

No. 841,770.

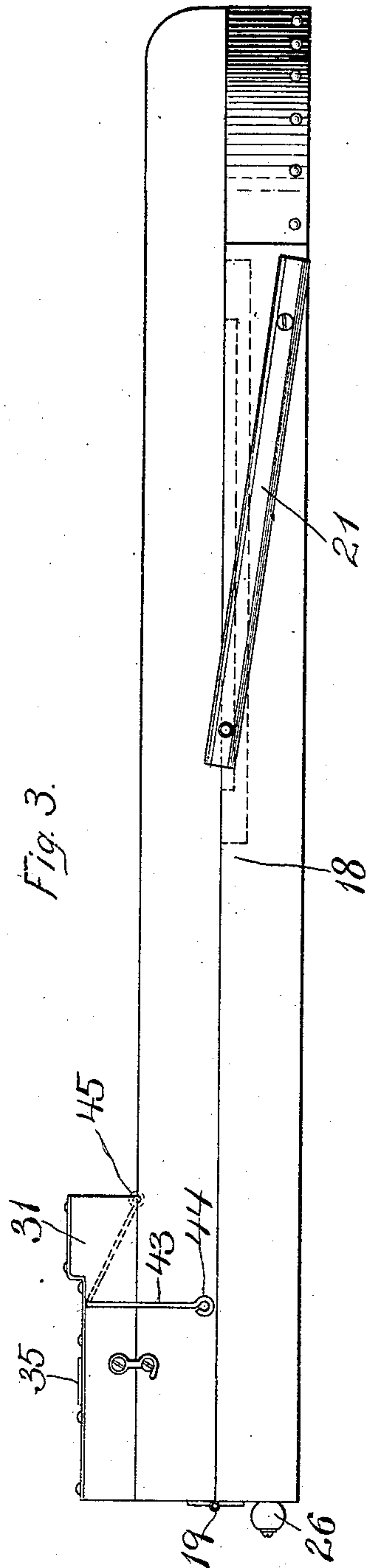
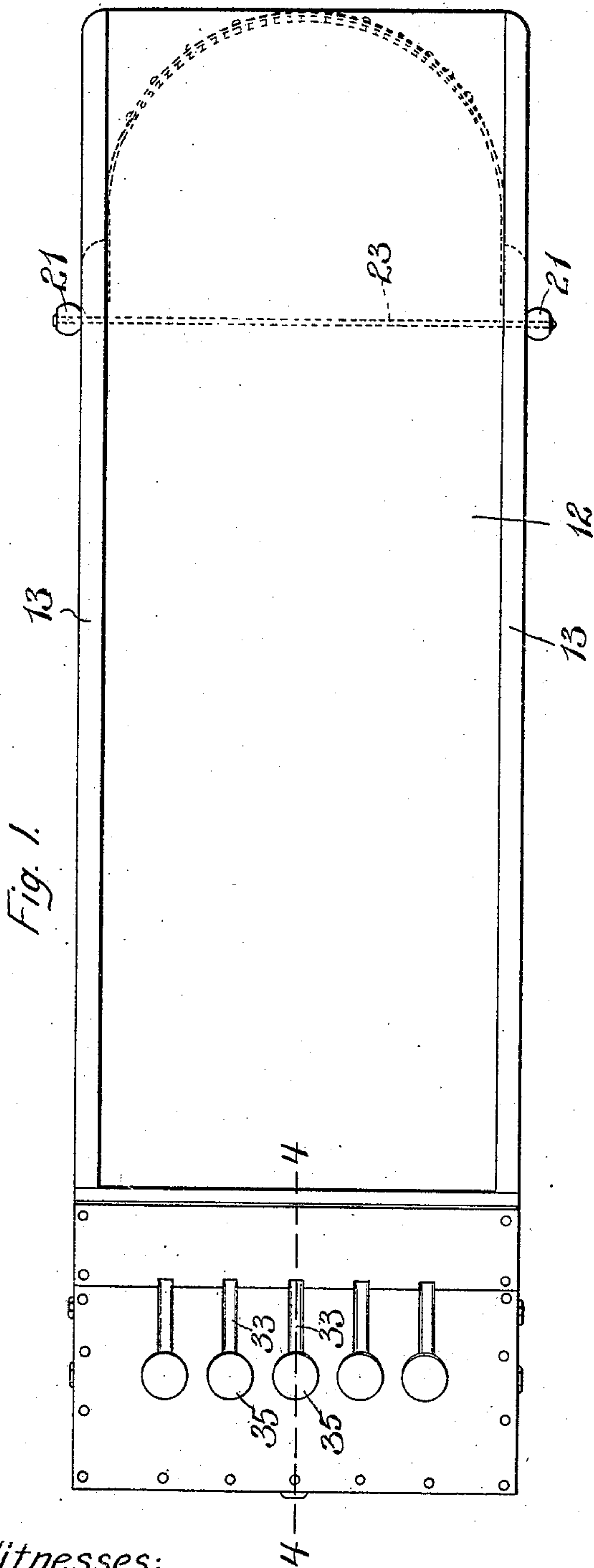
J. S. DEARBORN.

PATENTED JAN. 22, 1907.

GAME APPARATUS.

APPLICATION FILED JULY 11, 1906.

2 SHEETS—SHEET 1.



Witnesses:
A. C. Ratigan
E. Batchelder

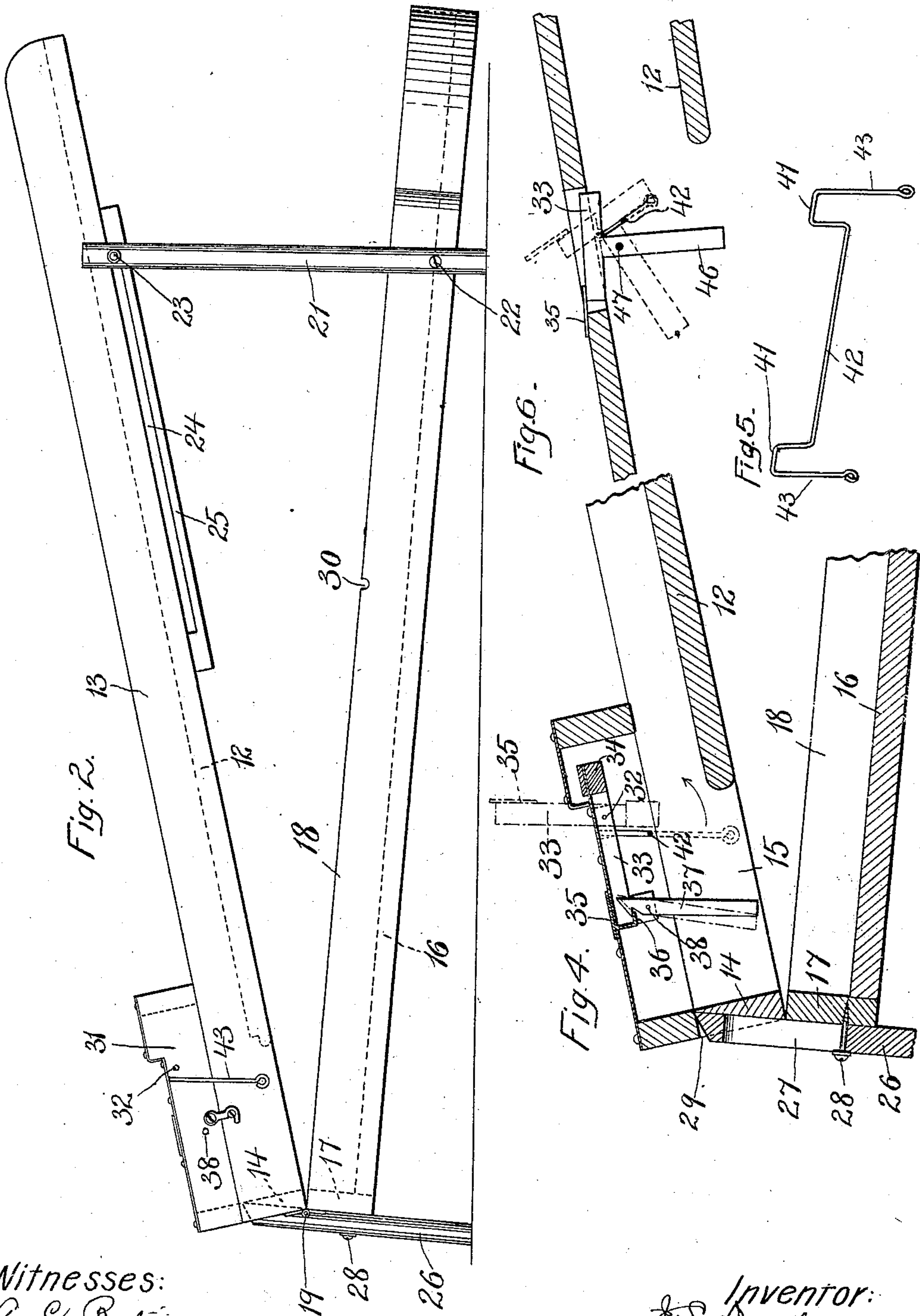
Inventor:
J. S. Dearborn
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by Hugh B. Smith, Attorney.

UNITED STATES PATENT OFFICE.

JOHN S. DEARBORN, OF LYNN, MASSACHUSETTS.

GAME APPARATUS.

No. 841,770.

Specification of Letters Patent.

Patented Jan. 22, 1907.

Application filed July 11, 1906. Serial No. 325,638.

To all whom it may concern:

Be it known that I, JOHN S. DEARBORN, of Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Game Apparatus, of which the following is a specification.

This invention consists in certain improvements in a game apparatus, and is embodied in a board over which balls are adapted to be impelled, pivoted arms or targets adapted either to project above the board in a displayed position or to be depressed to a practically-concealed position, and means operated by balls moved over the board to cause the arms to move from their concealed to their displayed position.

The invention is also embodied in various improvements relating to the adjustment and manner of supporting the apparatus.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a top plan view of a game apparatus embodying my invention: Fig. 2 represents a side view of the same, the apparatus being adjusted for use. Fig. 3 represents a view similar to Fig. 2, showing the apparatus folded. Fig. 4 represents a section on line 4-4 of Fig. 1. Fig. 5 represents a perspective view of one of the parts of the apparatus. Fig. 6 represents a fragmentary view showing a somewhat different embodiment of the invention.

The same numerals of reference indicate the same parts in all the figures.

In the drawings, 12 represents a board which is preferably oblong in shape and is provided at its longer edges with wings or flanges 13, which preferably extend beyond one end of the board and are connected at their extended ends by a cross-bar or end piece 14. A space or ball-outlet 15 is provided between the end piece 14 and the adjacent end of the board 12, through which space ball-rolling along the board drop onto a return-board 16. The said return-board is provided with an end piece 17 and side pieces 18, the end piece 17 being connected by hinges 19 with the end piece 14. This construction enables the boards 12 and 16 to diverge, as shown in Fig. 2, or to be brought into parallelism, as shown in Fig. 3.

21 21 represent legs pivoted at 22 to the return-board and connected near their swinging ends by a cross-rod 23, which extends under the board 12 and is engaged with elongated slots 24, formed by the under side of

the board 12, and recessed strips 25, attached to said board. When the apparatus is in use, the legs 21 are swung to the position shown in Fig. 2, the cross-rod 23 being thus caused to support the board 12 in an inclined position.

26 represents a leg having a slot 27, through which passes a screw or stud 28, engaged with the end piece 17. The slot 27 permits the leg 26 to be moved endwise on the stud 28, the leg being adapted also to swing on said stud. Consequently the leg is adapted to be adjusted to the position shown in Fig. 2 to support one end of the apparatus with the board 16 standing at an opposite inclination from the board 12, the leg being also adapted to be swung to a horizontal position parallel with the end piece 17 when the apparatus is folded, as shown in Fig. 3.

When the apparatus is adjusted, as shown in Fig. 2, the upper end of the leg 26 enters a recess 29 in the end piece 14, the upper end of the leg bearing on the end of the recess, which prevents the leg from moving upwardly, the sides of the recess preventing the leg from swinging on the stud 28. Provision is thus made for firmly securing the leg 26 in its operative position. When the apparatus is folded, the legs 21 are swung downwardly, the cross-rod 23 sliding in the slot 24 and entering notches 30, formed in the side pieces 18. The strips are located so that when the apparatus is folded they project between the side pieces 18.

In Figs. 1, 2, 3, and 4, 31 represents a casing bearing upon the inner end portions of the side pieces 13 and on the end piece 14. The side pieces of said casing support a transverse rod 32, on which are pivoted a series of arms 33, each having at one end a weight 34 and at the opposite end a head or target 35, which is directly carried by the arm to swing therewith. The weight 34 is adapted to normally hold the arm in an upright position, with the target projecting above the casing 31, as shown by dotted lines in Fig. 4. Each arm is provided with a detent-engaging member 36, the said members being adapted to be engaged by a series of detents 37, which are pivoted upon a cross-rod 38, supported by the sides of the casing 31. Each detent has a shorter and a longer arm, the shorter arm being hooked to engage the member 36, while the longer arm projects downwardly into the ball-outlet 15 and is in a position to be encoun-

tered by a ball which is rolled down the board and is about to escape through the opening 15. When a ball strikes one of the detents 37, it displaces the latter, as indicated by dotted lines in Fig. 4, causing it to release the member 36 of the corresponding arm 33, whereupon the said arm is moved by its weight 34 to an exposed position. The detents 37 are preferably formed so that they have narrow edges facing the balls rolling down the board 12, the spaces between the adjacent detents being considerably greater than the diameter of the ball, so that the balls are liable to pass between the detents without striking them. Owing to this fact, a desirable degree of uncertainty attends the operation of the apparatus. A device is employed for depressing the arms 33 into engagement with the detents, the said device being preferably a stout wire having portions 41 which are journaled in grooves in the side pieces of the casing 31, a portion 42 offset from the portions 41 and arranged to bear against the arms 33 when the latter are raised, and operating-arms 43, which are located outside the casing. When either of the arms 43 is swung in the direction indicated by the arrow in Fig. 4, the offset portion 42 is swung in the same direction and moves the upwardly-projecting arm or arms 33 to a depressed position and into engagement with the corresponding detent or detents. One of the arms 43 may have an eye 44 adapted to engage a pin 45, projecting from one side of the casing 31, the offset portion 42 being thus locked in position to prevent the arms 33 from swinging upwardly, so that when the apparatus is folded there will be no liability of accidental displacement of the arm and targets.

In Fig. 6 I show the arm 33 adapted to be held by gravity in both its displayed and its concealed position. In this embodiment of the invention I substitute for the detent 37 a wing 46, formed on or rigidly attached to the arm 33 and projecting from the inner edge thereof, the arm and wing forming a T-shaped piece which is pivoted at 47, the arrangement being such that the piece will be held by gravitation either in the full-line position or in the dotted-line position shown in Fig. 6. When the target 35 is depressed, the wing 46 stands in position to be encountered by a ball rolling down the board 12. The force of the ball striking the wing tips it and the arm 33 to the position shown by dotted lines, the arm remaining in this position until it is restored to the full-line position by the setting device 42. It will be seen that the wing 46 acts as a gravity-detent to hold the arm 33 in its concealed position until displaced by a ball. When the wing is thus displaced, the center of gravity of the T-shaped piece formed by the arm 33 and wing

46 is shifted to the opposite side of the pivot 47, so that the wing ceases to act as a detent.

I claim—

1. A game apparatus comprising a board, a series of arms pivoted above the board and carrying targets which swing therewith, and adapted to occupy either a displayed or a concealed position, said arms being free to swing to vertical position to display the targets, and detents located below the arms, and adapted to normally hold the arms in their concealed position, said detents being displaceable by balls moved over the board to permit the arms to move to their displayed position.

2. A game apparatus comprising a board, a series of arms pivoted above the board and carrying targets which swing therewith, and adapted to normally project upwardly from the board, said arms being free to swing to vertical position to display the targets, and a series of detents adapted to lock the arms in a depressed position, said detents standing in position to be displaced by balls moved over the board.

3. A game apparatus comprising a board, a series of arms pivoted above the board and carrying targets which swing therewith, each having a weight and a detent-engaging member, said arms being free to swing to vertical position to display the targets, and a series of detents adapted to engage the said members and hold the arms depressed, the detents being arranged to be displaced by balls moved over the board.

4. A game apparatus comprising a board, a series of arms pivoted above the board and carrying targets which swing therewith, and adapted to normally project upwardly from the board, said arms being free to swing to vertical position to display the targets, a series of detents adapted to lock the arms in a depressed position, said detents standing in position to be displaced by balls moved over the board, a laterally-movable rod 42, adapted to move the arms to their depressed positions, and means for moving said rod.

5. A game apparatus comprising two boards, each having side pieces and an end piece, the end pieces of the two boards being connected by hinges, and the end piece of the upper board being provided with a recess 29, a pair of legs 21 pivoted to the lower board, and connected at their upper portions by a cross-rod 23, which supports and is slidably engaged with the upper board, and a slotted leg 26 pivoted to the end piece of the lower board, and adapted to enter the recess 29.

In testimony whereof I have affixed my signature in presence of two witnesses.

JOHN S. DEARBORN.

Witnesses:

C. F. BROWN,
E. BATCHELDER.