No. 702,108. Patented June 10, 1902.

E. R. MARSHALL.

COMBINED FRAME AND REGISTER FOR POOL GAMES, &c.

(Application filed Apr. 10, 1902.)

(No Model.) 2 Sheets—Sheet 1.

FIG. 1.

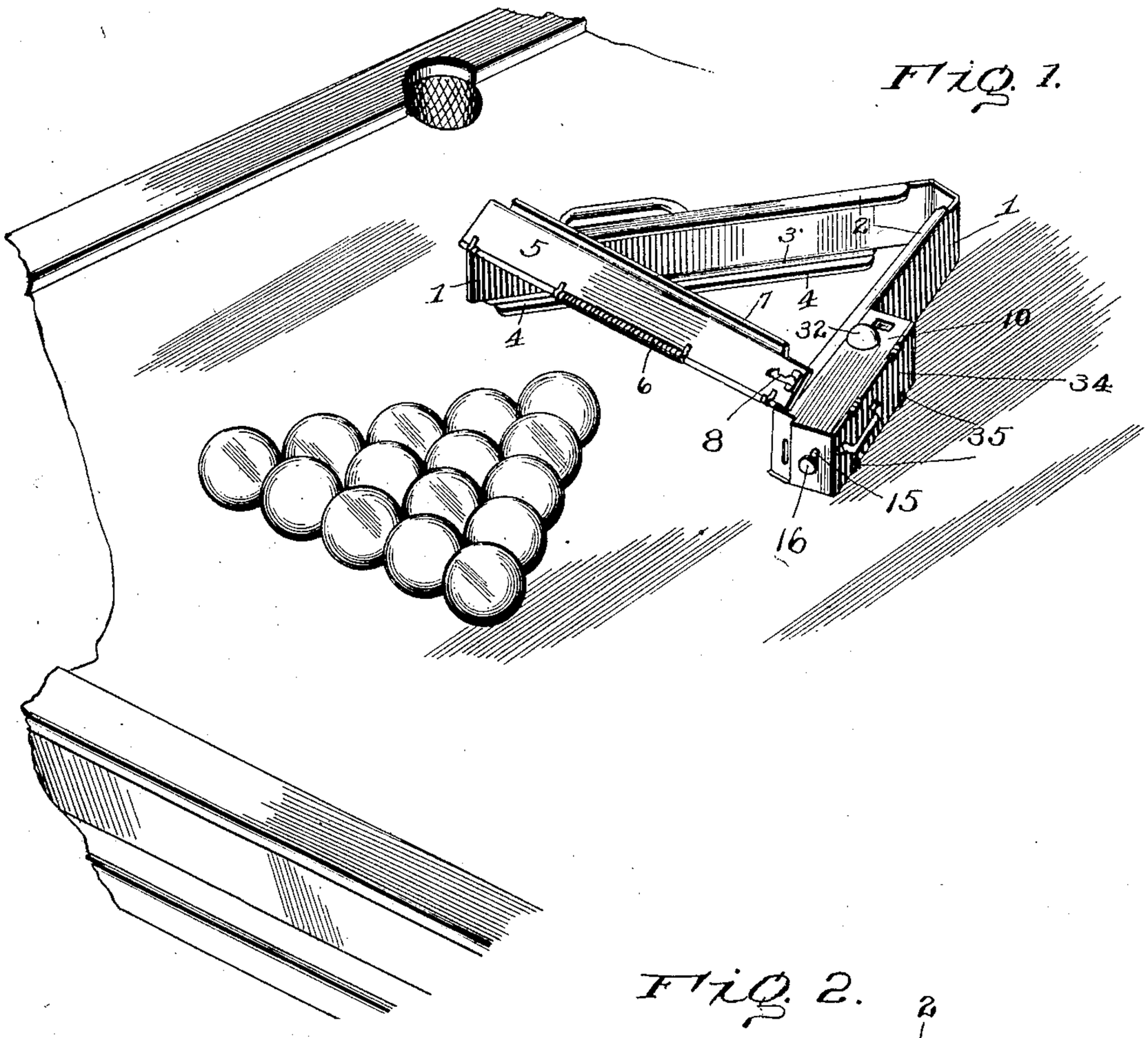

FIG. 2.

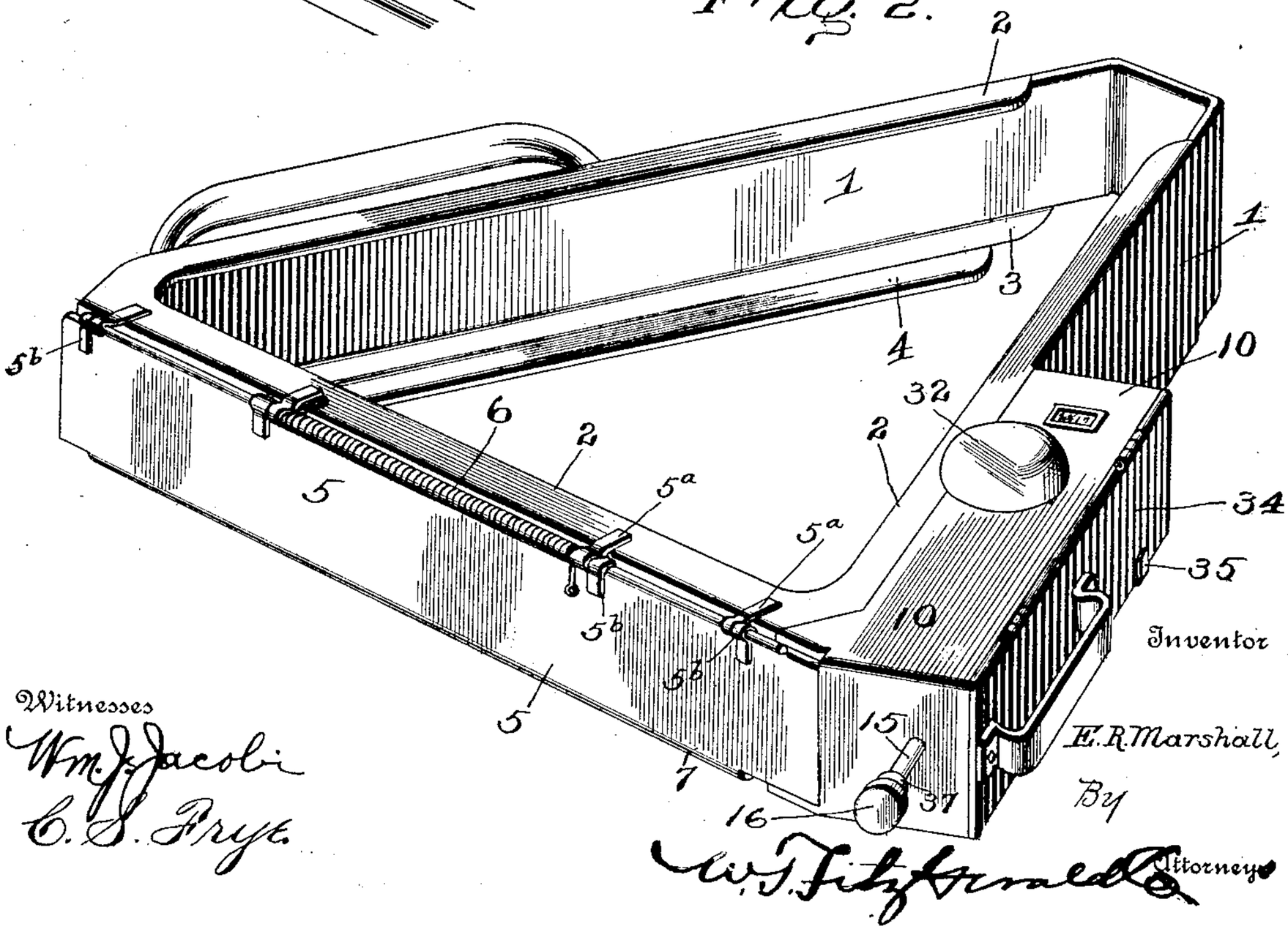

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Fig. 7.

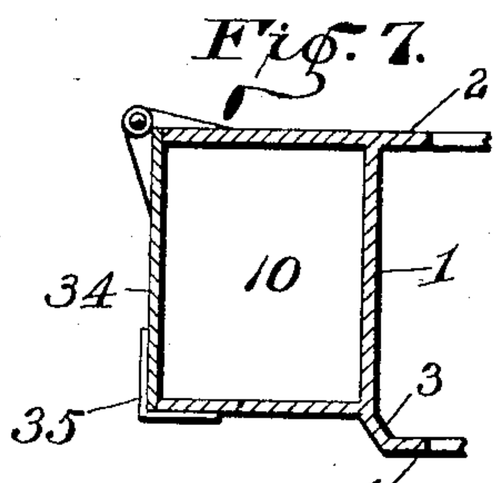


Fig. 3.

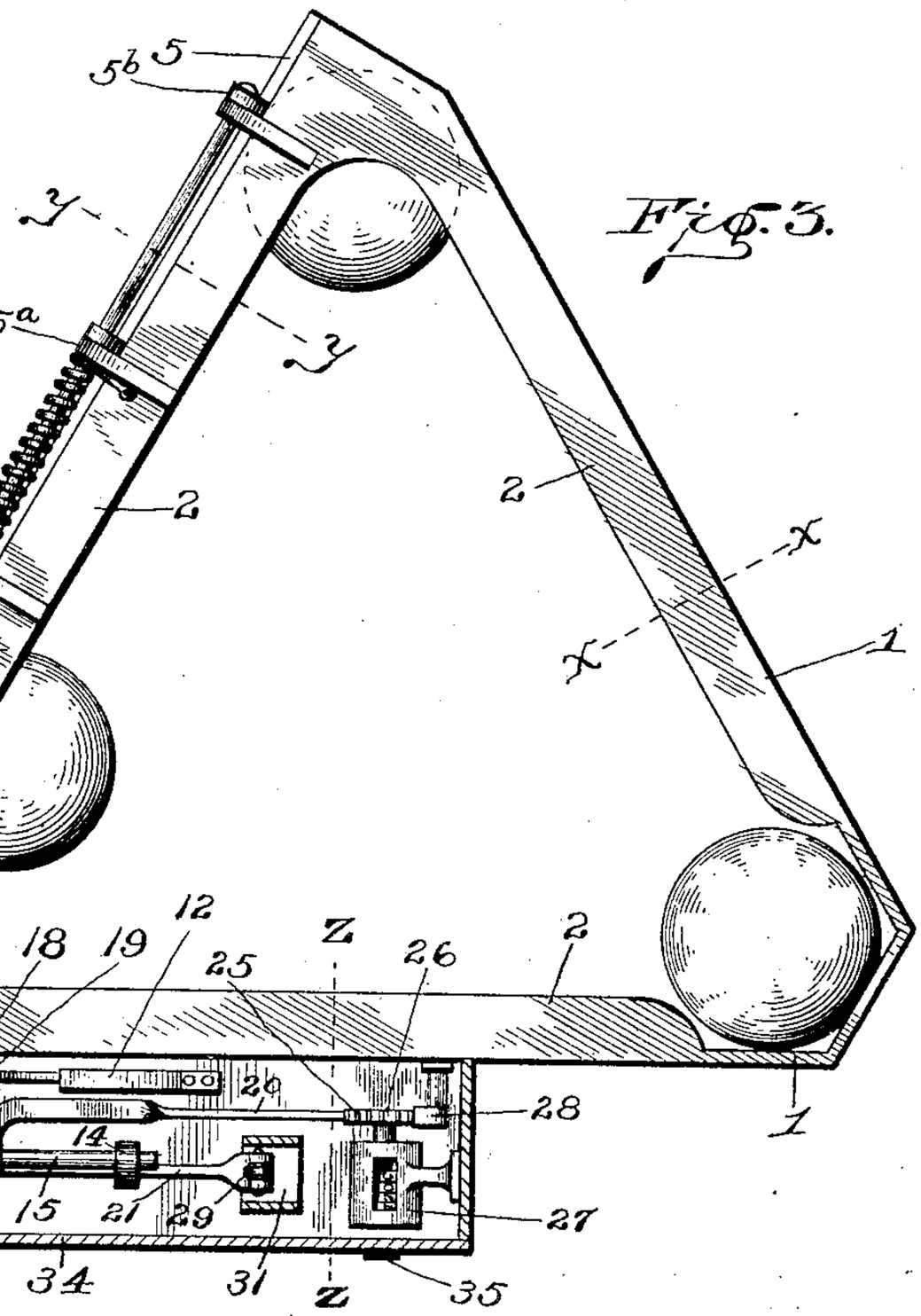


Fig. 4.

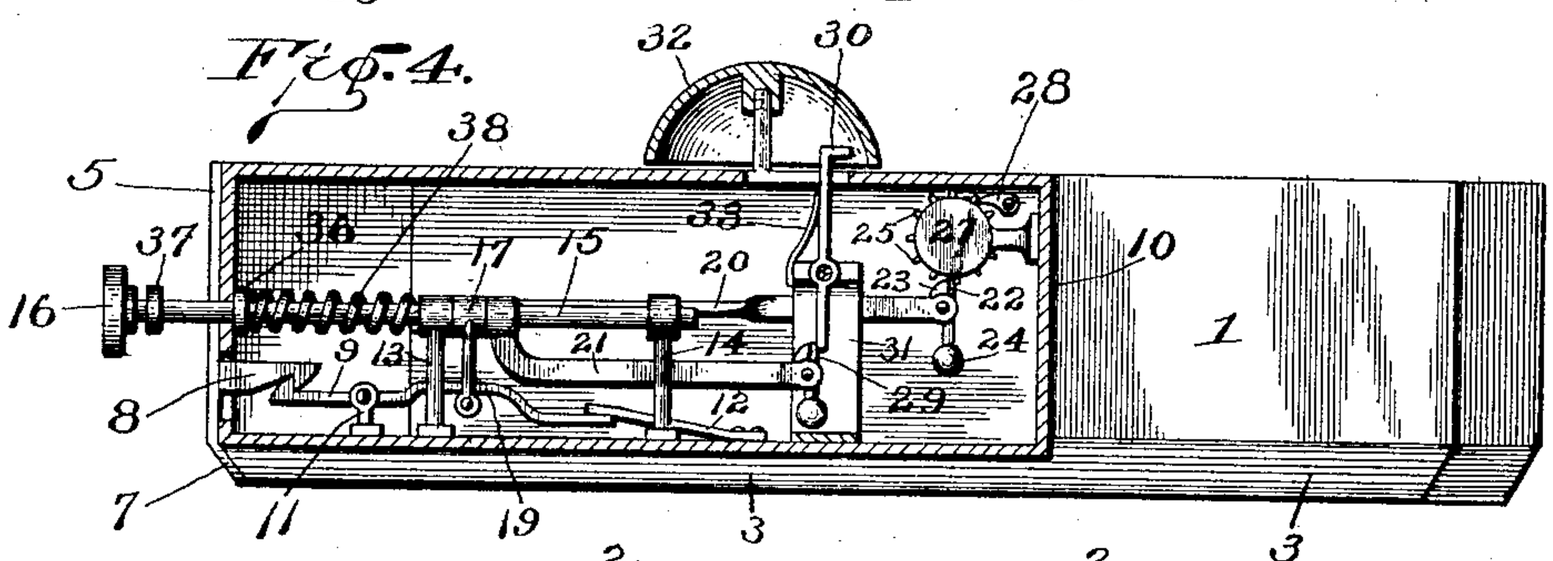


Fig. 6.

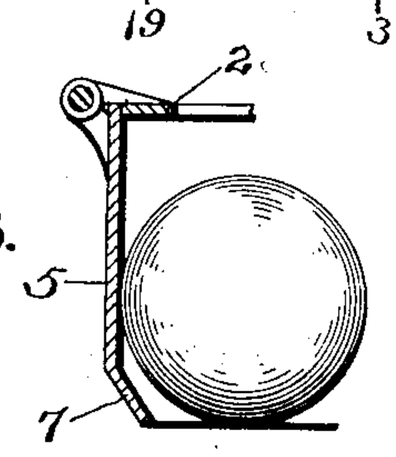
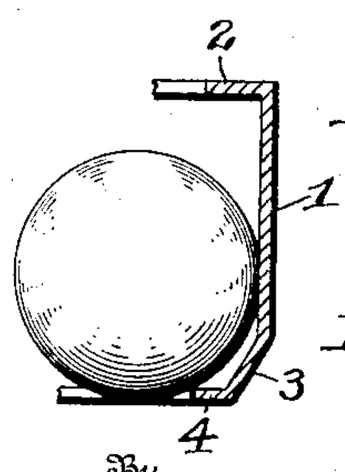


Fig. 5.



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UNITED STATES PATENT OFFICE.

EBENEZER ROYDEN MARSHALL, OF HAMILTON, CANADA.

COMBINED FRAME AND REGISTER FOR POOL GAMES, &c.

SPECIFICATION forming part of Letters Patent No. 702,108, dated June 10, 1902.

Application filed April 10, 1902. Serial No. 102,173. (No model.)

To all whom it may concern:

Be it known that I, EBENEZER ROYDEN MARSHALL, a citizen of Canada, residing at Hamilton, in the county of Wentworth and Province of Ontario, Canada, have invented new and useful Improvements in a Combined Frame and Register for Pool Games, &c.; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a gaming apparatus, and more particularly to an appliance employed in properly assembling the balls used in playing pool or similar games; and my invention consists of certain novel features of combination and construction of parts, the preferred form or materialization whereof will be hereinafter fully set forth, and pointed out in the claims.

The prime object of my invention is to provide a coöperative adjunct to the frame which will render it practically impossible to make use of said frame in assembling the balls ready for the game of pool or the like unless the act of so assembling said balls and disposing them in position upon the table is counted or registered.

By the use of my registering appliance it will not only be impossible to make a mistake in truly accounting for the number of games which have been played, but will also safeguard the proprietor against any imposition or dishonesty on the part of his employees in accounting to him for the actual number of games played, inasmuch as it is obvious that the group of balls must be properly assembled in position preliminary to the opening of each game, and since my improved ball-assembling rack or frame will be the only one provided for this purpose the operator must necessarily use it, and thereby actuate the registering device before the group of balls within such frame can be released or disposed in proper form upon the table.

Other objects and advantages will be hereinafter made fully apparent, reference being had to the accompanying drawings, which are made a part of this application, and in which—

Figure 1 is a perspective view of a portion of a pool-table, showing my device thereon and removed from around the pool-balls. Fig. 2 is a perspective view of my device in position for the balls to be placed therein. Fig. 3 is a top plan view of the frame, showing a portion of the requisite number of balls therein, also showing the upper portion of the housing carrying the registering mechanism removed. Fig. 4 is a side elevation of the same with the front portion of the housing carrying the registering mechanism removed. Fig. 5 is a detail sectional view of a portion of the frame, showing one of the pool-balls in its relative position as seen from the dotted line $x\ x$ in Fig. 3. Fig. 6 is a similar view as seen from the dotted line $y\ y$ in Fig. 3, and Fig. 7 is a detail sectional view of the housing carrying the registering mechanism as seen from the dotted line $z\ z$ in Fig. 3 with the registering mechanism removed therefrom.

It may be stated in this connection that the frame commonly employed in assembling and shaping a group of pool-balls as an initial act to playing such game is usually made triangular in form, open at the top and bottom, thus enabling the balls to be readily disposed within said frame and leaving them in the triangular shape and group when the frame is lifted, and I therefore wish to comprehend and secure in this application the broad idea of providing registering mechanism carried by and adapted to coöperate with the ball-assembling frame, whereby each use of the frame will be indicated, so that the number of times said frame has been employed can be determined at a glance, thereby protecting the proprietor against a mistake or cupidity of his employee and also assisting the players of the game in keeping tally of the number of games they have played, thus accurately indicating to the players the exact number of games for which they must pay and making it unnecessary to leave it to the memory of the attendant or any one of their number.

In materializing my idea and applying the same to practical use it may be briefly stated that the assembling-frame may be of any preferred shape and may be provided with a cooperating registering device and also with suitable means whereby the balls may be quickly released and such release unerringly recorded. I have also found it desirable to provide a bell so coöperatingly disposed relative to the recording mechanism that it will

be struck the instant the register has been actuated and the releasing devices operated.

In carrying out my invention I provide a suitable frame or rack of any preferred form or shape, said frame being indicated by the numeral 1, formed of any preferred material and provided upon its upper and lower edges with the inwardly-directed flanges or lips 2 and 4, respectively, the latter being preferably joined to the frame 1 by the intermediate obliquely-disposed section 3. As will be obviously clear, the flanges subserve the purpose of preventing the frame from being raised off of the balls without the flanges 4 being brought into engagement with the balls, and thus disturbing the group. In other words, the frame used in assembling the balls cannot be removed from engagement with the group of balls except in the manner hereinafter set forth. The forward ends of the upper lips 2 may be removed in order that the last ball can be freely dropped downward or introduced into position, thus insuring that the balls may be very conveniently placed within the frame. By thus forming the frame with the flanges, as above described, the removal of the balls by lifting the frame, as is now common in the absence of said flanges or lips, will be impossible without disturbing the group of balls. It is therefore clear that some means must be provided which will enable the frame to be either lifted from the balls or moved off of the same, and with this purpose in view I provide the door or gate 5, which practically forms the rear end of the frame or that portion usually adjacent to the operator when the frame is in use. The door 5 may be hinged in any preferred way, so that the lower edge thereof will be free to move upward in such a position that the entire door will be disposed bodily above the plane of the balls, and thus permit the frame to be shoved forward off of the group without contacting any of the balls, and thereby disturbing the relative position thereof. By forming the upper flanges or lips 2 so that they will be integral with the side sections and with each other it will be observed that a seat will be provided for the hinged members 5^a, designed to coöperate with similar members 5^b, carried by the door, thereby disposing the door in a hinged relation to the rear flange 2 and permitting said door to be freely moved upward. The door 5 is held in a normally open position by the spring 6 of any preferred character, as by disposing said spring around the rod connecting the members 5^a and 5^b in pivotal relationship with each other. It will be understood that said spring 6 is so mounted in position that one end of the spring is attached to the door, while the opposite end is connected with a contiguous part of the flange 2, insuring that when the door is closed the spring is provided with the requisite degree of tension to open it when the door is released by suitable mechanism hereinafter described. It will be further understood that while I shall hereinafter set forth the preferred combination and construction of parts deemed necessary in applying my invention to actual use I wish to comprehend all possible substitutes and equivalents, inasmuch as various modifications and changes may be made to adapt the several parts into coöperative relationship.

The lower portion 7 of the door 5 is bent inwardly at an oblique angle thereto and is designed to coöperate with the flanges 2 and 4 to prevent the removal of the frame from around the balls until after said door 5 has been opened.

Secured to the inner side of the door 5 and at one end thereof is a detent or retainer 8, the said detent being designed to coöperate with a tilting latch 9. To guard against any tampering with the latch 9 in order to open the door 5, I have provided a housing 10, the said housing being formed integral with or otherwise attached to one side of the frame 1 and designed to inclose the tilting latch 9 and the mechanism employed to operate the same. The latch 9 is pivotally mounted upon a post 11, near the latch end thereof, the opposite end being engaged and held normally down by a spring 12, the said spring being attached to the floor of the housing 10. At a convenient point between the fulcrum-point and the end engaged by the spring 12 the body portion of the tilting latch 9 is first bent slightly upward, when it again passes to a horizontal position for a short distance. Then it is bent downwardly until the plane of that portion contacted by the spring 12 is below the plane of the pivot-point.

Carried by suitable bearings 13 and 14 within the housing 10 is a bar 15, one end of which passes beyond the wall of the housing 10 and terminates in a suitable push-button 16. Attached in any suitable manner to the bar 15 between the bearings 13 and 14 is an arm 17, carrying at its lower free end a trunnion 18, said trunnion being adapted to engage with the under side of the struck-up portion 19 of the tilting latch 9 and operate the same. The bar 15 also carries arms 20 and 21, the arm 20 being adapted to carry at its outer end a pawl 22, the said pawl being so mounted that it will swing freely in one direction, but is prevented from swinging past an upright position in the opposite direction by means of a stop 23. The pawl 22 is also provided with a counterweight 24, the object of the same being to hold the pawl normally perpendicular. The object of the pawl 22 is to engage the teeth 25 upon the ratchet-wheel 26, the said wheel when turned operating the tallying device 27, which is of the usual or well-known character. A pawl 28 engages the ratchet-wheel 26 and prevents any backward movement thereof. The arm 21 carries a similar pawl 29 at its outer end, which is designed to engage with the lower end of a detonating-hammer 30, the said hammer being pivotally mounted upon a bracket 31 and caused to strike a bell 32 by means of a spring 33.

Hinged or otherwise attached to one side of the housing 10 is a door 34, so arranged that the mechanism contained in said housing may be accessible.

In order that the tallying mechanism may not be tampered with or changed at will, I provide clips 35, one portion of which is soldered to the door and the other portion being soldered to the wall of the housing, thereby sealing the door until such time as it becomes necessary to gain access thereto, when the clips will be unsoldered or otherwise removed. While I have shown and described this particular means of fastening the door, I do not desire to be confined thereto, as locks or other mode of fastenings may be used.

In operation the frame 1 is placed upon a table and the balls collected and placed therein, the said balls being sufficient in number to snugly occupy all the space within the triangular frame 1. After the frame and balls have been properly located upon the table the attendant presses upon the button 16, thereby pushing the bar 15 and parts carried thereon inwardly, the pawl 22 striking one of the teeth 25 and causing the wheel 26 to revolve, thus moving the tallying mechanism one number higher. At the same time the pawl 29 operates the detonating-hammer 30, causing it to strike the bell 32, and thus signifying that a new game has begun. When the bar 15 is pushed forward, the trunnion 18 is caused to strike against the downwardly-bent portion of the latch 9, thus raising the inner end of said latch and lowering the opposite end until the detent 8 has been released and the door thrown open by means of the spring 6. The trunnion 18 and pawls 22 and 29 are so disposed with relation to each other that the said pawls will have performed their respective functions before the said trunnion comes in contact with the downwardly-bent portion of the latch 9, thus assuring the registration of the game and the giving of the alarm before the door 5 is released.

In order to limit the inward and outward stroke of the bar 15, I place thereon collars 36 and 37, one on the inside and one on the outside of the housing 10. Surrounding the bar 15 between the bearing 13 and the collar 36 is a spring 38, the object of said spring being to return the bar 15 and parts carried thereby to their normal or outward positions ready for operation again.

It will be understood that the frame and accessories may be formed of any preferred material and of any desired size and that while I have illustrated in the present application simple and efficient means for accomplishing the purpose set forth in the foregoing specification I desire it to be understood that the mechanism and design of the various parts is representative in a broad sense of any mechanism adapted to accomplish the grouping of the balls and the registering of the act of so grouping them as the initial part of the game of pool or analogous games, and I therefore do not wish to be confined in this application strictly to the exact showing made, but to comprehend, broadly, the art of indicating and recording such manipulation of the ball rack or frame.

It will be understood that in addition to the tallying device or register 27 an auxiliary register or indicator may also be employed and so disposed as to be operatively combined with said register proper, that it will be provided with suitable devices whereby it may be restored at any time to the initial point or 1, in order that any new set of players may readily determine by means of said auxiliary register how many games they have played without the necessity of reading the main register 27. While I have not illustrated such cooperating auxiliary registering device, it will be obvious that such additional means may be easily supplied, if desired.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a gaming apparatus of the character specified, the combination with a suitable frame of a registering device carried by the frame and coöperating with ball-releasing devices on the frame adapted to actuate the registering device when the balls are released as set forth.

2. In an apparatus substantially as described, the combination with a frame having suitable ball-retaining devices, whereby the group of balls will be held within the frame, and a coöperating registering device carried by the frame and suitable controlling means intermediate the ball-retaining devices and said register adapted to operate said register when the balls are released as set forth.

3. The combination with a suitable frame having means to confine the group of balls within the same and a registering device carried by and coöperating with the frame and means to manually release the group of balls within the frame and operate the register as set forth.

4. The combination with a suitable frame adapted to surround a group of balls and shape said group as desired, of retaining devices carried by the frame adapted to hold the balls within the frame; registering mechanism operatively connected to the retaining devices whereby said registering devices will be operated when the retaining devices are controlled to release the balls as and for the purpose set forth.

5. The combination with a ball rack or frame having one end removed, of a door pivoted to said open end and adapted to close the same; a registering mechanism attached to the frame and operatively connected to the door whereby when the door is opened the register will be operated and the balls released as and for the purpose set forth.

6. A triangle ball-rack, upper and lower flanges on the inner sides of the rack, an open side to the rack, a door hinged to said open side, a spiral spring connected to the

door and to an upper flange to open the door, a casing on one side of the rack, a latch on the door to enter the casing, a push-bar, extending through the casing bearings in the casing for the push-bar, a fulcrumed lever-latch in the casing, a retaining-spring at the end of said lever, an arm on the push-bar to engage the lever and release the latch, substantially as described.

7. A ball rack or frame having an open side; a door hinged to said open side; a spring connected to the door adapted to hold it normally open; a catch and keeper for said door; a registering mechanism and a push-button having a bar operatively connected with said catch and keeper and with said registering mechanism whereby when the button is pushed the register will be operated and the door opened to release the balls, as and for the purpose set forth.

8. A ball rack or frame; one end of which is removed; a door hinged to said open end; inwardly-directed flanges carried by the frame and by the lower edge of said door; a registering mechanism attached to the frame and operatively connected with a door whereby when the door is opened the register will be operated and the balls released all substantially as specified and for the purpose set forth.

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

EBENEZER ROYDEN MARSHALL.

Witnesses:

JOHN H. HENDRY,

F. R. WADDELL.