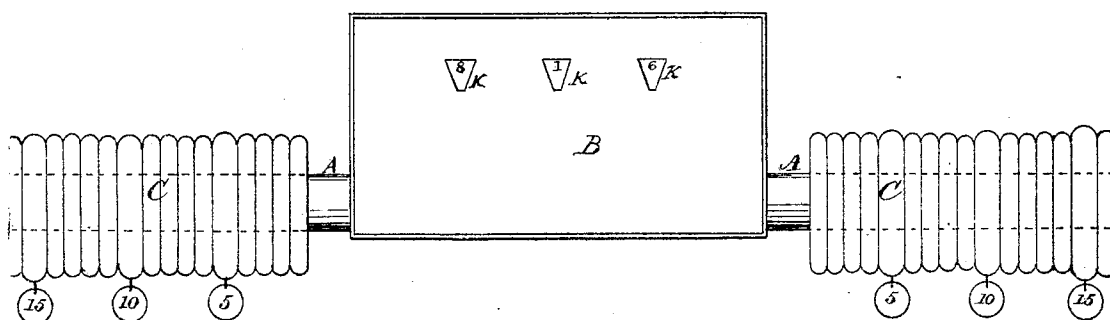
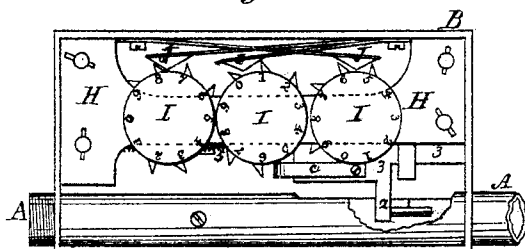
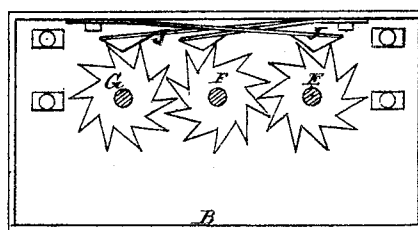
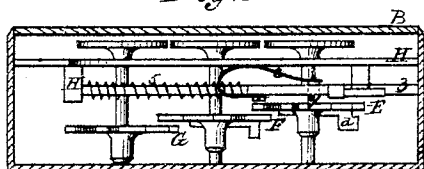
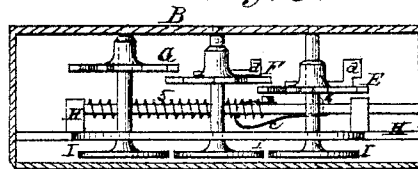
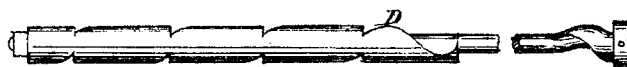
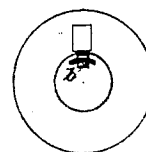
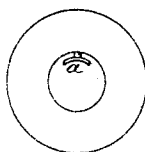


Improvement in Billiard Registers.

No. 122,167.

Patented Dec. 26, 1871.

Fig. 1.*Fig. 2.**Fig. 3.**Fig. 4.**Fig. 5.**Fig. 6.**Fig. 7.**Fig. 8.*

Witnesses:

T. C. Bucht.

C. E. Duffy

Leon Godefroy Inventor:
By Atty. Wm. C. W. Antine

UNITED STATES PATENT OFFICE.

LEON GODEFROY, OF PULASKI, TENNESSEE.

IMPROVEMENT IN BILLIARD-REGISTERS.

Specification forming part of Letters Patent No. 122,167, dated December 26, 1871.

To all whom it may concern:

Be it known that I, LEON GODEFROY, of Pulaski, in the county of Giles and State of Tennessee, have invented a Machine for Marking or Counting the Game of Billiards, which I call a Billiard-Register; and I do hereby declare that the following is a full and exact description of the construction and operation of the same, reference being had to the accompanying drawing and to the letters and figures of reference thereon.

My invention has for its object to provide a sure and successful means of registering the games of billiards as they are played; and consists of the peculiar construction and arrangement of the buttons and rod upon which they move, all as will be hereinafter more fully set forth.

To enable those skilled to make and use my improved register, I will proceed to describe the construction and operation, referring by letters to the accompanying drawing, in which—

Figure 1 is a side elevation of my register, showing a number of counting-buttons "strung" at each end thereof. Fig. 2 is a similar elevation with the side removed. Fig. 3 is a similar view to Fig. 2 with all the parts removed from the box except the spur-wheels, as will be presently explained. Fig. 4 is a top view with top removed. Fig. 5 is a view from the bottom with the bottom plate removed. Fig. 6 is a view in detail of the central locking-rod. Fig. 7 is a face view of the last counting-button, and Fig. 8 is a similar view of every fifth button.

Similar letters indicate like parts in the different views.

A represents a hollow tube upon which the buttons are strung. This tube runs into and is secured to the register-box B. The buttons C are strung upon the tube to slide freely thereon. Every fifth one, however, has formed on its interior circumference a short arm or projection, *a*, which dovetails under the edges of a channel cut in the upper part of the tube B, and the last button has a similar arm in every respect, except that it has an extension, *b*, for the purpose to be presently explained. Arranged centrally within the tube B is a rod, D, which rotates upon its bearings at either end. This rod is so constructed that when in a given position it will present a step or shoulder to every fifth button—af-

ter it has been pushed toward the register-box—to prevent its being returned upon the string; and when again turned to a given extent will present a smooth surface and allow the buttons to slip freely over it. At the extreme end of this rod, and at a point which would be covered by the last button when pushed toward the register-box as far as permitted by the other buttons, are two (what I call spiral inclines) screw-threads, increasing in opposite directions, so that the extension *b* on the last pin, moving alternately upon the two inclines, will cause the rod D to rotate in opposite directions, and thus alternately present a smooth and stepped surface, as will be more fully explained presently. On this interior circumference of the first button, and instead of the arm *a*, is arranged a horizontal arm, arranged to dovetail the edges of the pipe A. This arm penetrates the end of the register-box and strikes, when desired, against an arm, 1, in the downwardly-projecting part 2 of a sliding bolt or plate, 3, which is always returned to the position seen at Fig. 1 by a spiral spring, 5. Arranged on this bolt or plate is a lip, 4, which passes through a slot cut in said bolt, and is held down so as to present itself on the under side by a flat spring, *c*. This lip is so arranged that its inclined face will be toward the buttons, and its square side will strike against the successive teeth of a spur-wheel, E, arranged above this bolt, which has its axis parallel with the bottom and end of the register-box. There are two other similar spur-wheels, F G, and all three are similarly mounted in a frame, H, which likewise forms the support and bearings for the sliding bolt 3. These wheels have their axes distant not quite equal to the diameter of the wheels, so that were they all in the same plate the teeth would meet with or strike each other. They are therefore arranged slightly behind one another or in the order of steps, and on one tooth of each of the first two wheels is a projection or lug, *d*, arranged to come in contact with the teeth of the neighbor wheel, so that, upon the complete revolution of the wheel E, the wheel F will be moved the distance of one tooth by reason of the lug *d* coming in contact with the tooth of said wheel, and after the second wheel has made one revolution the lug on it turns the last wheel one tooth. On the shafts of these three wheels are keyed dials I, which are marked from 0 to 9, as seen at Fig.

2, and in the front plate or corner of the box are sight-holes K, through which one figure on each dial may be seen. Arranged against the inside of the top of the box immediately over each of these spur-wheels are springs J, with an angular block at their loose ends adapted to fit between the teeth of the wheels and hold them when they are not actuated by the positive actuating mechanism, and thus prevent accidental movement.

The operation is as follows: The buttons all being back to the wall end of the tube A, the last buttons-projecting arm will have struck the incline on the rod D, and so turned it that all the steps or projections are turned up or visible through the channel in the tube A; the buttons are slid up toward the register-box for the purpose of counting the points made in the game, and as each fifth button passes over these steps it is prevented from returning by the said projection on the rod, and they cannot be returned until the last button has been pushed up far enough toward the register-box for its arm to ride up onto the other incline, which rotates the rod and presents its smooth side. The position of this incline is such, however, with reference to the number of buttons on the tube, that the first button will have to be pushed by the succeeding ones up against the register-box, in order to allow the last button to ride up over the incline. The operation forces the long arm on the first button against the arm 1 on the downwardly-projecting portion 2 of the sliding bolt or plate 3, and forces it in turn toward the opposite end of the box and to a distance sufficient to cause the latch or lip 4 to take hold of one tooth of the spur-wheel E and move it one point. The buttons are now all pushed back to the first position, and the rod is again set. The spiral spring

5 forces the bolt 3 back to its normal position. The spring-latch or lip 4 jumps over the next tooth in the spur-wheel, and is in position to take hold thereof when the first button is again pushed up against the register-box. It will be seen that each wheel having a tooth for each figure on the dials, that all the noughts on dials being visible through the register, the first game that is played will be registered by the wheel E being made to rotate the distance of one tooth, and thus present to view the figure 1, and so on until nine games have been played, when the next movement of this wheel brings the nought to view again, and the lug *d* at the same time moves the next wheel one point, presenting to view the figure one on its dial. Thus ten games are denoted as having been played. When ninety-nine games are registered by these two wheels, then the lug *d* on F turns G one tooth at the instant that the noughts on the dials of the other two are presented, so that "one hundred" will be registered, and so on until nine hundred and ninety-nine games have been played, when the next game registered will cause all the dials to again present the noughts.

Having thus described the construction and operation of my improved register, what I claim as new, and desire to secure by Letters Patent, is—

The hollow string or tube, in combination with the central rotating rod and counting-buttons, all constructed as described, and arranged to operate as set forth.

LEON GODEFROY.

Attest:

WILLIAM H. McCALLUM,
JOSEPH B. STACY, Jr.

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