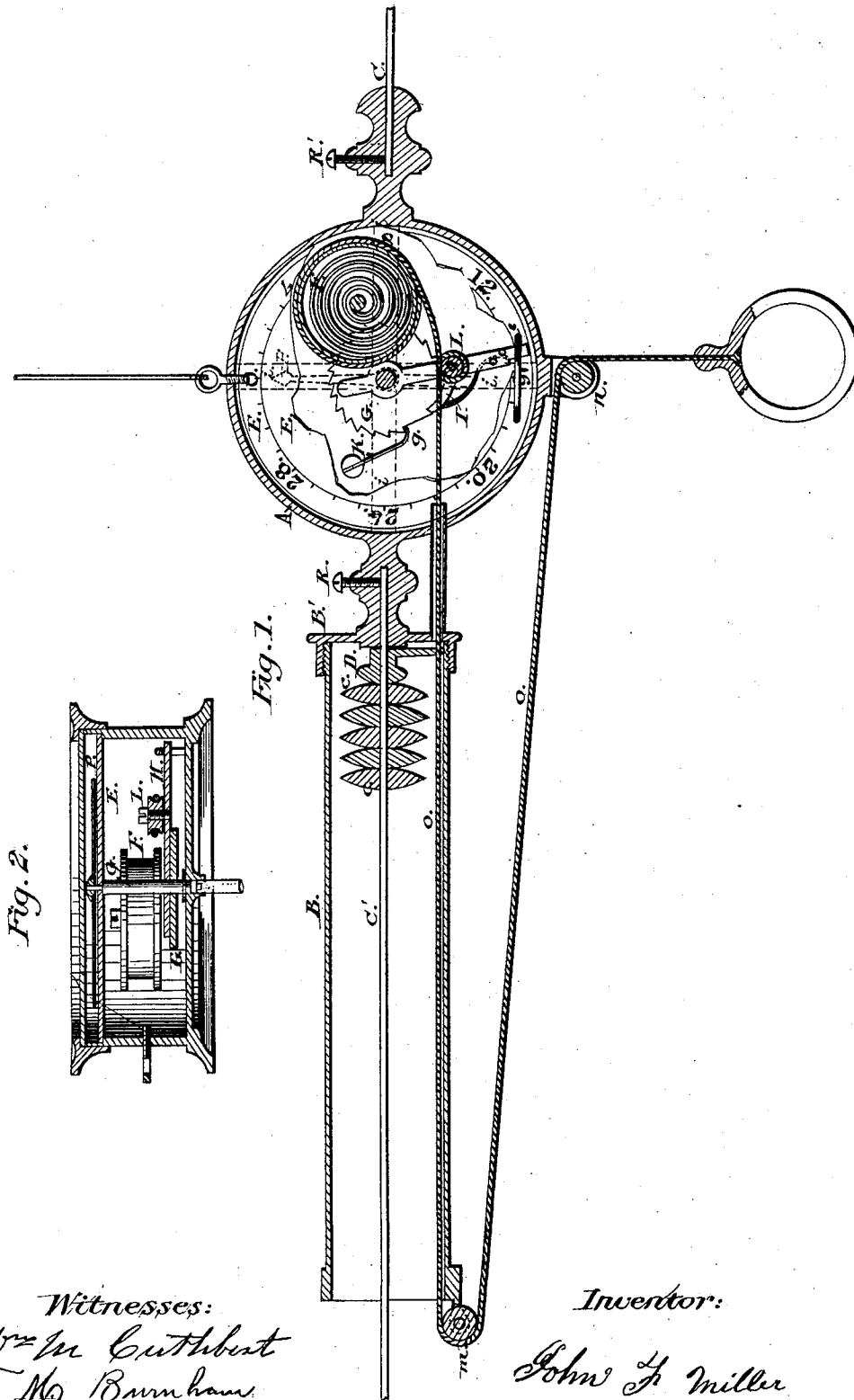


BILLIARD REGISTER.

No. 175,295.

Patented March 28, 1876.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN F. MILLER, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN BILLIARD-REGISTERS.

Specification forming part of Letters Patent No. **175,295**, dated March 28, 1876; application filed March 4, 1876.

To all whom it may concern:

Be it known that I, JOHN F. MILLER, of the city of Pittsburg, in the county of Allegheny, and the State of Pennsylvania, have invented a new and useful Machine for Registering Billiards or similar games, of which the following is a specification:

The object of my invention is to record or register each game played on the table, to protect the owner from false returns by the players, and also from deception of his clerk or game-keeper, as to the total number of games. This I accomplish by the combination of a circular case, A, tube or case B, counter-wire C, counters *c c*, push-head D, dial E, spring-drum F, ratchet-wheel G, lever H, pawl I, spring-dog K, pulley L, sheaves M and N, cord O, and the hand P, all of which are shown in detail in the accompanying drawing, which is hereby made a part of this specification, and to which reference is had—

Figure 1 being a longitudinal section, Fig. 2 a transverse section, of the invention.

The case A is formed of brass or any other suitable material, being constructed the same as are cases for steam-gages. Projecting from the right side is a boss, which is bored out to receive one end of the right counter-wire. It has a set-screw, R', which screws down on the wire. From the left side of the case A projects a similar boss, to which is attached the tube-head B'. This boss receives an end (left) of the counter-wire C, having also the set-screw R. B is the tube or case which screws into the tube-head B'. It is of such internal diameter as will permit the counters *c c* to freely move therein, on the counter-wire C, which passes longitudinally through the tube B to the boss where it is fastened by the set-screw R. *c c* are the counters, which are the same as those in present use. D is the push-head, having a hole through its center, through which passes the wire C. It has an arm extending downward, and is of such proportion that it will move easily on the counter-wire C inside the tube B in which it is located. E is the dial-face, only a portion of which is shown. (See Fig. 1.) It is divided into certain equal spaces of two more in number than the number of games it is desired to register, every fourth space being numbered. (See Fig. 1.)

In the center of case A is a shaft, *g*, having its journals, one in the back of the case and in the front by the bars *iii i*. Fast on this shaft is the ratchet-wheel G, having the number of its teeth, and their size, of such proportion as will correspond to the number of spaces and their location on the dial-face E, one of the teeth, however, being cut out, making a blank space equal to the two extra spaces on the dial E. H is a lever having its fulcrum on the shaft *g*, and on the lower end the pulley L, and also the pawl I, Fig. 1. The free end of the pawl meshes into the teeth of the ratchet wheel G, being kept in place by a small spring. K is a spring-pawl, which also meshes into wheel G, and prevents any back movement of the same. F is the spring-drum having a coil-spring in it. P is the hand, fast on the front end of the shaft *g*, and of such length as will reach to and point to the spaces and figures on the dial.

The cord O, or its mechanical equivalent, is attached by one end to the spring-drum F, round which it passes such number of turns as are equivalent to the length of the tube B. From the drum it passes once round the pulley L; thence through the side of the case A, and enters the tube B through the head B' at the lower side, and is attached to the lower end of the draw-head; then passes longitudinally through said tube B to its mouth, and over the sheave M, and then back to the sheave N, situate at the under and central portion of the case A, over which it turns, its free end being attached to any suitable handle. The case A has also a wire extending up to the ceiling, to give it support when the cord is drawn on.

Operation: The invention is connected to the counter-wire by the ends of the wires entering the bosses and the set-screws R and R' being screwed down on them. The counter-wire is then stretched over the billiard-table, as usual, the case A being over the center of the table. The counters, or a portion of them, are then thrown into the tube B, the hand P is then turned to point to zero on the dial, by a key which is applied to the back end of the shaft. When it is desired to play a game on the table, it is necessary first to move all the counters on the wire C from the tube B to the out end

of the wire, and those in the tube can only be released therefrom by drawing on the cord O, which draws the push-head forward moving on the counter-wire C', and sliding the counters out of the tube B; at the same time the cord draws the lever forward, and the pawl I moves the ratchet-wheel forward one tooth or space, thereby rotating the shaft *g* so as to cause the hand P to move from zero to one space to the right, indicating one game, the lever H being stopped from moving any farther than will move the hand P from one mark or space to another by the stop *e*. As soon as this occurs the spring-drum begins to unwind and pays out the necessary length of cord O, as will allow the push-head D to move the counters out of the tube B, and so release them. When this is done the cord is let go, and the spring in the drum expands and winds the cord and brings the push-head back to the head of tube B, the lever H and pawl I moving back one tooth. The game is then played, the counters, as shots are made, being thrown into the tube B, to be again released by the operation above described, and so cause the hand to advance on the dial as more games are played. When, however, the hand has advanced to within two spaces (at the left) of zero, or the highest figure on the dial, the ratchet-wheel has turned round so that the pawl now engages the blank portion of the wheel, and it, of course, gives no motion from

it, no matter how much the lever may move, nor will it operate farther until the key is applied, and the hand turned up to zero again, the object of this cutting out of one tooth and thus stopping the register at the highest space or figure being so that the hand cannot be moved round the dial (from a large to a small) so as to indicate a small number of games being played, and thus defraud the proprietor.

Having thus described my invention, what I claim, and desire Letters Patent for, is—

1. The tube B, in combination with a counter-wire, as described, and inclosing or confining the counters *c c*, substantially as set forth.

2. The combination of the counters *c c*, the wire C', the inclosing-tube B, a registering mechanism, and the means, substantially as described, for actuating the registering mechanism when the counters are withdrawn from the tube, substantially as described, and for the object set forth.

3. The combination of the dial E, shaft *g*, pawl I, ratchet-wheel G, lever H, pulley L, and cord O, all constructed and operating as described, and for the object set forth.

4. The drum F, cord O, in combination with pulley L and push-head D, all constructed and operating as described.

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Witnesses:

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