April 6, 1937. D. C. ROCKOLA 2,076,251

ANTITILTING DEVICE

Filed Aug. 23, 1935

Fig. 1.

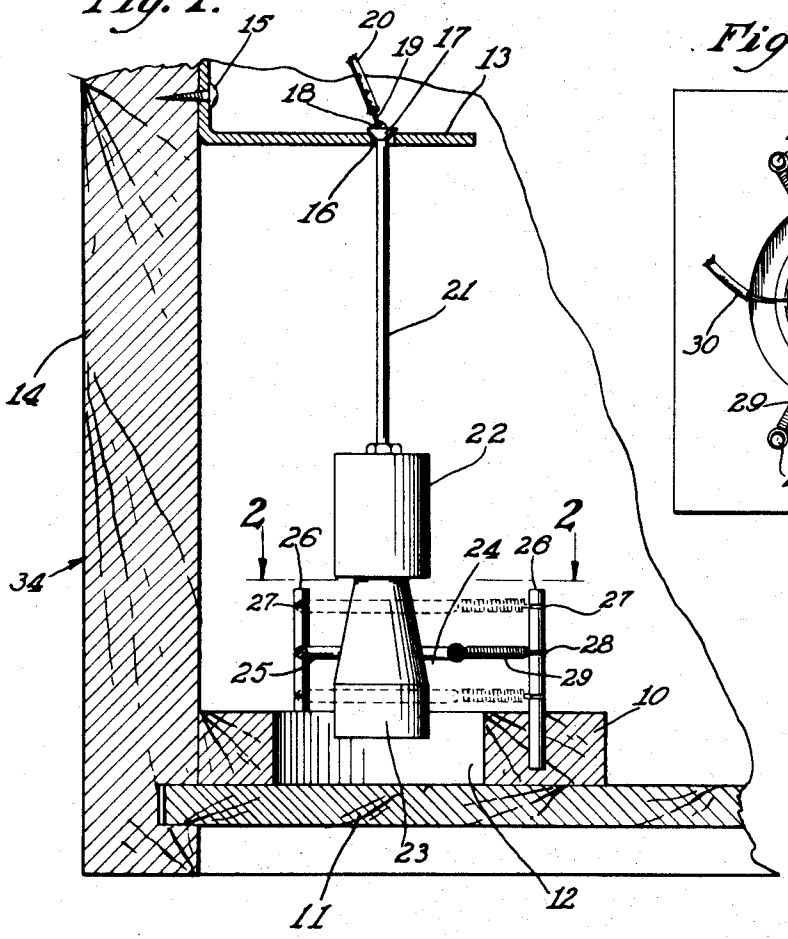


Fig. 2.

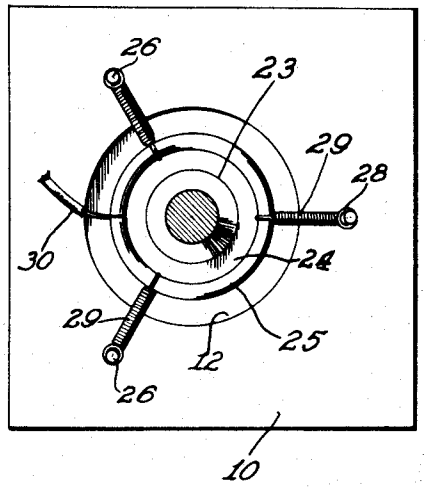
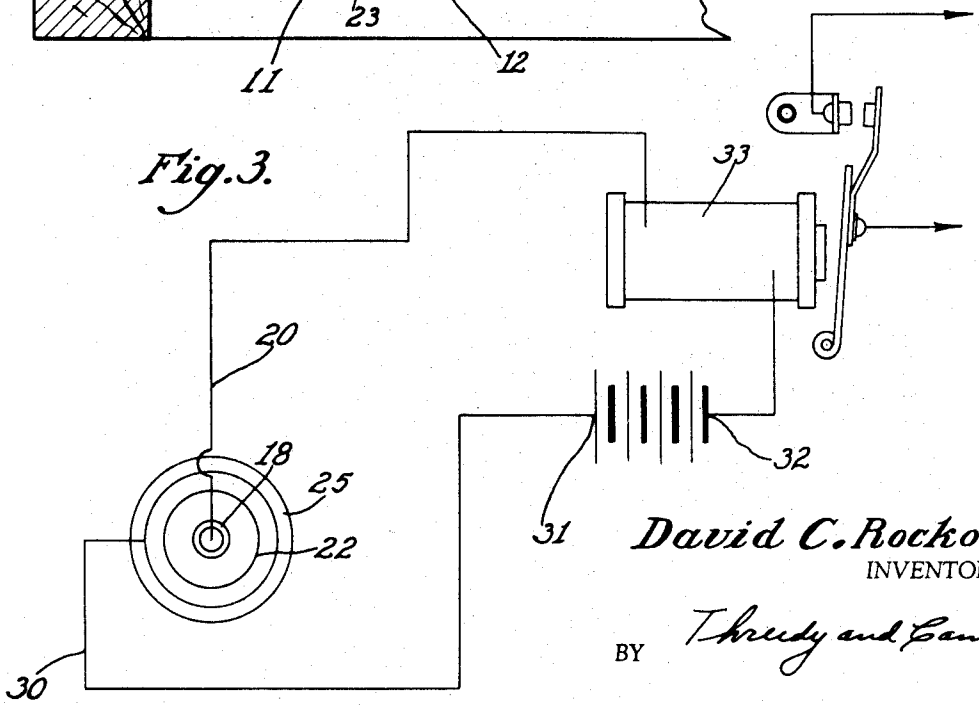


Fig. 3.



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2,076,251

ANTITILTING DEVICE

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Application August 23, 1935, Serial No. 37,424

1 Claim. (Cl. 200—52)

This invention relates to certain novel improvements in anti-tilting devices and has for its principal object the provision of an improved structure of this character which will be highly efficient in use and economical in manufacture.

Among the several objects of the invention is the provision of an anti-tilting device intended and designed to be used in connection with amusement game and display apparatus wherein it is desirable to have made known when the player of the game or display apparatus attempts to tilt, shift or otherwise move the game apparatus during play or display thereof.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will best be understood by reference to the accompanying drawing showing the preferred form of construction, and in which:

Fig. 1 is a fragmentary sectional detail view of an apparatus showing my improved anti-tilt device associated therewith.

Fig. 2 is a sectional detail view of the same taken subsequently on line 2—2 of Fig. 1, and

Fig. 3 is a schematic view of a circuit layout illustrating my improved anti-tilting device diametrically incorporated therewith.

In the operation of amusement game apparatus it sometimes is advantageous to the operator to shift, tilt or otherwise move the game apparatus during play thereof. Such moving, tilting or shifting of the game apparatus is often accomplished without the owner thereof being any the wiser.

As heretofore stated it is one of the several objects of this invention to provide an anti-tilt device which will, when the game apparatus is tilted, shifted or moved, set off a warning or alarm thereby apprizing the owner of the game apparatus that the same has been or is being tilted, shifted or moved.

To accomplish this and other objects of the invention I have provided a base block 10 mounted in any suitable position upon the base plate or bottom wall 11 of the game apparatus 34. This base plate 10 is provided with an enlarged recess 12.

Directly above the base plate 10 is an arm 13 secured to an adjacent wall portion 14 of the game apparatus as at 15 in spaced relation with respect to the base plate 10. This arm 13 is provided with an opening 16 and this opening provides a seat for the conical walls 17 of a head 18 to which head 18 is secured to one end portion 19 of a circuit wire 20.

By forming the head 18 with the conical shaped walls 17 the bearing surface within this wall and the peripheral edge of the opening 16 is greatly reduced whereby the pendulum 21 supported by this head may have free swinging movement.

Included as a part of this pendulum 21 is a weight element 22 and beneath this weight element 22 there is provided a contact maker 23. This contact maker 23 is normally positioned centrally within a well 24 provided by a ring 25. This ring 25 is resiliently supported between spaced posts 26 as shown in Fig. 2.

These posts 26 are provided with annular recesses 27 spaced equally apart from each other to receive the ring forms 28 of the ends of the springs 29 resiliently supporting the ring 25 as aforesaid. These rings 28 and recesses 27 facilitate vertical adjustment of the ring 25.

In order to enlarge or decrease the arc through which the pendulum may swing without contacting the ring 25 I preferably formed the contactor 23 frusto-conical shaped as shown in Fig. 1.

Secured to the ring 25 is the end portion of a circuit wire 30 and this circuit wire 30 is connected to one side 31 of a source of electric energy, the other side 32 of the source of electric energy being connected to a magnetic provided switch mechanism 33 controlling the circuit to an audible signal or warning light. As shown, the circuit wire 20 is also connected to the magnetic operated switch 33 thus completing together with the circuit wire 30 a complete circuit.

In the event the game apparatus is moved, tilted or shifted the pendulum will be caused to oscillate and bring the contactor 23 into contact with the resiliently supported ring 25 which ring 25 is free to move with the contactor by virtue of its resiliently secured structure and thereby prolongs the operation of the contact within the ring 25 and the contactor 23. When this contaction takes place the magnetic switch 33 is energized and thereby in turn energizes an audible or warning signal (not shown) upon the operation of which warning or audible signal the owner of the apparatus will be informed that the amusement game has been moved in the manner herein indicated.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification, without departing from the spirit of the invention. I, therefore, do not wish

to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claim.

Having thus described my invention, what I claim as new and desire to protect by Letters Patent is:

An anti-tilt device comprising a supporting bracket, a pendulum arm supported therefrom for movement in any vertical plane and terminating at its lower extremity in a pendulum head having a substantially conical surface portion, a plurality of post elements equally spaced about the lower end portion of the pendulum arm and head, a ring-shaped contact member surrounding said pendulum head in the region of its conical surface portion and supported from said post elements by means of spring members attached at one of their respective extremities to the ring and extended radially therefrom for attachment to one of said posts, the latter having a plurality of notches spaced apart in an axial direction, and the said springs each having a terminal loop portion slidable on a said post and into one of said notches.

DAVID C. ROCKOLA.