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GAME PIECE AGITATOR

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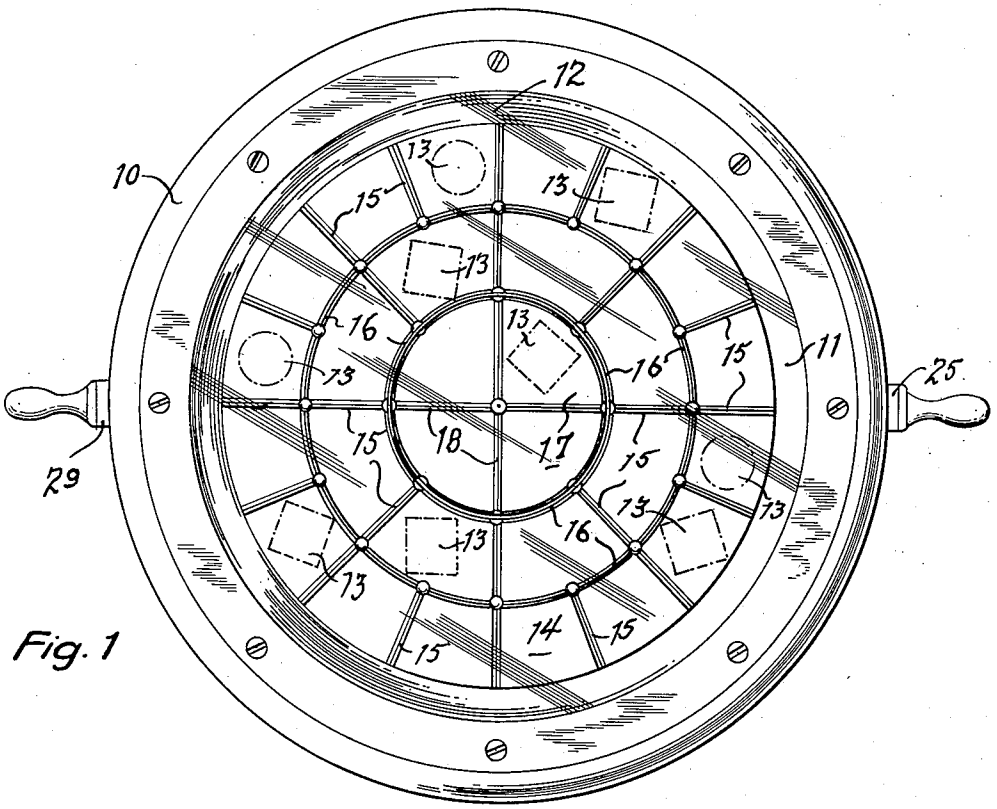

Fig. 1

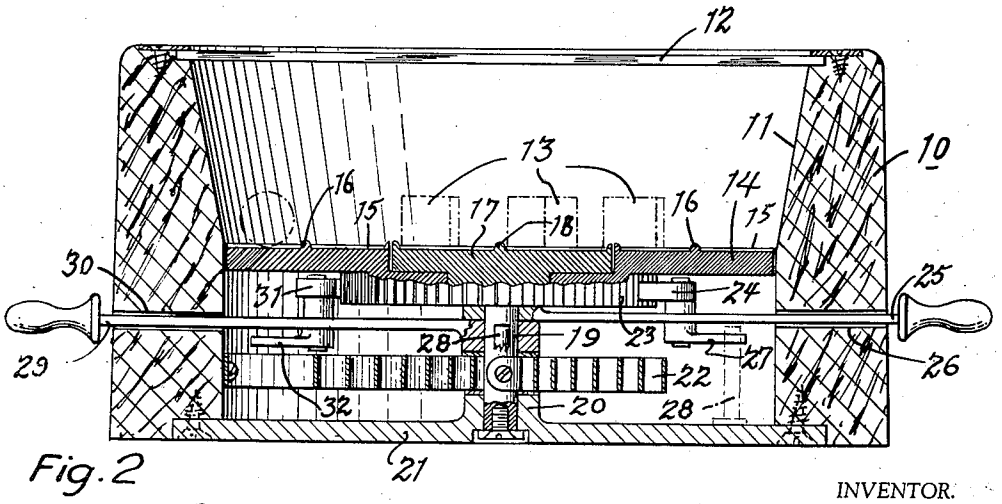

Fig. 2

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GAME PIECE AGITATOR

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2 Claims. (Cl. 273—145)

My present invention relates to educational games and more particularly to a game device having mechanically operating parts by which dice and/or other game pieces are tumbled about upon a play surface and which when at rest will indicate certain game values upon said play surface as to future play.

An object of my invention is to provide a new and novel game device in which dice or other game pieces are agitated in a novel manner to determine scoring values in accordance with predetermined rules.

Another object of my invention is to provide a mechanically operated game apparatus having an oscillating game piece supporting surface with various game play indicia thereupon by which scoring values or procedure in accordance with established rules of play are indicated by the position of game pieces thereupon when said surface comes to rest.

Another object of the invention is to provide a game apparatus in which captivated play pieces are supported upon a surface which is mechanically oscillated to produce game score values or other indications under the control of one or more players.

A further object of the invention is to provide a game apparatus having a novel game piece supporting surface that is oscillated in a novel manner by spring means in which operating energy can be established in varying degrees under the control of an operating player.

Other objects and advantages will be in part evident to those skilled in the art and in part pointed out hereinafter in connection with the accompanying drawing, wherein there is shown by way of illustration and not of limitation a preferred embodiment of the invention.

In the drawing wherein like numerals refer to like parts throughout the several views:

Figure 1 is a plan view of a device embodying the invention with the play pieces removed, and

Figure 2 is a vertical sectional view taken along line II—II of Figure 1, showing details of construction.

For a better understanding of the invention, reference is now made to the accompanying drawing wherein the numeral **10** designates a suitable housing having a central cavity formed by a slightly inclined wall **11** over which a transparent cover **12** extends for confining a plurality of play pieces **13**, shown by dot and dash lines. Disposed within and forming a play piece supporting surface for said cavity, there is a rotatable member **14** which as shown in Figure 1 of the drawings, is divided into different zones or areas by radially extending ridges **15** and concentric ridges **16** that intersect. To avoid the possibility of a die coming to rest upon these ridges **15** and **16** at their points of intersection, I have shown a raised bead or upstanding protuberance. In this arrangement, the play piece supporting member **14** is shown as annular in outline and as having two concentrically arranged zones. Disposed centrally in co-planar relation with the annular member **14** there is a central play piece supporting member **17** which, as indicated in Figure 1 of the drawing, is divided into four zones by partitioning ridges **18**. As

indicated in Figure 2 of the drawing, the play piece surface forming member **17** is mounted to float freely in a central recess of the play piece surface forming member **14** so that when an oscillating movement is imparted to the member **14**, as will hereinafter appear, the play surface forming member **17** will move and/or oscillate independently and relative to the annular area of the play piece supporting surface carried by the member **14**. The play piece supporting member **14** is secured to the upper end of a vertically extending shaft **19** which is journalled for rotation upon a pedestal **20** carried by a closure plate **21** at the bottom of the housing **10**. Attached to the shaft **20**, at its inner convolution, there is a horizontally disposed clock spring **22**, which is secured at its outer end to the housing **10** in such a manner that when wound and released, said clock spring **22** will impart an oscillating movement to the play piece supporting member **14**. In this connection, it should be here stated that the mass or weight of the play piece supporting member **14** and the resilience of the clock spring **22** will be such that the play piece supporting member **14** will be oscillated in a manner sufficient to impart tumbling action to the play pieces **13** placed thereupon.

In order to wind the spiral spring **22** and thus store up sufficient energy to impart the above oscillating movement to the play piece supporting member **14**, I have provided the member **14** with an extension at the underside thereof in the form of a ratchet wheel **23** with which a dog carried by an operating lever **25** engages. In this instance, the lever **25** is mounted to turn freely about the vertically extending shaft **19** and will operate in a horizontally extending slot **26** in the housing **10** which has an arcuate length of approximately 90°. The dog **24** is biased into engagement with the ratchet wheel **23** in any suitable manner. Extending oppositely from the dog **24**, the operating lever **25** also carries a lever **27** which is operative to move said dog **25** out of engagement with the ratchet wheel **23** as said operating lever approaches the end of its spring winding movement. To this end the closure plate **21** is shown as having a vertically extending pin **28**, super-imposed in part over the sectional view of Figure 2 and diagrammatically illustrated by dot and dash lines displaced 90° at the right of this figure of the drawing. In this arrangement, it will be seen that as the operating lever **25** is grasped and moved clockwise, as viewed in Figure 1 of the drawings or toward the viewer as shown in Figure 2 of the drawing, the ratchet engaging dog **24** will be operative to turn the shaft **19** and thus cause the spiral spring **22** to become wound and store up sufficient energy to impart an oscillating movement through the shaft **19** to the play piece supporting member **14** and cause the play pieces to be tumbled about until the parts come to rest. Under these conditions, it will be seen that the play pieces **13** resting thereupon will eventually come to rest in various positions and in different zones on the playing surface for game scoring purposes.

While I have described the device as having a single operating lever **25** which may be operated in turn by several different players. I have also shown in the drawings two of these operating levers which move in oppositely disposed arcs and toward oppositely seated players. The second lever, here designated by the numeral **29** carries a dog **31** corresponding with the ratchet engaging dog **24** and also a lever **32** which is adapted to engage a second tripping pin (not shown) similar to the pin **28** which is also carried by the base plate **21** and located so as to disengage the dog **31** as the lever **29** approaches its spring winding limit of travel.

In playing the game with a device of this latter type having the two operating levers **25** and **29**, the lever of the inactive player will be held in a position where the

ratchet engaging dog 24 or 31 carried thereby will be out of engagement with the ratchet wheel 23 and thus permit the opponent's operating lever to be operative for winding the spiral spring 22 up to its automatic release. Following this, the particular operating lever will be held in its ratchet releasing position so that the other operating lever can be used for a subsequent operation of the device. The various zones as outlined upon the play piece supporting members 14 and 17 may take various shapes and size. In accordance with one particular set of game rules, this play surface is marked with scoring and play indicating indicia in accordance with the design which forms the subject matter of a copending application entitled, Play Surface for Game Apparatus, Serial Number D. 44,118 filed December 7, 1956.

While I have, for the sake of clearness and in order to disclose my invention so that the same can be readily understood, described and illustrated a specific form and arrangement, I desire to have it understood that this invention is not limited to the specific form disclosed, but may be embodied in other ways that will suggest themselves to persons skilled in the art. It is believed that this invention is new and all such changes as come within the scope of the appended claims are to be considered as part of this invention.

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

1. In a game apparatus, the combination of a housing having an open cylindrical cavity of a depth sufficient to permit the tumbling of dice and like play pieces therein, means forming a play piece supporting surface at the bottom of said cavity having zones upon which said play pieces may come to rest, said means being carried by a depending vertical shaft, a spiral clock spring secured at its inner end to said shaft with its convolutions extending spirally therearound and attached at its outer end to a stationary part of said housing, a ratchet wheel carried by said means, a radially extending lever journalled upon said shaft, a ratchet engaging dog carried by said lever and engaging said ratchet wheel for imparting a spring winding movement to said shaft as said lever is operated through an arc about the axis of said shaft by a player, and means operative to disengage said dog from said ratchet wheel as said operating lever reaches the end of its spring winding arc of travel about said shaft, whereby said spiral spring will be wound and released and impart an oscillating movement to said means that will cause play pieces located thereupon to be tumbled about and establish game scoring values as they come to rest in said cavity.

2. A game apparatus of the character defined by claim 1, characterized by the fact that the zones on the play piece supporting surface of said means are defined by raised and intersecting ridges with upstanding hemispherical protuberances at their points of intersection to avoid the possibility of a play piece coming to rest upon said ridges at said points of intersection.

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