

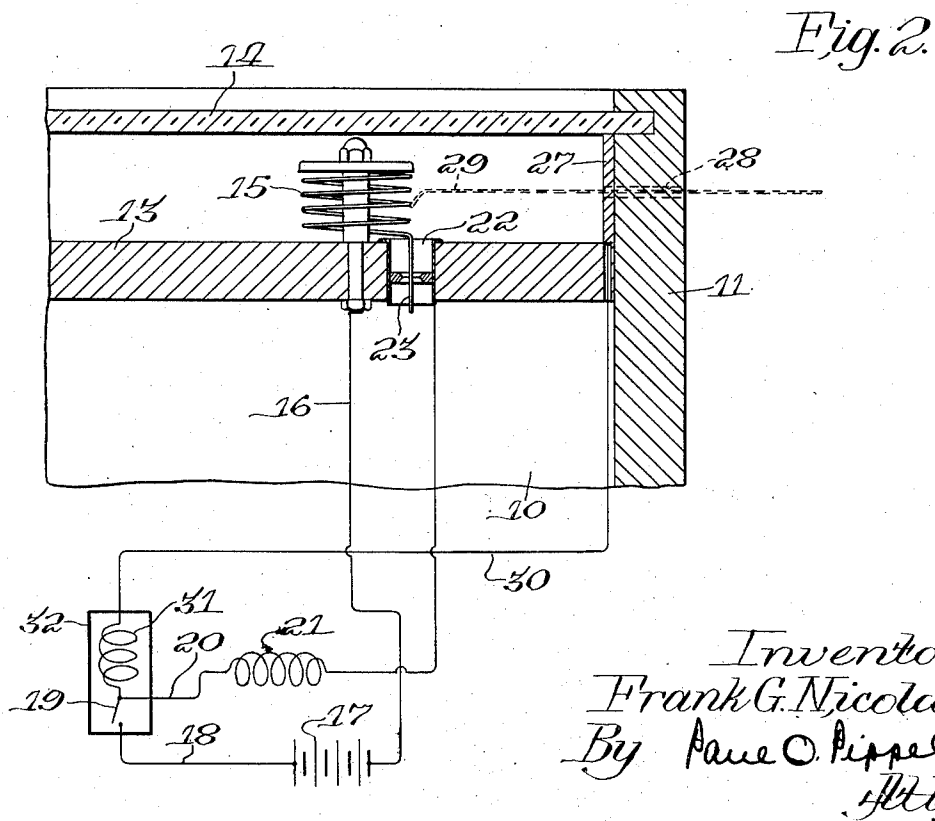
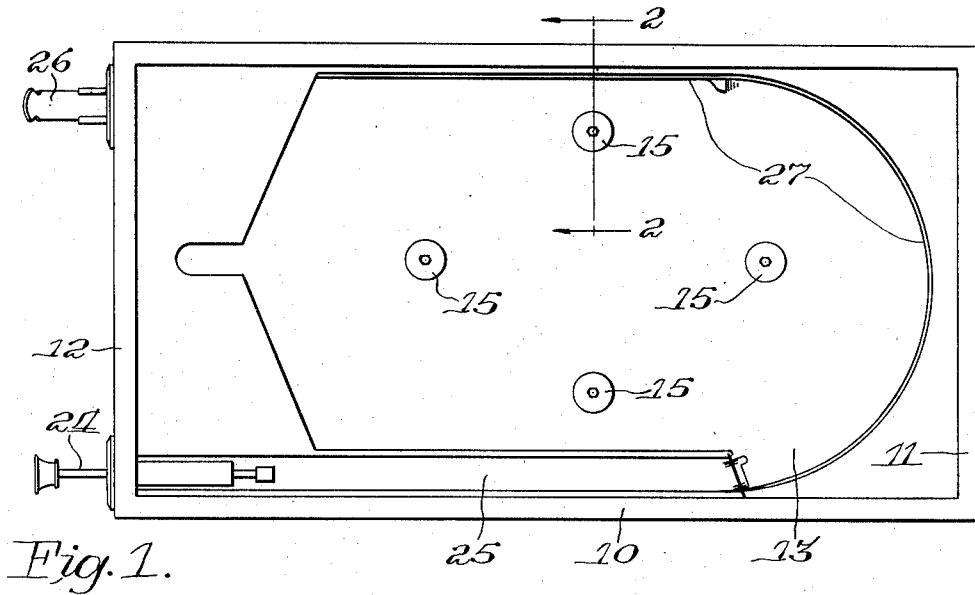
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BALL ROLLING GAME

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BALL ROLLING GAME

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2 Claims. (Cl. 273-118)

The invention relates to ball rolling games of the type having a game board or table sloped slightly from the horizontal within a cabinet; balls being rollable over the table to engage targets thereon in the form of contact switches closable by the balls to make electric circuits for operating score counters or ticket or check vending attachments.

It has been found in practice that unscrupulous persons will, with fraudulent intent, take a small ratchet type drill and bore a small hole through the wooden cabinet just above the level of the game board and insert a small gauge, stiff piece of wire, through such hole and by means of the wire engage a target contact switch and so close it repeatedly to establish the electric circuits and in such unauthorized and unsportsmanlike manner cause operation of the score counting or vending devices.

Obviously, it is desirable that such unfair persons be discouraged and thwarted in their nefarious practices.

Accordingly, it is desirable when a wire or the like is passed through the wall of the cabinet to engage a target switch, that an auxiliary circuit be set up automatically to cause operation of the usual tell-tale indicator device used in these games for giving an indication when the table has been tilted from its normal level. By such means the relay controlling the score indicator or vender attachment is made inoperative, without actually tilting the table.

More particularly, therefore, the invention relates to a cheat-proof arrangement for games of the type stated.

The main object of the invention is to provide an improved ball rolling game.

Another object is to provide an armor plate edging for these game cabinets to discourage the drilling of holes through the cabinet wall.

Another object is to provide such armor of conductor material included in a circuit which when closed, will cause operation of a tilt indicating tell tale device and make any scoring or vending attachment simultaneously inoperative.

Other important objects of the invention will become apparent to those skilled in this art as the disclosure is more fully made.

In carrying out the invention in a preferred practicable form, the rear edge and a side edge of the cabinet, between the top glass panel and the table or game board are lined, or armored with a metal strip of conductor material disposed in a circuit with the game targets, tell-tale, and vender or scorer, in such a manner that a wire

passed through a hole in the cabinet wall and armor strip will complete a circuit to make the tell tale device operative, and the scorer, or vender, inoperative.

In the accompanying sheet of drawings, showing an illustrative example of the invention:

Figure 1 is a general plan view of a typical ball rolling game incorporating the improved cheat proofing means; and,

Figure 2 is an enlarged, detail, cross sectional view through the game, taken along the line 2-2 of Figure 1, and also showing a simple wiring diagram.

The game comprises the usual cabinet 10, having a rear wall 11 and a front wall 12. The cabinet carries the usual table or board 13 sloped slightly from the horizontal with the high end adjacent the rear wall 11, and the low end adjacent the front wall 12. A glass panel 14 closes the open top of the cabinet.

The table 13 carries one or more spring bumper contact elements 15 and the table 13 and cover 14 are spaced apart the requisite distance to enable balls to roll freely over the table to engage the elements 15. These elements 15 are disposed in an electric circuit 16 with a suitable source of energy, such as the battery 17. A wire 18 leads from the opposite side of the battery and includes a master switch 19 from which a wire 20 including a relay coil 21 leads to the opposite contact for each bumper element 15, said opposite contact comprising a conductor ferrule 22 embedded in an opening formed in the table adjacent each element 15. The element 15 has a leg extension 23 hanging pendantly into the ferrule element 22, as shown. When a ball on the table 13 bumps the spring element 15 as shown in Figure 2, the leg 23 is deflected to engage the contact element 22 and momentarily establish a circuit to energize the electromagnetic relay coil 21, which in turn can be used in the well known manner to operate some sort of a conventional step up means for score registering purposes, or a vender of some kind.

A ball shooting plunger 24 is provided in the front wall 12, as usual, to enable balls to be manually projected, one at a time, through the usual right hand passageway 25 onto the table for gravitational rolling thereover to hit the bumpers 15. A conventional form of coin release slide 26 is also carried in the front wall 12 to release the game for play in the usual manner, and also to cause closing of the master switch 19.

Unscrupulous persons, it has been found in the use of these games, will, while a confederate or

accessory is playing the game, stand at the left hand side, or rear end of the cabinet and with the use of a small pocket size drill, bore a hole through the cabinet wall between the glass 14 and table 13. Such person will thereupon insert a stiff piece of wire or the drill itself, through such opening and engage the bumper 15, repeatedly operating same surreptitiously to build up a high score or achieve operations of the venter.

10 To thwart such persons, the present invention provides several safe-guards. First, the inner face of the rear wall and the adjacent inner edge of the left hand wall is armored with a continuous strip of conductor metal as shown at 27. Preferably such armoring need be provided only between the cover 14 and the table 13, as shown. Thus, it will be difficult for an ordinary wood drill to drill through the cabinet. However, if a metal drilling tool is used, the armoring 27 may be pierced and a through hole, such as at 28 in the dotted lines, may be formed and a piano or similar stiff wire, such as 29 may be passed into the cabinet to bump the contact 15. This practice will be discouraged by the fact 25 that the armor 27 is a conductor in a circuit 30 with the relay coil 31 of a conventional form of anti-tilt or tilt tell tale device 32, the circuit with the source of energy being completed by closed switch 19, wire 18, wire 16, contact 15, and wire 29. When the poker wire 29 so closes the circuit described, the coil 31 is energized and serves to operate means of any desired kind, for opening the switch 19 to break the main circuit for the targets, and also to cause operation of the device 32 to indicate tilt and inoperativeness of the game.

40 Thus has been provided structure for attaining the desirable objects of the invention. It is the intention to cover herein all changes and modifications of the example of the invention shown and described, which do not in material respects constitute departures from the spirit and scope of the invention as covered in the appended claims.

What is claimed is:

1. An armour and anti-cheat means for a ball rolling game having a cabinet enclosing a substantially horizontal table over which balls are rollable to engage a normally open electrical 5 switch disposed on the table, which switch is disposed in a first circuit with a source of energy, the said circuit including a coil energizable when a ball engages the switch to close said circuit, the armour and anti-cheat means comprising a 10 strip of conductor metal associated with the wall of the cabinet and wired in another electric circuit with the source of energy and one side of the table switch, and a coil included in the latter circuit energizable when a conductor piece 15 passed through the wall of the cabinet engages the strip of conductor metal and closes the table switch, such piece acting to bridge the strip and table switch to close the circuit for energizing the last mentioned coil.

2. An armour and anti-cheat means for a ball rolling game having a cabinet closed at its top by a transparent cover and carrying below said cover a substantially horizontal table over which balls are rollable to engage a normally open electrical switch disposed on the table, which switch 25 is in a first circuit with a source of energy, the said circuit including a coil energizable when a ball engages the switch to close said circuit, the armour and anti-cheat means comprising a strip 30 of conductor metal lining the inside face of a wall portion of the cabinet between the table and transparent cover, said lining wired in another electric circuit with a source of energy and one side of the table switch, and a coil included in the latter circuit energizable when a conductor 35 piece is passed through the lining strip in contact therewith and with the piece at the same time engaging the table switch to close same, such piece acting to bridge the lining and table switch to complete a circuit for energizing the 40 last mentioned coil.

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