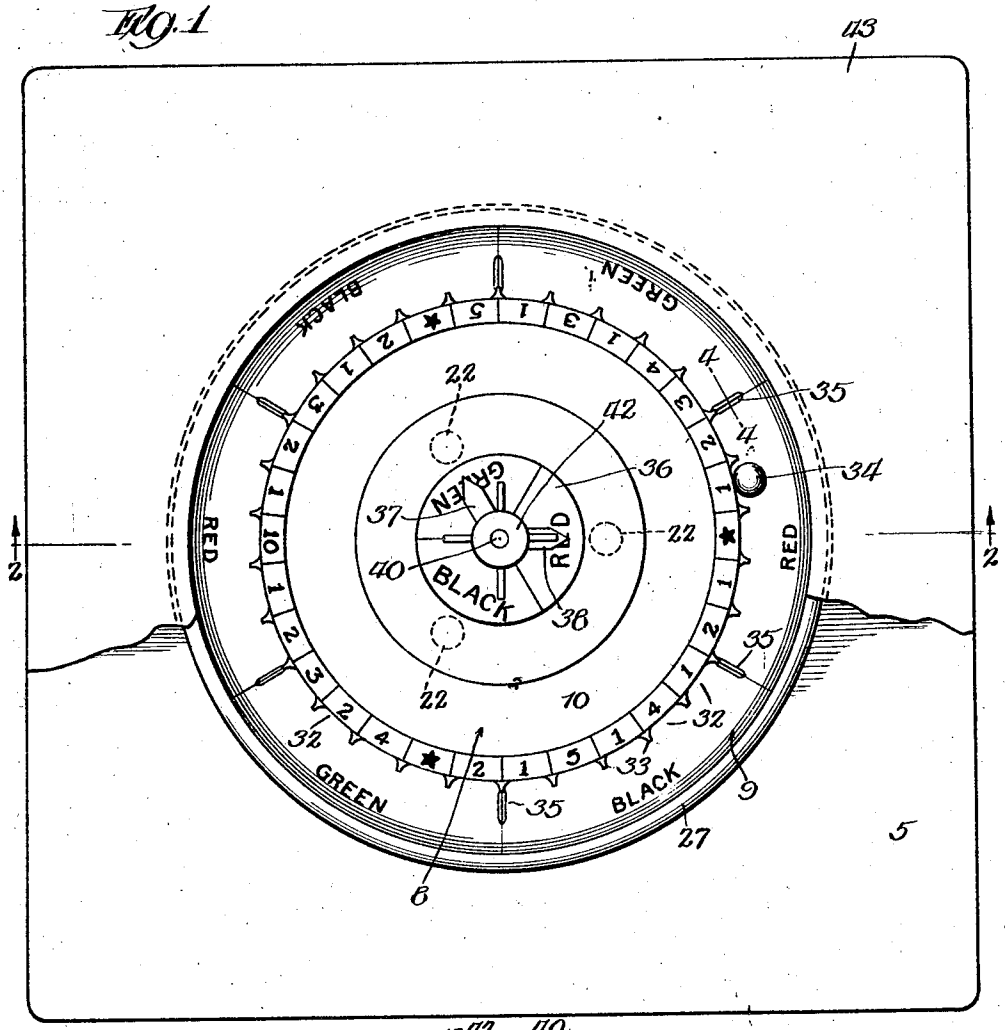


Fig. 2

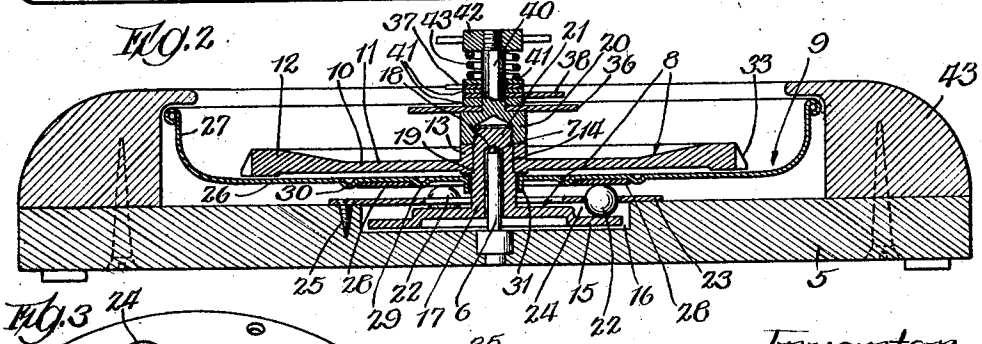


Fig. 3

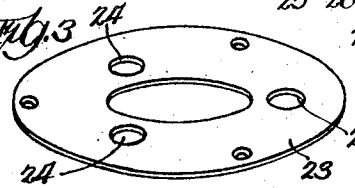


Fig. 4



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UNITED STATES PATENT OFFICE.

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GAME APPARATUS.

Application filed June 9, 1922. Serial No. 566,964.

To all whom it may concern:

Be it known that I, JOHN NELSON, a citizen of the United States, and a resident of Chicago, Cook County, and State of Illinois, have invented certain new and useful Improvements in Game Apparatus, of which the following is declared to be a full, clear, and exact description.

This invention relates to game apparatus, and its principal object is to provide an improved game apparatus of that type in which is employed a rotating disc or wheel, in connection with a pan or bowl like member.

One object of the present invention is to provide a game apparatus of this type, which shall possess attractive and interesting qualities, and which shall provide entertainment for the home and social gatherings.

Another object is to provide a game apparatus in which both the disc and pan rotate, the one member rotating in one direction and the other member rotating in the reverse direction. Another object is to provide means, between the disc or wheel and pan or bowl for transmitting the rotary movement from one to the other but in the reverse direction. Another object is to reduce friction between the moving parts, to practically eliminate noise and vibration, and to simplify the construction of, and arrangement of the parts.

With these and other objects and advantages in view, this invention consists in a game apparatus, comprising reversely rotating co-operative disc and pan members, the both rotating about a common axis, and motion transmitting elements between said members. It further consists in a game apparatus comprising reversely rotating disc and pan members, one located above the other, and both rotating about a common axis, and motion transmitting balls between said disc and pan. It further consists in a game apparatus, employing reversely rotating disc and pan members, having means for eliminating noise and reducing friction between rotating parts. It further consists in the several novel features of construction, combination and arrangement of parts, hereinafter fully set forth and claimed.

The invention is clearly illustrated in the accompanying drawing, in which:

Fig. 1 is a plan, partly broken away, of a game apparatus embodying a simple form of the present invention; Fig. 2 is a vertical cross section thereof taken in line 2—2 of Fig. 1; Fig. 3 is a perspective view of a ball retainer used in the apparatus, and Fig. 4 is a detail vertical section taken on line 4—4 of Fig. 1.

Referring to said drawing, which illustrates one embodiment of the invention, the reference character 5 designates a base which may have any desirable shape and is preferably formed of wood or other strong light material. Secured to said base 5 and extending up therefrom is a pin or stud 6, preferably formed with a coned end 7, and rotatively supported by said pin or stud 6, is a disc or wheel assembly 8, and a pan or bowl like member 9, the disc or wheel assembly being directly supported by the pin 6, and the pan or bowl like member 9, being supported by the disc or wheel assembly 8.

In its preferred form the disc or wheel assembly comprises a disc or wheel 10 formed with a comparatively thin web portion 11, and a thickened peripheral portion 12. A hub portion 13, is formed at the center of the disc and is secured upon a hub portion 14 formed on a pan driving member 15, the latter being in the form of a disc or plate which is preferably let into a recess 16 formed in the upper face of the base 5. The hub portion 14 has a central bore 17 into which the pin or stud 6 extends, and at the top of the bore is a coned seat 18 that rests on the coned end of the pin 6. The disc or wheel 10 rests on a shoulder 19, formed on the hub portion 14, and is secured on said shoulder by an internally threaded collar 20 which is secured upon a threaded portion 21 of the hub 14 and bears against the top of the hub 13 of the disc or wheel 10.

From the above it is apparent that the disc or wheel 10 and pan rotating member 15 are rigidly secured together so as to move in unison.

Interposed between the pan driving member 15 and pan 9, are motion transmitting and reversing members, here shown as comprising a plurality of balls 22, preferably formed of steel, and confined against bodily movement, by a ball retaining member 23, which may comprise a flat ring formed with equidistant apertures 24, (of slightly greater diameter than the diameter of the balls) in which the balls 22 are placed. The ball re-

taining member 23, is secured to the base by screws 25 or otherwise and is located approximately midway between the upper face of the pan driving member 15, and bottom face of the pan 9. To reduce the amount of vertical play between the ring 23 and pan driving member 15, the latter may be formed with a raised portion that is arranged to strike against the underside of the ring 23 to prevent the escape of the balls, in case the disc or wheel assembly is lifted off its seat on the pin 6.

The pan or bowl like member 9 is preferably formed of sheet metal and has a flat bottom portion 26 which underlies the disc or wheel and is curved upwardly at its margin to form a rim or marginal flange 27. Its extreme edge portion is curled to present a smooth rounded edge. The pan bottom is centrally apertured and is formed with a down turned flange 31 at said aperture, which surrounds the hub portion 14 of the pan driving member and rotatively connects the pan with the hub portion 14 thereof. For the purpose of stiffening the bottom 26 and for securing in place a silencing device 28, the bottom of the pan is formed with two concentric downwardly pressed beads 29, 30 between which is placed the silencing device 28, which may comprise a washer or ring of fibre or other cushioning material. If desired the fibre ring may be left loose between the beads 29, 30, or it may be adhesively secured to the bottom of the pan at two or more places but it is preferred not to glue the entire face of the ring to the pan, because the noise is not so effectively silenced thereby, as is the case when the ring is left free or is secured thereto only in spots. The ring 28 frictionally contacts with the underside of the pan bottom and rests on the balls 22. It is evident that whenever the disc or wheel 10 is spun or rotated and the pan driving member is thereby rotated, the balls 22 will be rotated in the apertures of the ball retaining member 23, and they in turn will rotate the pan 9 in a direction reverse to the direction of rotation of the disc 10.

On the peripheral edge of the disc 10 are pockets or notches 32 preferably formed between small upright beads or ribs 33 and on the disc adjacent said pockets 32 are placed characters, such as numbers and symbols which indicate values. A small ball, or a spherical or many sided body 34 is employed in playing the game, and said ball is contained in the annular space between the edge of the disc and rim of the pan. The rim inclines toward the bottom of the discs, whereby the tendency for the ball or other object 34 is to find its way into one of the pockets 32 of the disc 10. The annular trough around the disc may be divided into a plurality of distinct sections or spaces which may be colored differently, for instance one or more may be colored red, others green, and others black. For the purpose of definitely dividing the colored spaces from each other, so as to prevent the ball from lodging on a line dividing one space from another, the metal of the pan bottom, at said dividing lines is raised slightly as at 35 thereby forming small ridges at said dividing lines. It is obvious that the ball can remain at rest only on one or the other side of a ridge, whereby it may never stop on a dividing line between the colored spaces.

For the purposes of playing the game, a color dial 36 and indicators 37, 38 are used, which indicators may be adjusted to designate the color or colors selected by the player to win. The dial is centrally apertured and is secured upon the collar 20 and rotates with the disc 10, and the indicators are rotatively mounted on a stem 40 which projects up from the collar, and extends through the dial and indicators. Between the dial and lower indicator, and between the indicators and above the upper one are washers 41 which are non-rotatively mounted on the stem 40 as for instance by providing flat portions on the stem and apertures of the washer. On the upper end of the stem is secured a knob 42 and between the knob and upper washer is inserted a resilient member 43 such as a coiled compression spring which frictionally holds the indicators against accidental rotation relative to the stem, but permits the indicators to be turned at will. The dial is divided into sections or spaces corresponding in colors to the colors on the pan.

In some cases it is preferred to provide a frame 43 around the pan, whereby the latter may be enclosed on its sides. When a frame is used a bead or rib is formed on its upper inner margin and overhangs the edge of the pan. The frame is not essential but it prevents the ball from being thrown out and adds to the appearance of the device.

In operation the knob 42 is twirled in either direction and the disc 10 is thereby directly spun or rapidly rotated in the same direction, and because of the motion transmitting and reversing connection between the disc assembly and pan, the latter is rotated in the reverse direction. The disc and pan rotate until the stored up energy in the disc (which is the driver) is exhausted. The ball 34 is subjected to the rotative force of the disc and pan and bounds and rebounds between their edges, and travels with one and the other; as the disc and pan come to a position of rest the ball finally lodges in one of the pockets 33 of the disc.

The game is played with any kind of tokens, and in playing the game a player

sets one indicator at a color on the dial corresponding to the color on the pan, where he thinks the ball will finally come to a position of rest after the disc has been spun around. He may also set the other indicator at a color on the dial corresponding with a color on the pan where he thinks the ball will not finally stop. If the ball stops on the color selected to win he takes as many tokens as is indicated by the character at the pocket in which the ball finally lodges. If the ball stops on a color corresponding to the one chosen as the one where the ball will not stop, the player forfeits the number of tokens indicated by the character at the pocket in which the ball finally lodges.

More or less variation of the exact details of construction is possible without departing from the spirit of this invention; I desire, therefore, not to limit myself to the exact form of the construction shown and described, but intend, in the following claims to point out all of the invention disclosed herein.

I claim as new, and desire to secure by Letters Patent—

1. A game apparatus comprising a rotatory disc, a rotary pan mounted coaxially therewith, and motion transmitting, pan supporting balls secured against bodily movement and interposed between said disc and pan.

2. A game apparatus comprising a rotatory driving disc, a rotatory pan there below, mounted coaxially therewith, a pan driving member connected with said disc, and motion transmitting and reversing ball members secured against bodily movement and interposed between said pan driving member and pan.

3. A game apparatus comprising a rotatory disc, a rotatory pan there below, mounted coaxially therewith, a pan driving and supporting member operatively connected with the disc, and located below said pan, balls interposed between and contacting with said pan and pan supporting member, and a stationary ball spacing member.

4. A game apparatus comprising a rotatory disc, a rotatory pan therebelow mounted coaxially therewith, a pan driving member connected with said disc, and underlying said pan, motion transmitting and reversing balls interposed between and contacting with said pan and pan driving member, and a stationary ball spacing member.

5. A game apparatus comprising a rotatory, peripherally notched disc, a rotatory pan therebelow having an upturned rim surrounding said disc arranged to retain a movable body, a pan driving member connected with said disc, and pan-rotating elements interposed between said pan and pan driving member.

6. A game apparatus comprising a rotatory, peripherally notched disc, a pan driving member therebelow and secured thereto, pan driving balls resting on said pan driving member, a ball retaining member for holding said balls against bodily movement, and a rotatory pan underneath said disc and resting upon said balls, said pan having an upturned rim surrounding said disc.

7. A game apparatus comprising a base, a supporting pin secured thereto, a peripherally notched disc rotatively mounted on said pin, a pan driving member connected with and rotating with said disc, a rotative pan having an upturned rim surrounding said disc, balls forming a supporting and driving connection between said pan driving member and pan, and a ball spacer for holding said balls against bodily movement.

8. A game apparatus comprising a base, a supporting pin secured thereto, a peripherally notched disc rotatively mounted on said pin, a pan supporting member secured to said disc, a rotatory pan underneath said disc having an upturned rim surrounding said disc, pan supporting balls interposed between and contacting with said pan supporting member and pan, and a stationary ball spacing member.

9. A game apparatus comprising a base, a supporting pin secured thereto, a peripherally notched disc rotatively mounted on said pin, a pan supporting member having a hub surrounding said pin and secured to said disc, a pan rotatively journaled on said hub and having a rim surrounding said disc, balls resting on said pan supporting member and forming supports and driving means for said pan, and a ball spacer in which said balls are rotatively secured.

10. A game apparatus comprising a base, a pin secured thereto, a disc assembly rotatively mounted on said pin and comprising a disc and a pan driving member, a pan revolubly secured on said disc assembly, and having a rim surrounding the disc, and spaced balls resting on said pan driving member and supporting said pan.

11. In a game apparatus, a rotatory disc, a rotatory pan therebelow, a pan driving member connected with said disc, a silencing ring on the underside of the pan, motion transmitting and reversing balls interposed between said pan driving member and ring, and a stationary ball spacing member.

12. In a game apparatus, a rotatory disc, a rotatory pan therebelow formed with concentric downwardly pressed annular beads in its bottom, a fibre ring held against the lower face of said bottom between said beads, a pan driving element secured to said disc, balls interposed between said ring and pan driving member, and a stationary ball spacing member.

13. In a game apparatus, coaxially mounted, relatively rotatable disc and pan members, a dial connected with the disc, said pan member and dial having corresponding indicating characters thereon, an indicator rotatively mounted on said disc, a knob connected to said disc and a compression member between said indicator and knob.

14. In a game apparatus, relatively rotatable disc and pan members, a stem secured to and extending up from said disc, a dial secured against rotation on said stem, said pan member and dial having corresponding indicating characters, indicators rotatively mounted on said stem, washers above and below said indicators, a knob secured on the end of said stem, and a compression member interposed between the uppermost washer and knob.

15. A game apparatus, comprising a rotatory, notched disc, a rotatory pan mounted coaxially therewith and formed with spaced circumferentially arranged ribs, and motion transmitting, pan supporting balls, secured against bodily movement, and interposed between said disc and pan.

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