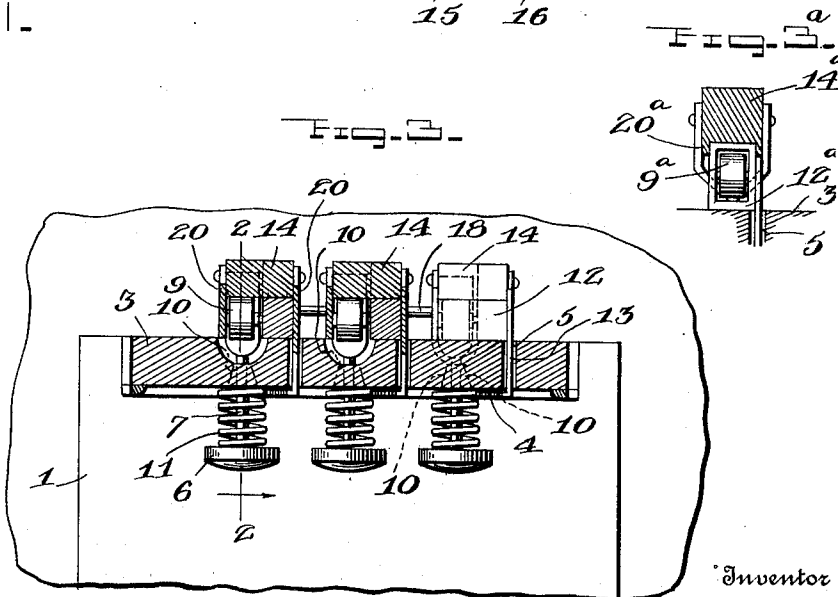
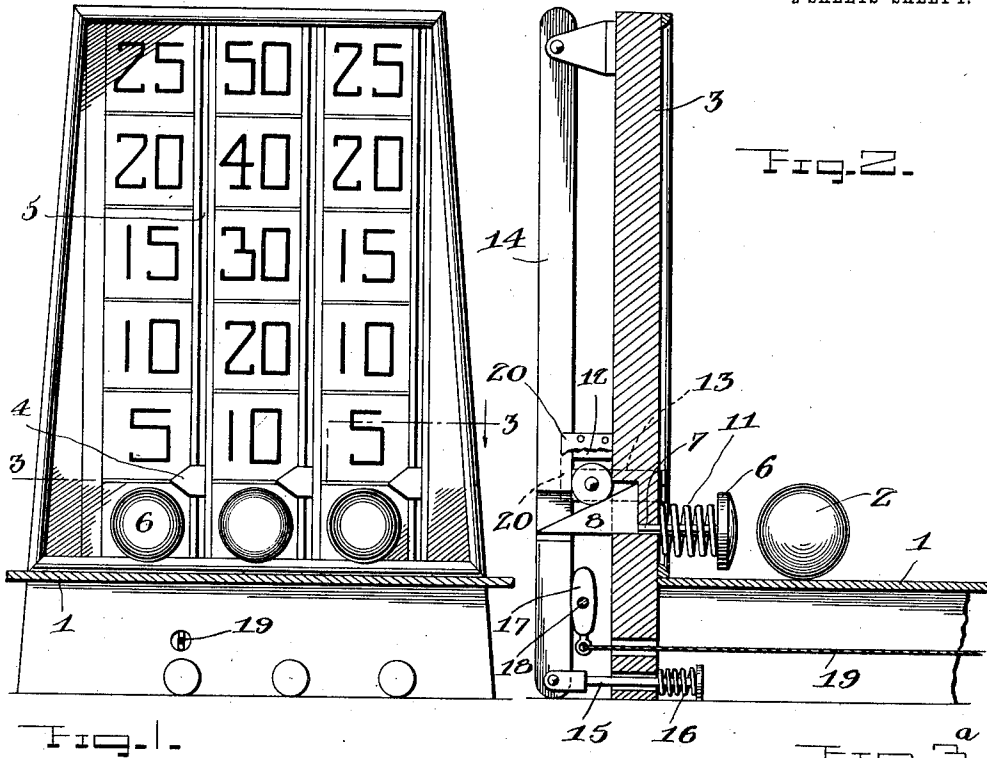


J. L. McCLINTOCK.
 GAME DEVICE.
 APPLICATION FILED JUNE 13, 1910.

1,002,420.

Patented Sept. 5, 1911.

2 SHEETS—SHEET 1.



Witnesses

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2 SHEETS-SHEET 2.

Fig. 4-

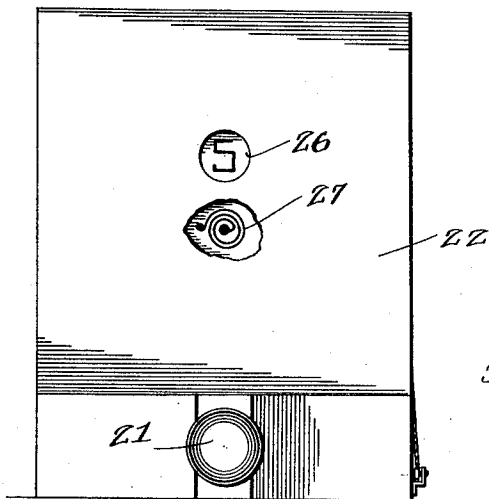


Fig. 5-

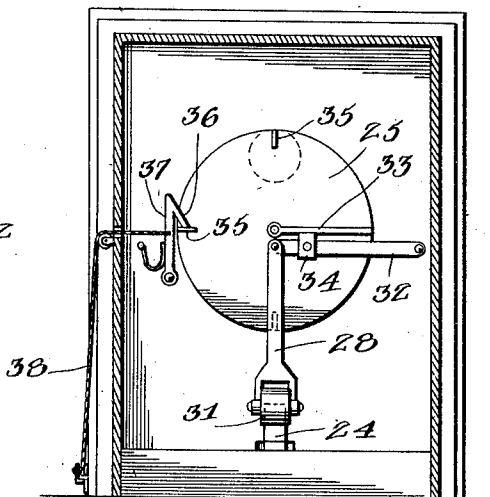


Fig. 6-

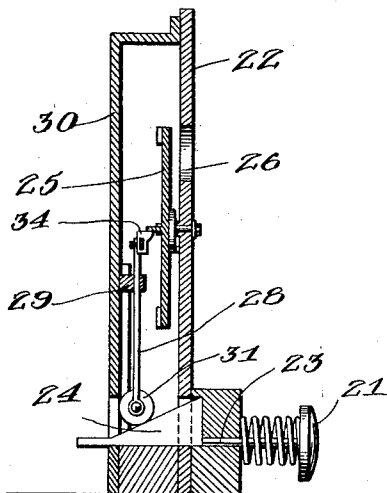


Fig. 8-

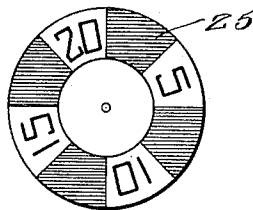


Fig. 9-

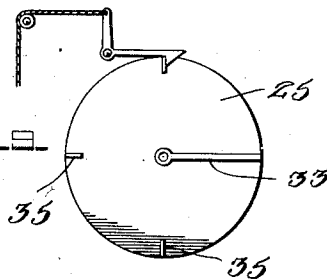
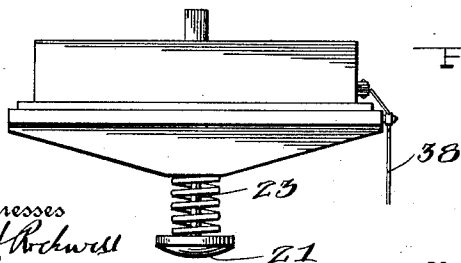


Fig. 7-



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UNITED STATES PATENT OFFICE.

JAMES L. MCCLINTOCK, OF WICHITA, KANSAS.

GAME DEVICE.

1,002,420.

Specification of Letters Patent.

Patented Sept. 5, 1911.

Application filed June 13, 1910. Serial No. 566,570.

To all whom it may concern:

Be it known that I, JAMES L. MCCLINTOCK, a citizen of the United States, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented new and useful Improvements in Game Devices, of which the following is a specification.

This invention relates to an improved game device, and more particularly to a game device in which a ball is rolled down an alley or run-way to strike an indicator.

It is the object of this device to produce a game in which the greatest amount of skill is rewarded by the highest score. The indicating device may be attached to the ordinary ten pin or bowling alley, or may be constructed with an alley or run-way of its own, and it may be constructed in large or small sizes.

While the accompanying drawings illustrate the preferred form of this invention, yet it is to be understood that minor detail changes may be made without departing from the scope thereof.

Figure 1 is a view in front elevation of this device with the run-way floor shown in section. Fig. 2 is a view in side elevation partly in section of the construction shown in Fig. 1. Fig. 3 is a view in horizontal section taken on the line 3—3 of Fig. 1 looking in the direction of the arrow. Fig. 3^a is an enlarged detail plan view partly in section of a modification looking from the under side. Fig. 4 is a view in front elevation of a modified form of this device. Fig. 5 is a view in rear elevation of the construction shown in Fig. 4 partly in section. Fig. 6 is a view in central vertical section taken through Fig. 4. Fig. 7 is a top plan view of the construction shown in Fig. 4. Fig. 8 is a view in front elevation of a detail. Fig. 9 is a view in rear elevation of the detail illustrated in Fig. 8.

The game in question comprises a long alley or runway 1 for the balls 2 and is provided at one end with an upstanding backing 3 having one or more vertically moving indicators 4 which are operated by the ball making contact with a spring pressed trigger or starting device. Each indicator is provided with a separate operating means and will travel upward in a groove 5 passing over a scale and the height of the travel will depend upon the amount of the impetus

given the trigger or starting device by the ball. The trigger or starting device comprises a spring pressed plunger head 6 mounted upon a shaft 7 passing through the backing with an inclined surface 8 on the opposite side of the backing with the highest point of the inclined surface or wedge in proximity to the backing. The inclined surface is adapted to contact with a roller 9 carried upon the corresponding side of the indicator, so that when the plunger is forced inward by the ball an upward impetus will be given to the indicator.

If the shaft carrying the spring pressed plunger head and wedge were mounted to reciprocate through the backing in only a horizontal direction, the amount of impetus given the indicator would depend entirely upon the force of the ball when it strikes the plunger head, and it would make no difference whether the plunger head was struck squarely or upon one edge thereof, so that it would take but little skill to hit the plunger head, and by giving the ball greater initial impetus when it leaves the hand of the operator, the indicator would be caused to travel higher upon the scale. It is the object of this device to create the exercise of a certain amount of skill before the indicator will reach the highermost point for a given original impetus of the ball as it leaves the hand of the operator. This is accomplished in the following manner. While the spring pressed shaft 7 carrying the plunger head 6 and wedge 8 is mounted in a horizontal bearing in the backing, the outer edges of the bearing on either side of the backing are increased in diameter, so that the conical extremities of the bearing will allow the shaft to be moved to the right or left out of the horizontal position which is normally retained by the spring 11 when the plunger head is in the extended position. Since the shaft has this amount of movement out of the normal vertical plane, should a ball strike a little to one side of the center, the plunger head will be moved a little to one side as it is forced inward, and thereby cause an indirect and therefore a less impetus to the indicator. Thus forming a valuable indicator actuating device as the height the indicator will rise depends upon the point of contact of the ball upon the head 6. It is therefore seen that to obtain

the best results, the plunger head must be hit squarely by the ball which will require considerable more skill than the mere striking of the plunger head at any point of it.

5 The indicator block 12 is provided upon one side with a roller 9 adapted to engage the inclined portion 8 of the plunger shaft and upon the other side with an indicator arm 13 which passes through the vertical slot 5 in the backing, and is provided with an indicator pointer upon the front side 10 passing over the characters indicating the score. If desired indicator blocks 12^a may be provided with a roller 9^a upon the under 15 side thereof for engagement with the inclined surface of the plunger shaft, as illustrated in Fig. 3^a. The indicator block 12 travels between the rear face of the backing 3 and a friction arm 14 which is pivotally spaced from the top of the backing and held 20 frictionally in contact with the block by the adjustable spring pressed member 15 passing through the bottom of the backing and pivotally connected to the bottom of the friction arm 14. By regulating the tension 25 on this spring 16, the degree of friction with which this arm 14 engages the indicator blocks may be regulated and this amount of friction will determine the height or distance 30 the indicator will travel when the plunger head is squarely struck by a ball having a certain impetus. This friction member will also retain the indicator blocks in the position reached as a result of the blow until re- 35 leased from contact with the friction member. A cam 17 is mounted upon a shaft 18 between the backing and the adjacent side of the friction member with an operating cord 19 leading therefrom to the front of the alley or runway, so that when it is desired 40 to release the indicator block, the cord is pulled and the friction arm is moved away from the backing against the spring at the bottom thereof and will allow the indicator block 45 to return to its original position with the roller in engagement with the inclined surface of the plunger shaft.

The indicator blocks 12 are provided with guiding flanges 20 on each side of the rear 50 which engage the sides of the friction arm 14. In Fig. 3^a the friction arm 14^a is provided with guiding flanges 20^a to form a track for the travel of the indicator block 12^a.

55 Figs. 4 to 9 illustrate a modified form of this device. In this case but one spring pressed plunger 21 is mounted centrally in the backing 22 and this plunger is mounted to reciprocate in the same manner as the plunger shown in Fig. 1, although it may be 60 made to reciprocate in a straight line only. The plunger shaft 23 is provided with an inclined surface 24 upon the inner side of the backing in the same manner as those previously described. The indicating device in 65 this case consists in a pivotally mounted

disk 25 bearing the score characters thereon as shown in Fig. 8. An aperture 26 is provided of a sufficient size to exhibit the score character over the pivotal point as seen in Fig. 4. This disk 25 is provided with a flat 70 coil spring 27, one end of which is connected to the disk and the other end connected to the backing as shown in Fig. 4. A reciprocating member 28 is mounted in a guide 29 in the rear wall 30 of the casing of the backing 22 and is provided with a roller 31 at the lower end. The upper end is pivotally 75 connected with a movable arm 32 pivoted at its outer end to the front wall of the backing 22. The rear face of the pivotally mounted disk 25 is provided with a rib 33 extending 80 from the center or pivotal point to the circumference and the movable member 32 connected with the reciprocating member 28 is provided with an adjustable engagement 85 block 34 adapted to engage the under side of the rib 33 upon the disk, so that when the spring pressed plunger is forced inward by impact with a ball and thereby giving an upward impetus to the reciprocating mem- 90 ber, this impetus will be transmitted through the member and engagement block to the rib upon the pivotally mounted disk, which will be caused to rotate about its center against the tension of the spring 27. The periphery 95 of the disk upon the rear face is provided with a number of small ribs 35 or projections adapted to engage and ride over the inclined extremity 36 of a spring pressed latch 37 pivotally mounted to the forward wall of 100 the backing and thereby preventing the return of the disk. As the number of ribs upon the periphery correspond with the number of score characters and are correspondingly arranged a score character will 105 be exposed through the aperture in the front of the backing when the disk is held in engagement with the latch. The latch is provided with a retracting cord 38 which leads to the front end of the alley or run-way, so that after the score has been read the disk 110 may be released by pulling upon this cord, and it will then assume its normal position. The amount of impetus imparted to the disk may be regulated by adjustment of the position of the engaging block 34 upon the piv- 115 otal member 32.

In Fig. 9 a modified form of latch is illustrated which will act by gravity and may be retracted in the same manner as the one dis- 120 closed in Fig. 5.

What I claim is:—

1. In a game device, a backing, a score indicator carried thereby, an indicator oper- 125 ating device including a plunger mounted to reciprocate in the backing having a spring pressed plunger head on the front side of the backing and a rearwardly inclined integral wedge on the rear side of 130 the backing, and a roller adapted to en-

gage the incline and impart an impetus to the indicator upon the depression of the plunger.

2. In a game device, a backing, a movable score indicator carried thereby, an indicator operating device having a variable actuator adapted for contact with a moving object providing means to register different scores in accordance with the point of contact of the moving object upon the actuator, means to maintain the score indicator in the registering position, and means to release the indicator to return to the normal position.

3. In a game device, a backing, a movable score indicator carried thereby, an indicator operating device having a variable actuator adapted for contact with a moving object providing means to register different scores in accordance with the point of contact of the moving object upon the actuator, and adjustable means to regulate the operation of the indicator in accordance with the force of impact of the moving object.

4. In a game device, a backing, a movable score indicator carried thereby, an indicator operating device having a variable actuator adapted for contact with a moving object providing means to register different scores in accordance with the point of contact of the moving object upon the actuator, an adjustable means to regulate the operation of the indicator in accordance with the force of impact of the moving object, and means to maintain the score indicator in the registering position.

5. In a game device, a backing, a movable score indicator carried thereby, an indicator operating device having a variable actuator adapted for contact with a moving object providing means to register different scores in accordance with the point of contact of the moving object upon the actuator, and adjustable means to regulate the operation of the indicator in accordance with the force of impact of the moving object, means to

maintain a score indicator in registering position, and means to release the indicator to return to the normal position.

6. In a game device, a backing, a movable score indicating device carried thereby, a spring pressed plunger mounted to reciprocate in the backing, a member upon the plunger having an inclined surface, said inclined surface adapted to cooperate with the indicating device to impart an impulse to the indicator upon contact of a moving object with the plunger, means to retain the indicator at the end of the impulse and means to release the indicator to return to the normal position.

7. In a game device, a backing, a movable score indicating device carried thereby, a spring pressed plunger mounted to reciprocate in a bearing in the backing, said bearing being wider at each end than in the center allowing of a lateral movement of the plunger about the center of the bearing, and means to impart an impulse to operate the indicator in varying degrees in accordance with the lateral position of the plunger when depressed.

8. In a game device, a backing, a movable score indicator carried thereby, an indicator operating device having a variable actuator adapted for contact with a moving object providing means to register different scores in accordance with the point of contact of the moving object upon the actuator, means to maintain the score indicator in the registering position, means to release the indicator to return to the normal position, said means for maintaining and releasing the indicator including therewith adjustable means for regulating the operation of the indicator in accordance with the force of impact of the moving object.

JAMES L. McCLINTOCK.

Witnesses:

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