

No. 742,467.

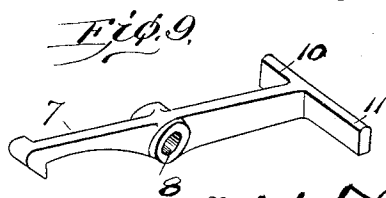
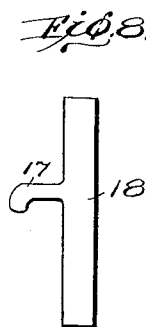
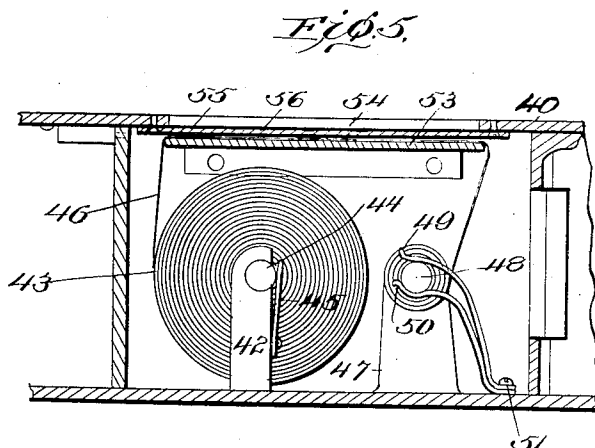
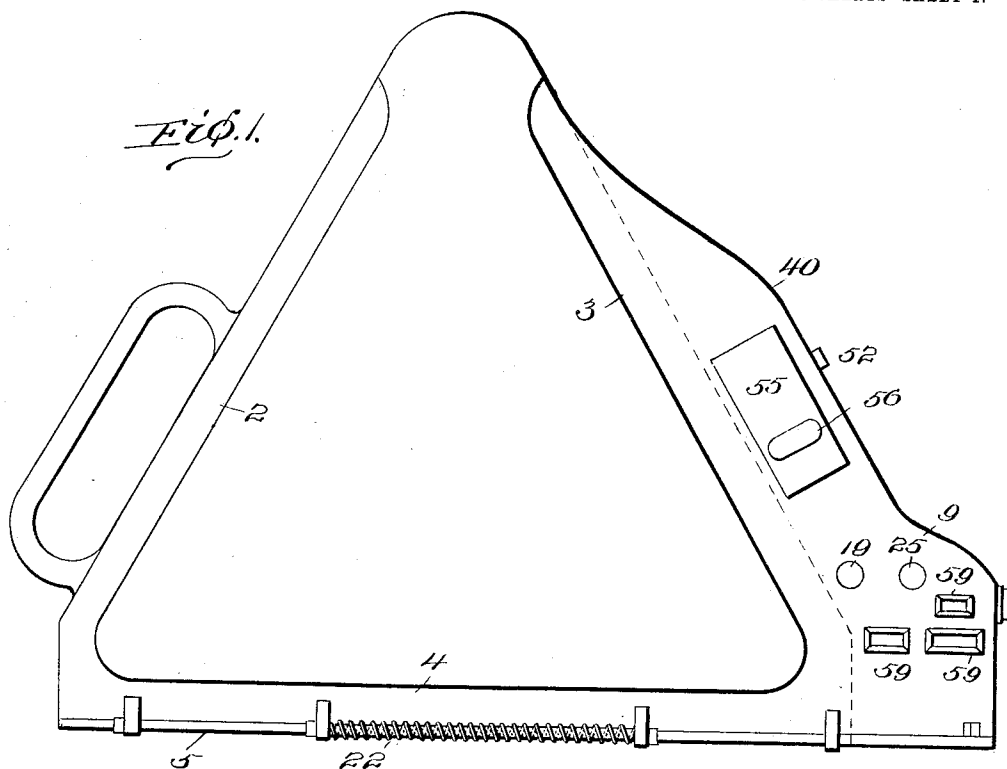
PATENTED OCT. 27, 1903.

E. R. MARSHALL.
POOL BALL RACK AND REGISTER.

APPLICATION FILED FEB. 21, 1903.

NO MODEL.

3 SHEETS—SHEET 1.



Inventor

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Witnesses
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C. S. Frye.

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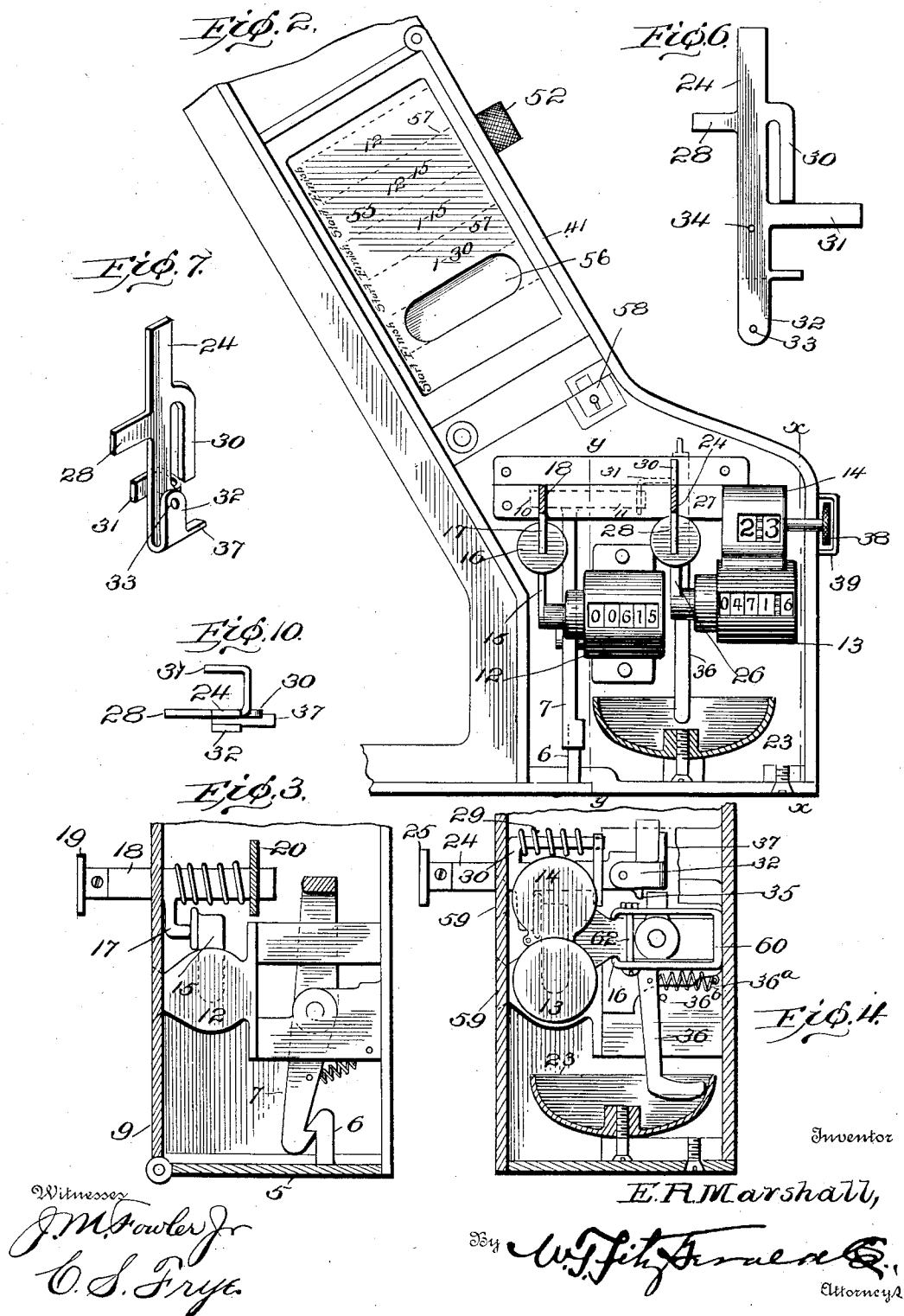
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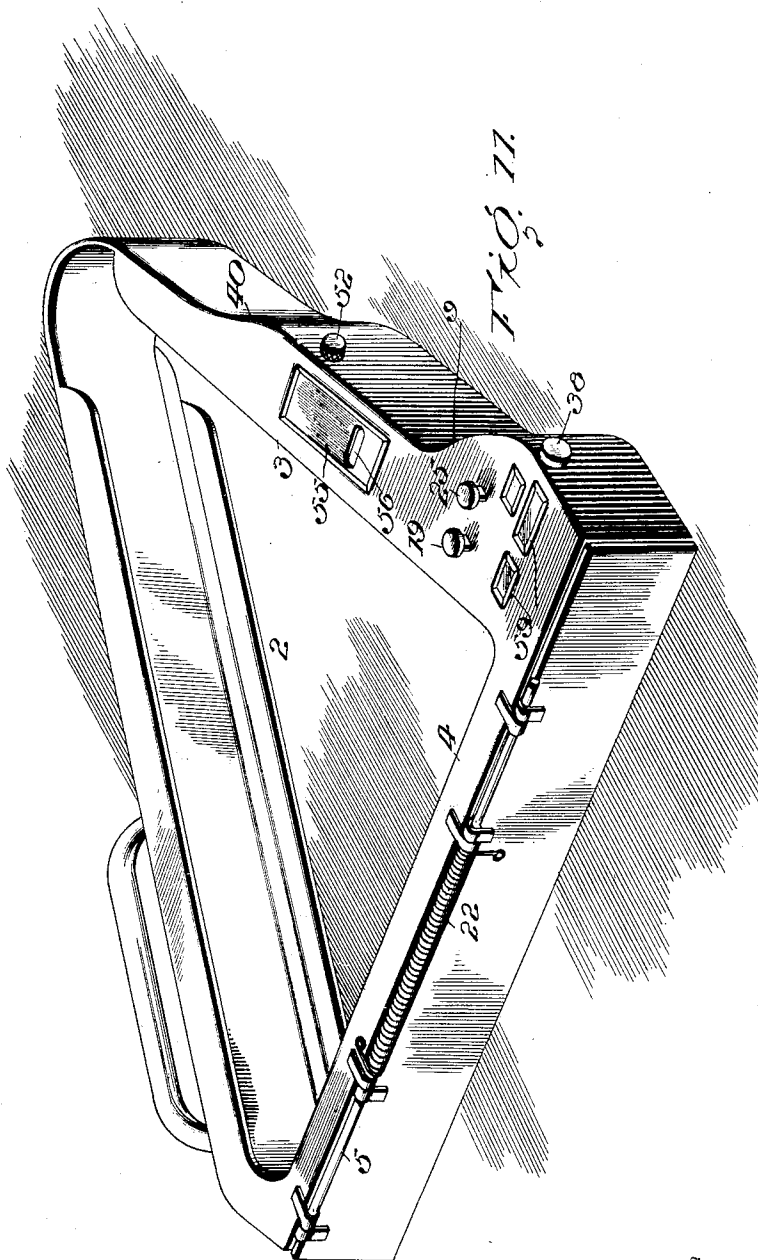
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

EBENEZER ROYDEN MARSHALL, OF HAMILTON, CANADA.

POOL-BALL RACK AND REGISTER.

SPECIFICATION forming part of Letters Patent No. 742,467, dated October 27, 1903.

Application filed February 21, 1903. Serial No. 144,498. (No model.)

To all whom it may concern:

Be it known that I, EBENEZER ROYDEN MARSHALL, a citizen of Canada, residing at Hamilton, Province of Ontario, and Dominion of Canada, have invented certain new and useful Improvements in Pool-Ball Racks and Registers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention consists of a further improvement upon the details of construction and combination of parts of my pool-ball frame and registering mechanism carried thereby as set forth in Letters Patent granted to me on the 10th day of June, 1902, and numbered 702,108, and in my application for Letters Patent of the United States filed February 3, 1903, Serial No. 141,646.

The prime object of my present invention is to provide greater simplicity of detail of construction to attain the same results set forth in my former inventions, above referred to, and more particularly as described in my said application Serial No. 141,646.

It is my purpose in my present invention to so form and provide my ball-rack and register with cooperating accessories whereby it will be useful in any situation, and therefore will be found to meet all requirements for such an appliance, whether the game of pool be played, as in some localities, at so much per cue or game or, as in other localities, at so much per hour or fractional part thereof consumed in playing the game.

With the accomplishment of these and other objects, as will be hereinafter more clearly set forth, I have provided certain simple cooperating devices, reference being had to the accompanying drawings, in which—

Figure 1 is a top plan view of my ball-rack and register carried thereby complete, ready for use. Fig. 2 is a top plan view of a portion of the rack and the registering mechanism, the top of the casing containing said mechanism being removed. Fig. 3 is a detail showing a sectional view of the mechanism illustrated in Fig. 2 as taken on line *y y*. Fig. 4 is a similar view showing a section of Fig. 2 as taken on line *x x*. Fig. 5 is a detail view, partly in section, showing the paper-

storage rolls and parts cooperating with the continuous strip of paper. Fig. 6 is a detail view showing the blank in its original state employed as one of the push-button shafts. Fig. 7 is a perspective view showing the blank illustrated in Fig. 6 as ultimately shaped for the performance of its office. Fig. 8 is a detail showing the other push-button shaft. Fig. 9 is a perspective view showing the latch employed to cooperate with the ball-releasing door. Fig. 10 is a top plan view of the push-button shaft illustrated in Fig. 7. Fig. 11 shows a perspective view of my invention complete as applied to use upon a pool-ball rack or frame, showing suitable retaining-flanges for the balls and a releasing-door therefor.

Briefly stated, my invention consists in providing a suitable frame in which the pool-balls are assembled in the usual triangular form or group, said frame having ball-releasing devices whereby the frame may be removed from the group of balls without disturbing the same, the frame also carrying registering mechanism which will indicate each use thus made of assembling and releasing the balls, thereby showing the number of times the rack has been so employed.

Referring to the numerals on the drawings, 1 indicates my pool-ball frame, which is provided, as set forth in my former applications, with lips 2, 3, and 4, said lips being arranged in pairs—one for the upper and one for the lower edge of the frame—which will thus prevent the frame from being lifted bodily from the balls without disturbing the grouping thereof. I also provide, as explained in my said former applications, a door 5, designed to be opened, whereby the frame may be moved bodily forward off of the group of balls without disturbing the position of any. The door is also provided in this instance with an inwardly-projecting keeper 6, designed to cooperate with the latch 7, which is pivoted by means of the aperture 8 in suitable bearings located at any desired point in the casing 9, said casing being made of suitable size to accommodate the interior parts hereinafter clearly set forth. The latch 7 is also provided at its upper end with a cross-head or T-shaped terminal, comprising the branches 10 and 11, designed for the performance of

certain specific offices, which will be clearly stated.

In the present instance I provide three distinct registers, which for convenience I will designate as the "independent" register 12, a "main" register 13, and an "auxiliary" register 14, the two last-mentioned registers being coöperatively united, whereby the main register will show the total number of times it has been operated, notwithstanding the auxiliary register may have from time to time been restored to the initial point. The independent register 12 is provided with the controlling-lever 15, having the terminal 16, by which it is controlled through the mediation of the arm 17, preferably integrally formed with the shaft 18 of the push-button 19. The shaft 18 passes through a suitable aperture in the top of the casing 9, the lower end of said shaft being properly supported by the cross bar or plate 20, said shaft being held normally upward by the spring 21, interposed between said plate and the arm 17. The position of the arm 17 is such that it will limit the normal upward movement of the shaft 18, though permitting the shaft 18 to swing back to the initial point after the independent register has been operated, it being understood that a suitable spring to coöperate with said arm is employed for this purpose.

The push-button 19, controlling the independent register, is operated only when the game of pool is played at so much per hour, it being desirable to unerringly register each time the balls are released from the rack. It therefore becomes desirable and important to provide coöperating means for the shaft 18 adapted to open the door each time the independent register is operated, and with this purpose in view I provide and locate the branch 10 of the latch 7 so that it will lie in the downward path of said shaft, thereby insuring that each time the shaft is moved downward by pressure upon the button 19 its lower end will engage the branch 10 and move the outer end of the latch upward, so that it will disengage the keeper 6, and since said door is provided with the spring 22, adapted to hold it normally open, the lower end of said door will instantly rise upward in position to permit the rack to be moved off the group of balls without disturbing the same. It will therefore be seen that I have provided means for simultaneously operating the independent register and releasing the door, thus perfectly fitting the rack for meeting all requirements when the game of pool is played at so much per hour. It will furthermore be observed that the actuation of the independent register in no wise disturbs the main and auxiliary registers 13 and 14, respectively, it being my purpose to hold said registers in reserve for a wholly different purpose—namely, that of registering the use of the ball-rack when it is being employed under the game or per-cue system. In order, therefore, to provide means for actuating the main and aux-

iliary registers and at the same time release the door and detonate the bell 23, I provide an independent controlling-shaft 24 and a push-button therefor 25, said parts being adapted to press down upon the controlling-lever 26 of the main and auxiliary registers 13 and 14, said lever having a suitable terminal 27, designed to lie in the path and be engaged by the arm 28 of said shaft. The shaft 24 is similarly mounted in a substantially vertical position as the shaft 18 by passing through apertures in the casing 9 and the plate 20, said shaft being held normally upward by a spring 29, passing around the member 30, which latter also extends through an aperture in a contiguous part of the plate 20. The shaft 24 is also provided near its lower end with an arm 31, which is bent to occupy a curved position, the major portion of the arm extending substantially at right angles to the shaft, whereby its free end will be brought in position to engage the branch 11 of the latch 7, thereby insuring that said latch will release the door when the shaft 24 is forced downward.

The shaft 24, it will be observed, may be cheaply formed, as by blanking the same out of a piece of suitable sheet metal, so as to have all of the various parts herein described, while the lower end thereof 32 is bent upward upon itself and provided with an aperture 33, designed to register with the aperture 34 in the body of the shaft, so as to afford suitable bearings in a cheap and efficient manner for holding the pawl 35 in pivotal union therewith, the end of said pawl being disposed in the path of the free end of the bell-detonating hammer 36, and it is therefore clearly obvious that upon a downward movement of the shaft 24 the dog or pawl 35 will cause the bell-detonating lever to rise until said dog shall have passed the end thereof, when said lever will be drawn sharply downward by the spring 36^a and strike the bell, the dog 35 being so pivotally mounted that it will freely yield to the end of the lever 36 upon the upward movement of the said dog, a suitable stop 36^b being located at a proper point to utilize the tensile property of the hammer and hold it normally clear of the bell. It may be stated in this connection that an extension 37, formed upon the lever 24, is provided to coöperate with the dog 35 to secure proper movement thereof in the manner above set forth. It may also be stated that the actuation of the lever 26 results in operating both the main and auxiliary registers, the latter being so constructed that it may be very conveniently restored to the initial point, as for a new set of players, by a proper manipulation of the controlling-handle 38, which latter is housed and protected by the closure 39 or other equivalent device.

The main and auxiliary registers, having a common controlling-lever 26, are of a well-known construction, the one complementing the other, the auxiliary register being adapted

to be restored at any time to the initial point, while the main register keeps record of the total number of times the lever 26 has been actuated, and I therefore do not deem it necessary to enter into a detail description of the devices, which thus render said main and auxiliary registers coöperative.

The main and auxiliary registers 13 and 14 are, in connection with their actuating means, complete in themselves and will meet the requirements where the payments for the use of the rack are made upon the game or cue system, inasmuch as the actuating means for said registers simultaneously releases the door of the ball-rack proper and detonates the bell, thus showing to the proprietor or person in charge of the pool-room that proper use is being made of the ball-rack, inasmuch as he will know that at each detonation of the bell the rack is being employed under the per-cue or game system of payment, whereas in the absence of the ringing of the bell he will know that the rack is being employed under the per-hour or time system.

As a further check upon the dishonesty or carelessness of the attendant in properly accounting for all time during which the rack is being used under the hour system I provide certain auxiliary means to coöperate with the independent register and consisting in this instance of convenient means for enabling the players themselves or the attendant to write down the exact hour when they begin to play and the exact time of finishing the last game. Any suitable equivalent of the construction and combination of parts herein after specifically described is comprehended by me in this application.

Preferably adjacent to that part of the casing containing the registering mechanism I provide the housing 40—in this instance, say, a mere extension of the housing 9—which preferably has a suitable door 41, whereby a ready access may be gained to the interior. Within the housing 40 thus or otherwise constructed I locate upon suitable bearing-constructs 42 a paper-carrying spool 43, having journals 44 fitting suitable bearings in said standards and held therein by the tension-spring 45, designed to overcome the impetus of the spool 43 and prevent the paper 46 from being unwound faster than is required. I also provide suitable standards, as 47, having bearings to receive the ends of the storage-roller 48, designed to wind up and store the paper after it has been used. I also provide a suitable tension device for the roller 48, consisting in this instance of the spring members 49 and 50, secured together in any preferred way, as by means of the bolt or screw 51. It will be understood that one end of the roller 48 is extended through an aperture in the door 41 and is preferably provided with the milled head or other suitable handle portion 52. I also locate in the housing 40 the plate 53, held in place in any preferred way in close juxtaposition to the upper surface of the

casing 40, said part of the casing being cut away to provide the opening 54, as more clearly shown in Fig. 5. The opening 54 is inclosed by a sheet of some transparent substance—as celluloid, glass, or the like—as indicated by the numeral 55, the said transparent closure being provided with the opening 56, through which a small portion of the paper 46 is left accessible, thus enabling the attendant to write, preferably with an indelible pencil, the exact hour of beginning or closing the game. The upper surface of the strip of paper 46 is so printed or otherwise provided with divisional lines 57 that such surface will be uniformly separated into parallel sections or divisions, each alternate section or division being designated by the word "Finish" or "Start," "Beginning" or "End," or other designations having a similar meaning, the object being to provide a space upon which the attendant or one of the players or other person may, for instance, write the exact hour when the players begin and upon the next adjacent space following write the exact time of finishing the play. In order to make the matter entirely clear, attention is called to Fig. 2 of the drawings, wherein it will be observed that the record made by certain players is clearly readable through the transparent cover 55, and by reading this record it will be seen that the first set of players using the rack finished their playing at twelve o'clock. It will furthermore be observed that a second set of players began playing at 12.15 and finished at 1.15 and that the last set of players began playing at 1.30, the time of finishing not yet being designated, though the section marked "Finish" has been brought directly under the opening, ready for the exact designation showing when the game is closed. When, therefore, the time of finishing has been recorded, the next set of players may by turning the handle 52 bring the next section (marked in this instance "Start") directly under the opening, when the exact time of beginning may be written thereon through the opening with which it has been brought into registration.

I prefer in most instances to roughen the face of the plate 53, especially that part thereof directly under the opening 56, whereby the paper will be more or less scarified and pressed into the uneven surface, thereby forming many indentures into which the marking of the pencil will be embedded, thus preventing the erasure thereof and the consequent destruction or tampering with the record.

It may be seen that the purpose subserved in combining the independent register and the manually-recorded time of beginning and closing a game is for the purpose of keeping proper check upon the players or the attendant and prevent the failure on their or his part to honestly record the full time during which they have used the rack. Since, therefore, the balls cannot be released from the rack without operating the independent reg-

ister, it follows that at least a reasonable amount of times must be accounted for by the time-record thus manually made or suspicion would at once be aroused. In this connection it may also be stated that a fair average of racks per hour is found by experience to be from six to seven—that is to say, during the ordinary course of playing the balls are released from six to seven times each hour, and if, for instance, it is claimed that the players have used the rack for one hour and the independent register would show that the balls had been released from twelve to fifteen times the wide discrepancy would indicate that an honest time-record had not been made.

In order that the contents of the casing 40 may be rendered inaccessible except to those authorized or in charge, a suitable lock for the door 41 may be located at any convenient point, said lock being designated by the numeral 58 in Fig. 2. Inasmuch as the registers are all disposed within the casing 9, I provide suitable openings 59 in the upper part of said casing, as clearly shown in Fig. 1 and other views.

Since it is desirable to dispose the registers near the openings 59, suitable supporting brackets or standards may be provided, which in this instance consist of the substantially U-shaped member 60, the upper free ends whereof are directed inward toward each other to provide the lips 61, said branches being securely locked in engagement with the base of the register-casing in any preferred way, as by the bolt 62, or said parts may be permanently united to said casing, while the U-shaped member itself may be reliably anchored, preferably to the bottom of the casing 9, as by riveting members or the like.

It will be observed that the strip of paper, as hereinbefore explained, has its upper surface so prepared, as by printing or the like, that the record for each set of players, showing both the starting and finishing hour, is arranged to occupy adjacent sections defined by the division-lines 57, and for the convenience of the bookkeeper in making up his record I prefer that two sections or divisions of the paper (designated "Start" and "Finish") shall be numbered, so as to form a distinct individual group intended for keeping the record of a distinct group of players, and with this purpose in view I prefer to number them in pairs, as first, second, third, &c. By this means it is clear that a complete record of the playing and also of the players, if desired, may be conveniently made.

Believing that the advantages and manner of using my combined rack and register have thus been made fully apparent, further description is deemed unnecessary.

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

1. The combination with a pool-ball frame

having ball retaining and releasing devices, of a plurality of registers, each register being connected with the ball-releasing devices consisting of a door-latch having extensions lying in the path of the actuating means of each register and an independent push-rod for each register adapted to operate the same and release the balls, as and for the purpose set forth.

2. The combination with a frame having a ball-releasing door, of a plurality of registers, each having independent connection with a releasing device for said door, said releasing device consisting of the latch 7 having a hook at one end and a cross-head 10 at the other end and actuating means for each register wholly independent of and disconnected from the actuating means of the other register as and for the purpose set forth.

3. The combination with a frame or pool-ball rack having a ball-releasing door, of a plurality of registers carried by the frame and means to operatively connect the registers with releasing devices for the door whereby when one of the registers is actuated the doors will be opened and means extending through the casing adapted without previous manipulation of any other part, to operate either register as preferred, as and for the purpose set forth.

4. In a register of the character specified, a push-rod for the registering mechanism comprising the push-rod proper 24 having its lower end bent upon itself and formed to provide an apertured ear 32, said lower end also having a lateral extension 33, a curved extension 31 and an integral button-actuating finger 28 substantially as specified and for the purpose set forth.

5. In an appliance of the character specified the herein-described controlling-latch having a hook at one end and a cross-head or a pair of oppositely-extending arms at the other end, a pair of registers and suitable means to mount said latch between said registers whereby a controlling part of each register will be engaged by one of said arms and thereby insure an actuation of the register as set forth.

6. In an appliance of the characters specified, the combination with the ball-frame of ball retaining and releasing devices carried by the frame; a pair of registers and a latch for the door having extensions at one end adapted to extend into the path of a moving part of each of the registers whereby when either of the registers is operated said latch will be raised to release the door, 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:

GEO. W. DREW,
C. S. FRYE.