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TURNSTILE CHECKING DEVICE

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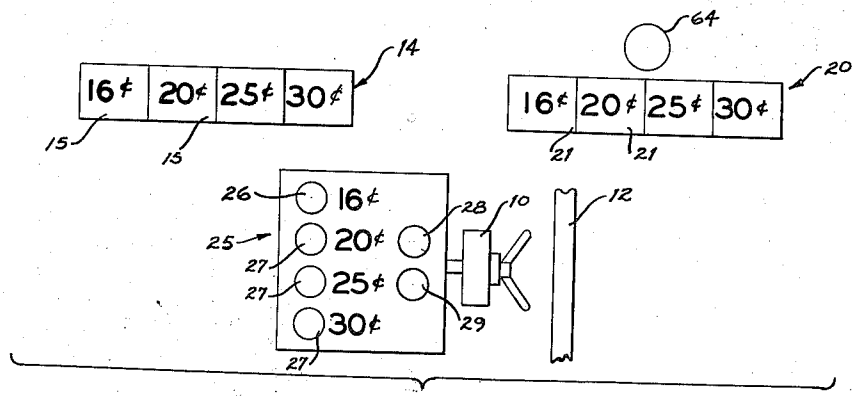


FIG. 1

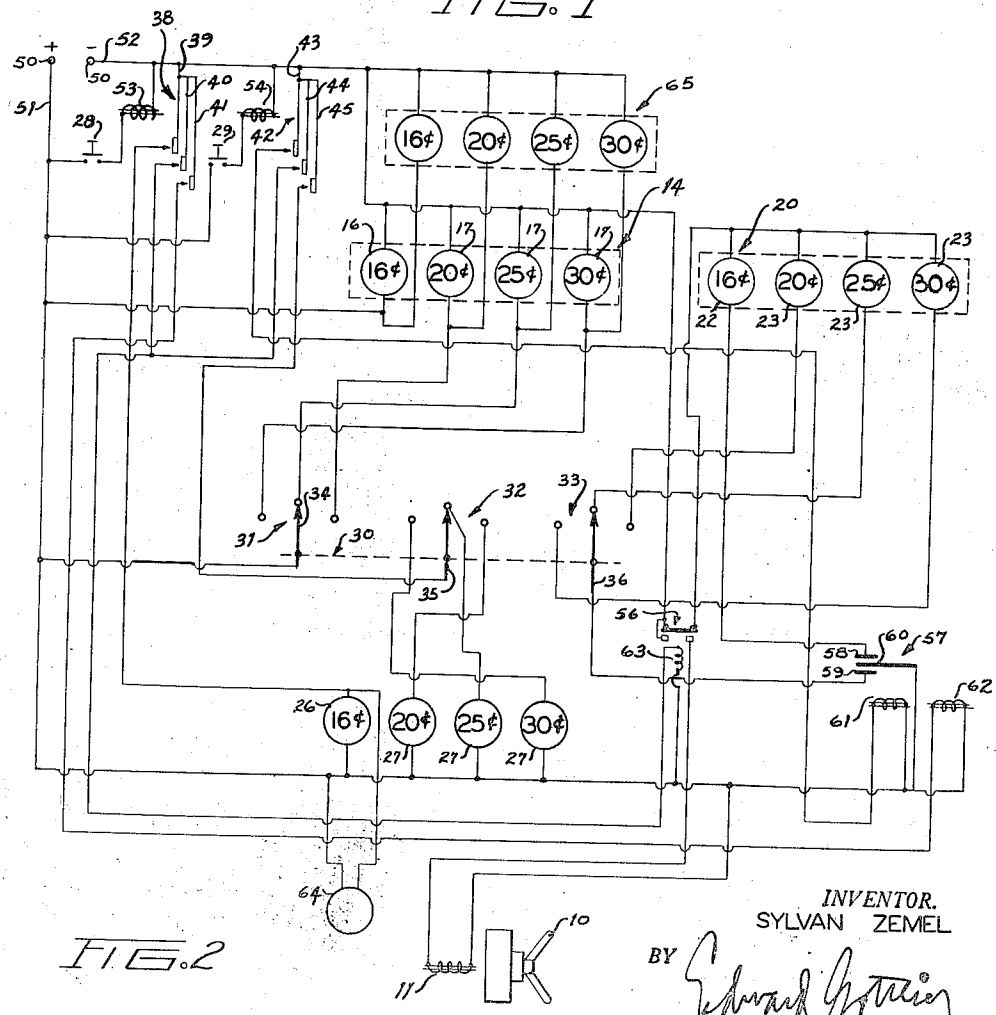


FIG. 2

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TURNSTILE CHECKING DEVICE

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2 Claims. (Cl. 177—337)

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This invention relates to new and useful improvements in checking systems used in conjunction with turnstiles or other types of devices used, or which may be used, in the admission of persons to any type of place where an admission is charged or where it is desired that a record be made of the attendance or patronage.

More specifically, the invention proposes to characterize the new checking system by providing a price board having a children's price lamp and a group of lamps for different adult prices, an admission board having a children's price lamp and a group of lamps for different adult prices, and a counter for each of said children's and adult prices. It is proposed to so arrange the device that records may be made of the total attendance as well as a break down of the number of each price admission, such as said children's price and the various adult prices charged. It is proposed to so construct the device that it may also be used where there is a single admission charge.

Another object of this invention resides in providing a gong or bell arranged to sound for each children's admission.

The invention also contemplates the provision of a duplicate price board for the manager's office or other desirable place connected in parallel with said price board so that the prices being charged may be checked at any time.

Another object of the invention is the construction of a device as described which is simple and durable and which may be manufactured and sold at a reasonable cost.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawing, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawing forming a material part of this disclosure:

Fig. 1 is a schematic view of a turnstile admission checking system constructed in accordance with this invention.

Fig. 2 is a schematic wiring diagram of the checking system shown in Fig. 1.

The turnstile admission checking system, and the like, in accordance with this invention, includes a turnstile 10 associated with an electric release mechanism, such as solenoid 11, for each admission. The details of this turnstile will not be given in this specification as it forms no part of the invention. A railing 12 is arranged so as to require persons to enter the theatre or other

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place via the turnstile 10. In the vicinity there is a price board 14 having different compartments 15 imprinted with various prices, such as for example, 16¢, 20¢, 25¢, 30¢, or other amounts, representing the price admission for children and adults. For example, 16¢ may be the uniform price for a child, while 20¢, 25¢ and 30¢ for an adult during different times of the day. This price board is provided with corresponding lamps to light up the particular price in effect. There is a children's price lamp 16 and a group of lamps 17 for the different adult prices.

Also in the vicinity of the turnstile 10 there is an admission board 20 having different compartments 21 provided with the different prices corresponding with the prices on the board 14, namely, 16¢, 20¢, 25¢, and 30¢. These prices may be selectively illuminated by a corresponding lamp 22 representing the children's price, and a group of lamps 23 representing the different adult prices. The establishment may be provided with a cashier's cage or other compartment in which there is a housing 25 containing a counter 26 and a group of counters 27. The counter 26 is for the children and the group of counters 27 for the adults at the different adult prices. The housing 25 is also provided with two push button switches 28 and 29. These switches respectively represent the children's admission button and the adult's admission button.

A selector switch 30 has three sets of contacts, indicated by reference numerals 31, 32 and 33 and contact arms 34, 35 and 36 for each of said set of contacts, respectively. The set of contacts 31 cover and control the selection of adult prices on said price board 14. The set of contacts 32 cover and control the operation of the group of counters 27 for the adult prices, and the set of contacts 33 cover and control the operation of adult prices of said admission board 20.

The push button switch 28 controls a three pole switch 38 for controlling a child's admission. This three pole switch 38 has a pole 39 for controlling the children's counter 26, a second pole 40 for controlling an impulse to the turnstile 10, and a third pole 41 for controlling the children's lamp 22 of said admission board 20. The push button switch 29 controls a three pole switch 42 for controlling an adult admission. This three pole switch 42 includes a pole 43 for controlling the group of lamps 23 of adult prices of said admission board 20 via the contact arm 36. Said three pole switch 42 has a second pole 44 for controlling an impulse to said turnstile 10.

Said switch 42 has a third pole 45 for controlling said adult counters 27 via said contact arm 35. The contact arm 34 controls the scale of adult prices on the price board 14 by controlling the group of lamps 17.

A source of electric current must be connected with the terminals 50 in order to supply current to the electric circuit having the positive lead 51 and the negative lead 52. The push button switch 28 is connected across the circuit 51, 52 and includes in series the coil 53 of a relay operating said three pole switch 38. The push button switch 29 is connected across the circuit 51, 52 and includes in series the coil 54 of a relay operating the three pole switch 42.

The set of contacts 31 are individually connected to the lamps 17 which in turn are connected in parallel with the lead 52. The lead 51 is connected with the contact arm 34. The contacts 32 are individually connected with the adult counters 27 which are in parallel and connected with the lead 51. The contact arm 35 is connected through the pole 45 of the switch 42 to the lead 52. The set of contacts 33 are individually connected with the adult lamps 23 of the admission board 20 which are in parallel with each other and connected through a single pole double throw relay 56 with the lead 52. The contact arm 36 is connected through a double pole double throw latch relay 57 with the lead 51.

The relay 57 controls whether current passes through the contact arm 36 or whether the current is bypassed merely through the children's lamp 22 of the price board 20. More particularly, the relay 57 has a pair of spaced contacts 58 and 59 and a movable contact arm 60. When the contact arm 60 engages the contact 59 the contact arm 36 is connected with the lead 51. However, when the contact arm 60 engages the contact 58 the children's lamp 22 is connected with the lead 51. The latch relay 57 is controlled by two coils, namely, the coils 61 and 62. The coil 61 is in the circuit 51, 52 through the pole 43 of the three pole switch 42, while the coil 62 is in the circuit 51, 52 via the pole 41 of the three pole switch 38. The single pole double throw relay 56 is operated by a coil 63 which is in the circuit 51, 52 and is controlled by either of the poles 44 or 40 of the switches 42 and 38, respectively. In the position of the relay 56, as illustrated on the drawing, the contact arm thereof connects the lead 52 in series with the lamps 22 and 23. When the coil 63 is energized the contact arm of the relay 56 will move to the adjacent contacts and connect in said circuit the solenoid 11, which operates the turnstile 10.

The turnstile admission checking system is also provided with a gong or bell 64 arranged in parallel with the children's counter 26 to sound for each children's admission. A duplicate price board 65 is provided for the manager's office or other desirable place, and is connected in parallel with the price board 14 so that the prices being charged may be checked by the manager at any time. For example, if the price board 14 shows the prices at the moment to be 16¢ for children and 25¢ for adults, the duplicate price board 65 will indicate these same prices. The relay 56 momentarily disconnects the admission board 20 for each admission to indicate a new admission. Thus if a child was admitted the admission board 20 will show "16¢." If another child is admitted the board first blanks out and then "16¢" reappears on it.

The operation of the device may be understood from the following:

The lamps 16 and 22 light up the children's price. As now posted the children's admission price is 16¢. If the children's price is to be changed it is only necessary to change the panels of the board 14, 20 and 65 to give the new price. The adult's price as set up may be 20¢, 25¢ or 30¢, depending upon the time of day. The admission price to be charged at any time is set by operating the selector switch 30. It is turned so that the three contact arms 34, 35 and 36 simultaneously engage one contact each of the three sets of contacts 31, 32 and 33. These contacts are so arranged that the identical prices will be shown on each of the boards. As now set the adult admission price is 25¢. The price board 14 will have the two prices 16¢ and 25¢ illuminated. 20¢ and 30¢ will be dark.

The cashier merely depresses one or the other of the push button switches 28 or 29 for each admission. If a child is to be admitted the push button switch 28 is depressed. This will actuate the three pole switch 38 which in turn will actuate the children's counter 26, the gong 64, the turnstile 10 and the children's price lamp 22. Consequently, the children's price 16¢ will become illuminated on the board 20 showing that a child has just been admitted. If another child is admitted the cashier merely presses the push button switch 28 again and the operation repeats, the board momentarily becoming dark, and then the 16¢ price lighting up again. If an adult is admitted the cashier presses the push button 29. This momentarily blanks the admission board 20 and then the 25¢ adult admission price lights up. Simultaneously, the turnstile 10 is operated to permit one admission and the 25¢ adult counter from the group of counters 27 operates to indicate the one admission.

The counters 26 and 27 will give the totals of each type of admission. These totals may be added together to give the total admission.

While I have illustrated and described the preferred embodiment of my invention, it is to be understood that I do not limit myself to the precise construction herein disclosed and the right is reserved to all changes coming within the scope of the invention as defined in the appended claims.

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

1. In an admission checking system, an admission board having a children's price lamp and a group of lamps for different adult prices, a selector switch having one contact for each of said adult price lamps and a contact arm selectively engageable with each of said contacts, electric lines connecting in parallel said contacts and said adult price lamps, a latch relay having two contacts and a movable contact arm for engaging either of said two contacts, said latch relay also having two coils one coil for engaging said contact arm with one of said two contacts and the other coil for engaging said contact arm with the other one of said two contacts, an electric line connecting one of said two contacts with said children's price lamp, an electric line connecting the other of said two contacts with said contact arm of said selector switch, an electric current return line connecting with all of said lamps, a current supply line connecting with said contact arm of said latch relay, and an electric current supplying circuit

for each of said two coils and including in series a push button switch for controlling each of said coils.

2. An admission system as defined in claim 1, including a relay for opening said current return line upon operation of either of said last named push button switches.

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