(No Model.)

L. H. F. COQUARD & F. A. McGINNIS.

POOL BALL CABINET.

No. 371,821. Patented Oct. 18, 1887.

Fig. 1.

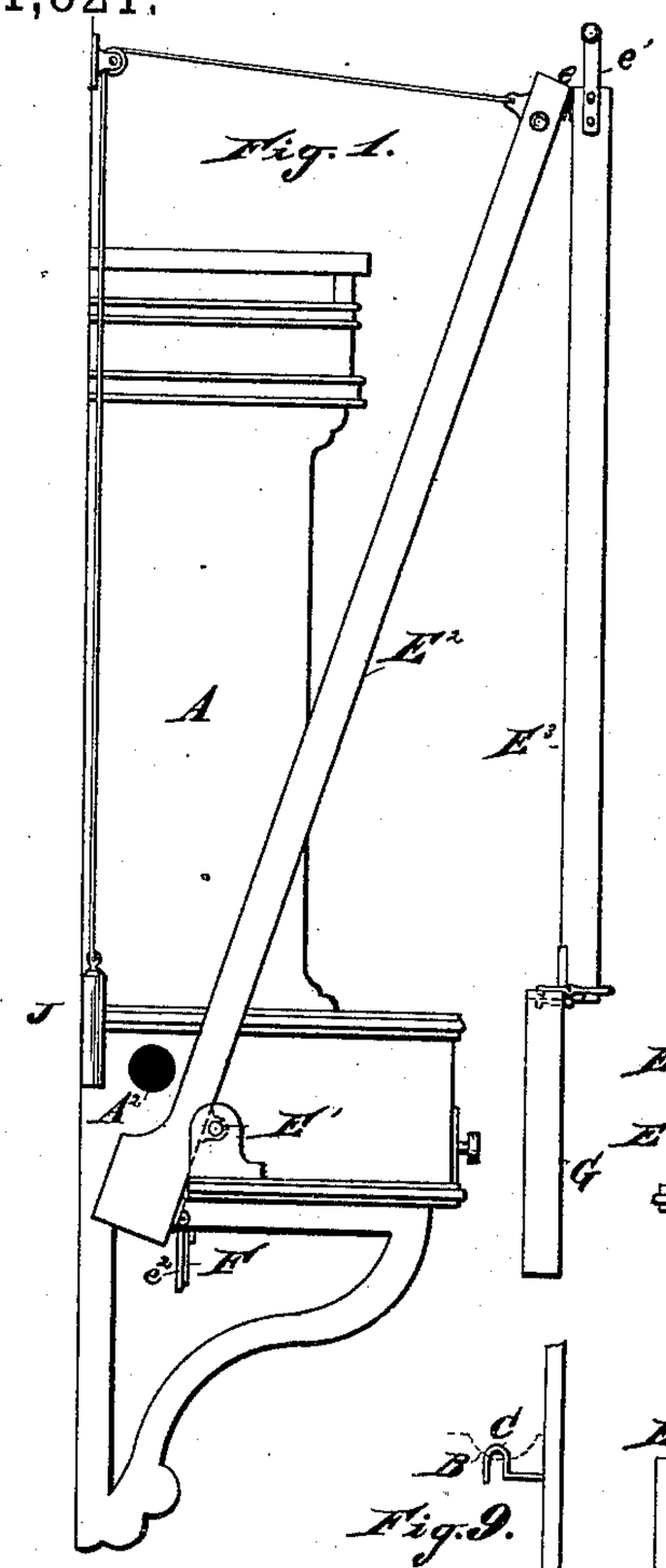


Fig. 2.

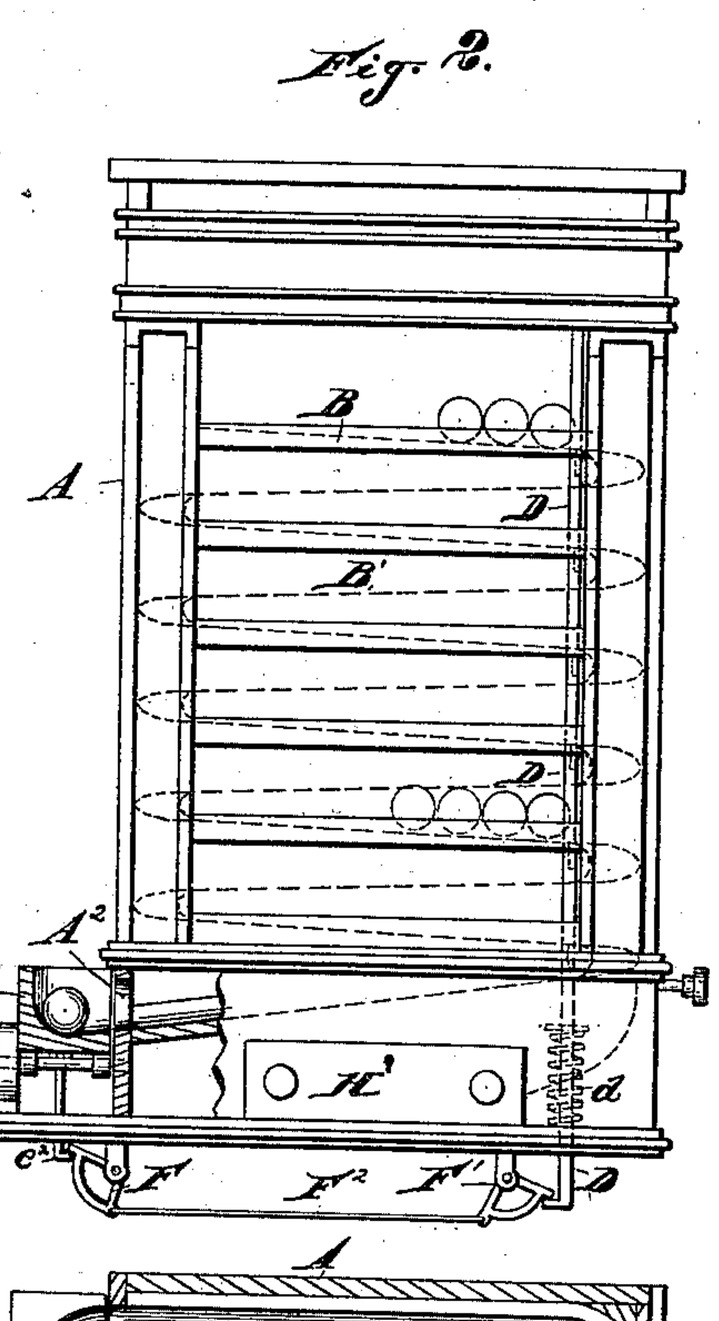
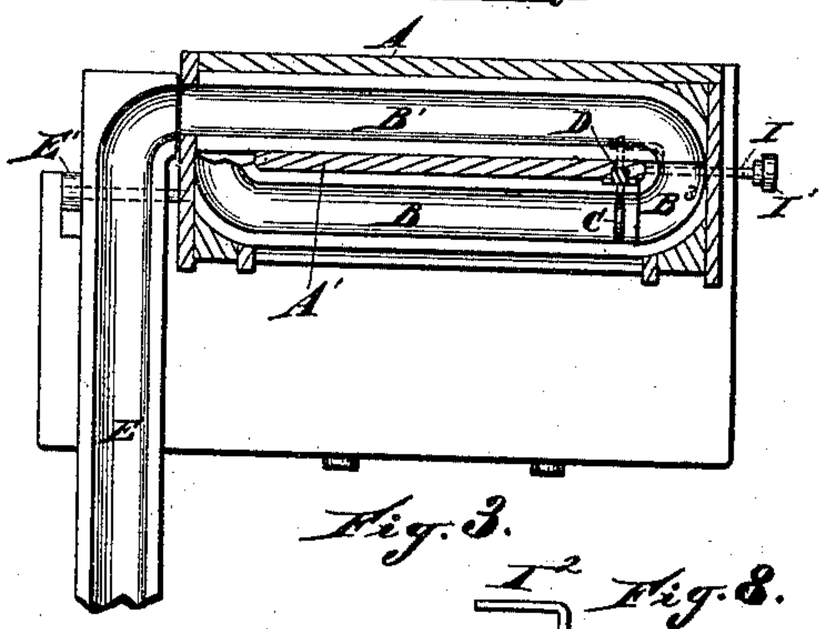


Fig. 4.

Fig. 9.

Fig. 3.



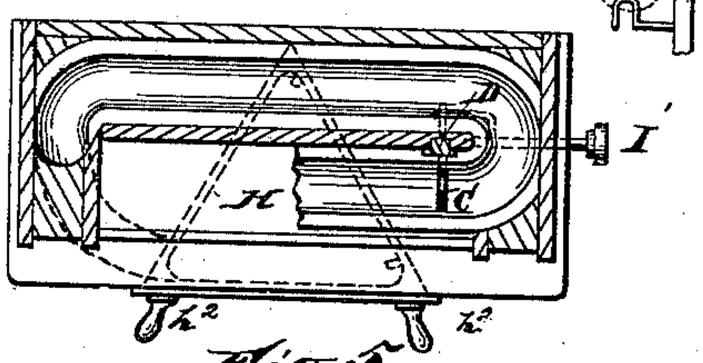


Fig. 5.

Fig. 8.

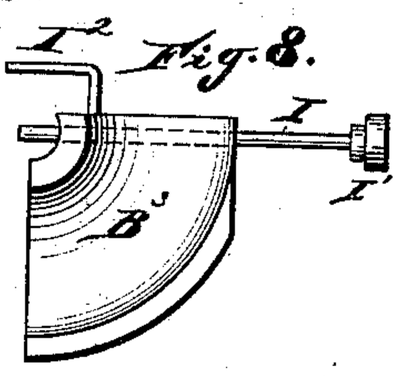
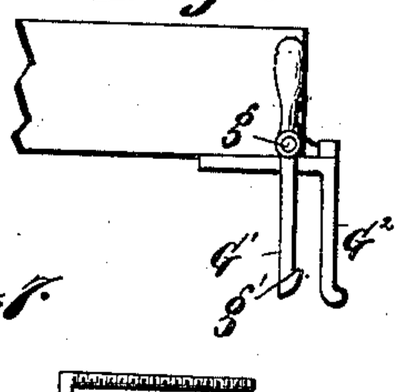


Fig. 6.



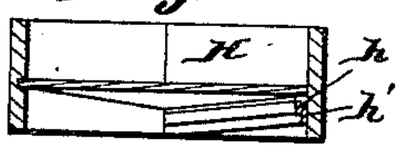
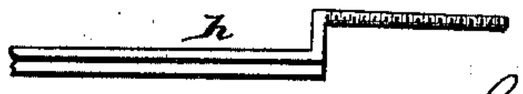


Fig. 7.



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LEON H. F. COQUARD AND FRANCIS A. McGINNIS, OF DETROIT, MICHIGAN.

POOL-BALL CABINET.

SPECIFICATION forming part of Letters Patent No. 371,821, dated October 18, 1887.

Application filed February 6, 1886. Serial No. 191,052. (No model.)

To all whom it may concern:

Be it known that we, LEON H. F. COQUARD and FRANCIS A. McGINNIS, of Detroit, county of Wayne, State of Michigan, have invented a new and useful Improvement in Pool-Ball Cabinets; and we declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form a part of this specification.

Our invention relates to new and useful improvements in the construction of pool-ball cabinets, and more particularly as an improvement upon a similar device for which United States Letters Patent were granted to us August 4, 1885, No. 323,854; and it consists in the novel features of construction and combination of parts, hereinafter fully described, and definitely pointed out in the claims.

In the drawings, Figure 1 is a side elevation showing the movable runway with triangle attached to its free extremity. Fig. 2 is a front elevation showing parts in section. Fig. 3 is a horizontal section across the cabinet. Fig. 4 illustrates a modification in horizontal section. Fig. 5 is a separate view of the improved drawer. Fig. 6 illustrates the latch whereby the triangle may be removably engaged with the runway. Fig. 7 illustrates another improvement in the construction of the drawer, and Fig. 8 is a separate view of the movable section of the channel; Fig. 9, a separate view.

We carry out our invention as follows:

A represents any suitable case.

B B′ represent the ways which constitute the spiral channel, the ways B being located on the front side of the case, and serving also as shelves to receive the balls of the various players, said ways B communicating at the sides of the case with the ways B′, located at the back of the division-wall A′, the two ways or sets of ways in the front and the rear forming a continuous spiral channel from the upper to the lower end of the case. The ways B, which pass across the face of the case, are obviously all inclined in the same direction and from one side of the case to the other, so that the balls will all have a tendency to rotate toward the same side of the case.

Instead of having shelves communicating with spiral runways located at the ends of the shelves, our improvement as herein embodied contemplates making the shelves themselves to constitute a part of said spiral track.

C represents a series of slides or stops arranged to open and close the communication of the ways B with the ways B′, so as to retain the balls in their several receptacles or shelves until it is desired to discharge them therefrom. These slides are shown as connected with a common operating-rod, D, whereby they may be simultaneously opened or closed. These slides are located at the lower ends of the ways B.

We contemplate any mechanism for operating the slides as coming within the scope of our invention, either simultaneously or separately. They may be constructed to close automatically, as by a spring, *d*, about the rod D, or they may be operated automatically, in the manner hereinafter described.

E represents an adjustable channel or runway hinged or similarly engaged with the case at one end, as shown at E′.

A^2 represents a discharge-orifice communicating with the spiral channel B B′, and wherewith said channel communicates with the adjustable runway E when the latter is extended. This latter channel E may consist of sections E^2 E^3, &c., if desired, hinged together, as shown at *e*, provided with any suitable clamp, *e′*, if preferred, or other device to limit and strengthen the union of the sections when extended. This channel or runway E may be variously connected with the operating-rod D, so as to project it to open and close the slides automatically as the adjustable runway is operated.

As shown in the accompanying drawings, the runway E is provided with a hook, e^2, or other device, connected with a bell-crank, F, which in turn is connected with a bell-crank, F′, by a rod, F^2, the rod D being engaged also with said latter bell-crank, F′. By this construction it is evident that when the runway E is extended the hook or bar e^3 will tilt the bell-crank F and throw downward the outer arm of the bell-crank F′ and force downward the rod D. When the runway E is folded up into the position shown in Fig. 1, the operation of the bell-cranks will be in the opposite direction and slides closed.

G represents a triangle, which may have any desired connection with the outer end of the adjustable runway, but preferably having a separable connection by any proper means. As illustrated in Figs. 1 and 6, G′ represents a latch, pivoted at *g*, G² being a clamping-arm, between which and the pivoted latch the triangle may be engaged, the hook *g′* of the latch engaging under a notch of the triangle to hold it in position.

It is evident that by the use of such a runway the same may be extended and the balls discharged from the cabinet into the triangle G upon the table, where the balls may be located in proper position and the runway folded up out of the way.

In Fig. 4, H represents a triangular drawer, which may be located in the base of the case. Instead of discharging the balls through the runway E, we would have it understood that we contemplate dispensing with said runway, if desired, and the discharge of the balls into the drawer H instead. For this purpose any suitable device may be employed to divert the balls from the discharge-orifice A² and into the drawer H. We have shown in Figs. 3 and 8 an adjustable or movable section of the track B B′, as shown at B³. This section may be hinged or pivoted upon an operating-bar, I, preferably provided with a milled head, I′, by which said section B³ may be turned up out of the way of the balls, which will thereby be caused to descend into the drawer H. In the construction of the said drawer we provide the bottom with an angle-iron, *h*, constructed to serve as a guide for the same, it being made removable, as described in our patent hereinbefore referred to, and slanted toward the forward point. We provide the sides of the drawer, also, with an angle-iron, *h′*, to receive the guide-flange of the angle-iron *h*. To form the handles of the box, we prefer to extend the angle-irons *h*, as shown in Fig. 7, screw-cut the ends, and apply wood handles. *h*² thereto in the ordinary manner.

Where the adjustable runway E is employed, the drawer H may consist, if preferred, of an ordinary square drawer intended to receive the balls when not in use, as when the players are through the balls may all be turned into said drawer.

In case the triangular drawer is used we prefer to limit the removal of the sliding bottom, so that it cannot be wholly withdrawn. This may be done by means of suitable stops, *h*³.

Instead of operating the rod D automatically in the manner described, it may be arranged to be operated at will. Thus, in Fig. 8, the rod I may be provided with a crank-arm, I², arranged to engage the rod D and open the stops. The stops C may simply consist of a piece of bent wire, as shown in Fig. 9, or they may have any desired construction.

The ways B B′ may be constructed in any desired manner. It will be convenient to construct them of wood grooved to form a track for the balls.

The adjustable runway may consist of one or more sections, as may be preferred.

The ways B B′, or at least their curved ends, may be lined to prevent noise.

J is the counter-balance attached to the adjustable runway to facilitate its being returned to its normal position adjacent to the case.

We lay no claim to the construction shown in the railway game apparatus of D. L. Willcox, July 11, 1882, No. 260,815.

What we claim is—

1. The combination, with a pool-ball cabinet, of a spiral channel, the convolutions of said spiral channel passing successively across the face of the cabinet, and controlling valves or stops to said channel, substantially as described.

2. In a pool-ball cabinet, a spiral channel the convolutions of which are separated by a vertical wall located substantially as described, the said channel communicating with a discharge-orifice, A², on the exterior of the cabinet, substantially as described.

3. In a pool-ball cabinet, a spiral channel constructed of ways B B′, communicating with each other through lateral end channels and divided by a partition-wall, A′, substantially as described.

4. In a pool-ball cabinet, a spiral channel, the convolutions of the spiral separated by a vertical division-wall, located substantially as described.

5. In a pool-ball cabinet, a series of shelves to receive the balls, said shelves communicating with ways running crosswise of the cabinets in rear of the said shelves to form a continuous runway, and in combination therewith stops to control the movement of the balls from the shelves to said ways, substantially as described.

6. The combination, with a pool-ball cabinet, of a spiral channel having its convolutions running across the face of the cabinet, said runway constructed to deliver the balls at one point or in one receptacle, and stops to control the passage of balls through said spiral channel, substantially as described.

7. In a stationary pool-ball cabinet, a spiral runway, the convolutions of said runway extending successively across the face of the cabinet, and having a common discharge-opening, and in combination therewith an adjustable runway to communicate with the spiral runway, and stops to control the movement of the balls through said spiral runway, substantially as described.

8. In a pool-ball cabinet, a spiral runway having its convolutions running across the face of the cabinet, and in combination therewith movable stops connected together to be operated simultaneously, substantially as described.

9. In a stationary pool-ball cabinet, a spiral runway having in connection therewith stops to control the movement of the balls and an adjustable runway to communicate with said

spiral runway, said adjustable runway engaged with said stops to automatically operate the same, substantially as described.

10. In a pool-ball cabinet, the combination, with a spiral channel, of a runway adjustable with reference to said channel and composed of sections jointed together to render it flexible, substantially as described.

11. In a pool-ball cabinet, a runway pivoted at one end to the lower portion of the case and provided with a clamping device at its extremity to engage a removable triangle, substantially as described.

12. In a pool-ball cabinet, a triangular drawer provided with a removable bottom, the side of the drawer provided with an angle-iron, *h'*, and said bottom with an angle-iron, *h*, said iron *h* extended to form the handle, substantially as described.

13. In a pool-ball cabinet, a spiral runway having its convolutions extending across the face of the cabinet and means for guiding the balls either to a discharge-orifice or to a drawer in the base of the cabinet, substantially as described.

In testimony whereof we sign this specification in the presence of two witnesses.

LEON H. F. COQUARD.
FRANCIS A. McGINNIS.

Witnesses:
N. S. WRIGHT,
M. B. O'DOGHERTY.