Jan. 29, 1963 F. J. CARMAN ETAL 3,075,699

COIN COUNTING MECHANISM

Filed Feb. 9, 1960

2 Sheets-Sheet 1

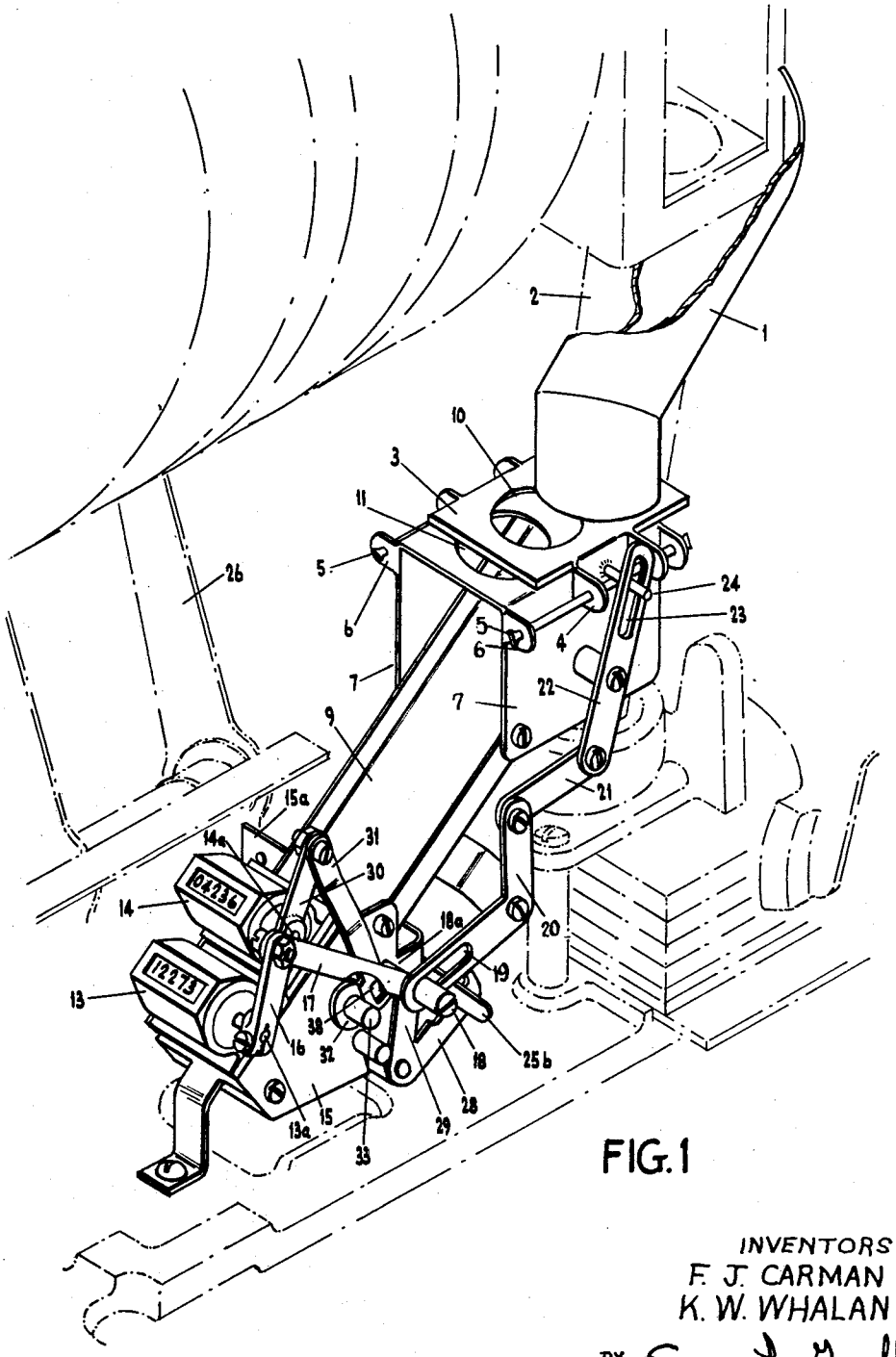


FIG. 1

INVENTORS
F. J. CARMAN
K. W. WHALAN

BY Emory L. Groff
ATTORNEY

Jan. 29, 1963 F. J. CARMAN ETAL 3,075,699

COIN COUNTING MECHANISM

Filed Feb. 9, 1960 2 Sheets-Sheet 2

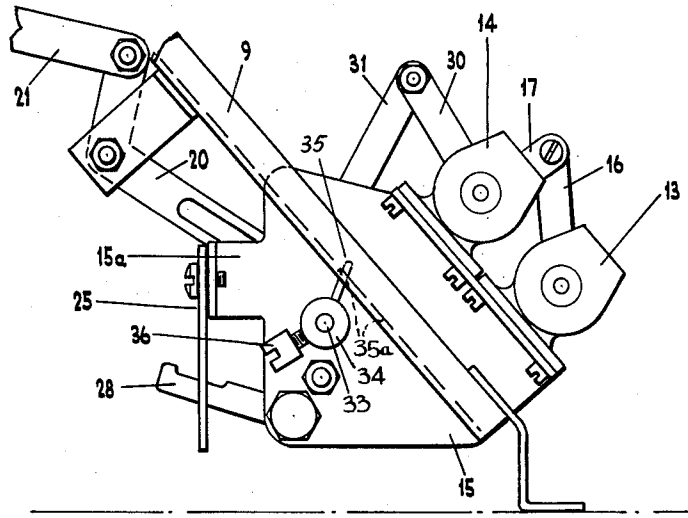


FIG. 2

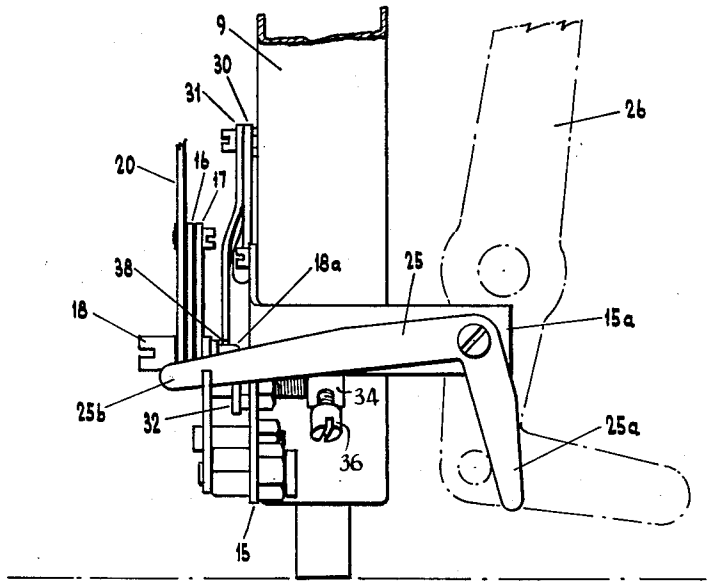


FIG. 3

INVENTORS
F. J. CARMAN
K. W. WHALAN
BY Emory L. Groff
ATTORNEY

United States Patent Office 3,075,699 Patented Jan. 29, 1963

3,075,699

COIN COUNTING MECHANISM

Francis James Carman and Kevin Wallace Whalan, Canowindra, New South Wales, Australia, assignors to Francis James Carman, Canowindra, New South Wales, Australia and George Thomas Peacock, Manildra, New South Wales, Australia

Filed Feb. 9, 1960, Ser. No. 7,661
5 Claims. (Cl. 235—100)

This invention has been devised to provide a coin counting mechanism which is particularly adapted to be incorporated in those machines generally termed "poker" machines.

The object of the present invention is to provide a counting mechanism which will count and record every coin which is inserted in the coin slot of a machine and which will operate in conjunction with a coin transfer mechanism incorporated in such machines to count and record the number of coins transferred by the transfer mechanism as profit for the proprietor of the machine.

Up to the present time, there has been no mechanical means on any poker machine to count the total coins inserted in the machine and of the percentage of these coins which pass to the proprietor of the machine as profit. The present invention overcomes this problem by providing mechanical means which will record the total of each group of coins. Thus, the present invention has the dual advantages of providing both totals so that any authorized person or persons can check these totals at any time and secondly, if the method of taxing such machines is changed from a flat rate, to a rated fee based upon the amount of money passed through the machine, this amount can be determined at any time.

In poker machines to which the invention is applied there is a coin magazine which is filled by the proprietor of the machine, before a playing period commences, with a predetermined number of coins. For example, in a "two-shilling" machine, the coin magazine may be adapted to hold 100 florins and these are placed in the magazine by the proprietor as stated. There is a transfer mechanism operatively associated with the playing handle of the machine, which is adapted to transfer the top coin from the coin magazine when the said coin magazine contains one coin in excess of the 100 basic coins, and this transferred coin represents profit for the proprietor of the machine.

According to this invention a machine of the type referred to has aggregate coin counting means connected through a linkage to the operating handle of the machine and adapted to be actuated thereby for counting and recording every coin inserted in the coin slot of the machine. Profit coin counting means have control means to operatively connect such means to the operating handle through the means which actuate the aggregate coin counting and receiving means. The control means are adapted to be actuated by coins moved by the machine's profit coin transfer mechanism to be deposited in a profit receptacle.

One embodiment of the invention is described with reference to the annexed drawings, wherein:

FIG. 1 is a perspective view of the counting and recording mechanism mounted in a machine of the type referred to.

FIG. 2 is a fragmentary side elevation.

FIG. 3 is a fragmentary rear elevation.

As illustrated, coin receiving chute 1 has its inlet located to receive the overflow of coins from a coin magazine 2 by the operation of a conventional profit coin transfer mechanism. The chute 1 terminates in juxtaposition to a slide plate 3. This slide plate 3 has side flanges

4 whereby it is slidably mounted on rods 5 fixed in lugs 6 on a U-shaped member 7 mounted on a coin slide 9. The slide plate 3 is adapted to be moved so that its slot 10 can be brought into register with the coin receiving chute 1 to convey one coin only to the slot 11 in the U-shaped member 7 through which the coin can drop onto the coin slide 9. The construction of these parts is such, that thus only one coin can pass on to the coin slide 9 when the number of coins in the magazine exceeds a determined number during operation of the machine. That is, the slide 3 will separate coins which become stuck together and will allow only one coin to pass down the slide 9.

Two recording meters 13, 14 are mounted on a bracket 15, one above the other, adjacent the lower end of the coin slide 9.

The lower meter 13 is an aggregate meter. Its operating shaft 13*a* has a crank 16 thereon and a rod 17, pivoted by one end to the crank 16, has a pin projecting through the other end, the two parts of the pin being marked 18 and 18*a* respectively. The part 18 projects into a slot 19 in one limb of a bell-crank 20 fulcrumed in a bracket in the machine. The other limb of the bell crank 20 is connected by a link 21 to a lever 22 fulcrumed on the U-shaped member 7. There is a slot 23 in the work end of the lever 22 and a journal pin 24 fixed on the slide plate 3, projects into the slot 23.

The aggregate meter 13 is actuated on each operation of the handle 26 of the machine by a bell crank 25 which is fulcrumed on a bracket 15*a* which is an extension of the bracket 15. One limb 25*a* of the bell crank 25 is engaged by a pin 26*a* on the handle 26 and is actuated thereby, while the other limb 25*b* thereof engages one limb 28 of a bell crank fulcrumed on the bracket 15. The other limb 29 of this bell crank is connected to the rod 17. By this arrangement, the aggregate meter 13 is actuated every time the handle of the machine is actuated and the actuation of the handle is of course, controlled by the deposit of a coin in the machine. The same movement actuates, through the linkage and components 19–24 the slide plate 3, to deposit a coin in the coin slide 9 in the event that there is a coin or coins in the chute 1.

The meter 14, which is the profit meter, has a crank 30 on its shaft 14*a*, and an arm 31 pivoted by one end to the crank 30, has its other end in engagement with a cam wheel 32 on a shaft 33 which projects across and beneath the coin slide 9. A collar 34 on the shaft 33 has a trip pin 35 fixed thereon and projecting through a slot indicated at 35*a*, FIGURE 2, in the floor of the coin slide 9. A counterbalance weight 36 fixed on the collar 34, holds the trip pin 35 normally in the track of a coin sliding down the coin slide 9, the weight of the parts being such that a coin moving down the slide 9, can move the trip pin 35 and continue its passage to a profit receptacle (not shown). The angle of the coin slide 9 is such that the coin can attain sufficient velocity to actuate the trip pin 35. The arm 31 has on the end of the part engaged by the cam 32, a hook 38 which by operation of the cam 32, is brought into engagement with the pin 18*a*, whereby the profit meter 14 is actuated by the mechanism actuating the aggregate meter 13. The operating sequence is that when a coin inserted in the machine is in excess of the basic number of coins in the coin magazine, it is transferred to the chute 1 and is deposited on the coin slide 9 by the slide plate 3 during that operation of the operating handle 26. This coin trips the pin 35 and rotates the cam 32, which in turn brings the hook 38 into engagement with the pin 18*a*. After the coin has passed the lever 35, the lever 35 and cam 32 are returned by counterbalance 36 to their normal position, and the arm 31 remains

raised. The profit meter 14 is actuated upon the next actuation of the operating handle 26, and the arm 31 thereupon falls down into engagement with the cam 32, and remains down until another coin passes down the coin slide 9 and trips the lever 35.

We claim:

1. Coin counting mechanism for use in machines of the type described, said machines including an operating handle, a profit coin transfer mechanism and a profit coin receptacle, said coin counting mechanism comprising aggregate coin counting means, a linkage connecting said aggregate coin counting means to said operating handle and adapted to be actuated thereby for counting every coin inserted in the coin slot of the machine, profit coin counting means and control means to operatively connect the profit counting means to the operating handle through the linkage which actuates the aggregate coin counting means, said control means being adapted to be actuated by coins moved by the profit coin transfer mechanism to be deposited in the profit coin receptacle.

2. Coin counting mechanism for use in machines of the type described, said machines including an operating handle, a coin magazine, and a profit coin transfer mechanism, said coin counting mechanism comprising a coin slide located to receive the overflow of coins from said coin magazine by the operation of said profit coin transfer mechanism, an aggregate coin counting meter mounted adjacent the lower end of the coin slide, actuating linkage connecting said aggregate meter to the operating handle of the machine, a profit counting meter mounted adjacent the aggregate meter, an actuating shaft connected to said profit counting meter, a crank on said actuating shaft, an arm pivoted at one end to said crank, means at the other end of said arm capable of engaging said actuating linkage of the aggregate meter, a trip pin located in a slot in the coin slide and adapted to be actuated by a coin passing down said slide, a shaft fixed to the trip pin and a cam on said shaft to cam said means at the other end of said arm into operative engagement with said actuating linkage.

3. Coin counting mechanism according to claim 2 including a coin receiving chute interposed between the profit coin transfer mechanism and the coin slide, a slide plate mounted on a member below the outlet of said chute said member having a coin delivery slot over the coin slide and offset from the outlet of said chute, said slide plate having a coin delivery slot therein, a linkage connecting said slide plate to the aggregate meter actuating linkage adapted to move said slide plate from its slots registering position with the chute to register with the slot in the member and back again each time the aggregate meter is actuated.

4. Coin counting mechanism according to claim 2 wherein the actuating linkage connecting the aggregate meter to the operating handle of the machine comprises an actuating shaft for the aggregate meter, a crank on said shaft, a rod pivoted by one end of said crank and by the other end to one limb of a bell crank, a second bell crank having one limb in actuating engagement with said first bell crank and the other limb in actuating engagement with the conventional selector arm of the machine.

5. Coin counting mechanism according to claim 4 wherein the rod pivoted to the crank on the aggregate meter shaft has a pin mounted in a slot in one limb of a bell crank, the other limb of said bell crank being connected by a link in turn connected by one end to a lever, said lever having a slot in the work end thereof and a pin fixed on the slide plate mounted in said slot.

References Cited in the file of this patent

UNITED STATES PATENTS

1,877,989	Schwartz	Sept. 20, 1932
1,933,082	Wallick	Oct. 31, 1933
1,986,771	Giles	Jan. 1, 1935
2,618,280	York	Nov. 18, 1952
2,812,182	Fiorino	Nov. 5, 1957