

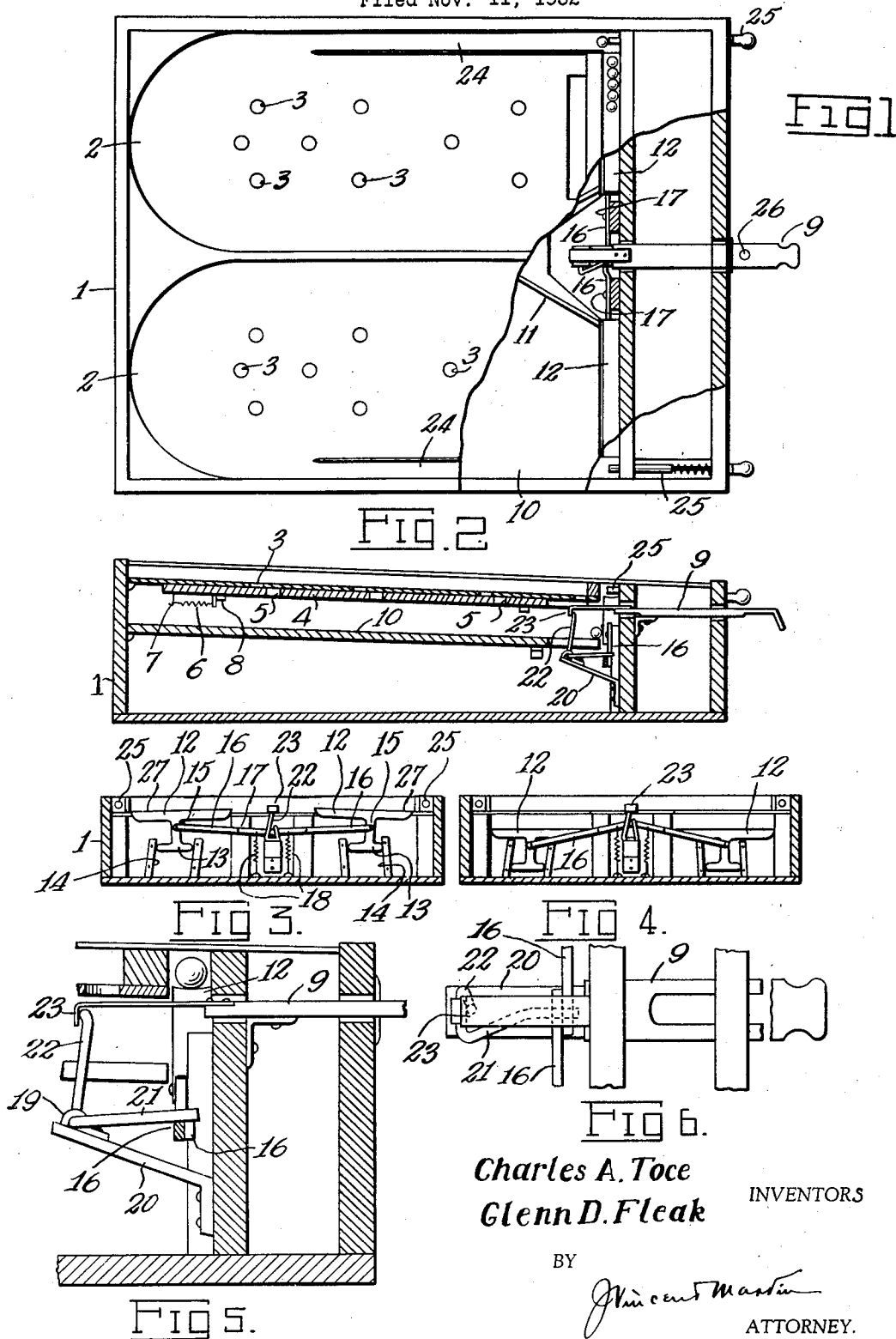
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GAME APPARATUS

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## GAME APPARATUS

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This invention relates to game apparatuses.

It will be found particularly useful in that type of game apparatus including a game board having a plurality of ball openings therein, means to shoot the game balls upon the board, means to releasably hold the balls in the openings of the board, and means to release the balls and effect the return thereof to the shooting means.

The conventional game apparatus of this type includes two actuators accessible from the exterior of the machine, the one serving to release the balls and the other to return the balls to the shooting means. This invention has for one of its principal objects the provision of a game apparatus including but one actuator to effect the release of the balls and the return thereof to the shooting means.

Another object of the invention is to provide a new and improved ball elevator to elevate the balls from beneath the board to the shooting means.

A further object of the invention is to provide a new and improved apparatus having twin sections operable by a common actuator.

Other objects will hereinafter appear.

The preferred embodiment of the invention is illustrated by the accompanying drawing, wherein Fig. 1 is a partly sectional top plan view of the apparatus; Fig. 2, a longitudinal sectional elevation thereof; Fig. 3, a transverse sectional view thereof, the elevators being shown in their ball delivering positions; Fig. 4, a transverse sectional view thereof, the elevators being shown in their ball receiving positions; Fig. 5, and Fig. 6, a fragmentary longitudinal sectional view and a fragmentary top plan view illustrating the connection of the actuator to the elevators.

In the drawing the game table is indicated at 1. It has therein twin sections, each of which sections includes a longitudinally inclined game board 2, having a plurality of ball openings 3. Slidable longitudinally beneath each of the game boards 2 is a ball supporting board 4 having openings 5. The supporting board 4 is normally held in the position shown by Fig. 2 by the tension spring 6 connected thereto at 7 and to an anchor 8 stationarily mounted on the table 1. As will hereinafter appear, the supporting board 4 is so movable by the actuator 9 that the openings 5 may be aligned with the openings 3.

Beneath the supporting board 4 is a tray 10 inclined longitudinally as indicated by Fig. 2, and forming with the table 1 and partition 11 an outlet passageway to convey the game balls to the elevators 12. Each of the elevators 12 is sub-

stantially T-shaped in cross-section and the lower portion 13 thereof is slidable in the slot 14 formed by the members shown. Pivoted at 15 to each of the elevators 12 is a lever 16 and each of the levers 16 is pivoted at 17 to a stationary support in the table. To each of the levers 16 and to the table is connected a tension spring 18 to substantially counter-balance the weight of its elevator 12. These springs are not sufficiently strong to hold the elevators 12 in their positions shown by Fig. 3 and the elevators are, therefore, normally in the positions shown by Fig. 4.

Mounted at 19 on a bracket 20 in the table is a bell crank lever one arm 21 of which rests upon the inner portions of the levers 16 and the other arm 22 of which extends upwardly to be engaged by the hook 23 of the actuator 9. As will hereinafter appear, when the arm 22 is released by the hook 23 of the actuator 9 the arm 21 may move upwardly to release the levers 16 whereupon the elevators 12 will fall by gravity from the positions shown by Fig. 3 to the positions shown by Fig. 4, and when the hook 23 engaging the arm 22 rotates the bell crank lever in a clockwise direction about its pivot 19, the arm 21 will force the inner portions of the levers 16 downwardly to move the elevators from the positions shown by Fig. 4 to the positions shown by Fig. 3.

On opposite sides of the table 1 are ball inlet passageways 24 and ball shooting means are provided in the form of spring actuated plungers 25 to shoot the balls through the inlet passageways 24 upon the game boards 2.

The apparatus is operated as follows:

After a predetermined coin is inserted in the opening 26 of the conventional coin-controlled mechanism of the actuator 9, the actuator 9 may be moved inwardly. When it is moved inwardly the hook 23 releases the bell crank lever arm 22 so that the elevators 12 descend from the positions shown by Fig. 3 to the positions shown by Fig. 4, and the hook 23, engaging the supporting board 4, moves said board to align the openings 5 and the openings 3, whereupon the balls in the openings 3 fall through the openings 5 and rolling down the outlet passageway formed by the inclined tray 10 fall upon the elevators 12. Then when the actuator 9 is pulled outwardly the hook 23 releases the game board 4 and the spring 6 moves the game board 4 back into its ball supporting position shown by Fig. 2, and the hook 23 then engages the arm 22 of the bell crank lever to depress the arm 21 and cause levers 16 to move elevators 12 from the positions shown by Fig. 4 to the positions shown

by Fig. 3. Because of the inclination of the guide slots 14, the upper ball supporting surfaces 27 of the elevators are, when the elevators reach their uppermost positions shown by Fig.

3, inclined outwardly and downwardly in opposite directions, toward the inlet passageways 24 into which the balls will roll by gravity. The balls are all elevated at one time but move into the inlet passageways one at a time to be shot upon the boards by the plungers 25 through the inlet passageways 24.

The many advantages of this invention will be apparent to those skilled in the art.

The invention is not limited to the preferred embodiment herein disclosed. Various changes may be made within the scope of the following claims.

We claim:

1. A game apparatus having twin sections, each of said sections including a game board having a plurality of openings therein adapted to receive balls; a ball supporting board beneath said game board to support game balls in said openings; said supporting board having openings therein normally out of registry with the openings in the game board; an outlet passageway from said first mentioned board and an inlet passageway to said board above said outlet passageway; an elevator adjacent the inlet passageway of each section to deliver the balls from the outlet passageway to the inlet passageway; and a single actuator operatively associated with the supporting boards and elevators of both of said sections so that when said actuator is moved in one direction said supporting boards are so moved that the openings in said game boards and supporting boards are aligned to permit the game balls to pass from said boards through said outlet passageways and onto said elevators; and when said actuator is moved in the opposite direction said elevators move said balls to said inlet passageways; and ball shooting means to shoot said balls through said inlet passageways upon said game board; said inlet passageways being disposed on opposite sides of said apparatus, and said elevators when in their upper positions being inclined outwardly and downwardly to deliver said balls one at a time to said ball shooting means.

2. In a game apparatus; a game board having a plurality of openings therein adapted to receive balls; a ball supporting board beneath

said game board to support game balls in said openings; said supporting board having openings therein normally out of register with the openings in the game board; an outlet passageway for balls, under said boards; an inlet passageway above said outlet passageway and leading to the game board; an elevator adjacent the inlet passageway to deliver the balls from the outlet passageway to the inlet passageway; and an actuator operatively associated with said supporting board and elevator so that when said actuator is moved in one direction said supporting board is so moved that the openings in said boards are aligned to permit the game balls to pass from said boards through said outlet passageway and onto said elevator; and when said actuator is moved in another direction said elevator moves said balls at one time to a position adjacent said inlet passageway; and ball shooting means to shoot said balls through said inlet passageway upon said game board; said elevator when in its upper position being inclined toward said inlet passageway to deliver said balls one at a time to said ball shooting means.

3. In a game apparatus: a game board having a plurality of openings therein adapted to receive balls; means to releasably hold game balls in said openings; an inlet passageway to said board; an elevator adjacent said passageway; an actuator; said actuator being operatively connected to said means and said elevator to cause said balls to be released and then elevated at one time to a position adjacent said inlet passageway; said elevator being vertically and upwardly movable by said actuator into a position in which its ball supporting surface is inclined downwardly toward said inlet passageway; and ball shooting means to shoot said balls through said inlet passageway upon said game board.

4. A game apparatus having twin sections side by side, each section comprising a board having openings through which balls may fall, means to project balls onto said board, means to control the fall of said balls through said openings, means to return such balls to the projecting means, and a single actuating device operatively connected to the said control means and the said return means of both boards, to operate them both simultaneously.

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