July 21, 1964 L. HOFFMAN 3,141,674

SPIN WHEEL GAME HAVING INTERCHANGEABLE FACES AND A SPRING-BIASED CLICKER ELEMENT

Filed July 2, 1962 2 Sheets-Sheet 1

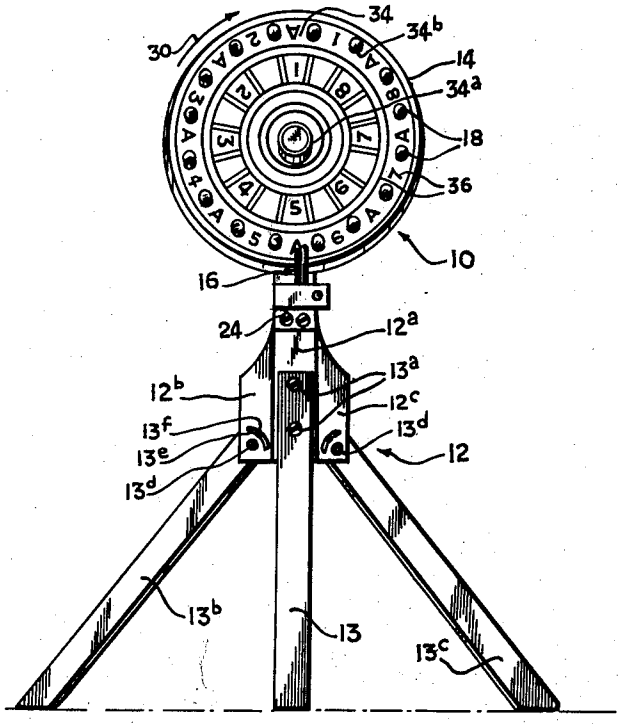


Fig. 1.

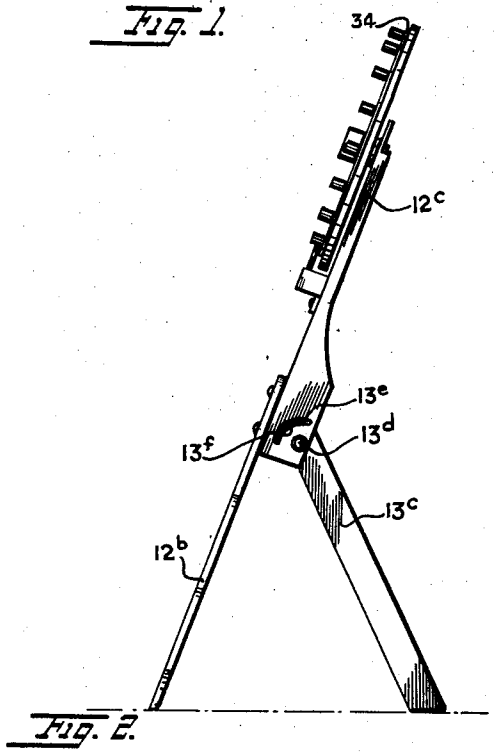


Fig. 2.

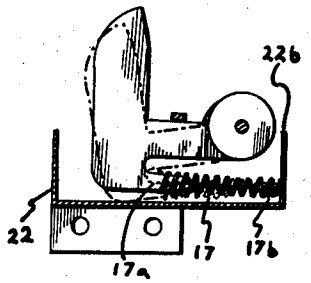


Fig. 5.

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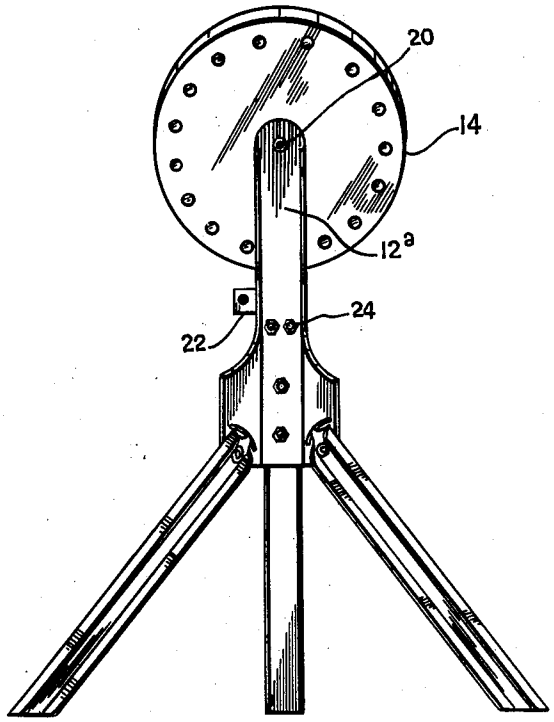


Fig. 3.

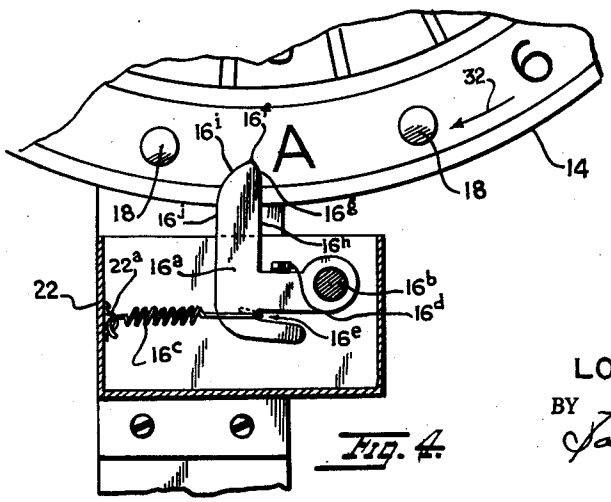


Fig. 4.

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SPIN WHEEL GAME HAVING INTERCHANGEABLE FACES AND A SPRING-BIASED CLICKER ELEMENT

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This invention relates to new and useful improvements in spin wheel games, sometimes designated "spinners."

Essentially, these devices comprise a supporting frame on which a freely rotatable wheel is mounted, the axis of rotation being substantially horizontal. The wheel is radially divided into a plurality of spaces each bearing a particular designation or numerical or other value for score purposes. Between each pair of adjacent spaces, usually at the outer peripheral edge of the wheel, is a pin, and mounted on the frame for engagement with each said pin is a pawl or clicker. To play the game the wheel is manually rotated, and as each pin passes the clicker station it engages the clicker and causes a clicking sound. This interaction between pins and clicker also has the effect of slowing down and eventually stopping the wheel, with the clicker occupying a space between two adjacent pins. The clicker now serves as a pointer or indicator with respect to said space, and the mark or reading in that space determines the score.

These devices are commonly used at carnivals and bazaars for fund-raising purposes. They are generally large in size and expensively constructed to precision tolerances in order to assure a fair and equal chance to each participant and to avoid, to the extent possible, any disputes as to outcome. These devices are intended for professional use and are not readily adapted to non-professional or home or play use. Furthermore, each such device is suited for a single game, played in accordance with a single set of rules. And finally, each is provided with complicated clicker means which frequently go out of order and sometimes fail to pinpoint or indicate a precise reading. These are disadvantages which have not heretofore been solved, and certainly not in connection with a relatively small and inexpensive device suited for non-professional use.

One object of this invention is the provision of a spin wheel or spinner device of the character described which has all of the features of the professional models but is nonetheless adapted for non-professional use. It is relatively small in size, portable, relatively inexpensive, long-lived, and generally fool-proof in operation. Its frame or stand is foldable into relatively compact proportions, and it is therefore adapted to occupy small shipping and storage space.

Another important object of the invention is the provision of a spin wheel or spinner of the character described which may be provided with any number of different faces, each relating to a different game and governed by different rules. The wheel mechanism would remain precisely the same; only the face would be changed. More specifically, a plurality of interchangeable paper or plastic faces may be applied to the wheel, being held in place thereon either frictionally or by any other suitable means. These interchangeable faces may be mounted individually on the wheel, only one such face at a time, or a plurality of faces may be mounted thereon, only the outermost face being exposed for use. The remaining faces would be retained on the wheel solely for storing purposes.

Still another object of the invention is the provision of a very simple but highly effective and fool-proof spring-urged pawl or clicker mechanism. This mechanism consists only of two parts, one being the pawl proper and the other being a spring which biases the pawl.

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

FIGURE 1 is a face or front view of a spin wheel or spinner device made in accordance with the present invention.

FIGURE 2 is a side view thereof.

FIGURE 3 is a back view.

FIGURE 4 is an enlarged perspective view of the pawl or clicker mechanism.

FIGURE 5 is a similar view of a modified form of pawl or clicker mechanism.

Referring now to the details of construction as disclosed in the accompanying drawing, it will be noted that the spin wheel or spinner **10** herein claimed is provided with a foldable tripod type of frame or stand **12** on which wheel **14** is rotatably mounted and which also carries a pawl or clicker mechanism **16** which is engageable with said wheel and more particularly pins **18** thereon. The frame or stand consists of a front bar or panel **12***a* having a pair of angularly disposed side wings or flanges **12***b* and **12***c*, respectively, a front centrally disposed leg **13** firmly secured to said front bar **12***a* by means of bolts or other fastening elements **13***a*, and a pair of side legs **13***b* and **13***c*, respectively, which are pivotally secured to said side wings **12***b* and **12***c* by means of rivets or other suitable fastening elements **13***d*. Arcuate slots **13***e* are provided in wings **12***b* and **12***c* adjacent and concentric with said rivets **13***d*; and pins or lugs **13***f*, secured to or struck out from said side legs **13***b* and **13***c*, ride within and along said slots as said legs are pivoted with respect to the wing elements **12***b* and **12***c*. These pins or lugs **13***f* are engageable with the ends of their respective slots to serve as stop elements limiting the angular travel of said side legs. It will be noted that both the central leg **13** and the side legs **13***b* and **13***c* are channel-shaped elements, combining substantial strength and rigidity with minimal material and weight for low cost sturdy construction.

Wheel **14** may simply be a disc having a plurality of pins **18** provided thereon, said pins being equidistant from each other and from the center of the disc. In the preferred form of the invention wheel **14** is a plastic molded disc and pins **20** are molded integrally therewith. A bolt or other suitable fastening means **20** rotatably supports the wheel on the central bar or panel **12***a* of the frame or tripod stand **12**.

It will now be noted that pawl or clicker mechanism **16** comprises a generally bell crank or L-shaped pawl **16***a*, pin **16***b* on which said pawl is pivotally mounted, a pull spring **16***c* which biases said pawl, and a lug **16***d* which serves as a stop element limiting the range of angular movement of said pawl under the influence of said spring. The pawl mechanism may be mounted within a box or housing **22** which is secured to the front central bar or panel **12***a* of the frame by means of bolts or other fastening elements **24**. An ear **22***a* may be struck out of one of the side walls of said box or enclosure to serve as an anchor for one end of spring **16***c*, which may be hooked thereon. The opposite end of the spring may be hooked into a notch **16***e* formed in the pawl or clicker. A compression spring **17** may be substituted for the pull spring **16***c*, as indicated in FIGURE 5. It will be observed that one end of the compression spring is slipped over finger **17***a* on the pawl and the opposite end of said spring is slipped over a lug **17***b* which is struck out of one of the walls **22***b* of housing **22**.

It will now be particularly noted that the pivotal axis of the L-shaped pawl, running through pin **16***b*, is located at one end of the transverse or foot portion of said pawl. The portion of the pawl which is engageable with wheel pins **18** is the upper end of the vertical arm of

said pawl. The direction of pull of the spring is generally parallel to the longitudinal axis of the horizontal or foot portion of said pawl. Consequently, a relatively vertical movement of the vertical portion of the pawl is achieved when the pawl pivots about its pin 16*b* into and out of engagement with the wheel pins 18. Furthermore, since this general vertical movement is transverse the direction of pull of the spring, a relatively soft spring pawl action is provided which makes for relatively little resistance to the rotational movement of the wheel. Furthermore, the strain on the spring is relatively slight and the operative life of the pawl is lengthened.

To further facilitate the interaction between the pawl and the wheel pins and to assure proper positioning of said pawl between adjacent wheel pins when the wheel is brought to a stop, the upper or operative end of the pawl is provided with a point 16*f*, flanked on one side by a relatively gentle curve 16*g* which is virtually aligned with side edge 16*h* and on the other side with a more pronounced curve 16*i* which more closely approaches the horizontal and merges with the opposite side edge 16j. The normal direction of rotation of the wheel is clockwise, as viewed in FIGURES 1 and 4 and as indicated by curved arrows 30 and 32 therein. Consequently, it is the relatively straight curved edge 16*g* which engages the wheel pins 18 as the wheel rotates. Point 16*f* provides a sharp dividing point or line which prevents the pawl from impinging upon any one of the wheel pins when the wheel is brought to a stop.

It will be observed that a generally disc-shaped face 34, imprinted with suitable design and indicia 36, is provided on wheel 14. Specifically, this disc constitutes the face of the device and provides the substantive material of the game, as distinguished from the purely mechanical parts by which the game is played. Any suitable design may be applied thereto, as well as such indicia as would be appropriate under the playing rules of any particular game. The disc may be made of paper, preferably relatively stiff paper, such as oak tag, or it may be made of sheet plastics or any other suitable material. A relatively stiff grade of paper is desirable by reason of its low cost, the ease of printing thereon, and the fact that it may be die-cut to desired shape and proportions. More particularly, the disc is provided with a central opening 34*a* designed to clear bolt 20 and a plurality of openings 34*b* designed to register with and accommodate pins 18 on the wheel. Openings 34*b* should be of such size as to provide a relatively snug or press fit with respect to pins 18. The frictional coefficient between the edges of the disc defining said holes 34*b* and the sides of pins 18 would be sufficient to hold the disc in place during playing operations. The fact that the wheel is tilted slightly away from the vertical, as illustrated in FIGURE 2, would help retain the disc on the wheel. In any event, should it be desired to provide other holding means, such as clips or the like, this could readily be done within the scope of the invention. Such additional or auxiliary holding means are not, however, deemed essential.

In the playing of this device, one or more discs 34 are placed upon wheel 14, but only the outermost disc (if more than one be mounted thereon) is used at any one time. The wheel is rotated manually in clockwise direction, as viewed in FIGURE 1, and the several pins 18 successively engage the pawl to produce a clicking sound. When the wheel stops, the pawl will be positioned between a pair of adjacent pins, and the marking on said disc in the space designated by said pawl will determine the score or value of that particular turn of the wheel.

The foregoing is illustrative of a preferred form of this invention, and it will be understood that this form may be varied and modified within the broad principles of the invention and the broad scope of the claims.

What is claimed is:

1. A spin wheel game of the character described, comprising a supporting frame, a plastic wheel rotatably mounted on said frame, a plurality of circumferentially located pins molded on said wheel, a pawl mounted on said frame for engagement with said pins, and a face element removably mounted on said wheel, said face element being imprinted with the indicia of a game, said frame including a tripod stand, two of the legs of said stand being pivotally mounted relative to the third leg for movement toward said third leg, to render the stand compact for shipping and storing purposes, and away from said leg to support the frame in standing, operative position, said pawl comprising a generally bell-crank-shaped element defining a substantially horizontal foot portion and a substantially vertical upright portion connected to one end of said foot portion, the pivotal axis of the pawl being located at the opposite end of said horizontal foot portion and the pin engaging portion of the pawl being the upper end of said vertical upright portion, said pawl being spring-urged about its said pivotal axis into engagement with said pins, said upper pin-engaging portion of the pawl being provided with a relatively sharp point flanked on one side by a curved portion which is offset but slightly from the vertical and flanked at the opposite side by a curved portion which more closely approaches the horizontal, said face element comprising a generally disc-shaped paper sheet having a plurality of cut out portions adapted to register with and receive the pins on the wheel, the edges of said cut out portions being in frictional engagement with the sides of the pins to hold said face element in place against said wheel.

2. A spin wheel game in accordance with claim 1, wherein a plurality of interchangeable face elements are provided for simultaneous mounting on said wheel, the outermost face element being exposed for playing purposes, each of said face elements being imprinted with game indicia differing from the game indicia of the others.

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