

No. 695,624.

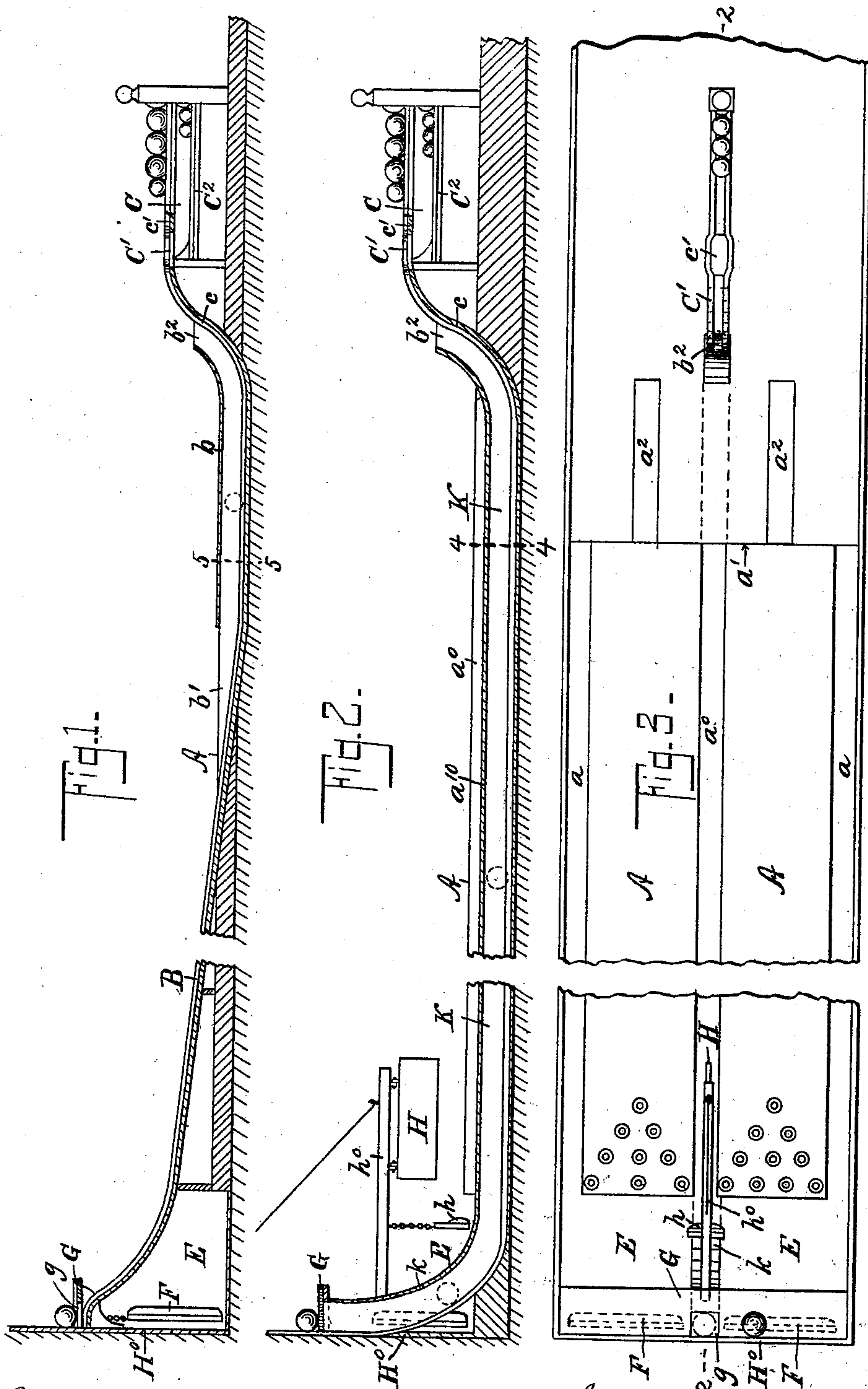
Patented Mar. 18, 1902.

E. REISKY.
BOWLING ALLEY.

(Application filed Aug. 30, 1900.)

(No Model.)

2 Sheets—Sheet 1.



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UNITED STATES PATENT OFFICE.

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BOWLING-ALLEY.

SPECIFICATION forming part of Letters Patent No. 695,624, dated March 18, 1902.

Application filed August 30, 1900. Serial No. 28,564. (No model.)

To all whom it may concern:

Be it known that I, EMIL REISKY, a citizen of the United States, and a resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Bowling-Alleys, of which the following is a specification.

This invention relates to improvements in bowling-alleys. Its object is to increase the available space for the movements of the player, to clear away obstructions to vision over the set of alleys, to economize the space in which a certain number of alleys may be set, and to improve the mode of returning balls from the pit end of the alley to the player's end thereof.

The invention consists in the constructions hereinafter described and claimed.

In the drawings, Figure 1 is a longitudinal vertical section through the chute by which balls are returned from the pit to the player's end. Fig. 2 is a longitudinal section on the line 2 2 of Fig. 3. Fig. 3 is a top plan view of a pair of alleys embodying one form of my invention. Fig. 4 is a cross-section on the line 4 4 of Fig. 2, and Fig. 5 is a cross-section on the line 5 5 of Fig. 1.

In bowling-alleys as now generally constructed the alley A has on each side a trough *a*, Fig. 5, and between two of the adjacent troughs is a dividing-board to prevent balls which roll off the alley and into one of the troughs from passing into the next neighboring trough. From the dividing-board rise standards that support a trough or runway to return balls from the pit end of the alley to the rack at the player's end. In the patent granted to me February 22, 1898, No. 599,477, is shown and claimed a particular returning device, consisting of a trough or return-way that is raised above the surface of the troughs *a*, Fig. 5 hereof. The return-way of my said prior patent consists, practically, of a fence between two adjacent alleys, and the ball-rack E is set, as is yet universal, between the runs of adjacent alleys or of parts thereof where the players stand or walk in delivering the balls in bowling. As is well known, every alley has its foul-line *a'*, Fig. 3, and

for tenpins has a portion *a*², Fig. 3, on which the player must stand when delivering the ball. In playing ninepins the player is allowed to stand anywhere back of the foul-line *a'* and to deliver his ball at any angle to the middle line of the alley. Many players stand close to one side or the other of the alley, and it is very common for player's movements and his desired position to be hampered by the position of the ball-rest.

One purpose of this invention is to permit the removal of the ball-rest and to remove the return-way to such positions that the player has an opportunity for unhampered movements back of the foul-line. For this purpose I depress the return-way for the whole or for a portion of its length below the surface of the alley A. This may be done in several ways, among which are two modes shown in Figs. 1 and 5 and in Figs. 2, 3, and 4. In Figs. 1 and 5 the return-way B starts from the pin end of the alley at a suitable height and descends partly above the level of floor, continues down in a position between the troughs *a a*, as shown in Fig. 5, below the level of the alley-floor, and thence rises some distance back of the foul-line to the ball rest or rack C. The upper surface of the depressed portion of the return-way B is covered by the flooring *b*, leaving, of course, an opening *b'* for the balls to pass into said depressed portion and an opening *b*² for the balls to pass out therefrom.

It is clear that by setting the ball rest or rack C back of the run D or that part of the alley on which the players move when delivering the ball the player might even step over upon the run of the next alley to deliver a ball upon his own alley, and the danger of contact with the rest is wholly removed, and, further, that the depression of the return-way B gives a less-interrupted view of the neighboring alleys. The balls that run off the alleys A pass into the troughs *a* and thence into the pit E, where they strike against the cushions F F.

In order to assist the attendants in returning the balls, I provide a shelf G, that slopes from either side of the pair of alleys toward

the middle line between the two, as shown in Fig. 5, and make an opening g therein large enough for the balls to drop through upon the return-way B, so that the attendant
 5 need only place the ball upon the shelf in any position, whereupon it is guided to the return-way and automatically passes back to the rest or rack C, having its velocity checked by the rising portion c , adjacent to the rest.
 10 The rest C may have an upper portion C', upon which the larger balls remain, and an opening c' therethrough, through which the smaller balls may drop upon the lower rack C².

In the form of device shown in Figs. 2, 3, and 4 but a single trough A⁰ is employed between each pair of alleys, and the return-way is wholly beneath said trough, except at the pit end and at the rising portion c to the rest or rack. Balls that run off either alley and
 20 toward the other alley pass into the trough a^0 and thence into the pit. A pad or buffer h checks the balls passing from the trough into the pit at a suitable point, and a screen H, that may be padded, if desired, hangs over
 25 the middle line of the trough a' in such a position as to prevent pins struck on one alley bounding into the next. The lower edge of the screen H must of course be of such a height above the trough a^0 that balls running
 30 in the trough do not strike it. The screen may be hung in any suitable way, as by an arm or bar h^0 , standing out from the rear wall H⁰, and the buffer or pad h may be hung in any suitable way, as from the same bar. The
 35 screen H and the buffer h are both of them hung so as to swing and yield to the play of a ball or pin.

From the double-inclined shelf G, hereinbefore described, which is against the back
 40 wall H⁰ of the alley, a protected return-way K is formed, running, preferably, underneath the floor of the trough a^0 and extending from the hole g in the shelf G backward underneath the trough a^0 back of the foul-line a'
 45 and so far in the rear thereof as to merge and connect with the rising portion c behind the position where the player is to deliver the ball in bowling. The floor of the trough a^0 forms the top of the return-way K for the bet-
 50 ter portion of its length. In the pit E the return-way is covered by a solid covering k or by strips of wood or metal that protect the interior of the return-way from the entrance of pins or balls. The buffer h protects the
 55 cover k of the return-way from being battered by pins or balls.

The floor a^{10} of the trough a^0 is, if desired, made of removable boards, so that the interior of the return-way K may be examined,
 60 or the said flooring a^{10} may be made of two or more strips on which the balls in the trough may run, which strips may be removable for access to the interior of the return-way, and by reason of the separation of the strips give
 65 a view at all times into the interior of the return-way.

By making alleys with only a single return-way between each pair more alleys A may be put into a given width than has heretofore been possible. The largest balls used in bowl-
 70 ing are nine inches in diameter, and the troughs a heretofore in use have been made ten inches in width in order to permit the balls to roll freely in them. Consequently
 75 excepting two troughs a against the side walls X and Y of the alley space ten inches in width is saved for each pair of alleys, and as the standard width of the alleys A is forty-two inches six alleys may be put in where only
 80 five were heretofore possible, and the setting of the return-way in such a position as to permit the balls from either of a pair of alleys to pass into the single ten-inch trough be-
 85 tween them is the means of saving this space, which saving, particularly in large cities where ground-rents are high and where an additional alley may earn as much as an additional five hundred dollars a year for the proprietor, is an important and valuable production.

An uninterrupted view over all the alleys
 90 is obtained by the form of device shown in Figs. 2, 3, and 4. Even there may be more than two alleys, as shown in Figs. 3 and 5.

What I claim is—

1. In a bowling-alley, the run, a ball-rack
 95 higher than the run, and a return-way adapted to convey balls from the pit to the ball-rack, and having the portion adjacent to the run depressed below the surface of the alley.

2. In a bowling-alley, the run, a ball-rack
 100 higher than the run, a ball-guide shelf against the rear wall of the pit and above the run; and a return-way adapted to convey balls from the guide-shelf to the ball-rack and hav-
 105 ing the portion adjacent to the run depressed below the surface of the alley.

3. In a bowling-alley, a ball-guide shelf against the rear wall of the pit and above the run, a return-way set between adjacent alleys and running from said shelf to the ball-rack
 110 and having the portion adjacent to the run depressed below the surface of the alleys; and a ball-rack higher than and set back of the run.

4. In a bowling-alley, a pair of alleys, a
 115 ball-rack higher than the run; a single trough between the alleys for balls that run off the alleys; and a return-way under said trough adapted to convey balls from the pit to the ball-rack.
 120

5. In a bowling-alley, a pair of alleys, a single trough between the same for the balls that run off the alleys, said trough being only of such width as to permit the passage of a
 125 single ball, and a return-way extending from the pit to the ball-rack at the player's end under said trough, a ball-rack back of the run, and a screen or dividing-board supported between the pin portions of the alleys and over the trough.
 130

6. In a bowling-alley, a pair of alleys, a single trough between the same for balls that

run off the alleys, said trough being only of
such width as to permit the passage of a sin-
gle ball, and a return-way extending from
the pit to the ball-rack at the player's end
5 under said trough, a ball-rack back of the
run, a screen or dividing-board supported
between the pin portions of the alleys and
over the trough, and a buffer for checking the
balls passing through the trough into the pit.

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