Nov. 8, 1932. H. K. RENZ 1,887,068

GAME DEVICE

Filed Dec. 17, 1930

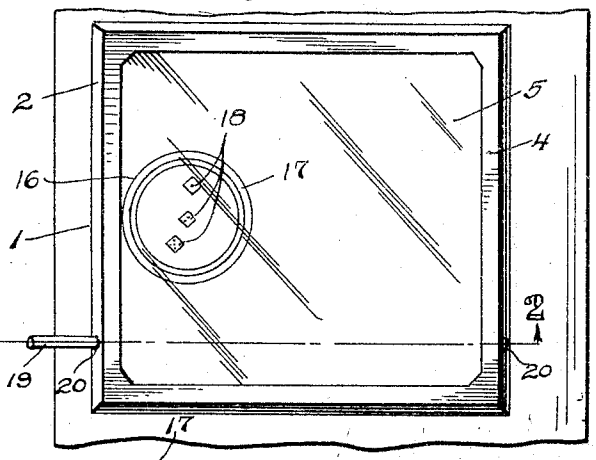



Fig. 1

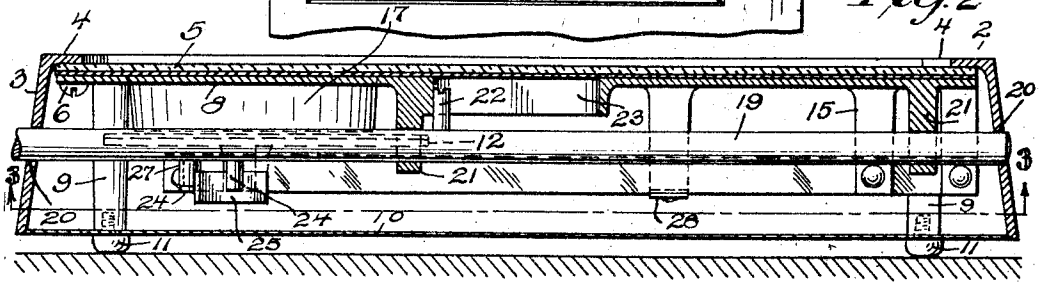



Fig. 2

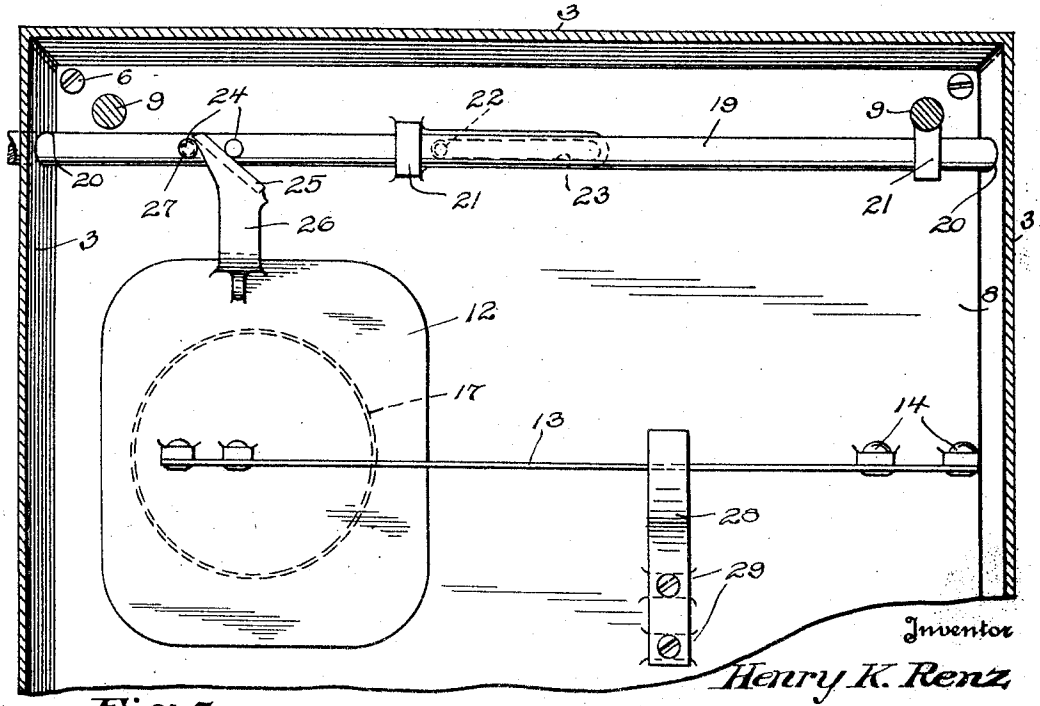



Fig. 3

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# UNITED STATES PATENT OFFICE

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## GAME DEVICE

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This invention relates to a dice shuffling or shaking device and one of the objects of the invention is to provide a device of this character which may be used to promote trade in business establishments, to provide amusement and which device may also be used as an advertising medium.

Another object of the invention resides in the provision of a device of this kind which is portable and of such shape and construction that it may be conveniently placed and operated on a counter or the like, and wherein the device comprises a base provided with an enclosed visible dice container in its upper portion and means for causing the shuffling of the device operable from either side of said base.

A further object is to arrange the operating plunger of the device transversely and horizontally of the base structure and with the operating ends thereof capable of protruding through either side so that the plunger when extended from the base, as for example on the customer's side of the counter, the dice shaped mechanism may be operated towards the other side of the counter.

With this arrangement a customer may be given an opportunity to operate the device but only when reset on the other side of the counter. In this connection, the customers may try to turn up a certain face or faces of the dice and if successful may be refunded the purchase price of the business transaction.

For a further understanding of the invention reference is to be had to the following description taken in connection with the accompanying drawing, wherein:

Figure 1 is a top plan view of the device showing the same positioned upon a supporting base, such as a counter or other flat support,

Figure 2 is a vertical sectional view taken on the line 2—2 of Figure 1, and

Figure 3 is a horizontal sectional view taken on the line 3—3 of Figure 2 and in the direction of the arrows thereof.

Referring to the drawing in detail, the numeral 1 designates the device in its entirety comprising a base formed in the shape of a shallow casing 2, the side walls 3 of which terminate at their upper edges in inwardly directed flanges 4. Engaging the under side of said flanges and closing the top of the casing 2 is a transparent panel 5 which is held in place in connection with the flanges 4 by means of fastening elements 6. Positioned within the casing 2 and arranged below and adjacent the transparent panel 5 is the frame structure 7 of the dice shaking mechanism. This mechanism includes a plate 8 held in place within the casing by the fastening element 6 and which plate is provided with downwardly directed posts 9 at the corners thereof which serve as supports for the device. Attached to the lower ends of these posts is a plate 10 which closes the lower end of the casing and which is held in place by screws 11 threaded into the lower ends of the posts 9. These screws may be covered by rubber or the like so as to prevent marring the surface upon which the device is positioned.

Positioned for movement below the plate 8 is a shaker plate 12 which is attached to the outer free end of a flat leaf spring 13 which has its other end secured as at 14 to the lower ends of a pair of projections 15 formed integral with the plate member 8. Formed in the plate 8 and located at a point above the shaker plate 12 is an opening 16 in which is positioned an open ended collar 17 which is frictionally held in place with the side edges of the opening and projects downwardly to a point adjacent the plate 12. This ring which is closed at its upper end by the transparent panel 5 forms a container for holding one or more dice 18 and which dice rest upon the shaker plate 12. The dice 18, which are confined within the container, are visible through the panel 5 but are inaccessible to the person playing the device so that counterfeit dice may not be substituted.

To effect the shuffling or tumbling of the dice 18 within the container or collar 17, a plunger 19 is provided which has its end portion slidably received within bearing openings 20 provided in the side walls 3 of the casing. A plunger 19 may also be slidably

received within bearings formed in downwardly projecting extensions 21 integrally formed with the under side of the frame or plate member 8. To limit the sliding movement of the plunger 9 a pin 22 is attached to the plunger 19, which pin is received within an elongated slot 23 formed in a boss provided upon the under side of the plate 8.

Secured for movement with the plunger 9 and depending from its lowermost face thereof is a pair of studs 24 between which is normally positioned the upwardly directed flange 25 formed with an extension 26 carried by the shaker plate 12. The flange 25, which is positioned at an angle and has both of its side surfaces engaging the posts 24, acts as a cam and when engaged by the outermost of the posts 24 upon the movement of the plunger in an inward direction will cause the shaker plate 12 to move in a direction towards the plunger 19 until said posts free the inner edge of the flange or cam 25 at which time the spring 13 acts to return the plate to a normal position. However, as the shaker plate 12 is of considerable weight and size the spring 13, due to this imparted movement, will cause a reciprocatory action upon the plate 12 causing the dice positioned thereon to tumble.

The plunger 19 during this movement is positioned to one side so that one of its ends projects a considerable distance through the opening formed in the side wall 3, whereas its other end will be flush with the opposite wall. This necessitates the operation of the plunger from the projecting end in order to reset the shaker plate for the next dice shaking operation. During this resetting operation of the shaker plate the outermost post 24 will engage the other face of the flange 25 and force the plate away from the plunger 19 until the flange 25 frees said post and positions itself between both of the posts as disclosed in Figure 3 of the drawing. By this movement of the plunger the end thereof nearest the post 24 will project exterior of the casing 2 and thus be prepared to reset the operation.

If desired, a roller 27 may be positioned on the outermost of the posts 24 to reduce the friction therebetween and the cam surfaces of the flange 25. To dampen the last and minor reciprocatory movements or vibrations 12, a leaf spring 28 is provided which is secured to projections 29 formed with the frame structure and has its free end engaging the lower edge of the spring 13 and is held in tensional engagement therewith. By the provision of the spring 28 the plate 12 will quickly come to a standstill and prevent undue movement of the dice within the dice container.

From the foregoing it will be seen that in operating the device, the actuating plunger extends exterior of one side of the casing and towards one side of a support which may be a counter and that by operating the plunger the same may be pushed towards the opposite side of the support or counter and therefore in order to again set the device in operation the plunger must again be reset for operation. The device may also serve as an advertising means by placing a card or the like having printed material thereon under the transparent panel 5 and which card may also carry directions or instructions for the operation of the device. The device has the advantage of being extremely novel and simple in its construction with very few working parts which are not apt to become out of order or become disarranged. The construction of the device makes the same particularly adaptable for various games wherein one or more dice are used for governing the outcome of the various plays.

Although I have shown and described the preferred form of the invention, nevertheless it will be understood that certain changes in the form of construction may be made without departing from the spirit and scope of the invention.

What is claimed is:

1. In a dice shaking device, a casing having a transparent top, a container positioned below said top and adapted to confine one or more dice therein, a shaker plate arranged below said container and forming a bottom therefore, a resilient support for said plate, a plunger member slidably positioned and having its ends projecting through the side walls of said casing, a cam member upon said plate, and means formed with said plunger for engaging said cam whereby the plate is forced to one side and when free therefrom will be reciprocated to tumble said dice by the action of said resilient support.

2. In a device of the character described, a substantially rectangular casing, a transparent cover for the top of said casing, a frame positioned within said casing including a dice container closed at its upper end by said transparent cover, a shaker plate positioned below said container and forming the bottom therefor, said bottom being supported for free reciprocatory motion, relative to said container, an actuating plunger having its ends extending through openings formed in the side walls of said casing and capable of being operated from either side thereof, a cam member formed with said plate having a pair of operating surfaces thereon, and a projection formed with said operating plunger and serving upon engagement with said cam surfaces to move said shaper plate to one side or the other below said container.

3. In a device of the character described, a comparatively shallow casing having its upper end closed by a transparent panel, a dice shaking mechanism positioned within said

casing and below said transparent member, said mechanism comprising a frame having an opening positioned therein, an open ended collar positioned therein within said opening and having its upper end closed by said transparent panel, a shaker plate positioned below said collar and adjacent thereto closing the lower end of said collar, the transparent top and the plate forming a container for holding one or more dice, a resilient arm within said casing having one end rigidly secured to said frame structure and its opposite end to said shaker plate, an actuating plunger slidably positioned within bearings and having its ends extending through the side walls of said casing, means formed with said plunger and plate for forcing the plate to one side to flex said resilient arm and effect the reciprocation of said plate, and means engaging said resilient arm for dampening the final and minor reciprocatory movements thereof as well as that of said plate.

4. In a device of the character described, a substantially rectangular casing, a transparent cover for the top of said casing, an open ended dice container supported from said casing and having its upper end closed by said transparent cover, a shaker plate positioned below said container and spaced slightly from the bottom edge thereof, a resilient arm mounted within said casing and having its free end supporting said shaker plate, an actuating plunger having either of its ends extending through openings formed in the side walls of said casing and capable of being operated from either side thereof, an angularly shaped cam member carried by said shaker plate and having a pair of oppositely arranged operating surfaces thereon, and a cam engaging projection provided upon said operating plunger and serving upon engagement with said cam surfaces to effect the reciprocatory action of said shaker plate for tumbling the dice within said container.

In testimony whereof I affix my signature.

HENRY K. RENZ.