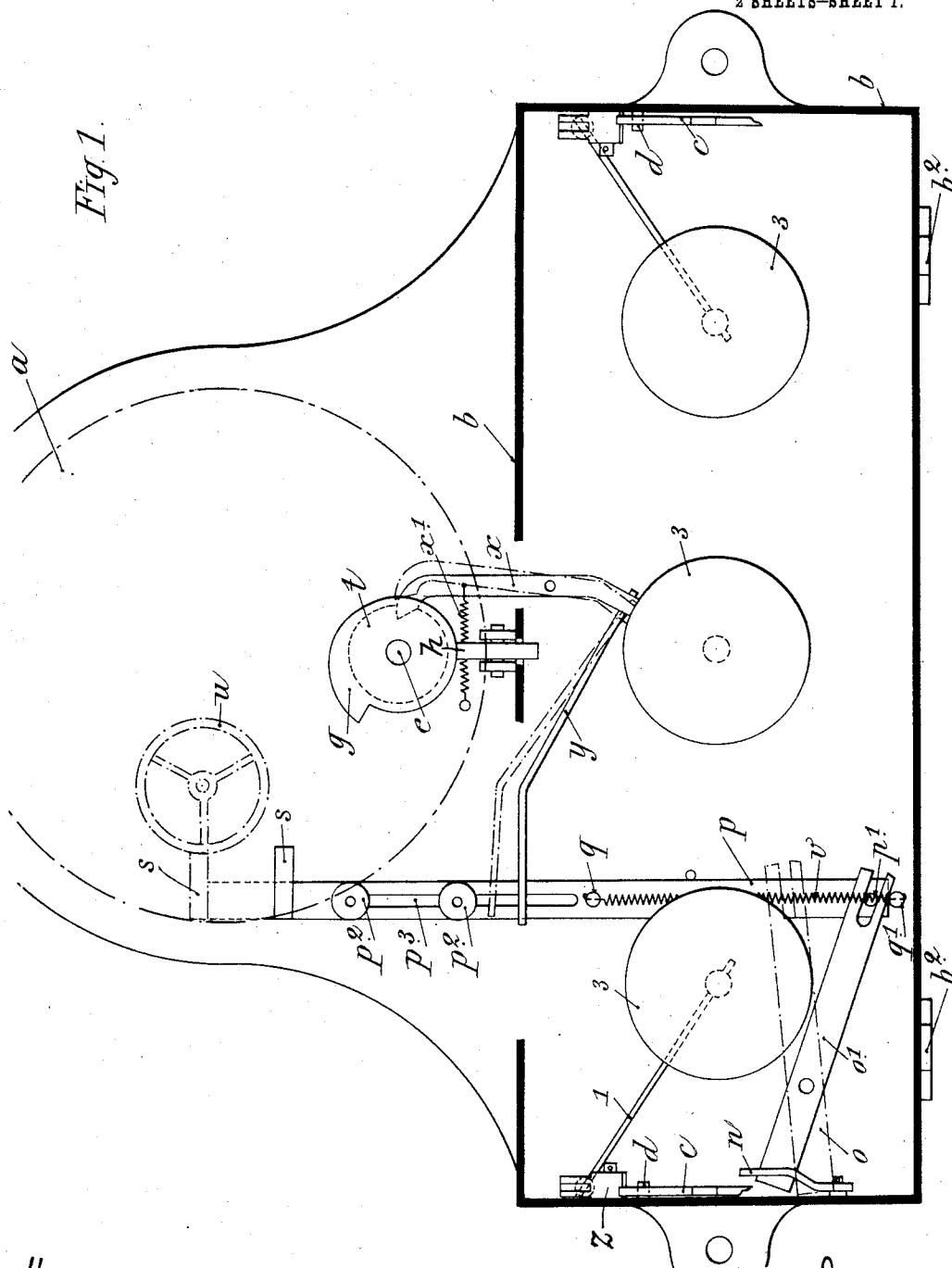


1,022,633.

2 SHEETS-SHEET 1.



b. Laura Frank
 Eugene Wering.

Philibert Julien Alphonse Defrage
by ~~Philibert~~
his Attorney

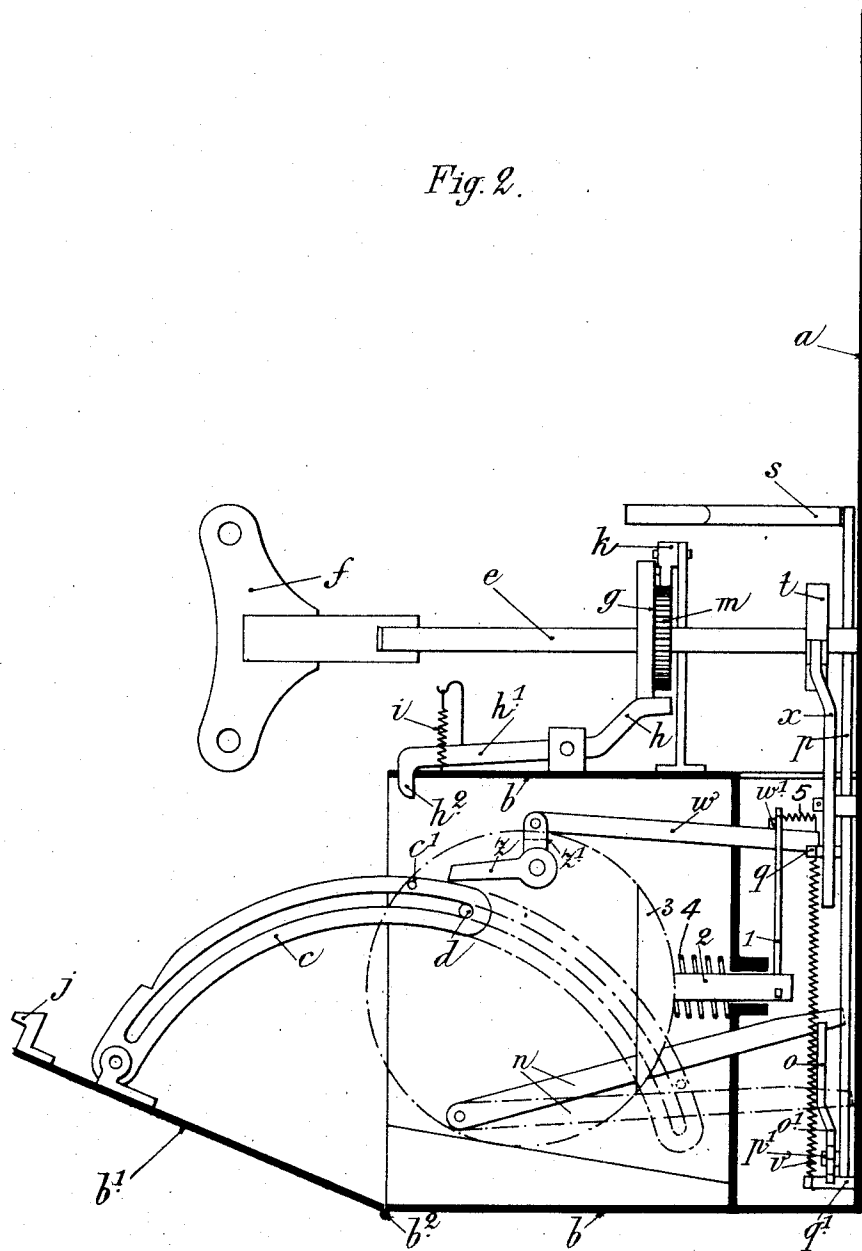
P. J. A. LEPAGE.
TIMING APPARATUS FOR BILLIARDS AND LIKE GAMES.
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2 SHEETS—SHEET 2.

Fig. 2.



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UNITED STATES PATENT OFFICE.

PHILIBERT JULIEN ALPHONSE LEPAGE, OF PARIS, FRANCE.

TIMING APPARATUS FOR BILLIARDS AND LIKE GAMES.

1,022,633.

Specification of Letters Patent.

Patented Apr. 9, 1912.

Application filed October 25, 1911. Serial No. 656,739.

To all whom it may concern:

Be it known that I, PHILIBERT JULIEN ALPHONSE LEPAGE, citizen of the Republic of France, residing at 105-107 Rue de la Convention, Paris, France, have invented certain new and useful Improvements in Timing Apparatus for Billiards and Like Games, of which the following is a specification.

10 This invention relates to counting and recording apparatus for registering the amount of hire for billiards and other games, comprising a clockwork which is connected to counter and adding mechanism, 15 and is adapted to be engaged and disengaged at will by means of a key available to the operator in charge of the apparatus.

The present invention has now for its object to provide an improved apparatus of 20 that kind in which the starting and stopping of the counter are dependent respectively on the withdrawal of the playing balls from and their return into a receptacle.

The essential feature of the improved apparatus consists of a receptacle connected to 25 the counting and recording mechanism and so arranged that the opening and closing of the said receptacle respectively starts and stops the clockwork actuating the apparatus.

30 A practical construction of the improved apparatus is illustrated by way of example in the accompanying drawings, in which:—

Figure 1 is a front elevation of the apparatus, the door closing the same having been 35 removed, and Fig. 2 is a side elevation, the corresponding side wall of the apparatus having been removed.

As shown, *a* is the casing of the counting and recording mechanism. Fixed to or 40 forming part of this casing is a box *b* of suitable shape and size for holding a set of playing balls.

b' is a door or cover connected to the body of the box by hinges *b*², preferably along 45 the lower edge of the front of the box. The extent of opening of this door is limited by slotted links *c* attached at one end to the door *b'*. Stud *d* projecting from the sides of the box *b* engage in the slots of the links 50 *c*. The rear ends of the links *c* are arranged to bear against the studs *d* when the door *b'* is open and turned down in the position shown in Fig. 2, where the door has a slight downward slope toward the inside of 55 the box.

e is a spindle forming part of the ordi-

nary construction of the counter, adapted to receive a key *f*. On this spindle is fixed a cam *g* adapted to act upon one of the arms *h* of a lever *h—h'* fulcrumed intermediately 60 of its ends on the box *b*. The other arm *h'* of this lever is under the influence of a spring *i* which has a tendency to keep this arm depressed for engagement with the door *b'*. This arm *h'* is formed for this purpose 65 with a bent beak *h*² adapted to engage a hook *j* fixed to the door *b'* near the upper edge of the latter. The actuation of the spindle *e* serves in a known manner for coupling together the clockwork and the 70 counting and recording mechanism, so that on rotating the spindle *e* by means of the key *f*, first there is produced the said coupling together, and then, by means of the cam *g*, the lever *h—h'* is caused to tilt up 75 and release the door *b'* which will then open. The spindle *e* can be rotated only in a clockwise direction, rotation in the reverse direction being prevented by a pawl *k* engaging the teeth of a ratchet wheel *m* fixed to the 80 cam *g*. For the sake of clearness, these latter parts are not shown in Fig. 1.

The counting and recording mechanism which is coupled to the clockwork starts 85 working as soon as the door *b'* is released from the beak *h*². For this purpose the improved apparatus comprises the following parts:—A lever *n* fulcrumed on one of the sides of the box *b*, bears at its free end on the end of one of the arms *o* of a rocking 90 beam, the other arm *o'* of which is formed as a fork for actuating a stud *p'* on a bar *p*. A spring *v* attached at *q* to this bar and at *q'* to the box, has a constant tendency to draw this bar down. The bar is guided in 95 its vertical movement by studs *p*² on the framing of the apparatus, which engage in a slot *p*³ in the said bar. The bar *p* carries at its upper end a finger *s* which when the apparatus is inoperative, that is to say when 100 the door is closed, bears upon the escape-wheel *u* of the clockwork and thus stops the latter. The release of the door *b'* liberates the levers *n* and *o—o'* which had been held up till then in the positions shown 105 in dash-dot lines by a stud *c'* on the slotted link *c*. The said levers are rocked by the pressure of the stud *p'* which moves down with the bar *p* as the latter is pulled down by the spring *v*. When the door is open the 110 playing balls can be withdrawn. It is then impossible to uncouple the clockwork and

thereby stop the counting and recording mechanism without closing the door which latter action necessitates the previous return of the playing balls into the box as herein-
 5 after described. For this purpose, when the door is opened, a spring pawl $x-x'$ engages in a notch in a disk t fixed on the spindle e . The pawl x pivoted to the box, carries a finger y which is arranged to be
 10 struck by the stud q on the bar p when the latter moves upward. The closing of the door b' thus entails the rocking of the device $y-x$ which then assumes the position indicated in dash-dot lines and thus releases
 15 the disk t and consequently also the spindle e . This shows that it is necessary to close the door b , before the clockwork can be disconnected by means of the key f from the counting mechanism. The door b' is pre-
 20 vented however from closing until at least two of the playing balls have been returned into the box. It is however to be understood that the apparatus may also be so constructed as to necessitate the return of all three
 25 balls before the door can be closed. Normally so long as the balls have not been returned into the box and pushed home by the door b' in being closed a bell crank lever $z-z'$ bears with its arm z upon the link c .
 30 For this purpose the other arm z' of this lever is pivoted to a connecting rod w provided with a stud w' against which bears a rod 1 fixed to the stem 2 of a spring stop 3. A spring 4 tends to keep the spring stop 3
 35 in the position shown in Fig. 2, and to cause the rod 1 to bear against the stud w' so as to hold the arm z on the link. If an attempt is made to close the door b' without having returned the playing balls into the
 40 box, the spring stops 3 will remain stationary, and before the door can be closed the arm z will engage in a notch in the corresponding link c , and thus prevent the closing of the door. The rod is of sufficient
 45 weight to have a normal tendency to move the detent end z of the bell crank lever out of the path of the notch in the link c . At its free end the rod 1 holds one end of a spring 5 the other end of which is secured
 50 to the connecting rod w , and when the rod 1 is moved forward under the action of the spring 4, the spring 5 is tensioned and the detent end z pushed down into the path of the notch in the upper arm of the link c .
 55 If however the balls have been previously returned into the box, they will bear against the spring stops 3, and then on the door coming against the balls, the latter will force back the spring stops. The rods 1 will then
 60 move back and allow the device $z-z'-w$ to tilt over backward under the action of the spring 5 attached to the rod 1 and connecting rod w , so that the arm z can no longer engage in the notch 4; the door can then be
 65 closed. When the door b' is released for the

purpose of opening the box, the door is pushed open by the balls which are forced forward by the spring stops 3 and are thus ejected on to the inclined plane constituted by the door in its turned down position. 70
 The door is preferably formed by a plate of glass which allows the balls to be seen in the box.

Having now described my invention what I claim as new and desire to secure by Letters Patent is:— 75

1. In a device of the character specified, the combination of a set of playing balls, means for actuating counting and recording mechanism, a receptacle for holding 80
 said set of playing balls, a door to said receptacle, means for coupling said door to said actuating means, whereby the opening and closing of said door will respec- 85
 tively start and stop said actuating means, and means to prevent closing of said door until a predetermined number of balls have been inserted in the receptacle.

2. In a device of the character specified, the combination of a set of playing balls, 90
 means for actuating counting and recording mechanism, a receptacle for holding said set of playing balls, a door to said receptacle, mechanism adapted to release auto- 95
 matically said actuating means and when actuated to stop said actuating means, part of said mechanism projecting inside said receptacle, and means to prevent closing of said door until a predetermined number of 100
 balls have been inserted in said receptacle.

3. In a device of the character specified, the combination of a set of playing balls, means for actuating counting and recording mechanism, a receptacle for containing said 105
 set of playing balls, a door to said receptacle, mechanism for releasing said door when closed, coupling mechanism for connecting said actuating means to the counting and recording mechanism, a spindle for 110
 operating said coupling mechanism and said door-releasing mechanism, a key for actuating said spindle, a device on said spindle for operating said coupling mechanism in 115
 advance of said door-releasing mechanism, mechanism normally stopping said actuating means, and a connection between said last mentioned mechanism and said door whereby said door can be opened only after 120
 said actuating means has been coupled to the counting and recording mechanism, and whereby the opening movement of said door necessarily releases said actuating means, as set forth.

4. In a device of the character specified, the combination of a set of playing balls, 125
 means for actuating counting and recording mechanism, a receptacle for holding said set of playing balls, a door to said receptacle, mechanism for stopping said actuating means, a plurality of compressible spring 130

stops equal in number at least to a majority of said set of playing balls, a connection between each of said spring stops to said mechanism for stopping said actuating
5 means, and mechanism operated by each of said spring stops in their extended condition for preventing the closing of said door, whereby said door can be closed to stop said actuating means only when a majority of
10 said set of playing balls has been returned into said receptacle and forced back by the

closed door so as to compress said spring stops and thereby disengage the mechanism that otherwise prevents the closing of said door, as set forth.

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

15

PHILIBERT JULIEN ALPHONSE LEPAGE.

Witnesses:

LOUIS FAUTRAT,
H. C. COXE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."