H. SIEGEL.

COMBINED TOY AND GAME APPARATUS.

APPLICATION FILED APR. 9, 1918.

1,296,129.

Patented Mar. 4, 1919.

2 SHEETS—SHEET 1.

Fig. 1.

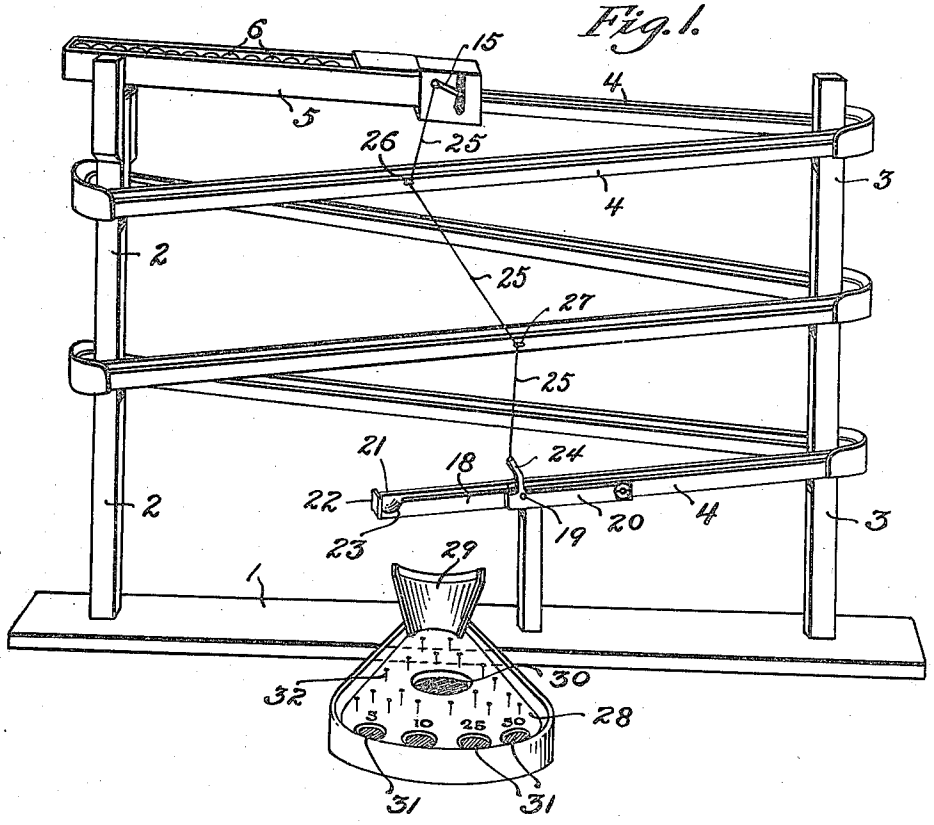


Fig. 2.

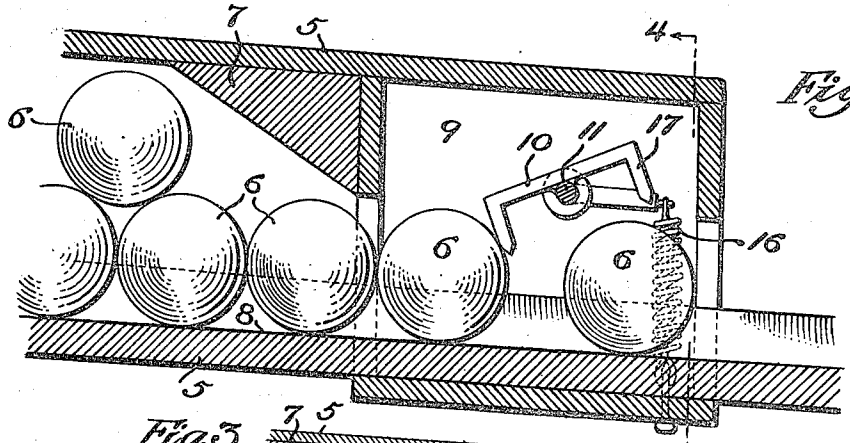
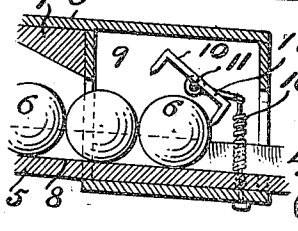


Fig. 3



Witnesses,

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2 SHEETS—SHEET 2.

Fig. 4.

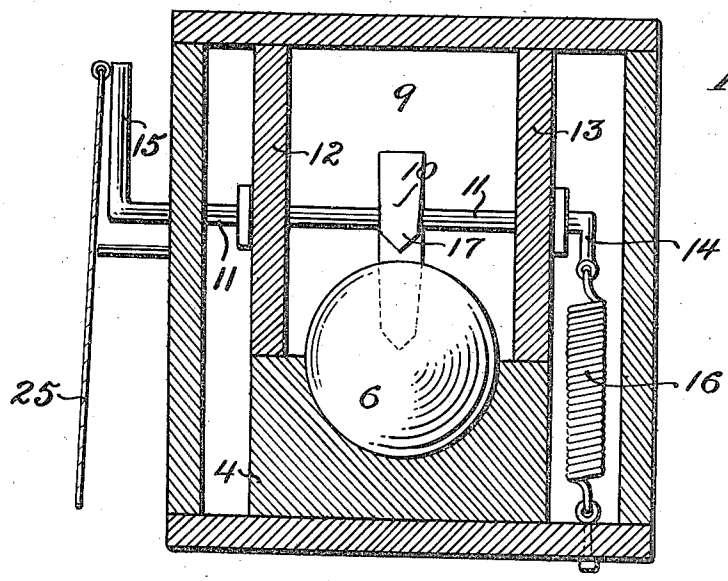
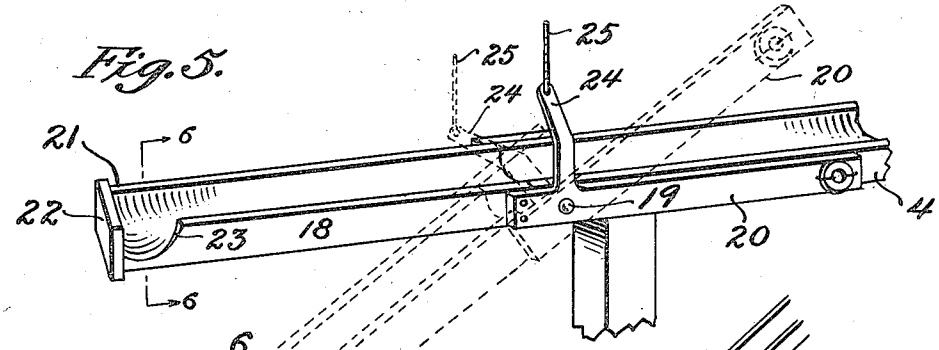
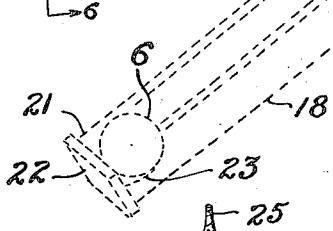


Fig. 5.





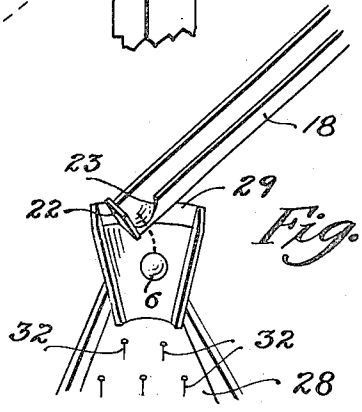
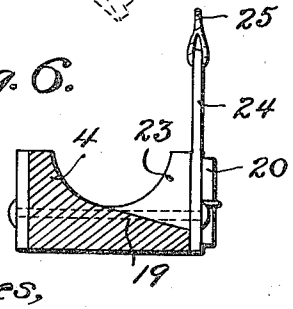


Fig. 7.

Fig. 6.



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UNITED STATES PATENT OFFICE.

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COMBINED TOY AND GAME APPARATUS.

1,296,129. Specification of Letters Patent. Patented Mar. 4, 1919.

Application filed April 9, 1918. Serial No. 227,444.

To all whom it may concern:

Be it known that I, HERBERT SIEGEL, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Combined Toy and Game Apparatus, of which the following is a specification.

One object of my invention is to provide apparatus which can be used as a toy and to play a game.

Another object is to so construct my invention that it will be amusing to children and owing to its construction will be interesting to adults.

A further object is to so construct my invention that when once started it will automatically operate for a considerable time.

These objects, and other advantageous ends which will be described hereinafter, I attain in the following manner, reference being had to the accompanying drawings in which—

Figure 1 is a perspective view of my invention,

Fig. 2 is an enlarged section of a portion of the automatically operative releasing mechanism for marbles or balls which are adapted to be automatically released one by one from a magazine to roll down a circuitous or zigzag track, the mechanism being shown in a position releasing one of the balls and forming a check for the remaining balls in the magazine,

Fig. 3 is a fragmentary section of the same general nature as Fig. 2 showing said releasing means in a position into which it is automatically moved by a spring,

Fig. 4 is an enlarged section taken on the line 4—4 of Fig. 2,

Fig. 5 is a fragmentary perspective view showing a pivoted end portion of the track which is adapted to be overbalanced when the balls successively engage the same, the overbalancing thereof acting to release another ball to allow it to roll down the track,

Fig. 6 is an enlarged transverse section taken along the line 6—6 of Fig. 5, and

Fig. 7 is a fragmentary perspective view showing the overbalanced end portion of the track releasing a ball into a receptacle.

Referring to the drawings, 1 represents a base having two standards 2 and 3 thereon. These standards form a support for an inclined track 4 which is arranged in zigzag formation, as clearly illustrated in Fig. 1. At the extreme upper end of this track is located an elongated box or trough 5 which forms a magazine and is inclined at substantially the same angle as the track. The magazine 5 is adapted to hold a number of balls 6 which are preferably made of metal, such as large ball-bearings, and these balls are adapted, as hereinafter more specifically described, to roll down the track 4 one by one as they are automatically released from the magazine.

The lower end of the magazine 5 has a triangular block 7 which depends therein, the lower end of the triangular block being of such distance from the bottom 8 of the magazine as to permit only one ball at a time to roll down the track.

A chamber 9 is provided at the end of the magazine and through which the balls pass and this chamber includes checking and releasing means for the balls, as will now be described. A verge or bifurcated member 10 is secured to a transversely extending shaft 11. This shaft is mounted in bearings 12 and 13 and has one end provided with a crank arm 14 and the other end provided with a crank arm 15.

A coiled spring 16 has one end secured to the crank arm 14 and the other end secured to the bottom 8. This spring 16 normally tends to hold the verge 10 in the position shown in Fig. 3. As illustrated in Fig. 3, it will be noted that one of the balls 6 is held in check by the arm 17 of the verge 10 and if the verge should be rocked into the position shown in Fig. 2 this ball would be released and roll down the track 4.

The track 4 at its lower end has a portion 18 which is pivoted by a transversely extending pin or rod 19 to the main portion of the track. This pivoted end portion 18 is normally held in alinement with the main portion of the track by means of a counterbalance 20 which is secured to said end portion 18. The track 4 including the portion 18 is grooved throughout its length to provide a smooth runway for the balls and at the extreme end 21 of the portion 18 the groove is abruptly stopped by an end piece 22 against which the balls strike while rolling down the track. The side of the portion 18, however, is cut away, as shown at 23, so that the balls after striking the end piece 22 can drop from the groove of the portion 18. The counterbalance 20, which is preferably made of a strip of metal, has an arm 24.

This arm is connected with the arm 15 of the rock shaft 11 by a cord 25, said cord extending through eyelets 26 and 27 and is held taut due to the action of the spring 16.

A receptacle or tray 28 has a chute 29 at one end and the bottom of the tray includes a large recess 30 and smaller recesses 31. Nails or pins 32 extend upwardly from the bottom of the tray and act as barriers for the balls as they roll successively down the chute 29 into the tray after having dropped from the pivoted end portion 18 of the track, as will now be described.

To start the operation of the apparatus the cord 25 may be pulled by hand and in so doing the verge 10 will be rocked into the position shown in Fig. 2 to release the first ball which will start to roll down the track 4. Upon the releasing of the cord 25 the spring 16 will quickly act to move the verge into the position shown in Fig. 3 and thereby retain the remainder of the balls in the magazine 5. The ball which has been released will roll down the track 4 onto the end portion 18 and in so doing will overbalance the end portion and move it into the position shown in dotted lines in Fig. 5. This action permits the ball to drop out of the cut away portion 23 onto the chute 29 and down into the tray where it will wind its way between the pins 32, and if it rolls into any of the recesses 31 a score is counted, as indicated by the markings 5, 10, 25, and 50, as shown in Fig. 1. If it rolls into the large recess 30, or if it is stopped by any of the pins 32, there is no count.

Furthermore, this overbalancing of the portion 18 causes the arm 24 to pull the cord 25 and to thereby rock the verge 10 to release the next ball. This action is continued automatically until the last ball has rolled from the magazine.

While I have described my invention as taking a particular form, it will be understood that the various parts of my invention may be changed without departing from the spirit thereof, and hence I do not limit myself to the precise construction set forth, but consider that I am at liberty to make such changes and alterations as fairly come within the scope of the appended claims.

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

1. An apparatus of the character described including a track; a magazine for holding balls and being positioned to permit the balls to roll upon said track, said track including a pivoted portion; checking means for said balls; and means operatively connecting said checking means and the pivoted portion of the track whereby when a ball engages said pivoted portion it overbalances the same and moves the checking means through the medium of said connecting means to release another ball from the magazine, substantially as described.

2. An apparatus of the character described including a track; a magazine for holding balls and in alinement with the track, said track having a pivoted portion; a rock shaft; a verge and a crank arm on said rock shaft; means connecting said crank arm and the pivoted portion of the track whereby when the latter is moved the verge will be rocked to release a ball from the magazine; and a spring for moving said verge in an opposite direction after each ball is released, substantially as described.

3. An apparatus of the character described including a track; a magazine for holding balls and in alinement with the track, said track having a pivoted portion; a rock shaft; a verge and a crank arm on said rock shaft; means connecting said crank arm and the pivoted portion of the track whereby when the latter is moved the verge will be rocked to release a ball from the magazine; and a spring for moving said verge in an opposite direction after each ball is released; said magazine having an angular member depending therein and spaced from the bottom thereof a distance to permit only one ball to pass therebetween on its way to the verge, substantially as described.

4. An apparatus of the character described including a track; a magazine for holding balls and being positioned to permit the balls to roll upon said track, said track including a pivoted portion; a verge; and means for operatively connecting said verge with said pivoted portion of the track whereby when a ball rolls along said pivoted portion of the track said portion will be tilted and thereby move the verge through the medium of said connecting means to release another ball to permit it to roll along the track, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HERBERT SIEGEL.

Witnesses:

AUGUSTUS B. COPPES,

CHAS. E. POTTS.