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D. PAPAETHEMEOU

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TAXIMETER FLAG CONTROL SYSTEM

Filed May 14, 1930

Fig. 1.

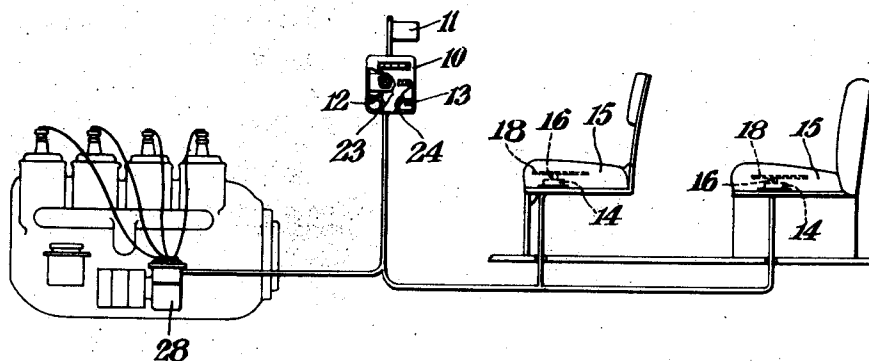


Fig. 2.

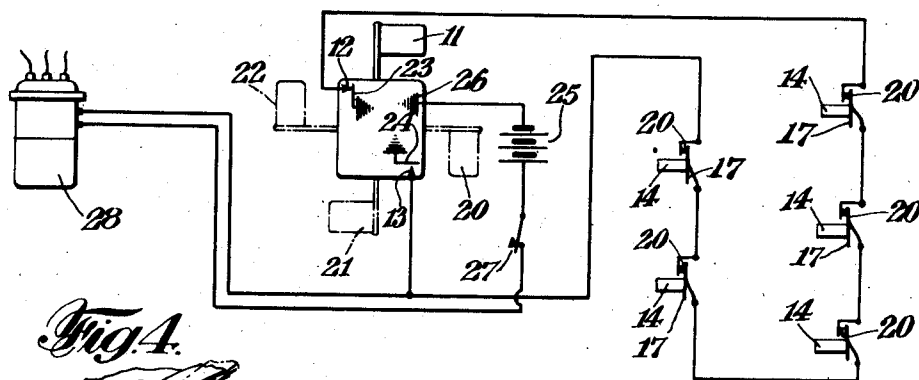


Fig. 4.

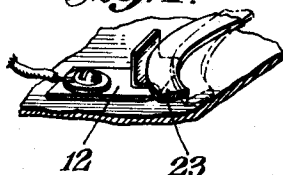


Fig. 3.

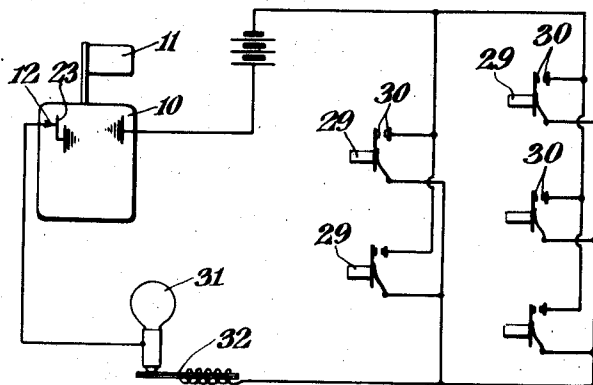
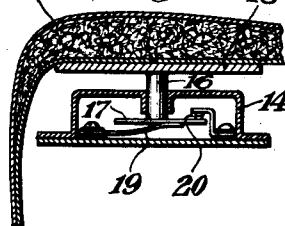


Fig. 5.



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TAXIMETER FLAG CONTROL SYSTEM

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This invention relates to a taximeter flag control system adapted for use on a taxicab. The object of this invention is to provide means for cutting off the ignition system and thereby preventing the operation of a cab having one or more passengers therein, when the taximeter flag is in the non-recording position. Another object of my invention is to accomplish the above result without interfering with the operation of the car when there are no passengers therein and when the flag is in the non-recording position, or when there are passengers therein and the flag is in the recording positions. A further object is to provide a method of periodically flashing a signal lamp when the taxicab flag is in its non-recording position and the cab has one or more passengers therein. Other objects, advantages and features of this invention will appear from the drawing, and the description hereinafter set forth.

Every taximeter for use on a cab is generally provided with a flag which is movable into various positions, each setting serving a different purpose. For example, the flag in its vertical upright position actuates the taximeter mechanism so as to render it non-recording; and in three other positions it actuates the mechanism so that, among other things, it will render it recording when the taxicab is in motion. The reason for the use of a flag instead of some hidden lever is to provide a visible indicator to show the state of the meter,—that is, whether it is set in a recording or non-recording position; and in this way to expose any attempt on the part of the chauffeur to cheat his employer, the owner of the cab, by pocketing non-recorded fares.

It is well known that this precautionary measure is inadequate. The flag, because of its size and the position of the taximeter, is comparatively inconspicuous, and very frequently it can be noticed only by a close observer, such as a passenger. It is hence not uncommon for a collusive arrangement to be entered into between the chauffeur and the passenger, whereby the passenger agrees to pay a flat rate, less than the taximeter rate would be, and the chauffeur sets the flag in

the non-recording position and pockets the proceeds.

To prevent an occurrence of this nature, I have conceived this invention, which automatically cuts off the ignition and prevents the operation of a car containing one or more passengers therein, when the flag is set in the non-recording position. As a further precautionary measure, I have provided an auxiliary signal system, comprising a prominently displayed electric light on the car, together with means to cause the periodic flashing of this light when the cab has a passenger therein, and the flag is in the non-recording position,—thereby giving notice in a conspicuous manner, that the chauffeur is unlawfully operating his employer's car.

Referring to the drawing,

Figure 1 is a representation of the ignition control system constituting part of my invention and showing the arrangement of seats with contacting devices thereunder, the taximeter with fragments of the cover broken away and with the flag thereon, distributor and motor, and cables and wires connecting the various parts.

Figure 2 is a diagrammatic representation of the ignition control wiring system.

Figure 3 is a diagrammatic representation of the flasher control wiring system.

Figure 4 is a perspective of a fragment of the taximeter showing the contacting device within the meter.

Figure 5 is a sectional elevation of a portion of a seat showing the contacting device thereunder.

Referring to the drawing, the taximeter 10 contains the flag 11 thereon, and the contact elements 12 and 13 secured to and insulated from the walls of the meter. The contacting devices 14 positioned beneath the seats 15, each contains a push button 16, which rests on the plate 17 and which is normally held against the board 18 by the action of spring 19. In the ignition control system shown in Figure 2, it will be seen that the contact points 20 are normally held in abutment by the said spring 19.

The vertical and upright position of the flag 11 denotes the non-recording state of the

taximeter; and in any of the other positions 20, 21 and 22 of the flag, the meter is set for full rate recording when the vehicle is in motion. Every taximeter of this type has a movable element 23 which serves the purpose of bringing into play the clockwork mechanism within the motor. This element can occupy but two positions,—one when the flag is in position 11 and the meter not recording; and the other when the flag is in positions 20, 21 and 22 and the meter is recording. Likewise, every taximeter of this type has another element 24, which serves the purpose of actuating a shutter over the window which shows the fare readings. Similarly, this element 24 can only occupy two different positions,—one when the flag is up in position 11 and the meter is not recording, and the other when the flag is in either of the positions 20, 21 or 22. The contact elements 12 and 13 are so positioned on the taximeter that when the flag is up in position 11, the element 23 will be in abutment with contact element 12, and the element 24 will be disengaged from the contact element 13; and when the flag is in positions 20, 21 or 22, that is, when the elements 23 and 24 will have moved to their respective second positions, the element 24 will be in abutment with contact element 13 and the element 23 will be disengaged from the element 12. It should be noted that the elements are in contact only when the clockwork actuating element 23 and the shutter operating element 24 are in their respective inoperative positions. In attaching the contact elements 12 and 13 to the taximeter these elements are so positioned with respect to the elements 23 and 24 that the above result will be accomplished. Such an arrangement is disclosed in Figure 4, the element 23 being shown both in contacting and disengaged positions.

Referring to Figure 2 it will be seen that one lead from the battery or source of current supply 25 is grounded to the meter at 26, and that the contacting devices 14 underneath the seats are all connected in series. Hence when the flag is up in position 11 and the switch 27 is closed, the circuit from the battery 25, through the contacting devices 14 and through the distributor 28 will be closed, and the ignition system will be in an operative condition. As soon as a passenger enters and takes a seat his weight will move the push button 16 down and separate the contacts 20. Should the flag remain up in position 11, that is in its non-recording position, the circuit through distributor 28 and ignition system will be broken and the car prevented from operating. This will occur regardless of where the passenger sits, as a contacting device can be placed under every seat. If the passenger leans over to one side, the pressure due to his weight will be transmitted through the board 18 to the pushbutton so that the de-

vice will be operative wherever the passenger sits.

When the flag is moved to the horizontal recording position 20, contact between the elements 12 and 23 is broken, and contact is established between the elements 13 and 24. When this occurs the contacting devices 14 are electrically disconnected from the ignition system, and a closed circuit is established through the battery 25, the elements 13 and 24, and the distributor 28. Hence with the flag in position 20, the car will operate with passengers seated in the cab and with the contacts 20 disengaged. Positions 21 and 22 of the flag denote waiting non-recording and waiting recording settings respectively, but taximeters are generally so designed that should the car be started when the flag is in either of these positions, the meter will operate to record full rate fares, just as if the flag were in position 20. Hence the operation of the system is the same for positions 20, 21 and 22.

The signal system shown in Figure 3 can be used either as an auxiliary to the ignition control system of Figure 2 or as an independent system. The same elements 12 and 23 can be used as in the ignition control system above described, but the contacting devices 29 are arranged in parallel as shown, and the contacts 30 are normally separated. The lamp 31 is placed on the outside of the car in some conspicuous position, and electrically connected to this lamp is a periodic contacting device 32, such as the bi-metallic flasher shown in the drawing. With no passengers in the car, and with the flag up in the non-recording position 11, the flasher will remain inoperative. Should the chauffeur fail to move the flag down from this non-recording position when a passenger is seated in the car, the circuit through the flasher will be closed by the contacting of elements 30 due to the weight of the passenger, and the resulting periodic flashing of the lamp will constitute an effective and conspicuous signal. However, when the flag is moved from position 11, elements 12 and 23 will become separated as in the ignition control system above described, and the contacting devices 29 will be electrically disengaged from the battery 25, so that the contacting of elements 30 will not affect the flasher 31.

Modifications of the details of the several parts illustrated, and variations in the arrangement of said parts, are to be understood to be within the scope of the invention, provided such modifications and variations fall within the scope of the following claims.

What I claim is:

1. In a taximeter flag control system, a plurality of electric contacting devices positioned underneath the seats of the taxicab, and consisting of two groups, a taximeter having therein a clockwork actuating member and a

shutter actuating member, each of said members being movable into an operative and an inoperative position by a single manipulation of a suitably positioned flag; two stationary contact elements fixed to and insulated from said taximeter, and each of said elements being so positioned with respect to one of said members as to contact therewith only in its inoperative position; a distributor circuit; electric signalling means and a circuit therefor; the contacting devices of said first group being electrically connected with a circuit containing said clockwork actuating member, said taximeter, and said distributor circuit; the contacting devices of said second group being connected with the circuit containing said clockwork actuating member, said taximeter, and said signalling means circuit; the said shutter actuating member being independently connected in series with the circuit containing said distributor.

2. In a taximeter flag control system, a seat; a plurality of electric contacting devices positioned thereunder; each of said devices containing a pair of contact points, and a pushbutton operable upon said contact points; a horizontally disposed board positioned under said seat and movable into co-operable engagement with said pushbuttons by the weight of a person upon said seat; a taximeter having therein two members each movable to two different positions by a single manipulation of a suitably positioned flag; two stationary contact elements fixed to and insulated from the taximeter and each being so positioned with respect to one of said members as to contact therewith in only one of its two positions and at alternate intervals; the said contacting devices being divided into two groups, the contacting devices of said first group being electrically connected with a circuit containing one of said two members, said taximeter, and the distributor circuit on the taxicab; the contacting devices of said second group being electrically connected with the circuit containing suitable electric signalling means, the other of said two members, and said taximeter; and means for independently connecting said taximeter with the circuit containing said distributor.

In testimony whereof I affix my signature.
DEMETRIOS PAPAEFTHEMEOU.