May 29, 1951 F. SCHNABOLK 2,555,010

MECHANICAL PARTY ROTATING DISK GAME

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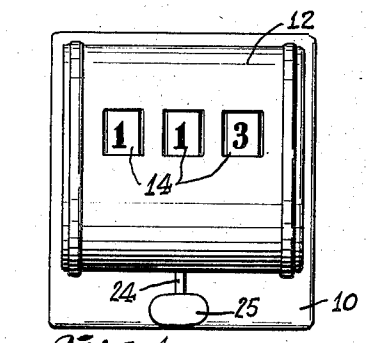


Fig. 1.

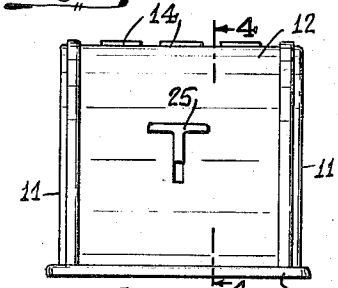


Fig. 2.

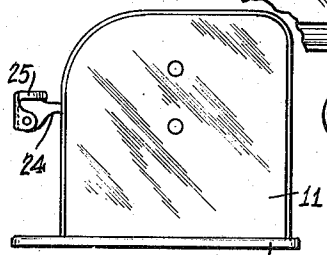
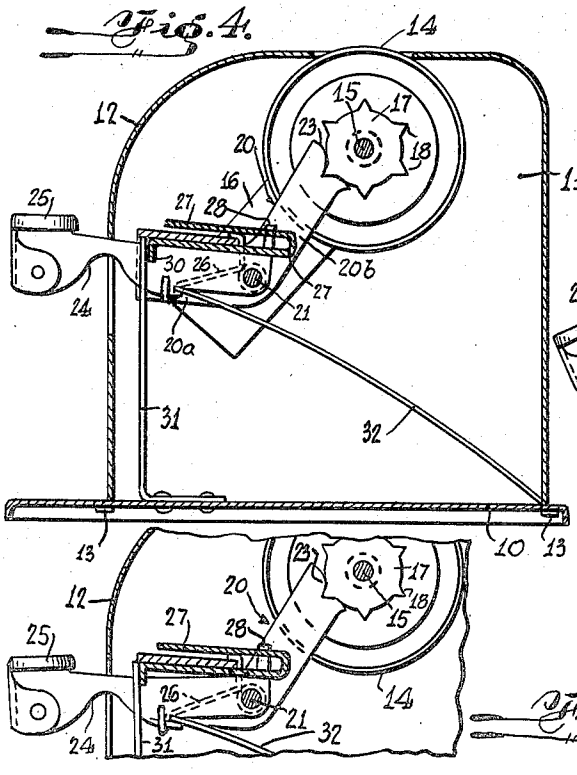


Fig. 3.

Fig. 7.

Fig. 4.



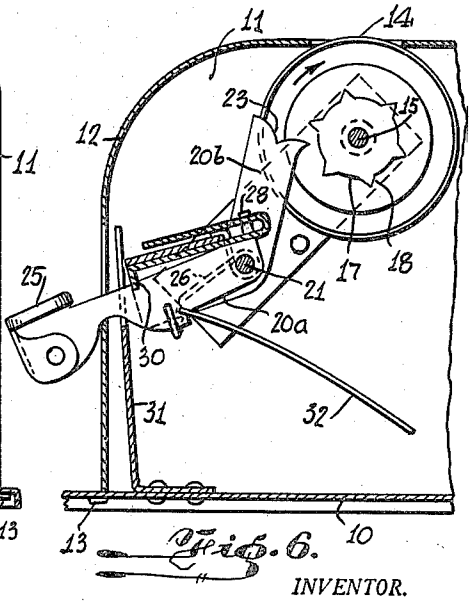


Fig. 6.

Fig. 5.

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MECHANICAL PARTY ROTATING DISK GAME

Fred Schnabolk, Brooklyn, N. Y.

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3 Claims. (Cl. 273—143)

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This invention relates to a toy device of the type having rotating indicating dials with numbers, symbols or any desired indicia thereupon.

It is an object of the invention to provide a toy device having a plurality of rotatably mounted indicating dials capable of being given a sharp, sudden rotative thrust upon the depression of an operating lever.

Another object of the invention is the provision of a toy device of the character indicated, having an enhanced element of chance and interest due to the fact that the various registering combinations of symbols or members are outside the control of the operator, since the rotation of the dials cannot be influenced in any manner other than to be completely interrupted simultaneously by manually releasing the operating lever.

A further object of the invention is the provision of a toy device of the character indicated, which may be fabricated easily and inexpensively from a minimum number of component elements assemblable to an extremely compact and rugged unit.

The foregoing objects, as well as additional objects and advantages of the invention will be readily apparent in the course of the following detailed description taken in connection with the accompanying drawing which illustrates a preferred embodiment of the invention, and wherein:

Fig. 1 is a top plan view of the assembled toy device.

Fig. 2 is a front elevation of the device.

Fig. 3 is a side elevation of the device.

Fig. 4 is an enlarged vertical longitudinal section through the device, showing the actuating lever in normal elevated position.

Fig. 5 is a fragmentary detail view showing the actuating lever slightly depressed from the position of Fig. 4.

Fig. 6 is a view similar to Fig. 4, showing the actuating lever completely depressed in operative position, and the trip-lever completely released thereby allowing the impact levers to impart a sudden rotative thrust to the indicating dials.

Fig. 7 is a bottom plan view of the assembled toy device with the base plate omitted, and the leaf spring partly broken away to reveal the relation of parts.

Referring now to the drawings in greater detail, the toy device includes a housing comprising a base 10, side panels 11 and a central panel 12 shaped to define the front, top and rear of the housing. The component panels of the housing

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may be interconnected by means of fastening lugs 13 in the well-known manner or by any other suitable arrangement. A plurality of indicating dials 14 are rotatably mounted on a transverse shaft 15 which may be supported between oppositely positioned mounting plates 16 secured to the inner surface of each side panel 11. In the preferred embodiment, indicating dials 14 are preferably cup-shaped and are provided with lateral hub-portions 17 having teeth or cogs 18. The peripheral portion of each dial 14 carries numbers, symbols or any other desired indicia which are visible through window openings suitably disposed in the toy housing, as shown in the drawings. Guide discs 19 are secured to hub portions 17 for properly positioning the dials 14 with respect to the impact levers 20, as will be more fully described hereinafter.

Impact levers 20 are pivotally mounted on shaft 21 which may be supported between mounting plates 16 in a manner similar to dial shaft 15. In the preferred embodiment of the invention, said impact levers are curved, having base portions 20*a* and angularly inclined portions 20*b* integral therewith. Base portions 20*a* of impact levers 20 are spaced apart and rigidly interconnected by means of a connecting member or bridge plate 22 in any suitable manner, as by swaging, soldering, or spot-welding. The upper free ends of impact levers 20 are provided with receiving notches 23 which normally engage one of the teeth or cogs 18 of a respective dial 14. It will be understood that impact levers 20 will move in unison when caused to pivot about shaft 21. Further, upwardly inclined portions 20*b* of said levers will be retained between dial 14 and guide disc 19.

Actuating lever 24 is pivoted at one end on shaft 21 and terminates externally of the toy housing in a finger piece 25 for operating the toy device. A tension spring 26 is coiled about shaft 21 with one end fixed against actuating lever 24 and its opposite end fixed against bridgeplate 22, and said tension spring serves to normally urge said bridgeplate against said actuating lever.

Slidable element 27 is interposed between bridgeplate 22 and actuating lever 24 and operative connection is achieved with said lever as by means of an integral lug 28 thereof extending through an aperture 29 in said slidable element. Slidable element 27 is preferably U-shaped extending both above and below bridgeplate 22 and is formed at its forward lower edge with a depending flange 30. Said depending flange nor-

mally abuts the upper end of a resilient trip lever 31 which may be fixed to base 10 of the toy housing. Trip lever 31 is provided with a medial slot adjacent its upper portion to allow depression of actuating lever 24, as illustrated in Fig. 6. Leaf spring 32 or similar means is provided for restoring the operating mechanism to the normal inoperative position of Fig. 4 when actuating lever 24 is released.

In actual operation, indicating dials 14 are caused to rotate upon depressing actuating lever 24 and said dials will continue to rotate beyond the control of the operator under the influence of the rotative thrust suddenly imparted thereto by impact levers 20 until the actuating lever is released and returns to the normal elevated position of Fig. 4.

As actuating lever 24 is gradually depressed from the position of Fig. 4 to that of Fig. 5, slidable element 27 moves forwardly and depending flange 30 thereof carries trip lever 31 to the forward edge of bridgeplate 22. Further depression of actuating lever 24 is accompanied by further advancement of trip lever 31 which finally clears the bridgeplate 22. Under the influence of the energy stored in tension spring 26 during the continuous depression of actuating lever 24, bridgeplate 22 is suddenly freed to rotate downwardly against said actuating lever. Simultaneously, the upward motion of upper portions 20b of impact levers 20 (which are fixed to bridgeplate 22) imparts a sudden rotative thrust to the indicating dials 14 by virtue of the engagement between receiving notches 23 of said impact levers and the teeth or cogs 18 of said dials. The rotation of dials 14 is completely out of control of the operator while lever 24 is depressed, and it is only when the lever is released for restoration to the normal elevated position of Fig. 4 under the influence of leaf spring 32, that the rotation of the dials is interrupted by the reengagement of one of the teeth 18 with the receiving notch 23 of a respective impact lever 20.

It is thus seen that an extremely simple and compact toy device is provided, which is rugged and trouble-free in operation and which introduces an enhanced element of chance and interest, since, by virtue of its novel construction and arrangement, the operator cannot control the rotation of the dials in any manner other than by releasing the actuating lever 24.

Various types of games can be played depending upon the symbols placed on the dials and the significance or values assigned to the many registering combinations of symbols.

Since certain modifications may be made in the toy device of the present invention, it is intended that all matter contained in the foregoing description and shown in the accompanying drawing be interpreted merely as illustrative and not in a limiting sense.

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

1. A toy device comprising a housing, a plurality of indicating dials rotatably mounted within said housing, each of said dials having a lateral hub portion provided with cogs, impact levers, one for each hub, pivotally mounted intermediate their ends on a common shaft within said housing, each impact lever having an upper end and a lower portion, its upper end being formed with a receiving notch adapted to engage one of the cogs of its respective dial, a bridgeplate rigidly interconnecting said impact levers across their lower portions, an actuating lever pivotally mounted on the shaft which carries said impact levers and terminating externally of said housing, a slidable element interposed between the bridgeplate and said actuating lever and operatively connected with said actuating lever by means of a lug on said actuating lever extending through an aperture in said slidable element, spring means interconnecting said actuating lever and said bridgeplate and normally urging said bridgeplate against said actuating lever, a trip lever normally resting under the edge of said bridgeplate to restrain it against downward movement, said slidable element being formed with a depending flange normally abutting said trip lever whereby depression of said actuating lever stores energy in said spring and moves the slide member to kick the trip lever from under the bridgeplate, thus imparting a sudden rotative thrust to said dials.

2. A toy device comprising a housing, a plurality of indicating dials rotatably mounted within said housing, each of said dials having a lateral hub portion provided with cogs, curved impact levers, one for each hub, pivotally mounted intermediate their ends on a common shaft within said housing, each impact lever having a base portion and an angularly inclined portion integral therewith, a bridgeplate rigidly interconnecting the base portions thereof, the angularly inclined portion of each impact lever being formed with a receiving notch adapted to engage one of the cogs of its respective dial, an actuating lever pivotally mounted on the shaft which carries said impact levers, one end of said actuating lever terminating in a fingerpiece externally of said housing, a slidable element interposed between said bridgeplate and said actuating lever, said slidable element having an aperture therethrough, an upstanding lug on the other end of said actuating lever and extending into said aperture to provide operative connection between said slidable element and said actuating lever, spring means interconnecting said actuating lever and said bridgeplate and normally urging said bridgeplate against said actuating lever, a trip lever normally resting under the edge of said bridgeplate to restrain it against downward movement, said slidable element being formed with a depending flange normally abutting said trip lever whereby depression of said actuating lever stores energy in said spring and moves the slide member to kick the trip lever from under the bridgeplate imparting a sudden rotative thrust to said dials.

3. A toy device comprising a housing, a plurality of indicating dials rotatably mounted within said housing, each of said dials having a lateral hub portion provided with cogs, curved impact levers, one for each hub, pivotally mounted intermediate their ends on a common shaft within said housing, each impact lever having a base portion and an angularly inclined portion integral therewith, a bridgeplate rigidly interconnecting the base portions thereof, the angularly inclined portion of each impact lever being formed with a receiving notch adapted to engage one of the cogs of its respective dial, an actuating lever pivotally mounted on the shaft which carries said impact levers, one end of said actuating lever terminating in a fingerpiece externally of said housing, a U-shaped slidable element interposed between said bridgeplate and said actuating lever and extending above and below said bridgeplate, said slidable element having an aperture therethrough, an upstanding lug on the

other end of said actuating lever and extending into said aperture to provide operative connection between said slidable element and said actuating lever, a coil spring wound on said shaft and having one end secured to said actuating lever and its other end secured to said bridgeplate to normally urge said bridgeplate against said actuating lever, a resilient trip lever normally resting under the edge of said bridgeplate to restrain it against downward movement, said slidable element being formed with a depending flange normally abutting said trip lever whereby depression of said actuating lever stores energy in said spring and moves the slide member to kick the trip lever from under the bridgeplate, thus imparting a sudden rotative thrust to said dials, and spring means interposed between said housing and said actuating lever for restoring said lever to normal elevated position upon manual release.

FRED SCHNABOLK.

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