

D. H. TALBERT, C. SHAW, J. I. HOLCOMB & J. F. HOKE, JR.
AMUSEMENT APPARATUS.

1,004,712.

APPLICATION FILED JUNE 21, 1909.

Patented Oct. 3, 1911.

3 SHEETS—SHEET 1.

Fig - 1 -

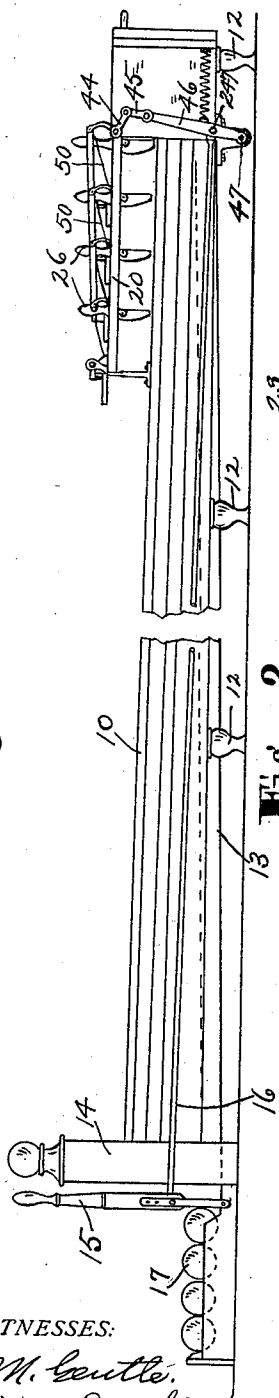
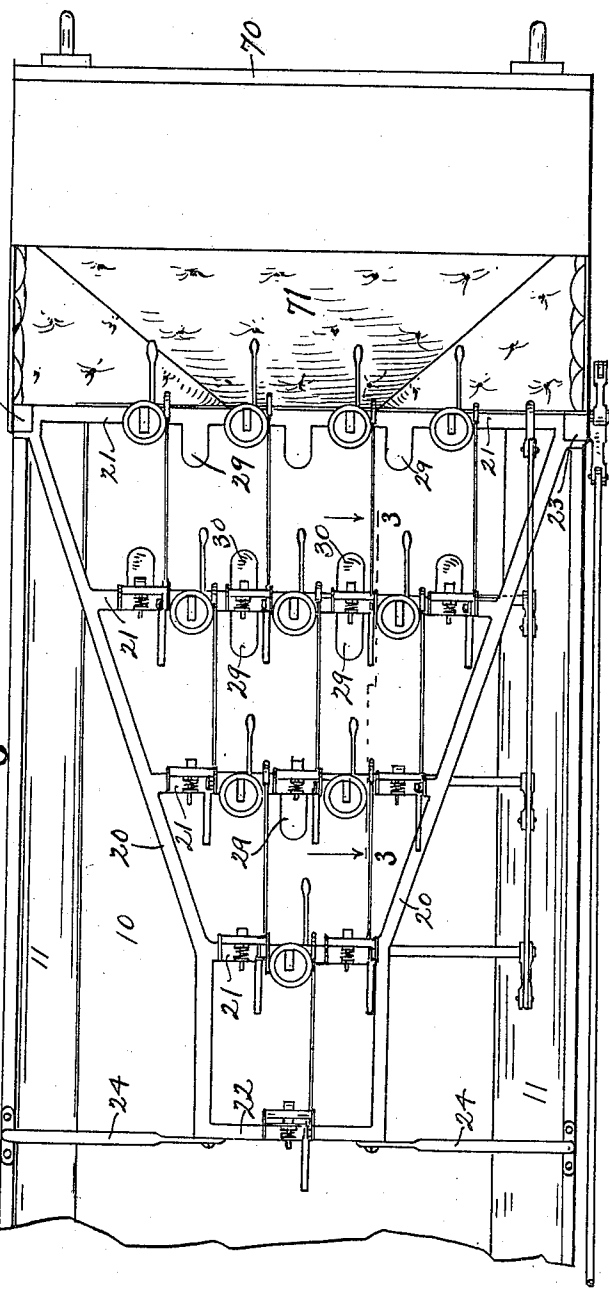


Fig - 2 -



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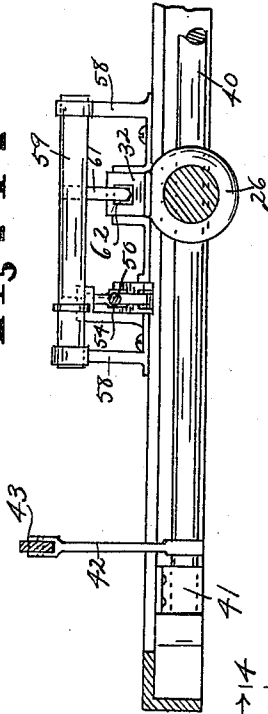
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AMUSEMENT APPARATUS.

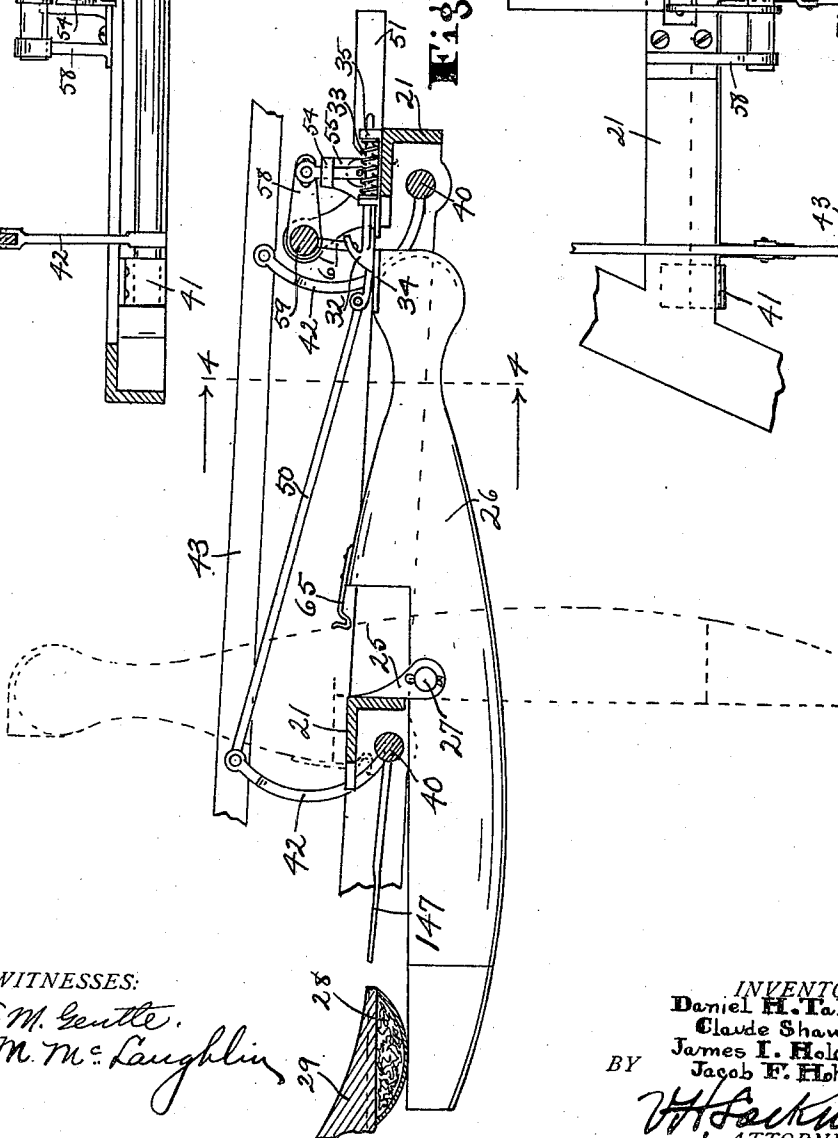
Patented Oct. 3, 1911.

3 SHEETS—SHEET 2.

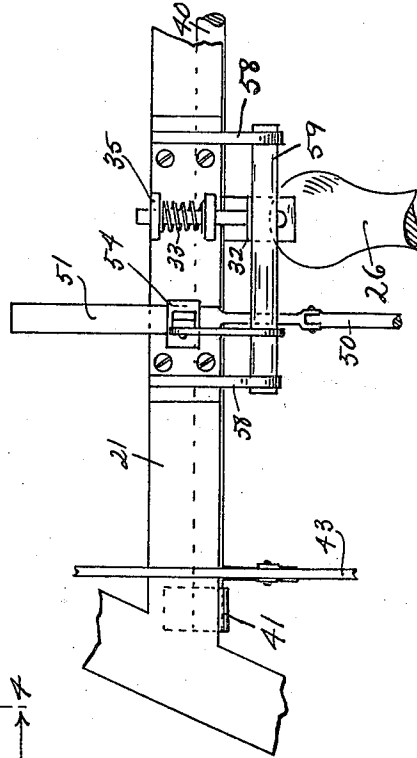
Fig. 4.



3-13



5-311



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3 SHEETS—SHEET 3.

Fig. - 6 -

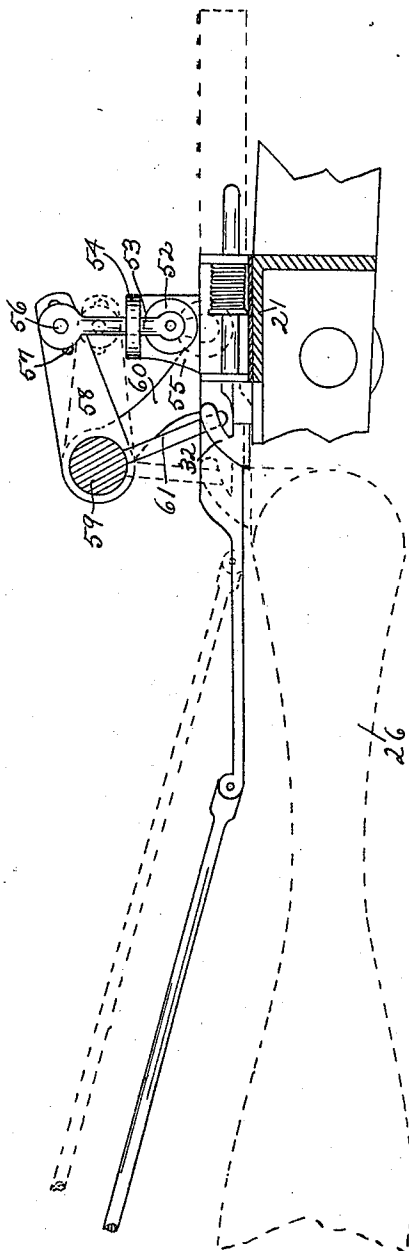


Fig. - 8 -

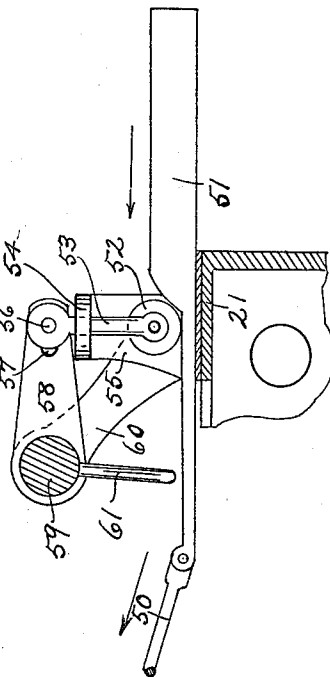
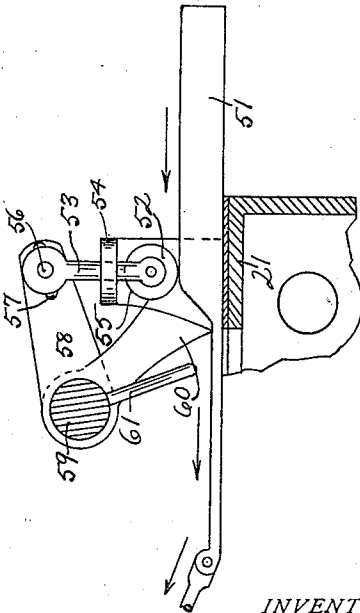


Fig. - 7 -



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UNITED STATES PATENT OFFICE.

DANIEL H. TALBERT, CLAUDE SHAW, JAMES I. HOLCOMB, AND JACOB F. HOKE, JR., OF INDIANAPOLIS, INDIANA; SAID SHAW, HOLCOMB, AND HOKE, JR., ASSIGNORS TO THE AMERICAN BOX BALL COMPANY, OF INDIANAPOLIS, INDIANA, A CORPORATION.

AMUSEMENT APPARATUS.

1,004,712.

Specification of Letters Patent.

Patented Oct. 3, 1911.

Application filed June 21, 1909. Serial No. 503,379.

To all whom it may concern:

Be it known that we, DANIEL H. TALBERT, CLAUDE SHAW, JAMES I. HOLCOMB, and JACOB F. HOKE, JR., of Indianapolis, county of Marion, and State of Indiana, have invented a certain new and useful Amusement Apparatus; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like letters refer to like parts.

The object of this invention is to provide an improved game apparatus wherein alley pins are employed that are positioned substantially the same as the pins in ordinary bowling alleys.

The nature of the improvement will be understood from the accompanying drawings and the following description and claims:

In the drawings Figure 1 is a side elevation of the apparatus centrally broken away. Fig. 2 is a plan view of the rear portion thereof. Fig. 3 is a vertical section on the line 3—3 of Fig. 2 with the alley pin shown in the horizontal position by full lines and in the vertical position by dotted lines. Fig. 4 is a section through a part of the device on the line 4—4 of Fig. 3. Fig. 5 is a plan view of the rear portion of Fig. 3. Fig. 6 is substantially the same as a part of the rear portion of Fig. 3 on a larger scale, parts being broken away and parts being shown by dotted lines, the resetting means being shown by full lines in its actuated position and by dotted lines in its normal position. Fig. 7 shows a portion of what appears in Fig. 6, while the resetting means is in process of operation. Fig. 8 is the same as Fig. 7 showing the resetting means in operation at a stage in advance of what appears in Fig. 7.

In the drawings 10 represents a ball course or alley, over which balls may be rolled. On each side it has a trough 11 as is usual in bowling alleys. Said ball course or alley is supported on legs 12. 13 is the return ball trough.

14 is a post at the front end of the device. 15 is a hand lever for actuating the resetting means through the connecting rod 16.

17 are the balls.

Over the rear portion of the ball course

a substantially A-shaped frame is mounted consisting of side bars 20 and cross bars 21 and 22. The parts of the frame are integral. The rear portions are secured to posts 23, while the forward end is held in place by bars 24 secured to the side of the ball course or alley.

From the cross bars 21 there are downwardly extending ears 25, in which the alley pins 26 are pivoted by the pin 27 near the center of gravity. These alley pins are formed substantially the same as the ordinary alley pin, excepting the lower rear portion thereof is cut away, in order that the pin may return to a horizontal position under the bar 21, when struck. When it is thus struck, the lower end of the pin strikes the buffer or pad 28 on arms 29 projecting forwardly from the cross bars 21. These bars 29 check the movement of the lower ends of the alley pins on all the bars 21 excepting the rear one. The alley pins on the rear bar are checked by the tops of said alley pins engaging pads on the arms 30 extending from the second to the rear bar.

When an alley pin is thrown by a ball, it is moved from the vertical position indicated in Fig. 3 to the horizontal position, and the upper end of the pin engages the end of the plunger head 32 and forces it rearwardly against the action of the spring 33, so that the head of the pin passes below said plunger head, and the plate 34 on the head of the pin engages the lower surface of the head of the plunger. The plunger is mounted in bearings 35 on the cross bar 21 so as to yield forwardly. This locks the pin in its horizontal or struck position and holds it there until released. This plunger catch mechanism for each pin is mounted on the cross bar in front of the pins, and therefore it is necessary to have the cross bar 22 to mount the catch in front of the first alley pin mounted on the cross bar 21.

After the balls have been rolled, the pins are reset by the following means: Behind each cross bar 21 there is a rock shaft 40 mounted in bearings 41 secured to said cross bars 21. Arms 42 extend upwardly from each rock shaft to a connecting bar 43 with which they are all pivotally connected, and the rear rock shaft is actuated by the crank 44 secured to said rock shaft, the connecting bar 45, and the lever 46 pivoted at 47

to the frame of the device, and connected at 247 with the long connecting rod 16 that runs to the front end of the apparatus. Hence actuation of the rod 16 will cause the rocking of all the rock shafts 40, and their rocking movement causes the arms 147 extending rearwardly from each rock shaft to engage the lower rear surfaces of the alley pins and push them down into their vertical position. This movement of the alley pins from the horizontal to the vertical position, however, cannot be accomplished until the other ends of the alley pins are released by the plunger head 32. This release is accomplished by the rods 50 that are connected at one end with the arms 42 on the rock shaft 40, see Figs. 1 and 3, and at the other end to cam plates 51 that slide upon the cross bars 21. The forward ends of said plates 51 are thicker than the rear portions and provided with an inclination leading from one surface to the other. Upon each of said cam plates a roller 52 rides, that is mounted on the lower end of rod 53 which is vertically reciprocable in the bearing 54 in the upper part of the stand 55 extending from the cross bar 21. A pin 56 from said rod 53 projects through the slot 57 in the outer end of the crank 58, secured on the rock shaft 59 which is mounted in the inclined arm 60, that projects upwardly and rearwardly from the cross bar 21. Pins 61 extend downwardly from said rock shaft 59 and project through holes 62 in the plunger head 32, see Fig. 4. Therefore, when the rock shaft 59 is operated from the dotted line position shown in Fig. 6 to the full line position, it moves the plunger head out of engagement with the end of the alley pin, and at the same time the arm 47 on the rock shaft 40 engages the other end of the alley pin and pushes it down to a vertical position. The alley pins are held in vertical position by a spring latch 65 that engages the edges of the bars 21, as indicated by dotted lines in Fig. 3. After the ball passes the alley pins, it strikes against the rear wall 70 of the device and rolls down on the cushion bottom 71 and thence into the return trough 13.

What we claim as our invention and desire to secure by Letters Patent is:

1. An amusement apparatus of the kind described including a ball course, alley pins with rounded upper ends, a plurality of bars mounted transversely over the rear part of the ball course upon which said pins are pivotally mounted so as to be moved from a vertical to a horizontal position when struck by a ball, one of said bars being located in front of another, a catch on each bar adapted to engage the upper end of an alley pin

on the next rear bar and hold it, and means carried by the transverse bar on which an alley pin is mounted for releasing the catch for said alley pin on the next transverse bar in front.

2. An amusement apparatus of the kind described including a ball course, alley pins with rounded upper ends, a plurality of bars mounted transversely over the rear part of the ball course upon which said pins are pivotally mounted so as to be moved from a vertical to a horizontal position when struck by a ball, one of said bars being located in front of another, a forwardly slidable catch mounted on each transverse bar in position to catch the upper end of an alley pin mounted on the next transverse bar to the rear and having thin and thicker portions, a rock shaft carried by the transverse bar on which said catch is mounted, an extension therefrom in engagement with said catch so as to move the catch out of engagement with the alley pin, a sliding cam plate mounted beside said catch, means for moving said cam plate, and means actuated by said cam plate for causing the operation of said rock shaft.

3. An amusement apparatus of the kind described including a ball course, alley pins with rounded upper ends, a plurality of bars mounted transversely over the rear part of the ball course upon which said pins are pivotally mounted so as to be moved from a vertical to a horizontal position when struck by a ball, one of said bars being located in front of another, a forwardly slidable catch mounted on each transverse bar in position to catch the upper end of an alley pin mounted on the next transverse bar to the rear and having thin and thicker portions, a rock shaft carried by the transverse bar on which said catch is mounted, an extension therefrom in engagement with said catch so as to move the catch out of engagement with the alley pin, a sliding cam plate mounted beside said catch, means for actuating all the cam plates simultaneously, and means actuated by each cam plate for causing the operation of said catch.

In witness whereof, we have hereunto affixed our signatures in the presence of the witnesses herein named.

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CLAUDE SHAW.
JAMES I. HOLCOMB.
JACOB F. HOKE, JR.

Witnesses:

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O. M. McLAUGHLIN.