(No Model.)

W. F. WHITNEY.

RACK AND TRAY FOR POOL BALLS.

No. 246,435. Patented Aug. 30, 1881.

Fig. 1.

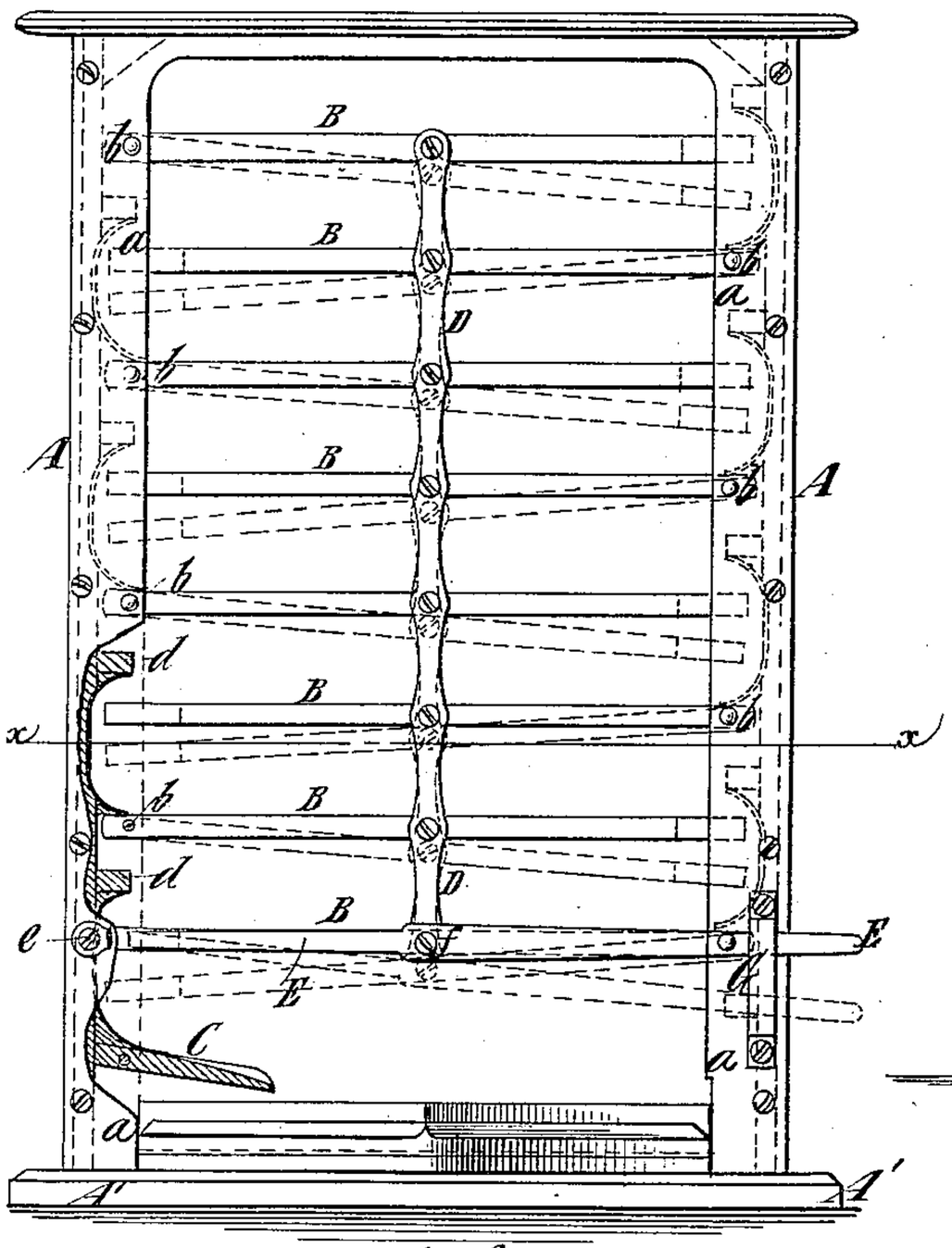


Fig. 2.

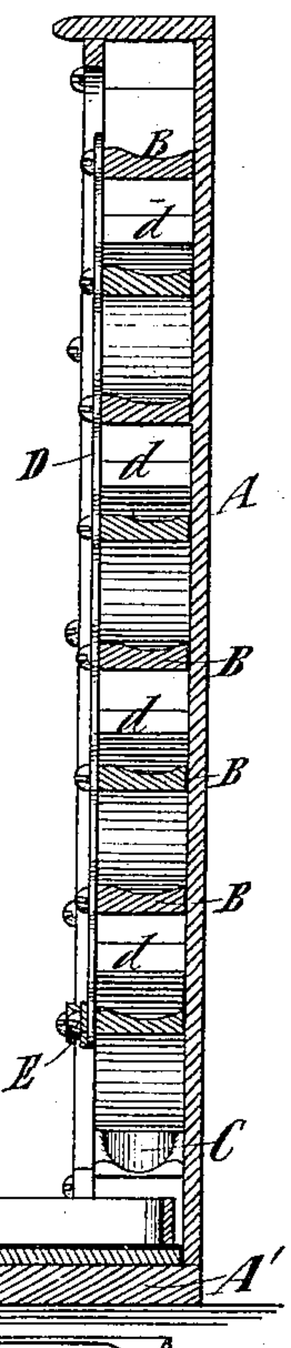


Fig. 5.

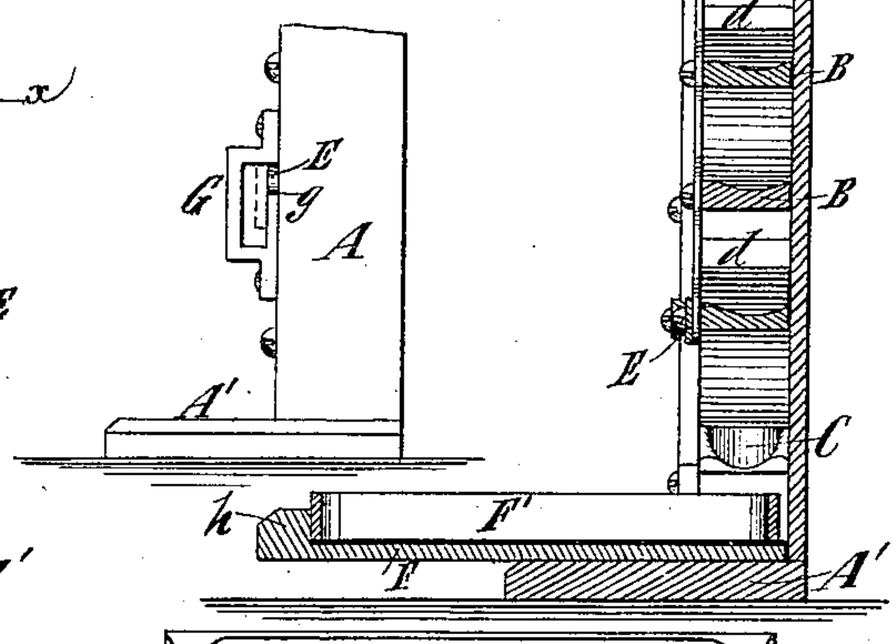


Fig. 3.

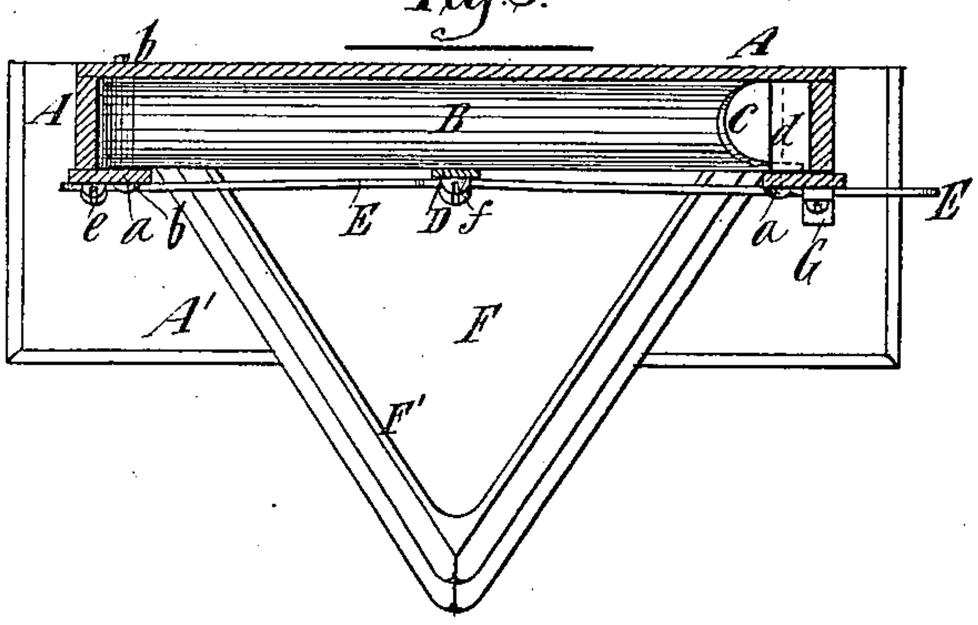
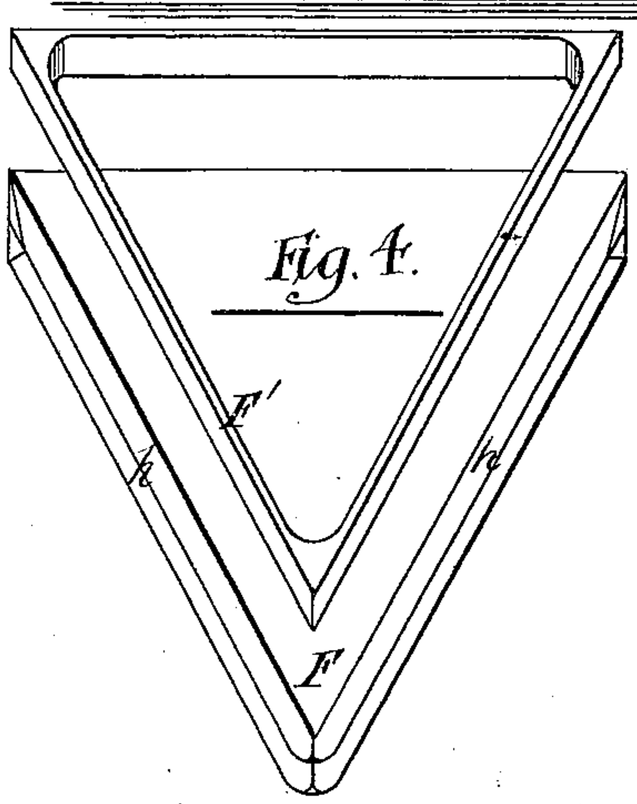


Fig. 4.



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RACK AND TRAY FOR POOL-BALLS.

SPECIFICATION forming part of Letters Patent No. 246,435, dated August 30, 1881.

Application filed May 20, 1881. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. WHITNEY, of Poughkeepsie, in the county of Dutchess and State of New York, have invented certain new and useful Improvements in Racks and Trays for Pool-Balls, of which the following is a specification.

Pool-balls are ordinarily kept upon horizontal shelves in an upright rack, and when it is desired to use them they are taken in the hands and placed in a triangular bottomless frame or tray upon the pool-table.

The object of my invention is to provide a rack for the balls from which all the balls may be delivered at once into any receptacle, preferably a tray having a bottom, in which they are carried to the table.

The invention consists in the combination, with a rack for pool-balls, comprising channels or compartments in which the balls are retained, of devices whereby the balls in all the channels or compartments may be released simultaneously and discharged together from the rack.

The invention also consists in the combination, with an upright rack or case, of a series of shelves pivoted alternately at opposite sides of the rack or case, and means for locking all said shelves in a horizontal position, and for tilting them, whereby the balls are permitted to roll along the shells and downward from one to the other in a zigzag course until they reach the ball-tray at the bottom of the rack. The shelves may all be connected together by a rod at about the center of their length, and a single lever connected to one of the shelves or to said rod and a catch with which said lever may engage will constitute means for holding them in a horizontal position to retain the balls upon them, and for simultaneously tilting all the shelves to permit the balls to be discharged from the rack or case. The movable ends of the shelves are preferably concaved or hollowed, and the interior of the sides of the rack or case is provided with projecting stops which prevent the passage of the balls until the shelves are tilted sufficiently to permit the balls to pass between their free or movable ends and said stops.

The invention also consists in a ball-tray composed of a triangular frame, and a removable bottom piece, arranged entirely below the frame, upon which said frame may be placed and supported, and which projects beyond the edges of the frame.

In the accompanying drawings, Figure 1 represents a front view of a ball-rack embodying my invention. Fig. 2 represents a vertical section thereof, and of a tray below the same. Fig. 3 represents a horizontal section upon the dotted line *x x*, Fig. 1. Fig. 4 represents a plan of my improved tray with the frame partly removed laterally from the bottom piece, and Fig. 5 represents a side view of the lower portion of the rack or case.

Similar letters of reference designate corresponding parts in all the figures.

A designates an upright rack or case, open at the front, and adapted to be secured in any suitable manner to a wall or other upright support. The bottom A′ of the case is considerably wider or deeper than the case, and projects beyond the front thereof, as seen in Fig. 2, for a purpose hereinafter named. At the front of the case are lips or flanges *a*, which project inward from the opposite upright sides thereof, as seen clearly in Fig. 1, and between these lips or flanges and the back of the case are loosely fitted shelves B, arranged one above another, and here shown as eight in number. The rack should have as many shelves as there are likely ever to be players, and hence a greater or less number than eight might be used. The shelves form between them channels or compartments for the reception of the balls. The shelves B are each pivoted at one end by a pin, *b*, or rivet inserted through the lip or flange *a* from the front of the case, and, as clearly seen in Fig. 1, alternate shelves are pivoted at opposite sides of the case, the bottom shelf being pivoted at the right side of the case, the next shelf at the left side, and next at the right side, and so on. When thus pivoted the shelves, if tilted downward from their horizontal position, will slant alternately in opposite directions, as indicated by dotted lines in Fig. 1. The upper surfaces of the shelves B are concaved or hollowed longitudinally to retain the balls and prevent them from falling out at the front of the case, and the free or movable end of each shelf is concave, as seen at *c* in Fig. 3, to afford room for the passage of the balls between it and the side of the case.

Above the free end of each shelf is a projec-

tion, *d*, upon the interior of the side of the case, which forms a stop to prevent the balls from passing down from the shelf. When the shelf is in a horizontal position, as shown in full lines in Fig. 1, there is not room for a ball to pass between the concave end *c* of the shelf and the adjacent stop *d;* but when the shelf is tilted its free end is moved downward sufficiently to permit the passage of the balls between it and the stop *d*.

Below the lowest shelf B is a chute, C, projecting from the side of the case, as seen in Fig. 1, and serving to direct the balls into the tray, which rests upon the bottom A′ of the case.

The sides of the case A adjacent to the free ends of the shelves B, and also the chute C, are preferably covered with cloth, rubber, or other soft material for the purpose of deadening the fall of the balls.

As clearly represented in Fig. 1, the several shelves B are connected at their front edges, at about the center of their length, by a rod or bar, D, and hence will all tilt simultaneously.

E designates a lever, pivoted at *e*, and connected to the rod D or to one of the shelves, at *f*, and by moving the free end of the lever downward into the position shown in dotted lines in Fig. 1 the shelves will all be tilted and the balls delivered. The free end of the lever E fits in a guide, G, secured upon the front of the case, and the lever might be locked to retain the balls in the case by inserting a pin through the guide and lever, or by making the lever slightly elastic and providing the guide G with a shoulder, *g*, as seen in Fig. 5, above which the lever is held when locked. To release the balls the lever E is pulled slightly outward to disengage it from the shoulder or catch *g*, and is then pressed downward.

The tray which I prefer to employ is composed of a bottom piece, F, and a triangular frame, F′, resting upon the same, as seen in Fig. 2. The tray is smaller than the bottom piece, and the latter is provided with upwardly-projecting lips or flanges *h* on two sides, which hold the frame upon it in proper position. When the balls are removed to the table the bottom piece is drawn away laterally, allowing the balls to rest upon the table.

I am aware that a tray has been made in which the bottom piece is fitted in a slot above the lower edge of the frame and is pivoted so that it may be swung laterally outward; but in such case the balls, in depositing them on the table, must fall a distance equal to the thickness of the bottom piece and the depth of the frame below the bottom piece, while in mine the balls have only to fall the thickness of the bottom piece.

By my invention I provide for retaining the balls of different players separate and for returning them to the table without the necessity of carrying the balls in the hands, a few at a time, to the table.

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

1. The combination, with a rack for pool-balls comprising channels or compartments in which the balls are retained, of devices whereby the balls in all the channels or compartments may be released simultaneously and discharged together from the rack, substantially as specified.

2. The combination, with an upright rack or case, of a series of shelves, one above another, pivoted alternately in opposite sides of the rack or case, and means for locking said shelves in position, and for tilting them to permit the balls to roll along the shelves and downward from one to another into a tray below the case, substantially as specified.

3. The combination, with an upright rack or case, of a series of shelves arranged one above another and pivoted alternately in opposite sides of the case, a rod connecting said shelves at about the middle of their length, and a lever connected with said rod or one of said shelves for simultaneously tilting all the shelves, substantially as specified.

4. The combination of the case A, the shelves B, pivoted alternately in opposite sides thereof, the stops *d*, the rod or bar D, and the lever E, substantially as specified.

5. The combination of the case A, the pivoted shelves B, the rod or bar D, the lever E, and the guide G, provided with a shoulder or catch, *g*, substantially as specified.

6. A tray for pool-balls composed of a frame and a bottom piece arranged entirely below the frame, and upon which the lower edge of the frame rests and is supported, substantially as specified.

7. The tray composed of the frame F′ and the bottom piece, F, arranged entirely below and supporting the same, and having lips or flanges *h*, which project beyond said frame and retain the latter in place upon the said bottom piece, substantially as specified.

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