

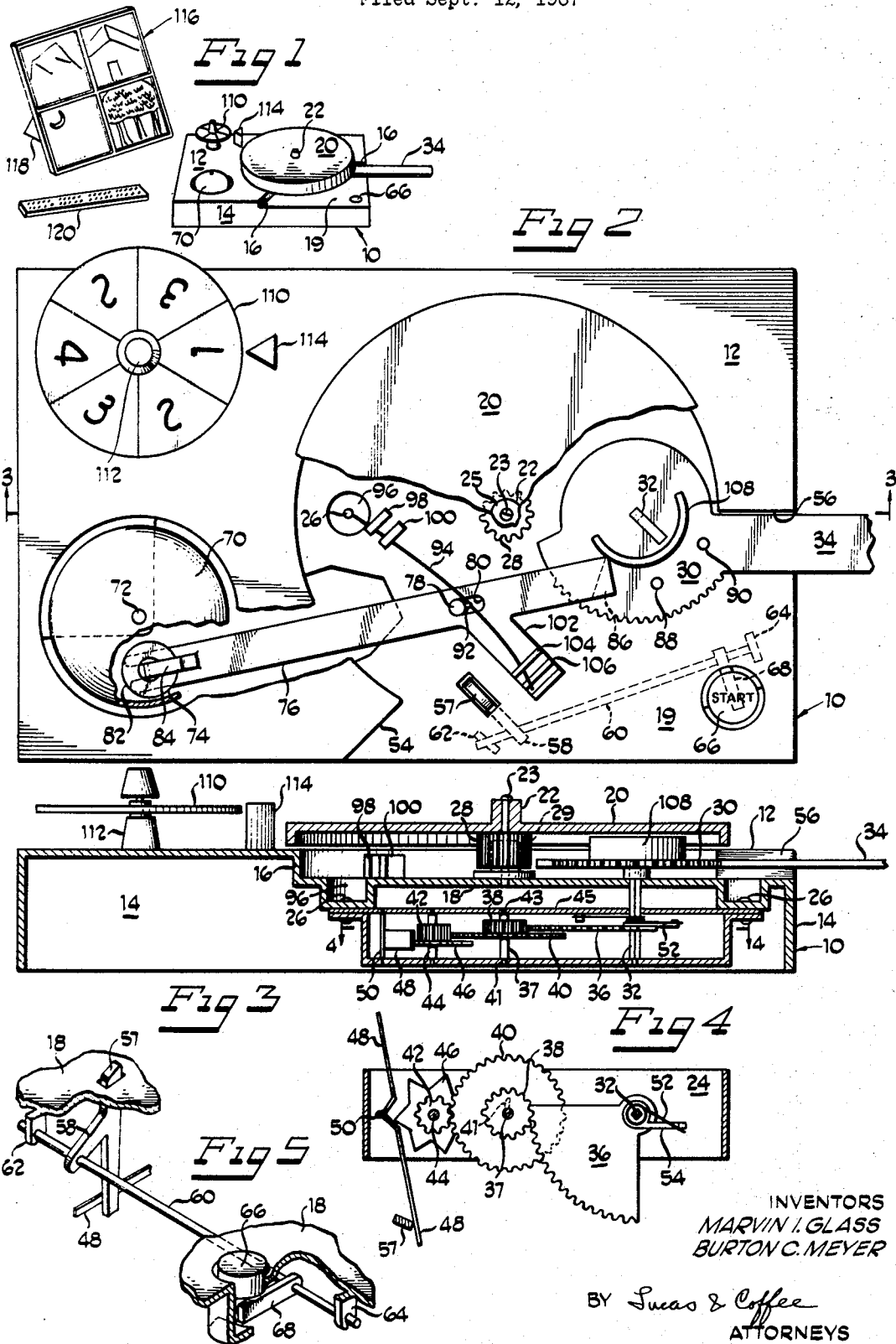
Oct. 7, 1969

M. I. GLASS ET AL

3,471,149

MEMORY GAME APPARATUS

Filed Sept. 12, 1967



United States Patent Office

3,471,149

Patented Oct. 7, 1969

1

3,471,149

MEMORY GAME APPARATUS

Marvin I. Glass, 815 N. La Salle St. 60610, and Burton C. Meyer, 903 W. Fullerton Ave. 60614, both of Chicago, Ill.

Filed Sept. 12, 1967, Ser. No. 667,146

Int. Cl. A63f 1/00

U.S. Cl. 273—1

3 Claims

ABSTRACT OF THE DISCLOSURE

Game apparatus including a base on which a spring-driven turntable revolves to carry a card holder for displaying cards to the players for a given time interval. Each of the players has matching cards and a card holder identical with the revolving holder. After viewing the revolving cards as they pass before him, each player seeks to place cards in the same arrangement in his card holder. The time interval of display and the time interval for each player to arrange his cards are each marked by the ringing of a bell actuated by the drive for the turntable. A spinner and pointer determine the number of cards displayed.

Background of the invention

The invention relates to games in which the players observe objects, or drawings of objects, for a given period of time and then endeavor to recall the objects and their relative positions. Such a game has long been played and various objects have been used in connection with the game. The present invention involves novel apparatus including a platform with a rotatable portion, drive means, sound mechanism, a card tray to be placed on the rotatable platform, and cards which include a plurality of matching sets.

Summary of the invention

Game apparatus comprising a base, a turntable thereon, means for driving the turntable at a predetermined rate, a card holder for mounting on said turntable for displaying a number of cards to the players as the turntable rotates, sound mechanism for marking intervals of time, matching sets of cards, and chance means for determining the number of cards to be displayed.

Brief description of the drawings

FIGURE 1 is a perspective view of game apparatus, including a base, turntable, spinner disc and pointer, a card holder to be mounted on the turntable, and a peg board for keeping score;

FIGURE 2 is a top plan view, with parts broken away and in section, of the base, turntable, spinner disc, and the bell for marking a cycle of rotation of the turntable;

FIGURE 3 is a cross section along the line 3—3 of FIGURE 2;

FIGURE 4 is a cross section along the line 4—4 of FIGURE 3; and

FIGURE 5 is a fragmentary perspective view of the latch means locking the turntable in a cocked position and the start button for manually releasing the latch.

Description of the preferred embodiment

The game apparatus comprises a base 10 with a top surface 12 and supporting side walls 14. The top surface contains a depressed area defined by the vertically depending walls 16 and the horizontal plate 18. This depressed area underlies a portion of the turntable 20 which is rotatably fixed on spindle 22 (FIGURES 1, 2 and 3). The depressed area also extends beyond the turntable to two sides of the base, the extension being designated 19 (FIGURES 1 and 2).

2

Spindle 22 comprises a pin 23 which is inserted in aligned bores in a boss 25 on turntable 20 and an upwardly extending hub 29 on plate 18. Immediately below the turntable 20 is a gear 28 which is fixed to the turntable and rotatable on hub 29. Gear segment 30 is horizontally mounted on vertical spindle 32 which is rotatably mounted in plates 18 and 24. The teeth of gear segment 30 are positioned to mesh with the teeth of gear 28, and the gear segment contains a handle 34 by means of which players can manually rotate, in a clockwise direction as viewed in FIGURE 2, the turntable and the drive mechanism therefore (to be later described) for the purpose of placing the turntable in a "cocked" or "start up" position.

The mechanism for driving the turntable will next be described (see FIGURES 3 and 4). Keyed on spindle 32 is a second gear segment 36 which meshes with a gear 38 rotatable on a shaft 37 journaled in slots 41, 43 formed in lower plate 24 and an intermediate plate 45. Also mounted on shaft 37 and fixed for rotation with gear 38 is a gear 40 which is adapted to mesh with a gear 42 rotatably mounted on a shaft or spindle 44 mounted between plates 45 and 24. A star wheel 46 is fixed to gear 42 on spindle 44, the teeth of the wheel extending into striking engagement with a bifurcated or yoke-like portion of plate 48. This plate is rigidly mounted on spindle 50 which extends vertically and is rotatably mounted in plates 45 and 24.

As best seen in FIGURE 3, a coil spring 52 is mounted concentrically of spindle 32, above gear segment 36 and below plate 45. One end of the coil spring 52 is fixed to the underside of plate 45 and the other end of the spring is fixed to arm 54 which extends from gear segment 36. It will be apparent that as arm 34, is rotated clockwise as shown in FIGURE 2, the gear segment 30 and the gear segment 36 (FIGURES 3 and 4) will move in a clockwise direction, with the resultant tensioning of spring 52. Further, the initial clockwise movement of segment 36 forces gear 38 and its supporting shaft 37 to the end of slots 41, 43 (upwardly in FIGURE 4), thereby disengaging gear 40 from gear 42 to prevent rotation of the latter during the winding of spring 52.

The clockwise motion of handle 34 is terminated by wall portion 54 rising from the depressed or hollowed area of the top surface 12 of the base 10. At the opposite end of the path of handle 34 is a wall portion 56 which serves as a stop for the handle 34 when it is moved in a counterclockwise direction. As later explained, the handle 34 is locked in position when it has been moved counterclockwise against stop 54. When the handle is released, spring 52 will drive gear segment 36 in a counterclockwise direction (FIGURE 4), moving shaft 37 to the lower end of slots 41 and 43 to replace gear 40 in meshing engagement with gear 42, and cause segment 30 to drive gear 38 and turntable 20 a counterclockwise direction. This motion will continue until handle 34 meets stop wall 56.

As the star wheel 46 rotates, its teeth alternately strike opposite ends of the bifurcated portion of plate 48 to provide a governor for regulating the speed and also to produce a ticking sound.

The mechanism by which handle 34 is locked when it is moved against stop 54 will next be described (FIGURES 2 and 5). Through a slot in plate 18, a tongue 57 extends to engage the handle 34 when it is adjacent wall 54. The upper end of tongue 57 is beveled as shown in FIGURE 5 so that as the handle 34 is moved over it, in a clockwise direction, the tongue is gradually depressed. Tongue 57 is mounted on arm 58 which is fixed on shaft 60 rotatably mounted in plates 62 and 64 depending from plate 18. When tongue 57 is in its lowered position, the lower end of the tongue is in the path of bifurcated plate 48. In this position, the tongue holds plate 48 stationary

when it is struck by a tooth of the star wheel 46, and thus acts as a stop against the turning of star wheel 46 and its associated gearing, which is under the influence of drive spring 52. Thus, when handle 34 is moved over tongue 57, the drive mechanism is braked or "cocked"; and upon release, the spring 52 will drive the gear segments 36 and 30 and the turntable 20 in a counterclockwise direction until the handle 34 on gear segment 30 hits stop wall 56.

The tongue 57 is released from engagement with the bifurcated plate 48 by means of a start-button 66 which extends upwardly through a cut-out in plate 18 and is supported on arm 68 fixed on shaft 60 (see FIGURES 5 and 2). When start button 66 is depressed it will, through arm 68, rotate shaft 60 in a counterclockwise direction as viewed in FIGURE 5, which will raise tongue 57 to remove the lower end of the tongue from the path of the bifurcated plate 48.

The sound mechanism for marking the time interval required for the rotation of handle 34, under drive of spring 52, from stop wall 54 to stop wall 56 will next be described. This sound mechanism is a bell including an inverted metallic cup 70, fixed on spindle 72, with hammer 74 and hammer arm 76. As seen in FIGURE 2, arm 76 is mounted on post 78 which extends vertically from plate 18 through opening 80 in arm 76. Opening 80 is in the form of a longitudinal slot which permits arm 76 to move to the left as viewed in FIGURE 2. Arm 76 is also free to oscillate about post 78.

The hammer 74 is in the form of a metallic washer 82. The washer is mounted on the end of arm 76 by an overlying tongue 84, which is cut out of the center section of arm 76 and bent over the washer and through the center opening thereof to firmly secure the washer on the end of arm 76.

The other end of arm 76 extends over gear segment 30 and has a bevel section on its underside to form a cam surface 86. Vertical posts 88 and 90 (see FIGURE 2) on gear segment 30 are so positioned that they move against cam surface 86 as the gear segment is moved clockwise. When the gear segment has made its turn, posts 88 and 90 will both be above arm 76 as viewed in FIGURE 2.

Extending through lug 92 in post 78 is leaf-spring 94 (FIGURE 2). The upper end of leaf-spring 94, as viewed in FIGURE 2, is anchored by bolt 26 in well 96 in plate 18. Spring 94 is supported in blocks 98 and 100 which are mounted on plate 18. The spring passes through openings in these blocks. The other end of spring 94 is anchored on arm 102 which extends obliquely from arm 76 (see FIGURE 3). The end of leaf-spring 94 passes through an opening in block 104 and is anchored in a slot in block 106, both of these blocks being mounted on arm 102.

Leaf spring 94 biases arm 76 to the right as viewed in FIGURE 2. It also biases the hammer end of arm 76 downwardly as viewed in FIGURE 2. Semi-circular guide wall 108 on gear segment 30 acts as a stop and guide for arm 76 when the arm is oscillated, as will hereafter be described.

It will be apparent that as gear segment 30 is moved clockwise, posts or pins 88 and 90 move against cam surface 86 and move the arm 76 to the left (FIGURE 2) by means of slot 80, and under tension of spring 94, so that pins 88 and 90 may be moved past arm 76. This movement of arm 76 does not cause hammer 84 to strike bell 70. However, on the return movement of gear segment 30, when it is moving counterclockwise under the drive of spring 52, pin 90, and later pin 88, will move against the upper side-wall of arm 76 to pivot the arm about posts 78. As pin 90 continues its counterclockwise rotation it will move off the end of arm 76 and the arm will then swing rapidly in a counterclockwise direction about post 78 to cause hammer 74 to strike bell 70. When pin 88 moves against the arm 76, the action will be repeated and the bell will ring a second time.

Spinner disc 110 is rotatably mounted on post 112 which extends vertically from the upper surface 12 of base 10, as shown in FIGURES 2 and 3. Each side of the spinner disc 110 is divided into segments. On one side the segments bear numbers from 1 to 4; on the other side the segments bear numbers from 3 to 6. A pointer 114 is mounted on the base adjacent the disc to mark a segment when the spinner disc stops its rotation.

The card holder 116 is in the form of a box separated into four sections, each section being adapted to hold one or more cards. A support 118 keeps the cards in upright position on the turntable 20. Similar card holders with four sections are provided for each player. A peg board 120 (FIGURE 1) and a set of pegs may be provided for score keeping.

Cards are provided with a number of sets of matching cards. In the play of the game, each player is given 10 cards, one card of each designation. Each player is given a card holder which he places in front of him. The spinner 110 is placed on the post 112 with the lower figures 1 to 4, on the top side if children are playing. Adults would place the spinner with larger numbers, 3-6, on the upper side. Each player in turn spins the spinner. The players with the lowest number becomes the "Operator." The operator places the turntable card holder on the turntable and winds the turntable by moving handle 34 in a clockwise direction until it hits stop 54. Next, the operator spins the spinner to determine the number of cards to place in the card holder on the turntable. He then places this number of cards in the card holder on the turntable in any order and arrangement which he selects. The operator then presses the "Start" button and starts the turntable. Each player observes the cards as the turntable brings them in front of him until the bell rings under action of pin 90. Each player then endeavors to place cards in his holder in the same arrangement as the cards on the turntable. The second ring of the bell under the action of pin 88 marks the end of the time interval for this placing of cards in the players' card holders. For each card correctly placed the player gets one point. Each incorrectly placed card gives the "operator" a point. Score is kept on peg boards 120. The player to the left of the first operator becomes the operator for the next sequence, and the game continues until a designated number of points is scored by one of the players.

Although shown and described with respect to particular structure, it will be apparent that various modifications might be made without departing from the principles of this invention. Further, it should be understood that the described play of a game with the use of the disclosed apparatus is only by way of example and may take any of numerous other forms.

What is claimed is:

1. Game apparatus comprising a base, a turntable mounted on said base, means for driving said turntable, a card holder mounted on said turntable for displaying a plurality of cards as said turntable and holder rotate, a plurality of cards with sets of matching cards, and chance means determining the number of cards to be displayed on said turntable.

2. The game apparatus as set forth in claim 1, in which spring means are provided for driving said turntable and there is included sound means for marking the end of a cycle of rotation of the turntable.

3. Game apparatus comprising, a base, a turntable mounted on said base, a spring driver for rotating said turntable through a predetermined cycle by means of a gear train, the spring driver being manually wound by means of a handle fixed to a gear in said train, releasable latch means operable to hold said spring in wound position; a card holder mounted in said turntable for displaying a plurality of cards as said turntable and holder rotate, sound means for marking the end of a cycle of rotation of the turntable, said sound means being a bell in the form of a metallic cup with a hammer positioned

5

to oscillate under actuation of said gear train to strike the metallic cup, a governor controlling the rate of rotation of said turntable, and a spinner and pointer on said base for indicating the number of cards to be displayed.

6

2,986,470	5/1961	Fishmeister	-----	40—28.2	XR
3,237,328	1/1966	Tritt	-----	40—28.2	
3,284,927	11/1966	Milne	-----	35—26	

References Cited

UNITED STATES PATENTS

199,306	1/1878	Millings	-----	40—33	
2,116,127	5/1938	Steiert	-----	40—33	
2,592,078	4/1952	Taylor et al.	-----	35—28	XR 10

5 ANTON O. OECHSLE, Primary Examiner
P. E. SHAPIRO, Assistant Examiner

U.S. Cl. X.R.