(No Model.) 4 Sheets—Sheet 1.

G. F. GOSS.

POOL TABLE RACK AND TALLY.

No. 507,900. Patented Oct. 31, 1893.

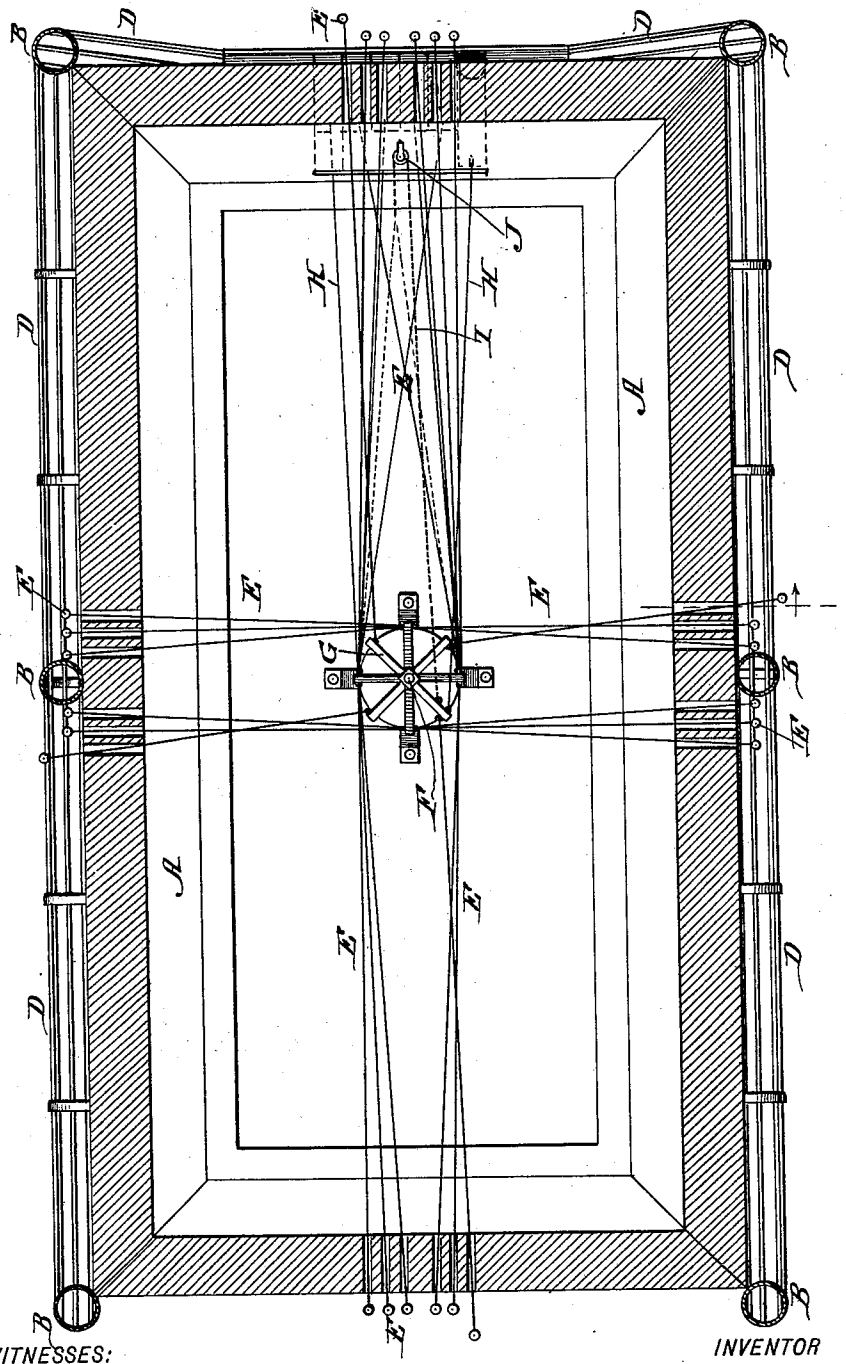

Fig. 1.

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4 Sheets—Sheet 2.

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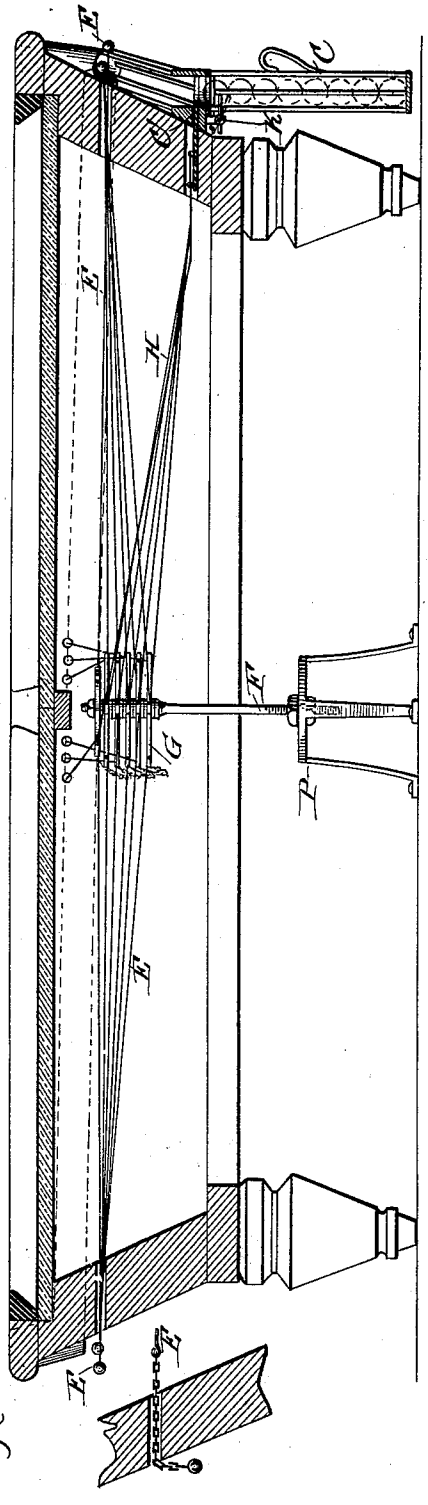

Fig. 2.

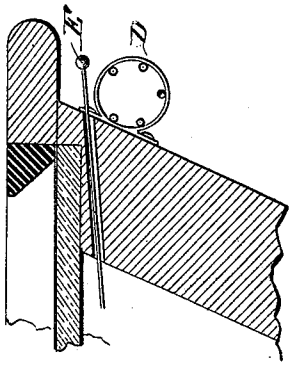

Fig. 4.

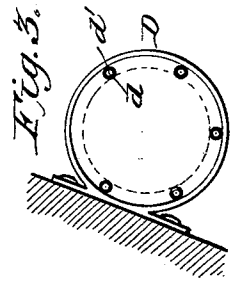

Fig. 3.

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POOL TABLE RACK AND TALLY.

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Fig. 5

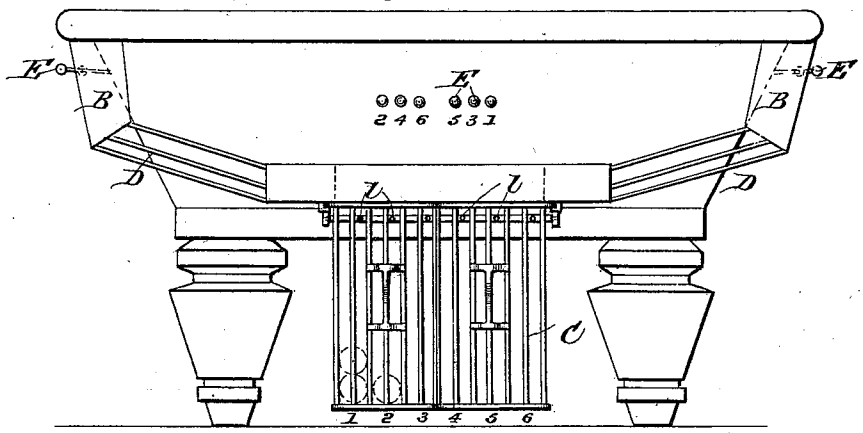


Fig. 6.

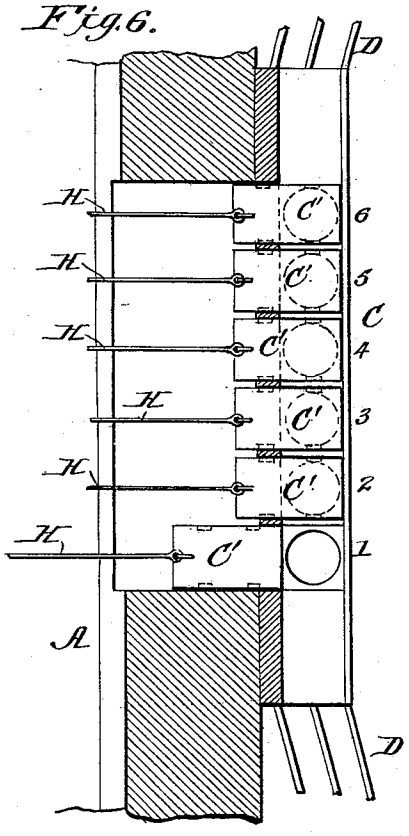


Fig. 7.

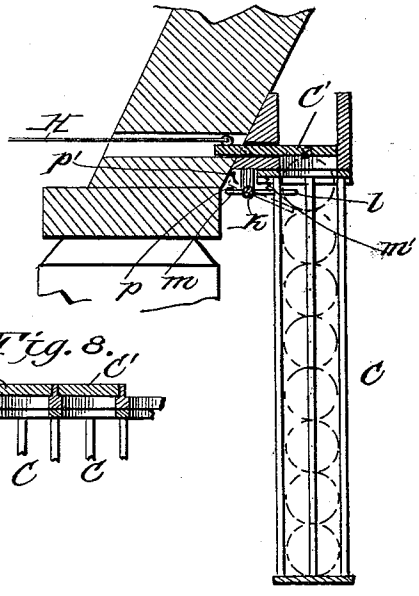
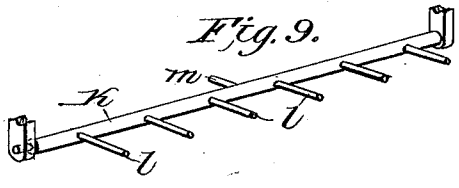


Fig. 8.

Fig. 9.



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POOL TABLE RACK AND TALLY.

No. 507,900. Patented Oct. 31, 1893.

Fig. 10.

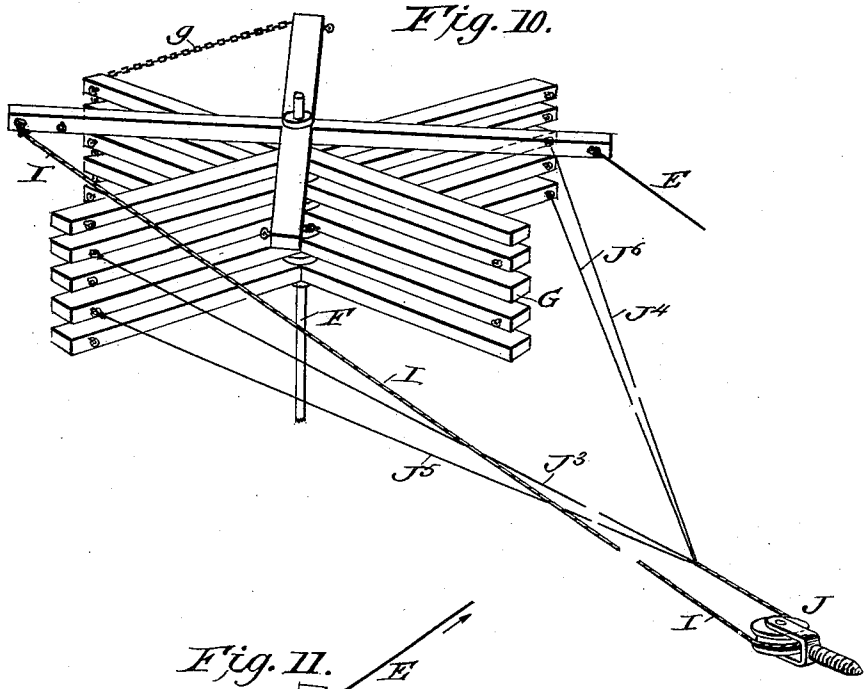


Fig. 11.

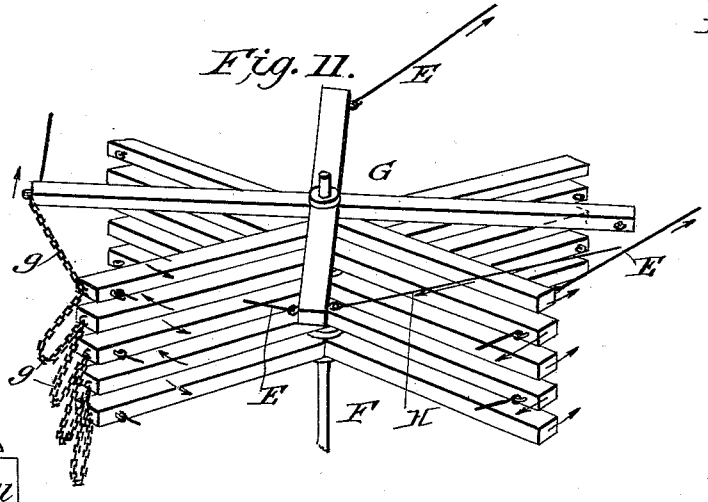
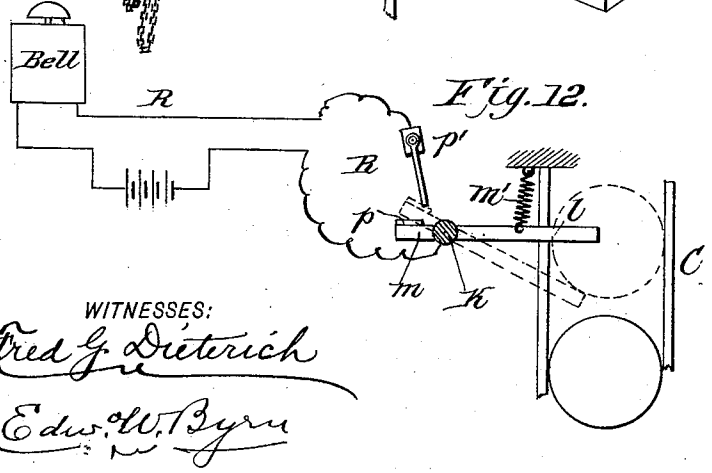


Fig. 12.



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UNITED STATES PATENT OFFICE.

GEORGE F. GOSS, OF WALLACETON, PENNSYLVANIA.

POOL-TABLE RACK AND TALLY.

SPECIFICATION forming part of Letters Patent No. 507,900, dated October 31, 1893.

Application filed October 17, 1892. Serial No. 449,165. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. GOSS, residing at Wallaceton, in the county of Clearfield and State of Pennsylvania, have invented a new and useful Improvement in Pool-Table Racks and Tallies, of which the following is a specification.

The object of my invention is to provide an attachment for pool tables which shall enable each player to adjust the rack so as to automatically transfer his ball (when pocketed) into its appropriate receptacle in the rack without the player leaving the table or touching the ball, also saving the necessity of an attendant for removing the ball by hand from the pocket and the possible disputes that may arise from putting the balls in the wrong receptacle.

A further object is to have the position of the adjusting devices so obvious that the players all around the table may see that each player properly adjusts it, and also further to provide means for signaling the proper deposit of the ball in its receptacle, and announcing the end of the game.

To these ends my invention consists in the peculiar construction and arrangement of parts operating in connection with inclined chutes leading from the pockets to the rack as will be hereinafter fully described.

Figure 1 is a horizontal section of a pool table taken just below the table surface. Fig. 2 is a vertical longitudinal section. Figs. 3 and 4 are sectional details on two different sections of the table chute. Fig. 5 is an end view of the table. Figs. 6 to 9 inclusive, are details of the rack receptacles and connecting mechanism, and Figs. 10 and 11 are views in perspective of the rotary frames for working the doors of the rack receptacles and Fig. 12 is a detail of the signaling device.

In the drawings (Fig. 1) A represents the lower part of the frame of a pool table whose six pockets are indicated at B. At one end of the pool table near the floor is the ball rack C (Figs. 2 and 5) with vertical receptacles for receiving the balls of each player made of parallel wires. This rack is connected to the six pockets by inclined troughs or chutes D (Figs. 1, 3, and 4) which receive the balls and allow them to roll by gravity into the rack. These chutes D are (see Figs. 3 and 4) made of several parallel wires or rods *d* covered with soft rubber *d'* or other similar material to prevent spoiling the smooth surface of the balls. The receptacles in the rack correspond to the number of players and are numbered consecutively. Their openings or mouths are normally closed by sliding doors C' (Figs. 2, 6, 7, 8) and as such player shoots he first adjusts the rack to receive his balls by opening the door of his receptacle in the rack, as shown at bottom of Fig. 6. To operate these doors from all positions around the table I provide at each side of the table a series of pull rods E, Fig. 1, each series having as many rods and pull knobs as there are receptacles in the rack and each series being adapted to do the same work of adjusting the doors of the rack, the knobs of each series being numbered to correspond with the rack receptacles and players. The object in multiplying these pull rods by placing a series at each side of the table is simply for the convenience of all the players in using the same, as they stand around the table, so that they do not have to change positions in adjusting the doors of the rack and as one rod of each series is connected to a corresponding rod of every other series at the center, the adjustment of any one rod in any series shows itself in the corresponding rod of every other series, so that the player at any point not only has at hand the means for adjusting the door of his receptacle, but also can observe at the same place whether the other players have properly adjusted their doors.

F (see Fig. 2) is a vertical axial rod mounted upon a platform P or other suitable support under the table, preferably in central position and made vertically adjustable by a screw connection. Upon this rod and turning horizontally after the manner of turn-stiles is a series of four-armed frames G (Figs. 1, 2, 10, 11) each of whose arms is independently connected to one of each of the four series of pull rods E so that each rotary frame can be operated from any one of the four sides of the table. There are as many of these frames G as there are pull rods in each series, or receptacle in the rack. These frames are separated from each other by washers or spacing blocks so as to work independently, but also have a loose drag connection with each other

for the purpose hereinafter described. To one arm of each of these frames is attached a slide rod H, Figs. 2 and 6, which runs to the end of the table and connects with the sliding doors C′ of the rack receptacles. A pull upon any one of the pull rods E rotates its frame G (as shown at the top of the series in Fig. 11) and thus pulls back the slide rod H of that frame, and opens the sliding door C′ of the receptacle for that player (as shown at bottom of Fig. 6) so that when such player pockets a ball, the latter running down the chute to the rack passes over all the receptacles which are closed, and drops into the receptacle of the player who has just opened his door by his pull rod. When the next player shoots, it is obvious that it is necessary that the receptacle in the rack which has been already opened should be closed before another is opened, and for this purpose I make the act of opening the next receptacle by the next player to close the receptacle previously opened, so that the closing of the doors is not dependent upon the memory of the players. For this purpose the alternate series of frames G are arranged to work reversely as shown by the arrows in Fig. 11, *i. e.* the top one operates to open a receptacle by turning in one direction, the one next below opens by turning in the other direction, and so on one set turning to the right and the alternate set turning to the left to do the same work. All of the frames are loosely connected by a chain *g* which has enough slack between two adjacent frames to permit any frame to turn to its opening position, but when the next frame below turns to its opening position it moves in the opposite direction from the upper one and in tending to move a further distance from the upper arm than is allowed by the chain it tightens the chain and pulls back the upper frame to its closed position at the same moment that it opens the receptacle to which it is directly connected. In order to make the top frame act in this manner upon the bottom one (or upon the last one of the frames that happens to be in use by a less number of players than the full number of players) I attach to the arm of the top frame a cable I (Fig. 10) and which passes around a pulley J and is then divided into a series of small cords J^3 J^4 J^5 J^6 which run respectively to the arms of all the frames after the second one from the top, and are connected to such arms as will pull them in the opposite direction from their pull rods. With this arrangement it will be seen if there are six players, No. 1 will set or close No. 6, and if there are any number less than six, as only three for instance, No. 1 in sequence after No. 3 will set No. 3 so as to close its door at the same time that it opens No. 1.

The sequence of the receptacles of the rack is straight from one to 6 (see Fig. 6) as is also that of the slide rods that operate the sliding doors, but the alternately reversed movement of the four-armed frames necessitate that each series of pull rods shall be numbered alternately from end to end, as in Fig. 5, *i. e.* the series begins with 1 at one end, and 2 is at the opposite end, 3 is next to 1, and 4 next to 2, and so on toward the center for the full number of receptacles or players.

To signal the deposit of each ball in its receptacle there is besides the rack a rock shaft K (Figs. 2, 7, 9) having an arm *l* for each receptacle which arm is normally held across the opening in the receptacle by a spring *m′* but is adapted to be pushed down by the weight of the ball in descending so as to rock the shaft. To this shaft is also attached an arm *m* which when the arm *l* is depressed rises and brings a metal plate *p* on its side against another metal plate *p′* which form the two terminals of an electric bell circuit R (Fig. 12) thus causing a signal on a bell as each ball drops to place; and when the eighth ball falls, this lodging upon the seventh, holds this arm *l* permanently down, as shown by dotted lines Figs. 7 and 12, and by a continuous ringing announces the completion of the game.

In carrying out my invention I do not confine myself to stiff pull rods as shown, but may use flexible cords with weighted pull handles hanging over pulleys which would not be so liable to be in the way of the players or be accidentally pushed in. I may also arrange the groups of pull cords on the sides with one half on each side of the side pockets as shown or with the entire group on one side of the side pocket.

In applying my invention to old tables already in use the chutes will be arranged outside the rail of the table, but in building new ones the chutes may be concealed inside the rail.

Having thus described my invention, what I claim is—

1. The combination of a pool table having inclined chutes leading from its pockets, of receptacles for balls with movable doors; and separate groups of pull rods or cords running to each side of the table, one rod or cord of each group being connected to the same rocking frame in the center and having in common a slide rod or connection for one of the sliding doors of the rack, substantially as shown and described.

2. The combination of a pool rack having sliding doors, sliding connections for operating the same, and a series of frames connecting with the latter and having an alternately reversed motion with a loose drag connection between them and pull rods or cords for operating the frames whereby the opening of one door in the rack by a pull rod closes the door opened by the previous pull rod, substantially as shown and described.

3. The combination of the rack having sliding doors for its receptacles, slide rods for operating the same, a series of rotary moving frames and pull rods or cords, and a cable I connected to the first of the series of frames

and having multiple ends connected to the other frames for enabling the first of the series being played to close the door of the last of the series played, substantially as shown and described.

4. The combination with a pool table of the rack having vertical receptacles, a rock shaft having arms leading into the receptacles and adapted to be struck and deflected by the balls, and having also another arm arranged as a circuit closer, and an electric bell and circuit arranged to be operated thereby, substantially as shown and described.

5. The combination of the pool table having inclined chutes D and rack C with sliding doors C′, four series of pull rods E running to the four sides of the table, a vertical axial rod F provided with a series of four armed frames G connected to the pull rods, slide rods H connecting them to the sliding doors and the loose drag connection between the frames, substantially as shown and described, and for the purpose set forth.

6. In a pool table, the combination with the rack or ball receptacles having adjustable doors controlling admission thereto; of a series of rotary adjustable frames having a loose drag connection with each other and connected to and operating the adjustable doors of the ball receptacle, the said frames being arranged in two alternating series working reversely, and a corresponding set of pull rods or operating devices for moving said frames substantially as and for the purpose described.

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Witnesses:
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