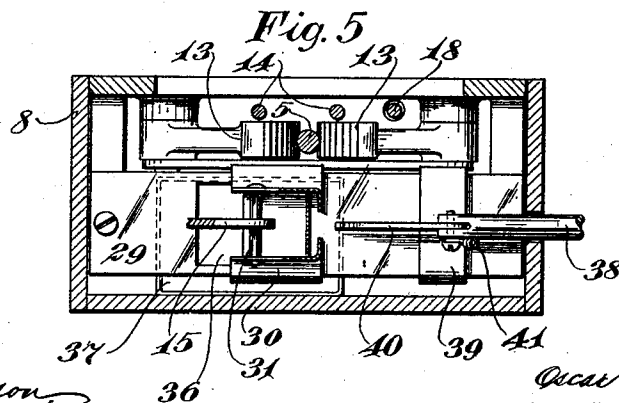
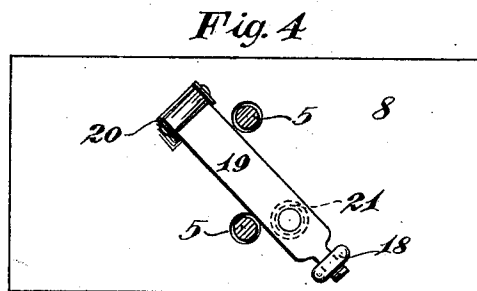
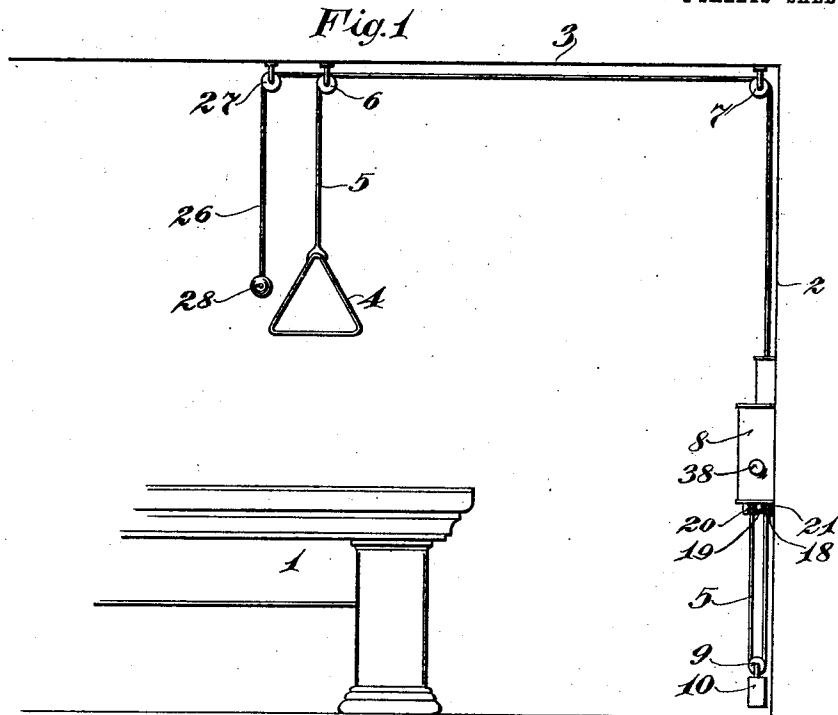


O. W. KURTH.
 DEVICE FOR RELEASING POOL TABLE TRIANGLES.
 APPLICATION FILED MAY 29, 1908.

934,549.

Patented Sept. 21, 1909.

2 SHEETS—SHEET 1.



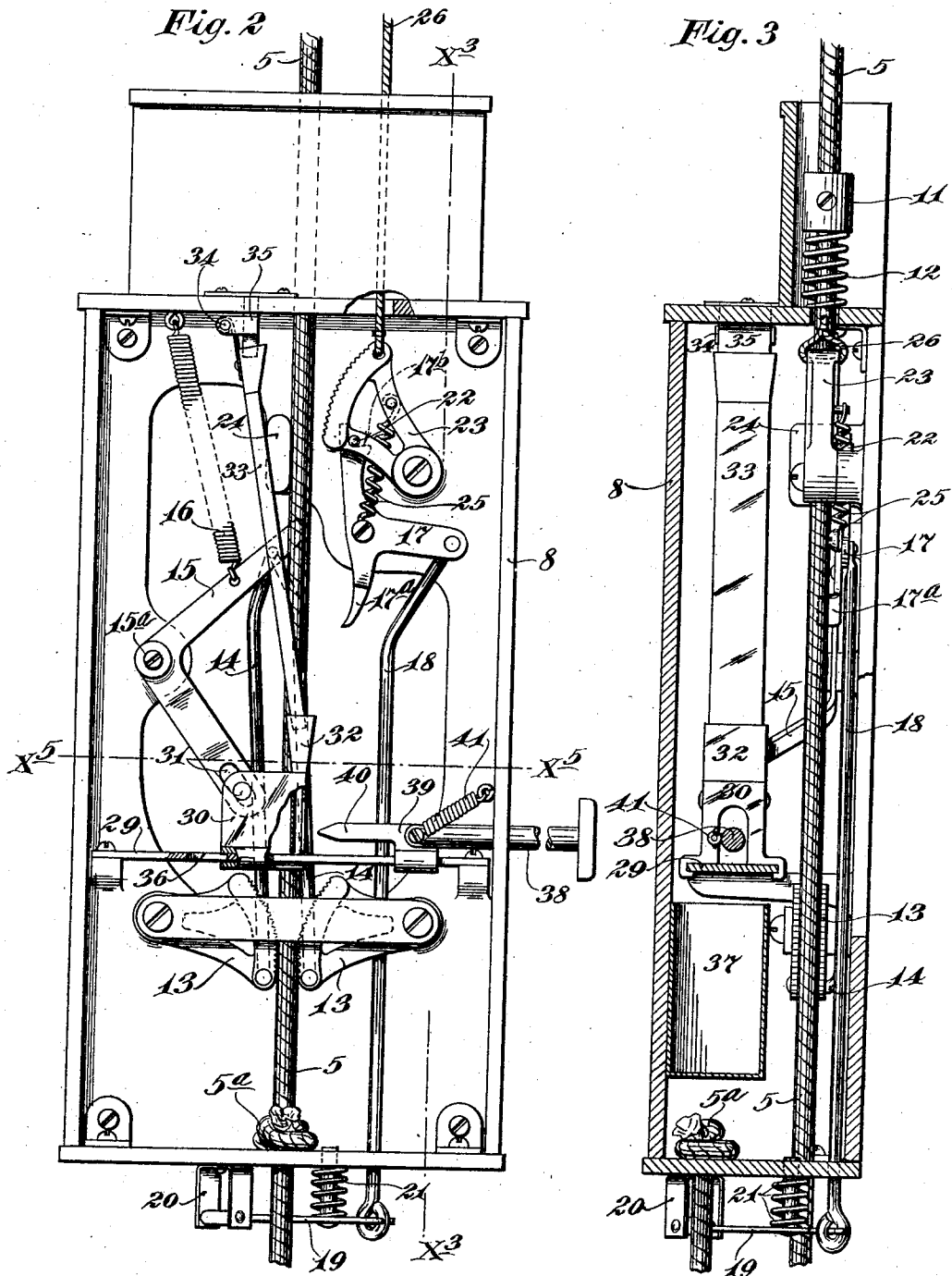
Witnesses:
L. L. Simpson
Harry Opsahl

Inventor:
Oscar W. Kurth
 By his Attorneys:
William M. Merchant

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Williamson Merchant

UNITED STATES PATENT OFFICE.

OSCAR W. KURTH, OF FULLERTON, NORTH DAKOTA.

DEVICE FOR RELEASING POOL-TABLE TRIANGLES.

934,549.

Specification of Letters Patent. Patented Sept. 21, 1909.

Application filed May 29, 1908. Serial No. 435,668.

To all whom it may concern:

Be it known that I, OSCAR W. KURTH, a citizen of the United States, residing at Fullerton, in the county of Dickey and State of North Dakota, have invented certain new and useful Improvements in Devices for Releasing Pool-Table Triangles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention relates to coin controlled devices for releasing pool table triangles and has for its especial object to simplify and improve the construction of the device set forth and claimed in my prior application S. N. 376,045, filed May 27, 1907, entitled "Device for releasing pool table triangles".

To the above ends the invention consists of the novel devices and combinations of devices hereinafter described and defined in the claims.

In the accompanying drawings which illustrate the invention, like characters indicate like parts throughout the several views.

Referring to the drawings, Figure 1 is a view in elevation, showing a portion of an ordinary pool table and showing my improved device applied for use in connection therewith. Fig. 2 is a front elevation showing a case having therein mechanism for locking and releasing the triangle supporting cord, the front plate of said case being removed and some parts being broken away. Fig. 3 is a vertical section, taken approximately on the line $x^3 x^3$ of Fig. 2. Fig. 4 is a bottom plan view of the case shown in Figs. 2 and 3; and Fig. 5 is a horizontal section taken on the line $x^5 x^5$ of Fig. 2.

The pool table is indicated in Fig. 1 by the numeral 1, and one wall and the ceiling of a room in which the table is placed are indicated, respectively, by the numerals 2 and 3. The pool table triangle, which is indicated by the numeral 4, is suspended by a cord 5 that runs over guide sheaves 6 and 7, shown as supported from the ceiling. The cord 5 is extended downward through suitable clearance passages in the bottom and top of a case 8 and its extreme end is turned upward, passed through a perforation in the bottom of said case and, as shown, provided with a knot 5^a shown in Fig. 3 that anchors

that end of said cord to said case. On the depending loop of the cord 5 is a sheave 9 from which a weight 10 is suspended. This weight 10, acting on the cord 5, tends to hold the triangle 4 in the raised position shown in Fig. 1, and this raised position of said triangle is limited, as shown in Fig. 3, by a stop collar 11 secured to the cord 5 above the case 8 and between which and said case a short coiled cushioning spring 12 is interposed.

Within the case 8, pivoted to the back thereof, is a pair of cord engaging lock segments 13. These segments 13 are provided with serrated edges that are eccentric to the pivots of the said segments and increase their distance from said pivots in a downward direction, so that they will clamp the cord when simultaneously moved upward, and will release the cord when simultaneously moved downward. By means of links 14, the lock segments 13 are connected for simultaneous oscillatory movements, the upper ends of the said links being pivotally attached at a common point to one arm of a bell crank 15 that is pivotally connected, at 15^a, to the back of the frame 8. A coiled spring 16, shown as attached to the upper arm of the bell crank 15 and to the top of the case 8, puts both lock segments under tension to move upward, and hence to clamp the cord 5 and thereby lock the same so that the engaged portion thereof cannot be pulled upward. Hence the triangle 4 cannot be pulled downward. The free end of the upper arm of the bell crank 15 is adapted to engage with the depending arm 17^a of a three-armed bell crank 17. The laterally projecting arm of the bell crank 17 is connected to the upper end of a trip rod 18, the lower end of which is pivotally connected to the free end of a tripping lever 19, which lever, as shown, is pivoted to a bracket 20 on the bottom of the case 8 and is yieldingly pressed downward by a spring 21. The tripping lever 19 extends through the depending loop of the cord 5 and is adapted to be pressed upward thereby when the triangle 4 is pulled downward to its limit, so as to cause the sheave 9 of the weight 10 to be pulled upward against the said lever 19. The upwardly projecting arm of the bell crank 17 is formed at its end with a right angle notch 17^b that is normally engaged by a laterally projecting pin 22 of a cord locking segment

23. This cord locking segment 23 is like the lock segment 13, but is reversed, that is, its serrated eccentric rim or edge increases its distance from the pivot of said segment in an upwardly direction. This lock segment 23, when released, will engage the cord 5 and press the latter against an abutment or stop 24 which, as shown, is rigid on the back of the case 8, and when it thus engages the said cord it will lock the cord against return movement under the action of the weight 10. A coiled spring 25, shown as attached to the pivot pin of the bell crank 17 and to the lock segment 23 tends to throw the latter into action on the cord. A releasing cord 26 is attached to the segment 23 and is extended over suitable guide sheaves 27 on the ceiling 3 and, as shown, is provided at its depending end with a hand-piece 28 located within easy reach of a person standing at the side of the table 1.

Rigidly secured to the back of the case 8 below the bell crank 15 and above the lock segments 13, is a horizontally extended guide bar 29, upon which a coin receiving head 30 is mounted to freely slide. This head 30 is connected to the lower arm of the bell crank 15, as shown, by means of a slot and pin connection 31. This head 30 carries the lower section 32 of a coin delivery chute, and this section 32 receives from an intermediate chute section 33 that is pivotally connected to lugs 34 of an uppermost or receiving spout section 35, which latter is rigidly secured to the top of the case 8 and opens there-through. The lower end of the delivery spout section 32 is open, and when the head 30 is moved to its extreme position toward the left, as shown in Fig. 2, it registers with a coin passage 36 in the bar 29. Below the passage 36 is a coin receptacle 37 which, as shown, in Fig. 3, is secured to the front plate of the case 8.

The plunger 38 works through a suitable guide in the right hand side of the case 8 and is connected to a driving head 39, which, in turn, is provided with a projecting finger 40 that is adapted to engage a coin contained in the lower extremity of the spout section 32, the said spout section being cut away at one side to permit such engagement. The head 39 is arranged to slide upon the bar 29 and the said head and plunger 38 are normally held toward the right by a coiled spring 41, shown as attached thereto and to one side of the case 8.

Operation: The operation of the improved device is substantially as follows: Normally the parts are in the positions best indicated in Figs. 1 and 2, and the lock segments 13 are then holding the cord 5 in such manner that the triangle 4 cannot be drawn downward onto the table. When a coin is deposited in the lower chute section 32 and the plunger 38 is then forced inward, the head

30 will be moved toward the left until the coin reaches a position over the discharge passage 36 of the bar 29, through which passage the coin will be dropped into the receptacle 37 at the instant of release of pressure from the finger 40 of the plunger 38. The movement of the head 30 toward the left as just described serves to oscillate the bell crank 15, and this accomplishes two things,—to-wit,—first, through the links 14 the lock segments 13 are moved into the positions in which they release the cord 5; and second, the upper arm of the said bell crank 15 cams itself under the end of the depending arm 17^a of the three-armed bell crank 17 and thereby locks the segments 13 in their inoperative positions and secures the head 30 and chute section 32 temporarily in their extreme positions toward the left. By manipulation above described, the cord 5 will be released so that the triangle 4 may be drawn downward onto the table and, hence, used to properly group the pool balls. The tension on the cord 5, while it is thus used would, of course, be objectionable, and this is obviated by pulling the cord 5 until the sheave 9 strikes and raises the tripping lever 19. The upward movement of the tripping lever 19 acts through the rod 18 to oscillate the three-armed bell crank 17 and thereby disengage its notched arm 17^b from the pin 22, and this releases the lock segment 23. When the lock segment 23 is released, the spring 25 throws the same into action on the cord 5 and then coöperates with the abutment 24 to lock the cord 5 against return movement, that is, against the movement required to raise the triangle. This same rocking movement of the bell crank 17 causes the arm 17^a to release the bell crank 15, whereupon the spring 16 throws the head 30, chute section 32, and lower or primary lock segments 13 back into operative positions. Attention is here called to the fact that the upper arm of the bell crank 15 may be engaged with the arm 17^a of the bell crank 17 under a movement of said bell crank 17, which is less than that required to disengage the shouldered arm 17^b from the pin 22 of the upper or secondary lock segment 23. When it is desired to return the triangle to its suspended or normal position, the operator pulls on the cord 26, thereby moving the secondary lock segment 23 back to normal position, in which position it will be locked by the upper arm of the bell crank 17. When the lock segment 23 is caused to release the cord 5, the weight 10 becomes effective on said cord and raises the triangle to the position shown in Fig. 1. The lower or primary lock segments 13, while they lock the cord 5 against upward movement, do not prevent the downward movement of the cord under the action of the weight 10. As already stated, the downward movement of the

weight 10 and, hence, the upward movement of the triangle 4, is limited by the stop collar 11 and spring 12.

In actual practice the improved device 5 above described has been found efficient for the purposes had in view.

The so-called three-armed bell crank 17 constitutes a combined latching and tripping device for alternately securing and releasing the primary and secondary lock devices.

In the claims, the cord 5 is referred to as a weighted cord but it will, of course, be understood that it may be subject to the yielding force of a spring, all within the 15 scope of this invention.

What I claim is:

1. The combination with a weighted cord and a device such as a triangle suspended thereby, of a primary lock normally operative to hold said cord against movement in one direction, a secondary lock operative to secure said cord against movement in the other direction, a yielding tripping lever, a part carried by said cord for operating said 25 tripping lever, a combined tripping and latching device connected to said tripping lever normally holding said secondary lock inoperative but operative to release the same and temporarily render said primary lock 30 inoperative, and means whereby, at will, said secondary lock may be restored to inoperative position and said primary lock to operative position, substantially as described.

2. The combination with a weighted cord 35 and a device such as a triangle suspended thereby, of a sliding head, a plunger operative thereon, a primary lock normally holding said cord against movement in one direction, a secondary lock for securing said lock 40 against movement in the other direction, a spring-pressed intermediate lever connected to said sliding head and to said primary lock, a yielding tripping lever, a part carried by said cord for operating said tripping lever, a 45 combined tripping and latching device connected to said tripping lever, normally holding said secondary lock inoperative, but op-

erative to release the same and to act upon said intermediate lever to temporarily render said primary lock inoperative, and means 50 whereby, at will, said secondary lock may be restored to inoperative position and said primary lock to operative position, substantially as described.

3. The combination with a weighted cord 55 and a device such as a triangle suspended thereby, of a pair of coöperating pivoted eccentric primary lock segments normally operative to hold said cord against movement in one direction, a sliding head, a 60 plunger operative on said sliding head, a spring-pressed bell crank connected to said sliding head and to said primary lock segments, a secondary pivoted eccentric lock segment and coöperating abutment for holding said cord against movement in the other 65 direction, a spring tending to render said secondary lock segment operative, a pivoted lever operating as a combined latch and tripping device normally holding said secondary 70 segment inoperative and provided with an arm operative on said bell crank to temporarily secure said primary lock segments inoperative, a tripping lever connected to said combined tripping and latching device and 75 a part carried by said cord for operating said tripping lever, substantially as described.

4. The combination with a cord and means putting the same under tension to move in one direction, of a device suspended by said cord, 80 a lock operative to hold said cord against movement in one direction, a yielding tripping lever operative on said lock, a part carried by said cord operative to trip said lever, and a combined tripping and latching device 85 connected to said tripping lever, substantially as described.

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

OSCAR W. KURTH.

Witnesses:

A. R. BERG,
A. M. BERG.