

Dec. 25, 1934.

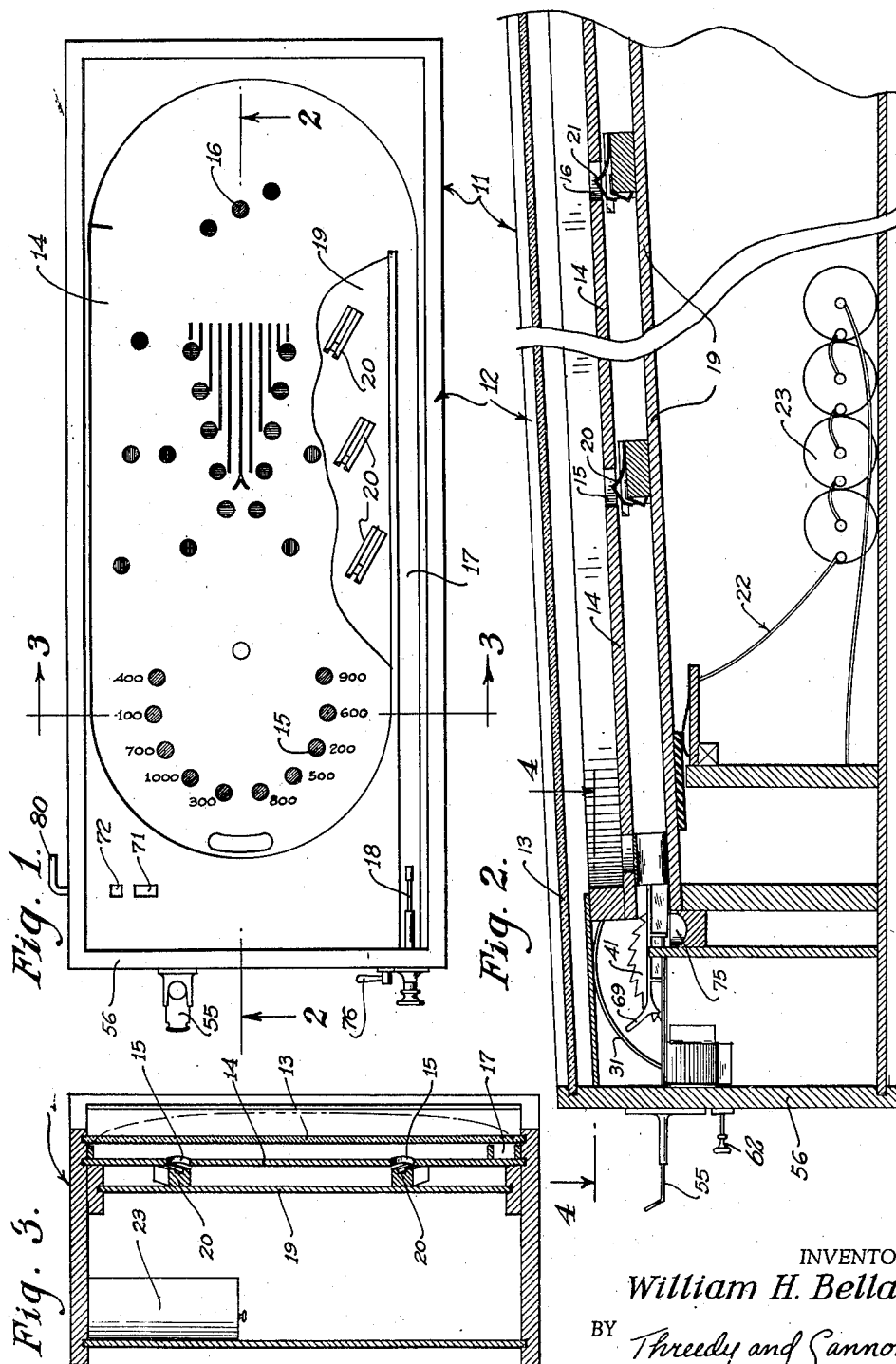
W. H. BELLAH

1,985,736

GAME APPARATUS

Filed Oct. 8, 1934

3 Sheets-Sheet 1



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3 Sheets-Sheet 2

Fig. 4.

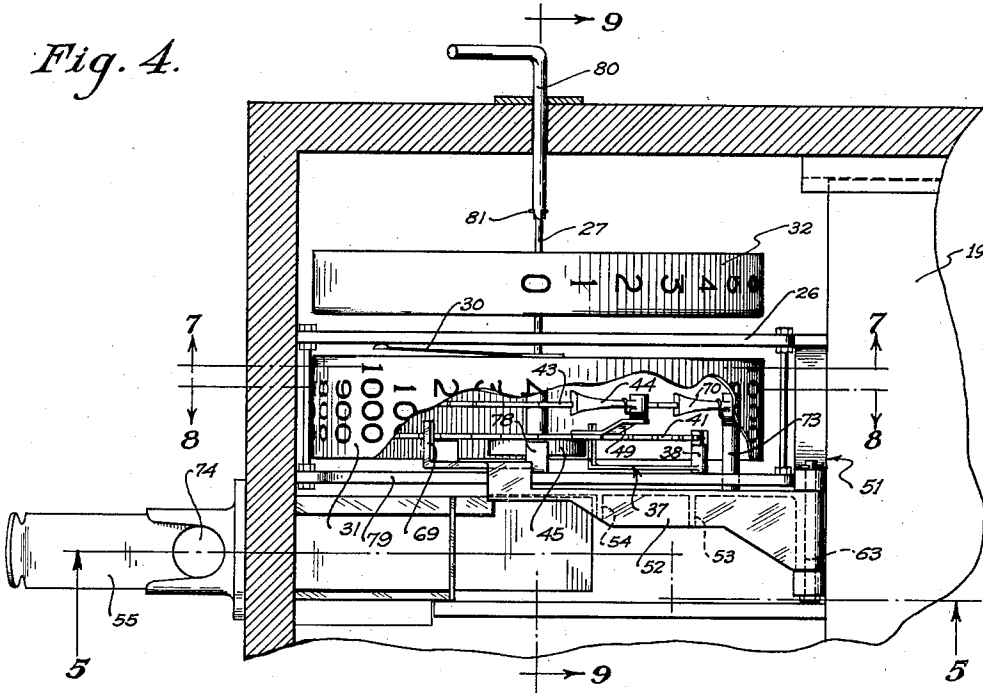


Fig. 5.

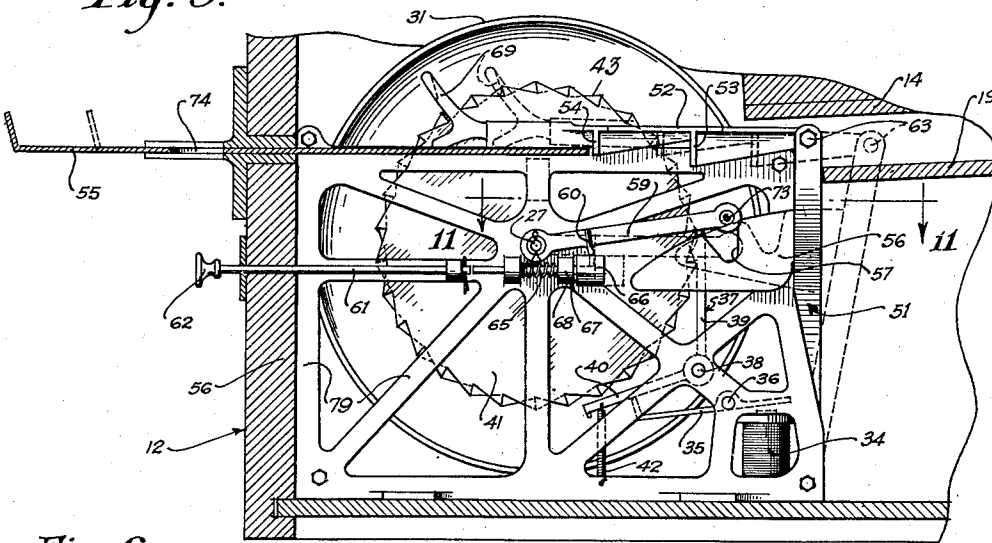
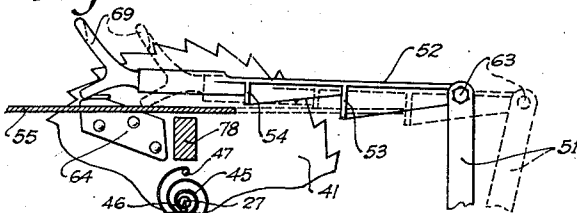


Fig. 6.



INVENTOR.
William H. Bellah
BY *Threedy and Sannon*
HIS ATTORNEYS.

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Fig. 7.

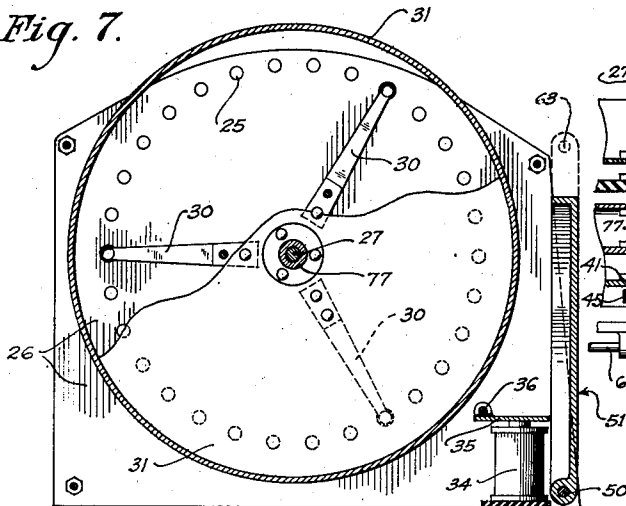


Fig. 11.

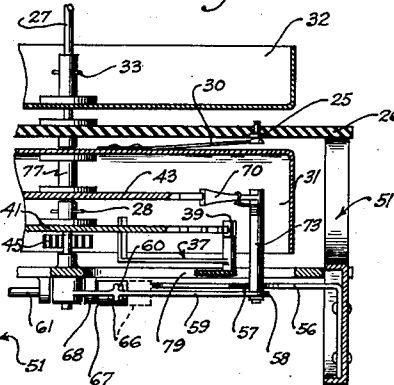


Fig. 8.

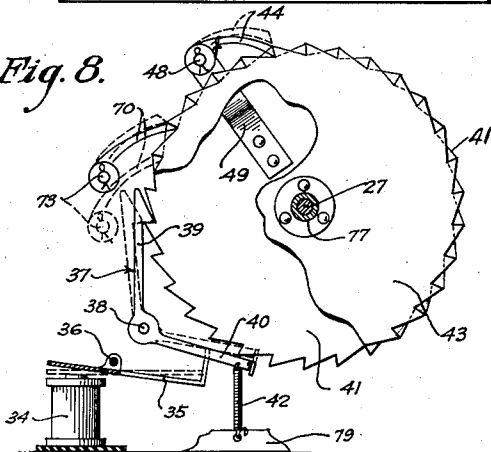


Fig. 10.

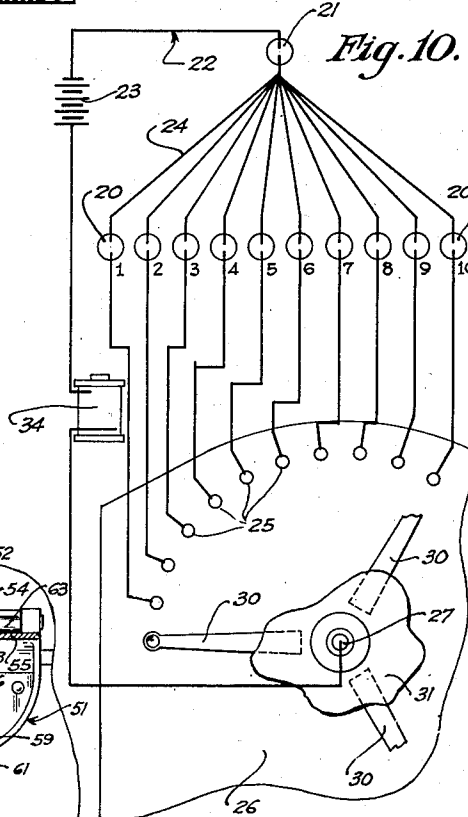
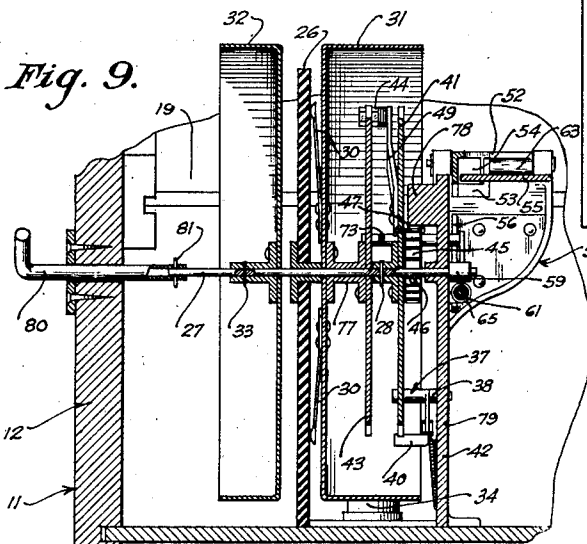


Fig. 9.



INVENTOR.
William H Bellah

BY *Threedy and Sannon*

HIS ATTORNEYS.

UNITED STATES PATENT OFFICE

1,985,736

GAME APPARATUS

William H. Bellah, Los Angeles, Calif.

Application October 8, 1934, Serial No. 747,322

13 Claims. (Cl. 273-121)

REISSUED

This invention relates to a game apparatus.

It is an object of this invention to provide an improved game apparatus which is relatively simple and inexpensive in construction and efficient in use.

Another object of the present invention is to provide a game apparatus, including a cabinet having an inclined playing board therein and said playing board being provided with ball exit openings; and in which apparatus, if the player succeeds in playing balls into certain of said exit openings, he may continue to play or operate the apparatus, without inserting a coin into the coin aperture of the coin slide which is associated with the apparatus.

A further object of the invention is to provide a game apparatus in which the player is allowed, or given, a preselected number of free games if he succeeds in playing the balls into certain preselected exit openings, or combinations of said exit openings, in the playing board.

An additional object of the invention is to provide a game apparatus in which the spent balls may be released from the playing surface for return to the elevating and propelling devices, without the insertion of a coin into the coin aperture of the coin slide which is associated with the apparatus, in the event the player succeeds in playing a ball into a preselected exit opening in the playing surface upon which the balls are played; and to permit the player to continue to operate the apparatus, that is, to play upon the same without inserting a coin or coins into the coin aperture of the coin slide as long as he continues to play balls into certain predetermined ball exit scoring openings, or combinations of the same, in the said playing surface.

Still another object of the invention is to construct the game apparatus in such a manner that the number of free games which the player has to his credit, at any time, may be readily determined by viewing a dial which is visible through a sight opening in the playing surface.

A further object of the invention is to construct the new game apparatus in such a manner that the objective score, that is, the numerical scoring value of the particular scoring opening at which the player elects to shoot may readily be determined by viewing a second dial which is also visible through a sight opening in the playing surface.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed. The invention will best be

understood by reference to the accompanying drawings, showing the preferred form of construction and in which:

Fig. 1 is a top plan view of a game apparatus embodying a preferred form of the present invention;

Fig. 2 is a vertical longitudinal sectional view on line 2-2 in Fig. 1;

Fig. 3 is a transverse vertical sectional view on line 3-3 in Fig. 1;

Fig. 4 is a view on line 4-4 in Fig. 2, partly in section and partly in top plan;

Fig. 5 is a vertical sectional view on line 5-5 in Fig. 4 with certain parts omitted to avoid crowding this figure;

Fig. 6 is a detail view of part of the mechanism shown in Fig. 5;

Fig. 7 is a view on line 7-7 in Fig. 4, partly in section and partly in side elevation;

Fig. 8 is a view on line 8-8 in Fig. 4, partly in section and partly in side elevation;

Fig. 9 is a vertical sectional view on line 9-9 in Fig. 4;

Fig. 10 is a diagrammatic view of an electromagnetic circuit embodied in the invention; and

Fig. 11 is a sectional detail view on line 11-11 in Fig. 5.

A preferred form of the new game apparatus is generally indicated at 11 in the drawings and comprises a cabinet 12 having a glass top 13 beneath which is arranged an inclined playing board 14; the inclined playing board 14 being provided with one or more banks or groups of ball exit scoring openings 15 and the said playing board 14 also being provided with one or more so-called "master" ball exit openings 16; each group or bank of exit openings 15 preferably bearing a distinctive color and bearing numerical scoring values, and each of the master exit openings 16 preferably bearing a distinctive color corresponding to the color of one of the groups of ball exit openings 15 (Fig. 1). It is to be understood, however, that the arrangement of scoring openings 15 and master scoring holes 16, as well as the numerical scoring values and color notations indicated adjacent these openings are merely for the purpose of illustrating and explaining the operation of the new game apparatus, as will be set forth more fully hereinafter, and the arrangement of scoring openings 15 and 16 and the numerical and color notations associated therewith (Fig. 1) are not in any way limitative of the invention nor the essence of the same.

Provided at one side of the playing board 14 is a ramp 17 along which balls are propelled one at a

time, by a propelling device 18, onto the upper area of the inclined playing board 14, so that they may gravitate thereover and enter into one of the scoring openings 15 or into one of the so-called

5 "master" openings 16.

Arranged below the inclined playing board 14 is a sliding panel 19 and arranged upon the sliding panel 19 below each of the ball exit openings 15 is a circuit closing device 20 in the form of a pair of spaced electrically conductive contacts which are moved into contacting engagement with each other by the weight of a ball arranged in the corresponding ball exit opening 15. Likewise arranged upon the sliding panel 19 below each of the "master" exit openings 16 is a circuit closing device 21 in the form of a pair of spaced contacts which are moved into engagement with each other by the weight of a ball arranged in the corresponding ball exit opening 16.

20 These circuit closing devices 20 and 21 are arranged in an electrical circuit 22 in the manner diagrammatically illustrated in Fig. 10, there being one circuit closing device 21 and one "master" hole or exit opening 16 associated with each group of circuit closing devices 20, and corresponding group of ball exit openings 15.

The circuit 22 includes a suitable source of electric energy, such as a battery of dry cells 23 arranged in the cabinet 12.

30 Each circuit closing device 20 is arranged in series with a conductor 24, one end of each conductor 24 being electrically connected to the fixed element of the circuit closing device 21, and the other end of each conductor 24 being electrically connected to a relatively stationary contact post 25; the contact posts 25 being radially arranged upon a stationary panel 26 (Figs. 7, 9 and 11). This panel 26 is arranged in the cabinet 12 below the inclined playing board 14 and extending through the panel 26 is a horizontal shaft 27 which is suitably journaled in the cabinet 12 and extends transversely thereof below the inclined playing board 14. Arranged upon the shaft 27 adjacent the panel 26, and "floating", that is, loosely connected to the shaft 27 is a dial 31 (Fig. 9) upon which is arranged an annular row of numbers from "100" to "1000" inclusive (Fig. 4); and on one lateral side of which is arranged a radially arranged row of resilient contact arms 30, these arms 30 having wiping contact or engagement with the relatively stationary contacts 25 which are arranged upon the panel 26. It is to be noted, in this connection, that there is one wiping contact arm 30 for each group of stationary contacts 25 and associated scoring openings 15 and circuit closing devices 20, and while only one group of contacts 25 and circuit closing devices 20 is shown (Fig. 10), it is to be understood that in the construction of the new game apparatus there may be several groups of scoring openings 15 and associated contacts 25 and circuit closing devices 20.

Also arranged upon the shaft 27 and spaced axially therealong from the dial 31 is a second dial 32, upon which is arranged an annular row of numerals (Fig. 4), these numerals ranging from "0" up to any desired number such as, for example, 25; the dial 32 being fixed or keyed to the shaft 27, as at 33, for rotation therewith (Fig. 9).

70 Arranged in the circuit 22 is an electromagnet 34 with which is associated a pivotal element 35, the pivotal element 35 being pivotally mounted between its ends, as at 36, in the cabinet 12. Engageable with the pivotal member 35 is a pawl 37,

the latter being pivotally mounted between its ends, as at 38, in the cabinet 12, and having oppositely extending arms 39 and 40 which are engageable with the teeth of a ratchet 41 which is fixed upon the shaft 27; the arm 40 of the pawl 37 being urged out of engagement with the ratchet 41 by a spring 42.

Likewise arranged upon the shaft 27, adjacent the ratchet 41, is a second ratchet 43. This ratchet 43 is attached to the dial 31 through the medium of a hub 77 which is arranged upon the shaft 27 (Fig. 9). The ratchet 41 carries an arm 49 on which is pivotally mounted, as at 48, a pawl 44; the pawl 44 being engageable with the teeth of the ratchet 43 (Figs. 8 and 9).

Wound about the shaft 27, adjacent one end thereof, is a convoluted operating spring 45 which has one end convolution thereof attached to the shaft 27, as at 46, the other end convolution thereof being attached to the ratchet 41, as at 47 (Figs. 20 and 9).

Pivotally mounted at its lower end adjacent the electromagnet 34, as at 50, is a member 51. Pivotally mounted upon this member 51 at its upper end, as at 63, is a laterally or horizontal projecting arm 52 from which depend a pair of spaced vertical projections or lugs 53 and 54, these projections or lugs 53 and 54 being arranged in the path of the coin slide 55 which is slidably mounted in the lower end wall 56 of the cabinet 12 (Fig. 5). The member 52 has a latch portion 69 which engages with the ratchet 41, and engageable with this latch portion 69 is a laterally projecting arm 64 which is carried by the ratchet 41. (Fig. 6). The ratchet 41, shaft 27, and the "free game" dial 32 are stopped in, and normally held in, their initial positions, that is, in the zero ("0") position of the dial 32 by the engagement of the arm 64 on the ratchet 41 with a fixed stop 78 (Figs. 6 and 9) which is formed as a part of the supporting frame 79 (Fig. 9).

Carried by the pivotal member 51, below the arm 52, is a laterally projecting member or cam 56 in which is formed a notch 57 (Fig. 5). An arm 59 has an end portion 58 which is normally disposed above the notch 57 and this arm 59 is loosely or pivotally mounted on the shaft 27. The arm 59 has a lateral extension 60 (Fig. 5) and this extension 60 normally rests upon the upper surface of an extension or enlarged portion 66 of a slide rod or plunger 61 which is suitably guided, in the cabinet 12, for horizontal movement, this plunger 61 having a handle portion 62 which projects externally of the cabinet 12; the plunger or slide rod 61 being urged outwardly, (right to left, Fig. 5) relative to the cabinet 12 by a spring 65. The arm 59 also has a lateral extension 73 (Fig. 4) upon which is pivotally mounted a pawl 70, the pawl 70 being disposed in engagement with the ratchet 43 (Figs. 4 and 8); the extension 73 being disposed above the notch 57 in the cam 56 so that it may be pivoted into the latter in a manner presently to be described.

Arranged adjacent the portion 66 of the slide rod 62 is a guide member 68 having an opening through which the plunger is slidably projected.

Provided in the lower end portion of the inclined playing board 14 are two sight openings 71 and 72 (Fig. 1), the numerals on the registering dial 31 being visible through the sight opening 71 and the numerals on the registering dial 32 being visible through the sight opening 72.

From the lower end of the sliding panel 19 the spent balls are guided into a transverse runway 75

75 (Fig. 2) by which they are guided back to a point adjacent the elevating device 76 (Fig. 1) which may be of any suitable type.

Operation

5 The following example is intended to illustrate a typical game played upon the new game apparatus and is not to be construed as a limitation upon the procedure the player may follow in playing the game, since there may be considerable variation in the manner in which the new game may be played. However, the following example will serve to illustrate how the game may be played and how the new game apparatus 15 operates.

At the start of a game one of the group of numerals on the dial 31 will be visible through the sight opening 71. Thus, for example, the numeral "200" on the dial 31 may be visible to the player through the sight opening 71. The player may then, if he desires, elect to choose this number "200" as his starting point, and he then attempts to play a ball, by means of the plunger 18, onto the inclined playing board 14 so that it will gravitate thereover and enter into that particular one of the scoring openings 15 which bears the numerical scoring value "200" (Fig. 1); and, thereafter, to play another ball into that particular one of the "master" openings 16 which is associated with the particular bank or group of scoring openings 15 which includes the particular opening 15 into which the player's first scoring ball has been played.

If the player succeeds in playing a ball into that particular one of the openings 15 which bears his objective or scoring value "200", and, subsequently, succeeds in playing another ball into that one of the "master" openings 16 which is associated with the bank of scoring openings 15 which includes the particular opening 15 into which the player's first scoring ball has been played, the two balls thus played will come to rest upon the circuit closing devices 20 and 21 respectively (Fig. 2), and will thereby close the corresponding series-parallel electromagnetic circuit 20-22-23-34-27-31-30-25-24-21 (Fig. 10). This closing of the circuit 22 activates the electromagnet 34 embodied therein, whereupon the electromagnet 34 attracts the member 35 and pivots the latter at 36 (counterclockwise, Fig. 8). This movement of the member 35 pivots the pawl 37 and its arms 39 and 40 (counterclockwise, from full to dotted line position, Fig. 8), thereby permitting the tensioned operating spring 45 to rotate the shaft 27, ratchet 41, and dial 32 one step, that is, a predetermined circumferential distance (clockwise, Fig. 8), corresponding to half of the circumferential distance between two adjacent teeth on the ratchet 41. This movement of the dial 32 moves the zero ("0") numeral thereon out of registration with the sight opening 72 and moves the next succeeding numeral "1" thereon into registration with the sight opening 72, thereby indicating that the player has made his objective score or "point" and is entitled to play a free game upon the apparatus, that is, without inserting a coin into the coin aperture 74 of the coin slide 55.

At the same time, this movement of the ratchet 41 (clockwise, Fig. 8) acts through the arm 49-48 and the pawl 44 to move the ratchet 43 and its attached hub 77 and dial 31 and its attached contact arms 30 a corresponding circumferential distance (clockwise, Fig. 8). In this manner the

contact arms 30 are moved into ineffective position between the adjacent contacts 25, thereby opening or breaking the circuit 22 (Fig. 10).

The electromagnet 34 then becomes inactive, whereupon the spring 42 acts upon the arm 40 of the pawl 37 to pivot the latter (clockwise, Fig. 8), thus moving the arm 40 of the pawl 37 out of engagement with the ratchet 41 and at the same time moving the arm 39 of the pawl 37 into engagement with the ratchet 41. The operating spring 45 then completes the rotation of the shaft 27, ratchet 41, and associated parts, including the contact arms 30 (clockwise, Fig. 8), and in this manner the contact arms 30 are moved back into contact with the corresponding stationary contacts 25.

The foregoing cycle of operations will be repeated as long as the player succeeds in playing balls into consecutive scoring openings 15 in the same bank or group of the same, that is, into that particular group of scoring openings 15 and 16 which includes the opening into which the first scoring ball has been played; and this cycle of operations will continue until the contact arm 30 associated with this particular group of openings comes to rest upon a contact 25 which is associated with a ball exit opening 15 and circuit closing device 20 into which the player has not succeeded in playing a ball, whereupon the circuit 22 will remain open and the foregoing cycle of operations will cease. Thus, assuming that in the foregoing example the cycle of operations is broken because the player has not succeeded in playing a ball into the scoring opening 15 marked "1000" (Fig. 1); the particular game described in the foregoing example will then be at an end and the numeral "1000" in the dial 31 will then be visible through the sight opening 71 (Fig. 4). At this time the numeral "8" on the dial 32 will then be visible through the sight opening 72, indicating that the player has succeeded eight consecutive times in making his point or objective, and is then entitled to play eight free games upon the new game apparatus without inserting a coin into the coin aperture 74 of the coin slide 55. Stated in another way: in the foregoing example this would mean that the player has succeeded, on the first ball played, in playing a ball into the preselected "green" scoring opening "200"; and that on the next play he succeeded in playing a ball into the "green" master opening 16; and a ball into the "green" exit opening 15 marked "300" (Fig. 1), (the dial 31 having indicated "200" at the start of the game played in the example); that the player succeeded in playing the third ball into the "green" scoring opening 15 marked "400", and so on, consecutively throughout the remaining scoring openings 15 in that particular bank or group of the same denoted by the color "green".

Assuming that at the start of the game the numeral "200" on the dial 31 is visible through the sight opening 71 but the player does not desire to choose this number as his starting point or objective but desires to commence play with an objective score of "300". In this event the player may rotate the dial 31 so as to indicate his objective score, that is, to indicate the numeral "300", through the sight opening 71. This is accomplished as follows:

To effect this operation, the player pushes in upon the slide rod 61-62 against the action of the spring 65 whereupon the lateral extension 60 of the latch member 59 falls off the end portion 66 of the plunger 61 and between the latter and

the guide 68. The lateral extension 73 of the member 59 then drops down into the notch 57 which is formed in the cam portion 56 of the member 51. This movement, of the member 59 and its lateral extension 73 allows the pawl 70 to drop from full to dotted line position, Fig. 8, relative to the ratchet 43 and, consequently, when the player inserts a coin of proper denomination into the coin aperture 74 of the coin slide 55 and pushes the latter inwardly (left to right, Fig. 6), the inner end of the coin slide 55 engages the depending portion 53 of the member 52 and thereby pivots the members 52 and 51 (clockwise from full to dotted line position, Fig. 5). This movement of the member 51 and its extension 56 pivots the member 59 and its lateral extension 73 (counterclockwise, Fig. 5; clockwise, Fig. 8) and thereby raises the pawl 70, which is in engagement with the ratchet 43, from dotted to full line position, Fig. 8. This movement advances the ratchet 43 and its attached dial 31 one step, that is, a predetermined circumferential distance (clockwise, Fig. 5). In this manner the dial 31 may be moved by the player to indicate his objective score in case he does not desire to commence play with the objective score corresponding to the number on the dial 31 which is visible through the sight opening 71 before the player commences to play.

If the player has one or more free games to his credit and desires to change his objective score, as indicated by the dial 31, before commencing play, he may rotate the dial 31 a predetermined circumferential distance (clockwise, Fig. 8) by moving the coin slide 55 (left to right, Fig. 5) without inserting a coin into the coin aperture 74 of the coin slide 55, whereupon the inner end of the coin slide 55 will engage the lug 54 on the member 52 and thereby rotate the dial 31 a predetermined circumferential distance (clockwise, Fig. 5), this movement of the coin slide 55 being transferred to the dial 31 by way of the parts 54—52—51—56—59—73—70—43—31 in the manner stated in the preceding paragraph.

It is to be noted that during the foregoing operation of manipulating the dial 31, the dial 32, shaft 27, and ratchet 41 remain stationary, the pawl 44 escaping or moving over the teeth of the ratchet 41 from full to dotted line position (Fig. 8).

Assuming that the player in the foregoing example has succeeded in accumulating eight free games to his credit: in this case, the member 52 is in the position in which it is shown in Fig. 5 and when the coin slide 55 is operated (from left to right, Fig. 5) the inner end of the coin slide engages the lug or depending portion 54 of the member 52 and in so doing pivots the member 52—51 (clockwise, from full to dotted line position, Fig. 5), the member 52 pivoting at 63, and during this movement the lateral extension or arm 69 of the member 52 engages the ratchet 41 and thereby rotates the ratchet 41, shaft 27 and dial 32 one step, that is, a predetermined circumferential distance (clockwise, Fig. 5 or left to right as seen in Fig. 4). In this manner one game, as represented on the "free" game dial 32, is deducted from the total number of free games which the player has to his credit, or is to be allowed to play, every time the coin slide 55 is operated, that is, every time a partial inward movement or operative stroke of the coin slide 55 is made (left to right, Fig. 5); it being noted that the numerals on the "free game" dial 32 are arranged in decreasing numerical order

as seen looking from right to left, Fig. 4. When the last of the total number of free games to be allowed the player has been played, as indicated by the appearance of the zero ("0") mark on the dial 32 through the sight opening 72, the arm 64 on the ratchet 41 engages under the lateral extension or arm 69 of the member 52, thereby lifting the depending extension 54 of the member 52 up out of the path of the coin slide 55, at the same time lifting the arm 69 of the member 52 up out of engagement with the teeth of the ratchet 41; the member 52—69 being held by the arm 64 in full line or ineffective position (Fig. 6) until such time as the player succeeds in playing a ball into one of the exit openings 15 and 16, thereby closing the corresponding circuit (Fig. 10); whereupon the ratchet 41 and its attached arm 64 are moved (counterclockwise, Fig. 6). This movement of the ratchet 41 moves its arm 64 out of engagement with the arm 69, thereby permitting the arm 69 to drop into effective position, that is, into engagement with the teeth of the ratchet 41, so that the number of free games credited to the player, as indicated by the numerals on the dial 32, will be reduced by one every time the coin slide 55 is operated.

It is to be noted that the sliding panel or ball-releasing member 19 is moved into ball-releasing position (left to right, Figs. 2 and 5), through the medium of the parts 54 or 53, 52 and 51 every time the coin slide 55 is operated (left to right, Fig. 5); and that when the "free game" dial 32 is in its initial position (Fig. 4), and the parts 51—52—69—64 are disposed as in full lines, Fig. 6, it is necessary for the player to insert a coin of proper denomination into the coin aperture 74 of the coin slide 55 and make a full inward stroke of the latter (left to right, Fig. 6) in order to engage the member 51 with the sliding panel or ball-stopping member 19, since when the member 52—69 is in full line position, Fig. 6, the lug 54 is disposed out of the path of movement of the coin slide 55, and is therefore ineffective to move the member 51 and the panel 19, until a coin is inserted into the coin aperture 74 of the coin slide 55 and the latter is pushed in (left to right, Fig. 6) to complete a full stroke of the coin slide 55, whereupon the inner end of the coin slide 55 engages the lug 53 and in so doing pivots the member 51 (from full to dotted line position, Fig. 5), thereby moving the sliding panel 19 into position to release balls stopped thereby for return to the propelling and elevating devices 18 and 76, respectively.

The proprietor of the game may reset the "free game" dial 32 back into zero ("0") position, without operating the coin slide 55, by attaching a suitable crank or handle 80 to the shaft 27 through the medium of a pin 81 (Fig. 9).

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

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

1. In a game apparatus, the combination of: a cabinet having two sight openings formed therein and having an inclined playing board therein; said inclined playing board having a group or

bank of ball exit scoring openings formed therein and having formed therein a master ball exit scoring opening; means for propelling balls one at a time onto the upper portion of said playing board so that they may gravitate thereover and enter into one of said group of scoring openings or into said master exit opening; a rotatable dial in said cabinet having numerals thereon visible through one of said sight openings and said numerals corresponding to the numerical scoring value of said scoring openings; a rotatable dial having an annular row of numerals thereon successively visible through the other of said sight openings and each representing a predetermined number of free games to be allowed the player if he succeeds in playing a ball into that particular one of said scoring openings which has a scoring value corresponding to the numerical indicium on the first-named one of said dials which is visible through the said first-mentioned one of said sight openings at the start of the game; and means actuated jointly by a ball entering the said one of said scoring openings and by a ball entering the said master opening to advance the second-named one of said dials a predetermined circumferential distance so as to expose to view through the second-named one of said sight openings the numerical indicium on the second-named one of said dials which corresponds to a predetermined number of free games to be allowed the player, if he succeeds in playing the said balls in the manner stated.

2. In a game apparatus, the combination of: a cabinet having two sight openings formed therein and having an inclined playing board therein; said inclined playing board having a group or bank of ball exit scoring openings formed therein and having formed therein a master ball exit scoring opening; means for propelling balls one at a time onto the upper portion of said playing board so that they may gravitate thereover and enter into one of said group of scoring openings or into said master scoring opening; a rotatable dial in said cabinet having numerical indicia thereon visible through one of said sight openings and said indicia corresponding to the numerical scoring value of said scoring openings; a member slidably mounted in a wall of said cabinet; a rotatable dial having an annular row of numerical indicia thereon successively visible through the other of said sight openings and each representing a predetermined number of free games to be allowed the player if he succeeds in playing a ball into that particular one of said scoring openings which has a scoring value corresponding to the numerical indicium on the first-named one of said dials which is visible through the first-mentioned one of said sight openings at the start of the game; means actuated jointly by a ball entering the said one of said scoring openings and by a ball entering the said master opening to advance the second-named one of said dials a predetermined circumferential distance so as to expose to view through the second-named one of said sight openings a numerical indicium on the second-named one of said dials which corresponds to a predetermined number of free games to be allowed the player if he succeeds in playing the said balls in the manner stated; means for temporarily retaining therein balls which enter into said scoring openings; and means coacting with said slidable member and necessitating only a partial inward movement or operative stroke of the latter, when the indicium on the said second-named or free game dial which is visible through the corre-

sponding one of said sight openings is greater than "zero", to move said ball-retaining means into ball-releasing position and, simultaneously therewith, to return said second-named dial a predetermined circumferential distance in a direction opposite to the direction of its movement by said ball-actuated means so as to expose to view through the second-named one of said sight openings the next successive and numerically smaller number on the said second-named dial which indicates the number of free games to be allowed the player.

3. In a game apparatus, the combination of: a cabinet having a sight opening formed therein and having an inclined playing board therein; said inclined playing board having a group or bank of ball exit or scoring openings formed therein; a member slidably mounted in a wall of said cabinet; means for propelling balls one at a time onto the upper portion of said playing board so that they may gravitate thereover and enter into said scoring openings; a dial in said cabinet having an annular row of numerals thereon visible through said sight opening and each indicating a predetermined number of free games to be allowed the player; means including an electromagnetic device actuated by balls entering certain combinations of said ball exit or scoring openings to move said free game dial a predetermined circumferential distance in one direction; and means coacting with said member to return said dial a predetermined circumferential distance in a direction opposite to the said first-named direction each time the said member is operated.

4. In a game apparatus, the combination of: a cabinet having two sight openings formed therein and having an inclined playing board therein; said inclined playing board having a group or bank of ball exit or scoring openings formed therein and having a master ball exit opening formed therein; means for propelling balls one at a time onto the upper portion of said playing board so that they may gravitate thereover and enter into said ball exit or scoring openings or into said master exit opening; a rotatable dial in said cabinet having an annular row of numerals thereon visible through one of said sight openings and said numerals corresponding to the numerical scoring value of said scoring openings; a member slidably mounted in a wall of said cabinet; a rotatable dial having an annular row of numerals thereon successively visible through the other of said sight openings and each representing a predetermined number of free games to be allowed the player if he succeeds in playing a ball into that particular one of the said scoring openings which has a scoring value corresponding to the numeral on the first-named one of said dials which is visible through the said first-mentioned one of said sight openings at the start of the game; and means including an electromagnetic device actuated jointly by a ball entering the said one of said scoring openings and by a ball entering the said master opening to advance the second-named one of said dials a predetermined circumferential distance so as to expose to view through the second-named one of said sight openings the numeral on the second-named one of said dials which corresponds to the number of free games to be allowed the player if he succeeds in playing the said balls in the manner stated.

5. In a game apparatus, the combination of: a cabinet including a member providing a play-

ing surface and said member being provided with ball exit openings; means for propelling balls one at a time onto the upper portion of said playing board so that they may gravitate thereover and enter into said exit openings; a slidable member arranged in said cabinet below said playing surface and temporarily retaining thereon balls which enter into said exit openings; a second slidable member mounted in a wall of said cabinet; means coacting with said second-named slidable member to move said first-named slidable member into position to release balls held thereby for return to a point adjacent said propelling means; said second-named means being normally disposed in a position to require a full inward movement or operative stroke of the said second-named slidable member to effect movement of said first-named slidable member into ball-releasing position; and means including devices actuated by balls entering certain combinations of said exit openings for moving said second-named means into a position in which the said second-named means is able to coact with said second-named slidable member to move said first-named slidable member into ball-releasing position without requiring a full inward movement or operative stroke of said second-named slidable member.

6. In a game apparatus, the combination of: a cabinet including a member providing a playing surface and said member being provided with ball exit openings; means for propelling balls one at a time onto the upper portion of said playing board so that they may gravitate thereover and enter into said exit openings; a slidable member arranged in said cabinet below said playing surface and temporarily retaining thereon balls which enter into said exit openings; a second slidable member mounted in a wall of said cabinet; means coacting with said second-named slidable member to move said first-named slidable member into position to release balls held thereby for return to a point adjacent said propelling means; said second-named means being normally disposed in a position to require a full inward movement or operative stroke of the said second-named slidable member to effect movement of said first-named slidable member into ball-releasing position; and means including an electromagnetic device actuated by balls entering certain combinations of said exit openings for moving said second-named means into a position in which the said second-named means is able to coact with said second-named slidable member to move said first-named slidable member into ball-releasing position without requiring a full inward movement or operative stroke of said second-named slidable member.

7. In a game apparatus, the combination of: a cabinet having therein a member providing a playing surface and said member having ball exit or scoring openings formed therein; means for propelling balls one at a time onto said playing surface so that they may enter into said ball exit or scoring openings; a member slidably mounted in a wall of said cabinet; means for temporarily retaining therein balls which enter into said ball exit or scoring openings; means coacting with said slidable member and normally requiring a complete or full operative stroke of the latter to move said ball-retaining means into position to release balls held thereby for return to a point adjacent said propelling means; said cabinet having a sight opening formed therein; a dial arranged in said cabinet and having indicia

thereon visible through said sight opening and corresponding to the scoring values of certain of said ball exit or scoring openings; and the particular indicium on said dial which is visible at the start of play indicating that particular one of said scoring openings which is the player's objective; a second and registering dial in said cabinet having numerical indicia thereon indicating a predetermined number of free games to be allowed the player, without necessitating a complete or full operative stroke of the said slidable member, to move said ball-retaining means into ball-releasing position, if balls are played into certain combinations of said scoring openings; and means including devices actuated by balls entering into certain combinations of said scoring openings for advancing the said free game registering dial a predetermined circumferential distance so as to indicate thereon a predetermined number of free games credited to the player.

8. In a game apparatus, the combination of: a cabinet having therein a member providing a playing surface and said member having ball exit or scoring openings formed therein; means for propelling balls one at a time onto said playing surface so that they may enter into said ball exit or scoring openings; a member slidably mounted in a wall of said cabinet; means for temporarily retaining therein balls which enter into said ball exit or scoring openings; means coacting with said slidable member and normally requiring a complete or full operative stroke of the latter to move said ball-retaining means into position to release balls held thereby for return to a point adjacent said propelling means; said cabinet having a sight opening formed therein; a dial arranged in said cabinet and having indicia thereon visible through said sight opening and corresponding to the scoring values of certain of said ball exit or scoring openings; and the particular indicium on said dial which is visible at the start of play indicating that particular one of said scoring openings which is the player's objective; a second and registering dial in said cabinet having numerical indicia thereon indicating a predetermined number of free games to be allowed the player, without necessitating a complete or full operative stroke of the said slidable member, to move said ball-retaining means into ball-releasing position, if balls are played into certain combinations of said scoring openings; and means including an electromagnetic device actuated by balls entering into certain combinations of said scoring opening for advancing the said free game registering dial a predetermined circumferential distance so as to indicate thereon a predetermined number of free games credited to the player.

9. In a game apparatus, the combination of: a cabinet having therein a member providing a playing surface and said member having ball exit or scoring openings formed therein; means for propelling balls one at a time onto said playing surface so that they may enter into said ball exit or scoring openings; a member slidably mounted in a wall of said cabinet; means for temporarily retaining therein balls which enter into said ball exit or scoring openings; means coacting with said slidable member and normally requiring a complete or full operative stroke of the said slidable member to move said ball-retaining means into position to release balls held thereby for return to a point adjacent said propelling means; said cabinet having a sight opening

formed therein; a dial arranged in said cabinet and having indicia thereon visible through said sight opening and corresponding to the scoring values of certain of said ball exit or scoring openings, and the particular indicium on said dial which is visible at the start of play indicating that particular one of said scoring openings which is the player's objective; a second and registering dial in said cabinet having numerical indicia thereon indicating a predetermined number of free games to be allowed the player, without necessitating a complete or full operative stroke of the said slidable member, to move said ball-retaining means into ball-releasing position, if balls are played into certain combinations of said scoring openings; means including devices actuated by balls entering into certain combinations of said scoring openings for advancing the said free game registering dial a predetermined circumferential distance so as to indicate thereon a predetermined number of free games credited to the player; and means for advancing the first-named dial a predetermined circumferential distance at the will of the player so that the player may, at the beginning of the game, choose his objective score as indicated by the indicium on said first-named dial which is visible through said sight opening at the start of play.

10. In a game apparatus, the combination of: a cabinet having therein a member providing a playing surface and said member having ball exit or scoring openings formed therein; means for propelling balls one at a time onto said playing surface so that they may enter into said ball exit or scoring openings; a member slidably mounted in a wall of said cabinet; means for temporarily retaining therein balls which enter into said ball exit or scoring openings; means coacting with said slidable member and normally requiring a complete or full operative stroke of the latter to move said ball-retaining means into position to release balls held thereby for return to a point adjacent said propelling means; said cabinet having a sight opening formed therein; a dial arranged in said cabinet and having indicia thereon visible through said sight opening and corresponding to the scoring values of certain of said ball exit or scoring openings, and the particular indicium on said dial which is visible at the start of play indicating that particular one of said scoring openings which is the player's objective; a second and registering dial in said cabinet having numerical indicia thereon indicating a predetermined number of free games to be allowed the player without necessitating a complete or full operative stroke of the said slidable member, to move said ball-retaining means into ball-releasing position, if balls are played into certain combinations of said scoring openings; means including an electromagnetic device actuated by balls entering into certain combinations of said scoring openings for advancing the said free game registering dial a predetermined circumferential distance so as to indicate thereon a predetermined number of free games credited to the player; and means for advancing the first-named dial a predetermined circumferential distance at the will of the player so that the player may, at the beginning of the game, choose his objective score as indicated by the indicium on said first-named dial which is visible through said sight opening at the start of play.

11. In a game apparatus, the combination of: a cabinet having therein a member providing a playing surface and said member having ball

exit or scoring openings formed therein; means for propelling balls one at a time onto said playing surface so that they may enter into said ball exit or scoring openings; a member slidably mounted in a wall of said cabinet; means for temporarily retaining therein balls which enter into said ball exit or scoring openings; means coacting with said slidable member and normally requiring a complete or full operative stroke of the said slidable member to move said ball-retaining means into position to release balls held thereby for return to a point adjacent said propelling means; said cabinet being provided with a sight opening; a dial arranged in said cabinet and having indicia thereon successively visible through said sight opening and corresponding to the scoring values of certain of said ball exit or scoring openings; and the particular indicium on said dial visible at the start of play indicating that particular one of said scoring openings which is the player's objective; a second dial in said cabinet having numerical indicia thereon each indicating a predetermined number of free games to be allowed the player, without necessitating a complete or full operative stroke of the said slidable member, to move said ball-retaining means into ball-releasing position, if balls are played into certain combinations of said scoring openings; means including devices actuated by balls entering into certain combinations of said scoring openings for advancing the said second-named dial a predetermined circumferential distance so as to indicate thereon a predetermined number of free games to be allowed the player; and the said third-named means which coacts with said coin slide to move said ball-retaining means including an element requiring a full or complete operative stroke of said slidable member to move the latter into engagement with said element so as to move said ball-retaining means into ball-releasing position when said second-named dial is in its initial or "zero" position.

12. In a game apparatus, the combination of: a cabinet including a member providing a playing surface and said member having ball exit or scoring openings formed therein; means for propelling balls over said playing surface so that they may enter into said ball exit or scoring openings; means arranged below said playing surface for temporarily stopping balls which enter said exit openings; a member slidably mounted in a wall of said cabinet; means coacting with said slidable member and normally requiring a full or complete inward movement or operative stroke of said slidable member to move said stopping means into position to release balls held thereby for return to a point adjacent said propelling means; said third-named means including a device actuated by balls entering certain combinations of said exit openings and when thus actuated being moved into a position to coact with said slidable member to move said ball-stopping means into position to release balls held thereby for return to a point adjacent said propelling means, without requiring a complete inward movement or operative stroke of said slidable member.

13. In an amusement apparatus, the combination of: a cabinet or casing; an operating mechanism in the said cabinet or casing including a movable member and a member having a handle thereon disposed exteriorly of the said cabinet or casing; a free game registering dial in the said cabinet or casing; said operating mechanism including means for advancing said registering dial in circumferential steps in a direction away from

its initial or zero position; said operating mechanism also including means coacting with the said handle member and requiring less than a full or complete operative stroke of the latter to operate said movable member when the said registering dial is away from its initial or zero position; said

operating mechanism having additional means coacting with the said handle member and necessitating a full or complete stroke of said handle member to operate said movable member when the said registering dial is in zero position.

WILLIAM H. BELLAH.