

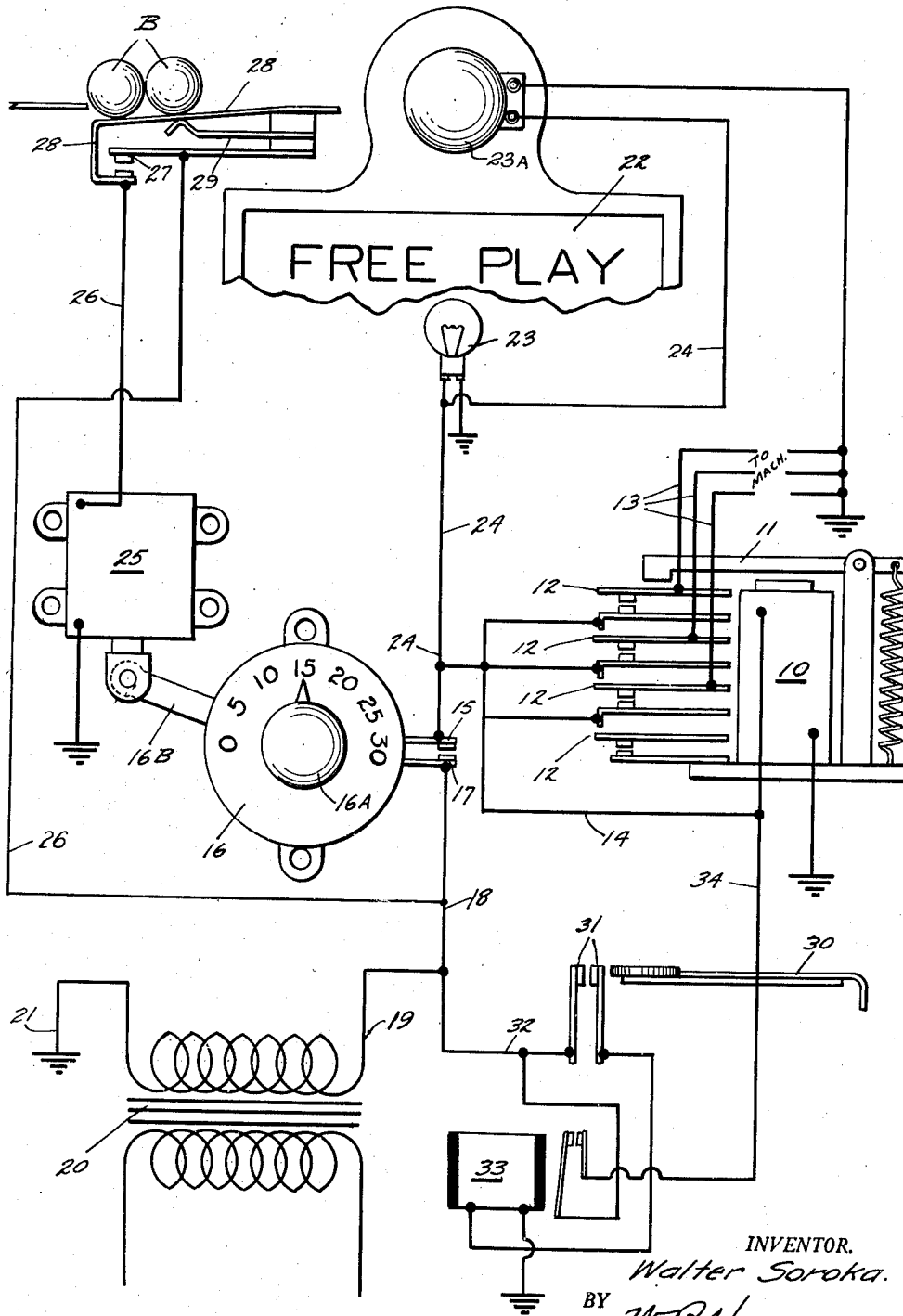
July 20, 1954

W. SOROKA

2,684,246

FREE PLAY DEVICE FOR BALL GAME APPARATUS

Filed Nov. 1, 1951



INVENTOR.

Walter Soroka.

BY

W. B. Harpman

ATTORNEY.

UNITED STATES PATENT OFFICE

2,684,246

FREE PLAY DEVICE FOR BALL GAME
APPARATUS

Walter Soroka, Campbell, Ohio

Application November 1, 1951, Serial No. 254,421

2 Claims. (Cl. 273-118)

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This invention relates to a free play device which may be incorporated in an amusement machine such as a pin ball machine or similar coin controlled device to act as an incentive toward the playing thereof.

The principal object of the invention is the provision of a free play device for incorporation in an amusement machine.

A further object of the invention is the provision of a device for use in connection with an amusement machine setting up a free game at predetermined intervals to attract players to the machine.

A still further object of the invention is the provision of a simple and efficient combination of mechanical elements electrically connected with an amusement machine for periodically actuating the mechanism of the machine to enable the same to be played without the usual coin slide operation.

The free play device for amusement machines disclosed herein comprises a combination of certain mechanical elements and electrical switches and circuits which may be connected with any pin ball machine and the like to automatically and periodically set up a free play when the machine with which it is connected has not been played for a predetermined time.

In the case of a pin ball machine, the apparatus operates to signal that a free play on the pin ball machine is available at a predetermined time such as fifteen minutes after the last playing of the machine. Subsequent coin controlled plays of the machine postpone the starting of a further predetermined time cycle at the conclusion of which the free play apparatus will again actuate the machine for an additional free play and signal the same.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being the intention to cover all changes and modifications of the example of the invention herein chosen for purposes of the disclosure, which do not constitute departures from the spirit and scope of the invention.

The invention is illustrated in the accompanying drawing, wherein:

The figure is a diagrammatic illustration of the free play device in connection with the main actuating coil of a pin ball machine.

By referring to the drawing it will be seen that the main actuating coil of a pin ball machine is

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illustrated and indicated by the numeral 10. The coil acts to move an arm 11 and close a plurality of switches 12, which switches energize necessary circuits in the pin ball machine or other similar device to enable the same to be played without the operation of the coin slide. Circuit wires leading from the switches 12 to the controlled portions of the machine are indicated by the numerals 13-13 and the controlled portions of the machine are not otherwise illustrated as they are well known in the art.

The switches 12-12 are energized by a circuit wire 14 which establishes connection with a movable switch element 15 on a clock 16, the other switch element of the clock 16 being indicated by the numeral 17 and connected by a conductor 18 with a suitable voltage tap 19 on a transformer 20. The other side of the transformer circuit is grounded as at 21 to the mechanism of the device to be controlled as are the several parts of the device itself. The transformer 20 is adapted to be connected to a supply line as is customary in the art and is normally energized at all times. An illuminated sign 22 is mounted on the control device and preferably has suitable indicia thereon. The illumination is supplied by an incandescent bulb 23 which is connected by way of a conductor 24 with the switch element 15 on the clock 16 heretofore referred to.

The clock 16 has an adjustment dial 16A which enables it to be set so as to close the contacts 15 and 17 at any predetermined interval. A reset lever 16B extends from the clock and is arranged to be actuated by a solenoid 25. The solenoid 25 is energized by way of a conductor 26 leading from the conductor 18 to the solenoid 25 by way of a normally closed switch 27, which in the case of a pin ball machine or other similar game board is held in open position by the balls B thereof, as symbolically illustrated by the pivoted switch lever 28 which is moved to closed position by the spring 29 when the balls B have all been played.

It will thus be seen that at a given time interval after the last play on the game board or pin ball machine so equipped, the apparatus herein disclosed, and specifically the clock 16, will close the contacts 15 and 17, energize the main coil 10 of the machine and simultaneously light the free play sign 22 and, if desired, sound an audible signal such as a bell 23A. This status will be maintained until someone avails himself of the opportunity of a free play and upon conclusion of the free play, the balls B having been removed from their control of the switch 27, the same will

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close and energize the solenoid 25 which will reset the clock 16 and open the contacts 15 and 17. The cycle will then repeat at the end of the time as set on the clock 16. If in the interim the game board or other equipped device is played with a coin, the operation of the coin slide 30 will close contacts 31 in a circuit including a conductor 32 and energize a relay 33 which will then operate to establish connection between the conductor 32 and a conductor 34 which connects with the main coil 10 of the equipped device. Such operation of the coin slide 30 and relay 33 is customary in such devices for the energization of the master coil which comprises the main coil 10, as hereinbefore disclosed, and the game board or other equipped device is then operated in the usual manner.

It will occur to those skilled in the art that at the conclusion of the play, the switch 27 will again close and the clock 16 will again be reset and a new time interval will pass before the free play device again operates. Thus, as long as a game board is played within the preset time interval of the clock 16 the machine acts in the normal manner and is completely coin controlled. However, if the machine is not played for the preset time interval, as determined by the clock 16, then the free play apparatus operates as hereinbefore described. In either event, the free play apparatus, and specifically the clock 16, is reset at the conclusion of the game whether the same be the free play game or a coin controlled game. It will be obvious to those skilled in the art that in a commercial machine the coin control relay 33 will be modified to include another contact to break the circuit in the conductor 24 comprising the circuit to the free play bulb and gong.

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It will thus be seen that a simple and efficient free play device for pin ball machines and the like has been disclosed which meets the several objects of the invention.

Having thus described my invention, what I claim is:

1. A free play mechanism for an amusement machine having playing balls, a power circuit and a main relay controlling said power circuit and a coin controlled secondary relay in said power circuit for actuating said main relay, said free play mechanism comprising a shunt circuit around said secondary relay, a time delay switch in said shunt circuit, a solenoid for resetting the said time delay switch, a circuit for energizing said solenoid connected to the said power circuit, a ball actuated switch in said amusement machine controlling the circuit connecting with the said solenoid, said ball actuated switch being normally closed and retained in open position by balls in the amusement machine remaining for play, and an electrically actuated indicating device in said shunt circuit.

2. The free play mechanism set forth in claim 1 and wherein said time delay switch comprises a time clock having a reset lever movable by said solenoid.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
2,102,531	Hoke	Dec. 14, 1937
2,232,925	Mills	Feb. 25, 1941
2,421,835	Durant	June 10, 1947