A. E. BOND.

TOY BOWLING ALLEY.

APPLICATION FILED JULY 5, 1918.

1,329,952.

Patented Feb. 3, 1920.

2 SHEETS—SHEET 1.

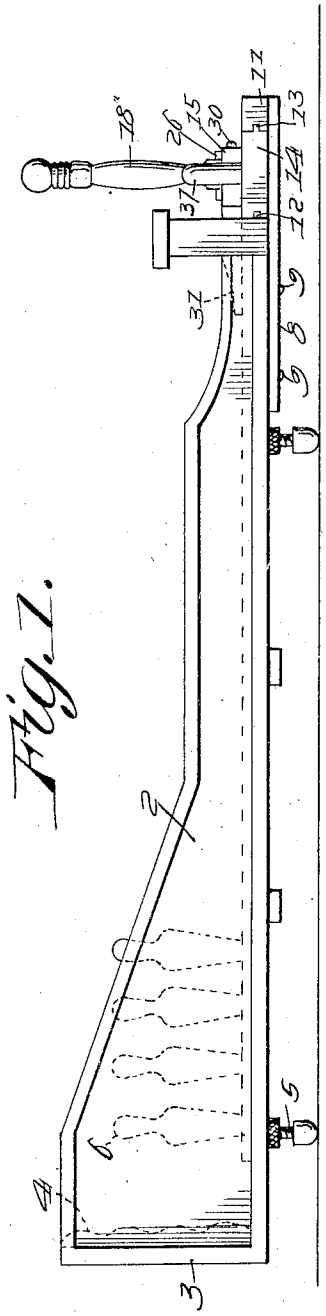


Fig. 1.

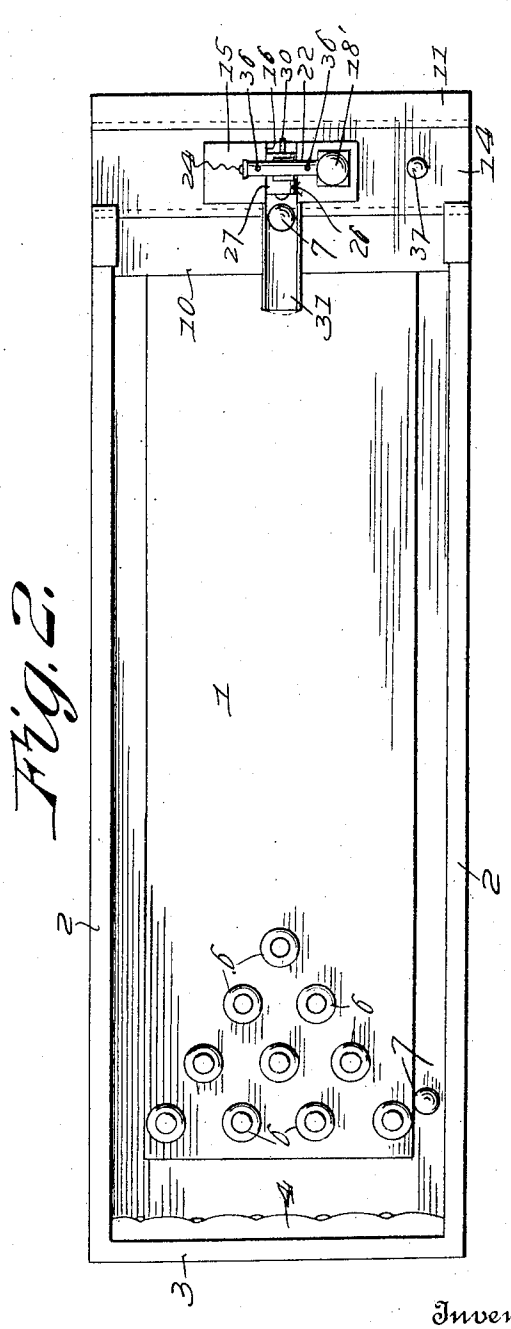


Fig. 2.

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2 SHEETS—SHEET 2.

Fig. 4.

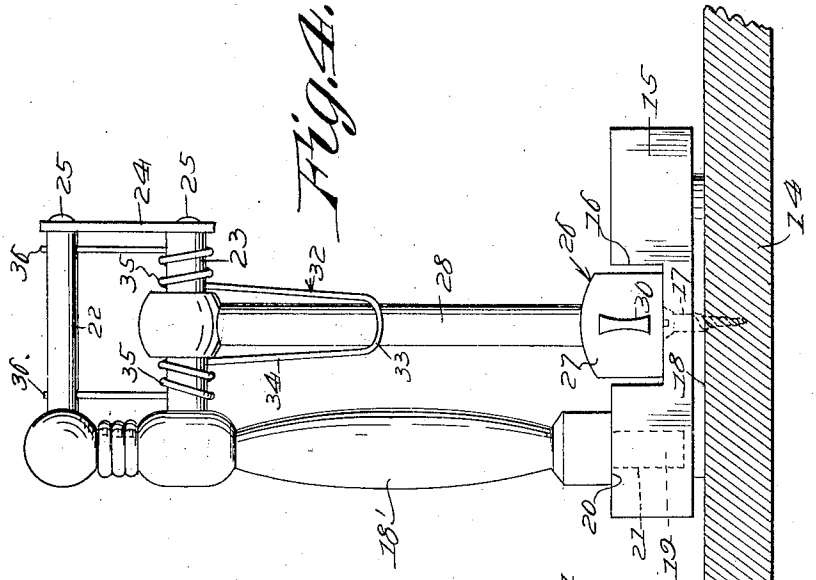
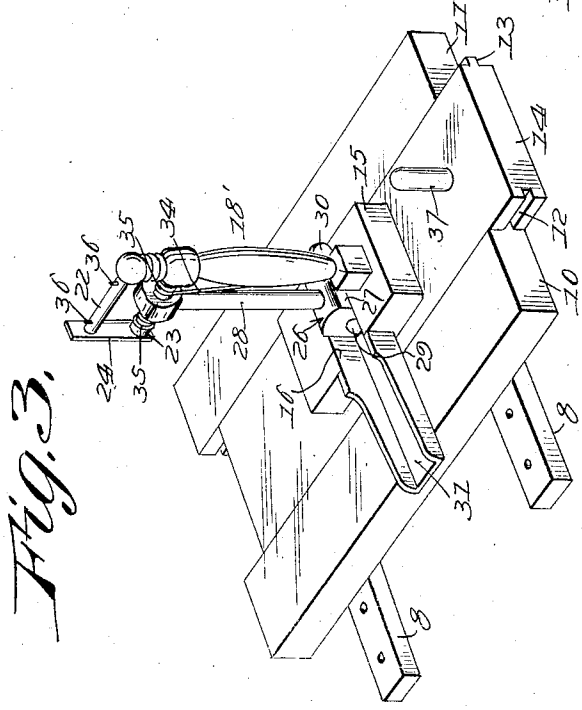


Fig. 3.



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UNITED STATES PATENT OFFICE.

ALBERT E. BOND, OF DETROIT, MICHIGAN.

TOY BOWLING-ALLEY.

1,329,952. Specification of Letters Patent. Patented Feb. 3, 1920.

Application filed July 5, 1918. Serial No. 243,417.

To all whom it may concern:

Be it known that I, ALBERT E. BOND, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented new and useful Improvements in Toy Bowling-Alleys, of which the following is a specification.

This invention has reference generally to improvements in that class of inventions known as games and tops, and particularly has reference to a toy bowling alley.

The invention has for its primary aim and object to provide a device of the above mentioned character designed to be employed as a parlor game and is of such a character that the players are enabled to properly direct the ball upon the actuation of suitable mechanism of a novel form for consequently knocking down the pins at the end of the platform or alley.

It is an equally important object of this invention to provide a device of the above character wherein the several parts are of novel form and of a portable nature permitting of the use of the device in the parlor or other room and also affords amusement for children and requires the use of skill by grown-ups for the efficient playing of the game.

More particularly the present invention contemplates the provision of a device of the above mentioned character wherein a manually operable striking device is mounted for shifting movement transversely of the base, which represents the alley proper, for the accurate directing of the ball down the alley and toward the pins.

Among the other aims and objects of this invention may be recited the provision of a device of the character described with a view to compactness, and in which the number of parts are few, the construction simple and the cost of production low and the efficiency high.

Other improvements and novel details in the construction and arrangement of the various parts of the apparatus will be brought out more in detail in the description to follow, which for a clear understanding of the invention should be considered in connection with the accompanying drawings forming a part hereof, and wherein is disclosed for the purpose of illustration a convenient and satisfactory embodiment of the invention. It is to be noted in this connection that minor changes in the construction and arrangement of parts may be made without departing from the principle of operation of the various parts.

The invention is clearly illustrated in the accompanying drawings, in which:—

Figure 1 is a side elevation of the invention partly broken away.

Fig. 2 is a top plan view thereof.

Fig. 3 is a perspective detail of the striking device.

Fig. 4 is an enlarged rear elevational view of the same.

Similar characters of reference are employed in all of the above described views, to indicate corresponding parts.

Referring now, more particularly, to the accompanying drawings, there is provided an elongated base or platform 1 which represents the alley proper, while rising from the opposite sides thereof are guard rails 2 connected at the rear ends by a transverse end bar 3 which carries a cushion 4. Adjustable legs 5 are connected to the under surface of the base to insure of the maintenance of the base level at all times. Pins 6 are adapted to be set up in the customary manner near the rear end of the base or alley 1, while balls 7 are adapted to be rolled or projected from the base for knocking down the pins, the game and score, of course, being the same as in bowling, such as duck pins, as is apparent.

With a view toward providing the improved mechanism for projecting the balls down the base or alley and toward the pins, there is employed a pair of supporting bars 8 which are arranged longitudinally and forwardly of the base, being secured to the under surface thereof by suitable fasteners 9 and upon these bars and transversely thereof are arranged spaced strips or boards 10 and 11, the inner 10 of which is arranged in abutting relation with the forward edge of the base and level or flush with the upper surface thereof. The strips or boards 10 and 11 are formed on their facing edges with a tongue and a groove respectively, the space between the boards forming a guideway for slidably accommodating the sliding board 14, the upper surface of which latter is desirably flush with the upper surfaces of the strips or boards 10 and 11. The groove 12 and tongue 13 of the sliding board engage respectively the tongue of the strip 10 and groove of the strip 11. A block 15 is now employed and is formed with a trans-

verse groove or recess 16, through the bottom of which passes a bolt 17 for the swiveling of the block to the sliding board 14, said bolt also passing through a spacing, and bearing washer 18 which facilitates the rotation of the block when desired. A standard 18' has its lower end reduced as at 19 to form a shoulder 20 and this reduced end is mounted in a socket 21 in the upper surface of the block to one side of the groove or recess 16. Spaced arms 22 and 23 project outwardly or laterally from the standard 18 being braced with respect to each other by a vertical bracing bar 24, the respective ends of which are secured to the outer ends of the arms by fasteners 25. A projector or mallet 26 consisting of a head 27 and a shank or arm 28 is now provided the arm being swingingly suspended from the lower arm 23 so that the head will operate or pass through the groove or recess 16. A cushion or tip 29 of rubber is connected to the striking face of the head while a knob 30 projects from the opposite end thereof. A trough 31 extends from the front face of the block 15 and alines or registers with the groove or recess 16 as indicated and is adapted to receive a ball 7 and serves to guide said ball subsequent to the striking thereof by the projector or mallet 26.

Suitable resilient means are now employed for normally holding the mallet directly suspended from the arm 23 and the head thereof in the recess of groove 16 and for imparting a swinging movement to said mallet subsequent to pulling the same rearwardly and releasing it. In reducing this feature of the invention to practice a spring, generally indicated by the numeral 32 is provided being formed from a single piece of wire which is bent into a U-shaped form designed to be straddled about the arm or shank 28 as shown and comprising a vertex 33 and side arms 34, the latter being coiled as at 35 and arranged about the lower arm 23 and having their upper ends anchored in the upper arm 22 as shown at 36, the tension of the spring normally holding the mallet in the position stated and as indicated in full lines in the drawings. Upon rearward movement of the mallet and the release thereof the spring will act to quickly swing the mallet forwardly so as to strike the ball 7 disposed in the trough.

A grip or handle 37 is connected to one end of the board or plate 14 to facilitate sliding of the board so as to properly aim the ball at the pins before projecting the ball. Of course, it is apparent that the ball may be directed down the alley at an angle by partially rotating the block 15 subsequent to the shifting of the board 14 and preparatory to the operation of the mallet.

It is believed in view of the foregoing description that a further detailed description of the operation of the invention is entirely unnecesary. Likewise is is believed that the advantages of the invention will be readily apparent.

As many changes could be made in the above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limited sense. It is also to be understood that the language used in the following claims is intended to cover all the generic and specific features of the invention herein described and all statements of the scope of the invention which as a matter of language might be said to fall therebetween.

What is claimed is:—

1. A device of the character described including a base, a plurality of pins adapted to be disposed on the base, a ball adapted to be projected down the base, a plate shiftable transversely of the base, a block rotatable on the plate and having a recess therein, a trough projecting from the block, a standard on the block, a mallet vertically swingable with respect to the standard and operating in the recess in the block, and resilient means tensioned to swing the mallet subsequent to pulling the mallet rearwardly and releasing it.

2. A device of the character described including a base, a plurality of pins adapted to be disposed on the base, a ball adapted to be projected from the base, a plate shiftable transversely of the base, a block rotatable on the plate and having a recess therein, a trough projecting from the block, a standard on the block, spaced arms projecting laterally from the standard, a mallet swingingly suspended from the lower arm, a spring member straddled about the mallet and coiled about the lower arm and anchored to the upper arm and positioned so as to be inactive when the mallet is directly suspended but tensioned to swing the mallet subsequent to pulling the mallet rearwardly and releasing it, and a knob connected to the rear edge of the mallet for facilitating the rearward swinging thereof.

In testimony whereof I affix my signature.

ALBERT E. BOND.