

J. R. MOODY.
 REGISTERING MECHANISM FOR DOORS.
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1,023,217.

Patented Apr. 16, 1912.

Fig. 1.

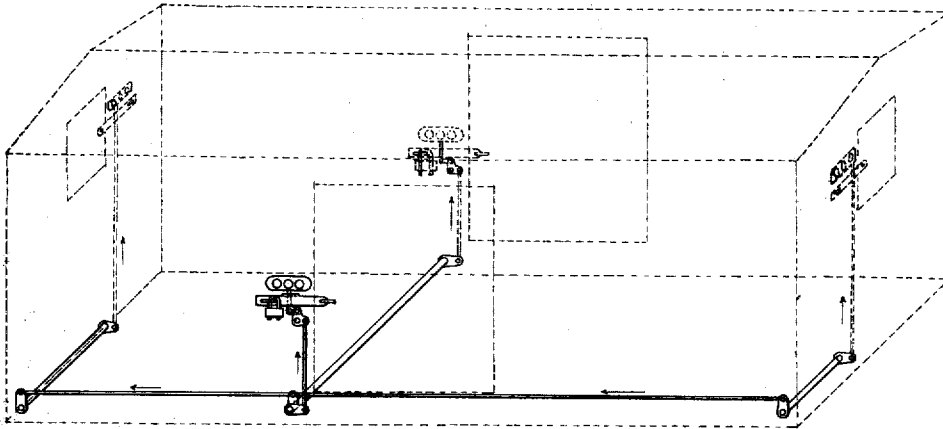


Fig. 2.

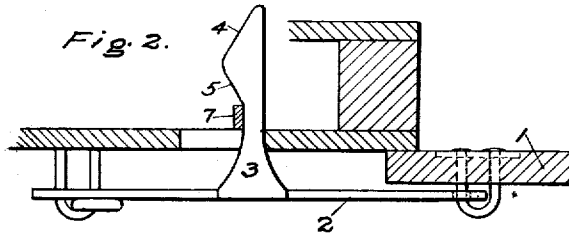
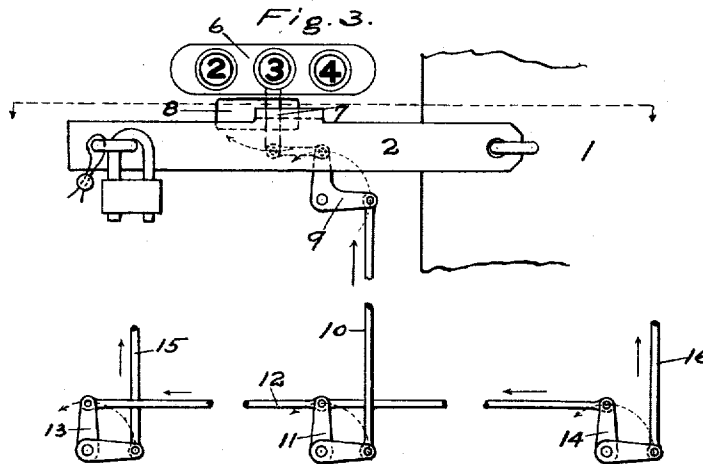


Fig. 3.



Witnesses.

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To all whom it may concern:

Be it known that I, JOHN R. MOODY, a citizen of the United States, residing in the city of Salem, county of Marion, and State of Oregon, have invented certain new and useful Improvements in Registering Mechanism for Doors, of which the following is a specification.

My invention relates to registering mechanism for doors, and more particularly to a mechanism and means for operating same, whereby the opening of any one of a number of doors, operates the registering mechanism of all of them, thereby indicating the number of times any one or more of said doors has been opened.

My invention is particularly adapted to car doors, and is useful for the purpose of determining how many times a car has been opened, no matter by which door, the opening of any one of the doors operating the registering mechanism of all the doors of the car.

It is the custom at present in closing a car door after it has been opened at any particular station on the line of railroad over which the car is being hauled, to seal it. After the car leaves the station it may be entered at any place along the road through any one of the doors, probably through the door on the opposite side of the car to that on which the next station comes, so that the fact that the car was entered by thieves will not be detected until that particular door is inspected. It often happens that the seals are broken, but it has been found that the seals can be manipulated and replaced so as to hide the fact that the seal was opened and replaced, unless it be detected by a very close inspection thereof.

The object of my invention is to provide a registering mechanism for each door of a car, which registering mechanism shall be hidden in the wall construction of the car so as to be away from manipulation, with just an opening through which the register can be read from the outside, and to operatively connect these several registering mechanisms with each other and with the door, or the latch mechanisms of the several doors of the car so that whenever one of the doors of that car is opened, the registering mechanism of each door will be actuated. If a car is opened at one station and again closed the station agent makes a record of the register, which indicates the

number of times the car has been entered by any of its doors up to that time. At the next station at which the car is opened, the record is again taken from the register. If the register shows the next regular number or mark in succession, the officials know that the car has not been opened or entered between stations. If the register shows other than the next regular number or mark, this indicates that the car has been entered between the two stations. By keeping a record at each station of the registers upon the cars opened in the regular course of business, it is possible to determine between what stations a car may have been opened and entered.

Broadly considered, therefore, my invention contemplates the idea of connecting several registering mechanisms for doors, whereby the opening of any one of a series of doors, actuates the registering mechanisms of all of the doors.

The invention will be readily understood from the foregoing and from the following description of one embodiment thereof, here used for purposes of illustration, in connection with the accompanying sheet of drawings, in which,—

Figure 1 is an outline, in perspective, showing a box car with my invention applied thereto; Fig. 2 is a fragmentary sectional view showing a latch mechanism of a car door and one method of using the latch mechanism for actuating the registering mechanism; and Fig. 3 is a face view of one form of registering mechanism, also showing one method of operatively connecting such registering mechanism with the other registering mechanisms of the system.

Referring now to the drawings illustrating one embodiment of the invention, and particularly to Figs. 2 and 3, a door 1 is provided with a latch bar 2, which is shown secured to the door and also attached to the body of the car by means of staples in the usual manner, said latch bar or member being provided with an operating finger 3 having two inclined actuating faces, as 4 and 5. Mounted upon the inside of the car and preferably inclosed in any desirable manner, is a registering mechanism, designated as a whole as 6. This may be of any suitable construction and any system of numbers or characters may be used. I have shown it as being operable by means of a short lever, as 7, adapted to be oscillated in

order to actuate the registering mechanism proper. This lever, as shown, is placed adjacent an opening or slot in the wall of the car, such opening being designated as 8, and being so positioned that when the latch bar 2 is put in place, as indicated in Figs. 2 and 3, the operating finger 3 of said latch bar passes through said opening or slot 8 and engages the lever 7, moving same sufficiently to actuate the registering mechanism. In the present illustration of the invention, each movement of the lever 7 gives a half turn to the registering mechanism, so that when the latch bar 2 is removed and the operating finger 3 is drawn out, the inclined face 5 thereof moves said lever 7 and actuates the registering mechanism a half turn. When the door is closed and the latch bar 2 is replaced, the finger 3, being again inserted into the slot 8, moves the lever 7, and thereby completes a full movement of the registering mechanism. The detailed mechanism to accomplish this function is well understood and need not be here shown, as any suitable construction may be adopted and made use of. The operating lever 7 of the registering mechanism is connected by means of a bell crank 9 to a rod 10, which in turn is connected through another bell crank 11 to a rod 12. The rod 12 preferably extends from one end of the car to the other and is connected through bell cranks 13 and 14 to rods 15 and 16, which are connected to the registering mechanisms of the end doors of the car.

The connecting rods to the several registering mechanisms are preferably hidden in the walls of the car, out of reach and secured against manipulation.

It is to be understood that any means of connecting the several registering mecha-

nisms so that the operation of any one of them will actuate all the others, and that any means of connecting them to the doors, or to the latch mechanisms of the doors, can be used, my invention being the connecting of several registering mechanisms of different doors so that the opening of any one of said doors will be indicated by all of the registering mechanisms of the system.

I claim:

1. In combination with a plurality of doors and the like, a registering mechanism for each door, means connecting said several registering mechanisms with each other whereby the operation of any one of said registering mechanisms actuates the others.

2. In combination with a plurality of doors and their latch mechanisms, of a registering mechanism for each door with operating connections whereby the unlatching and opening of said door operates said registering mechanism, and operative connections between said several registering mechanisms, whereby the operation of any of said mechanisms operates to actuate the other registering mechanisms, for the purpose described.

3. A registering mechanism for car doors comprising a register for each door, means connecting said door and said register, and a series of connecting rods and bell cranks between said several registers whereby the operation of any of said registers operates to actuate all of the others, substantially as referred to.

In witness whereof, I have hereunto set my hand this 29th day of July, 1911.

JOHN R. MOODY.

In presence of—

J. BEST,
L. C. SMITH.