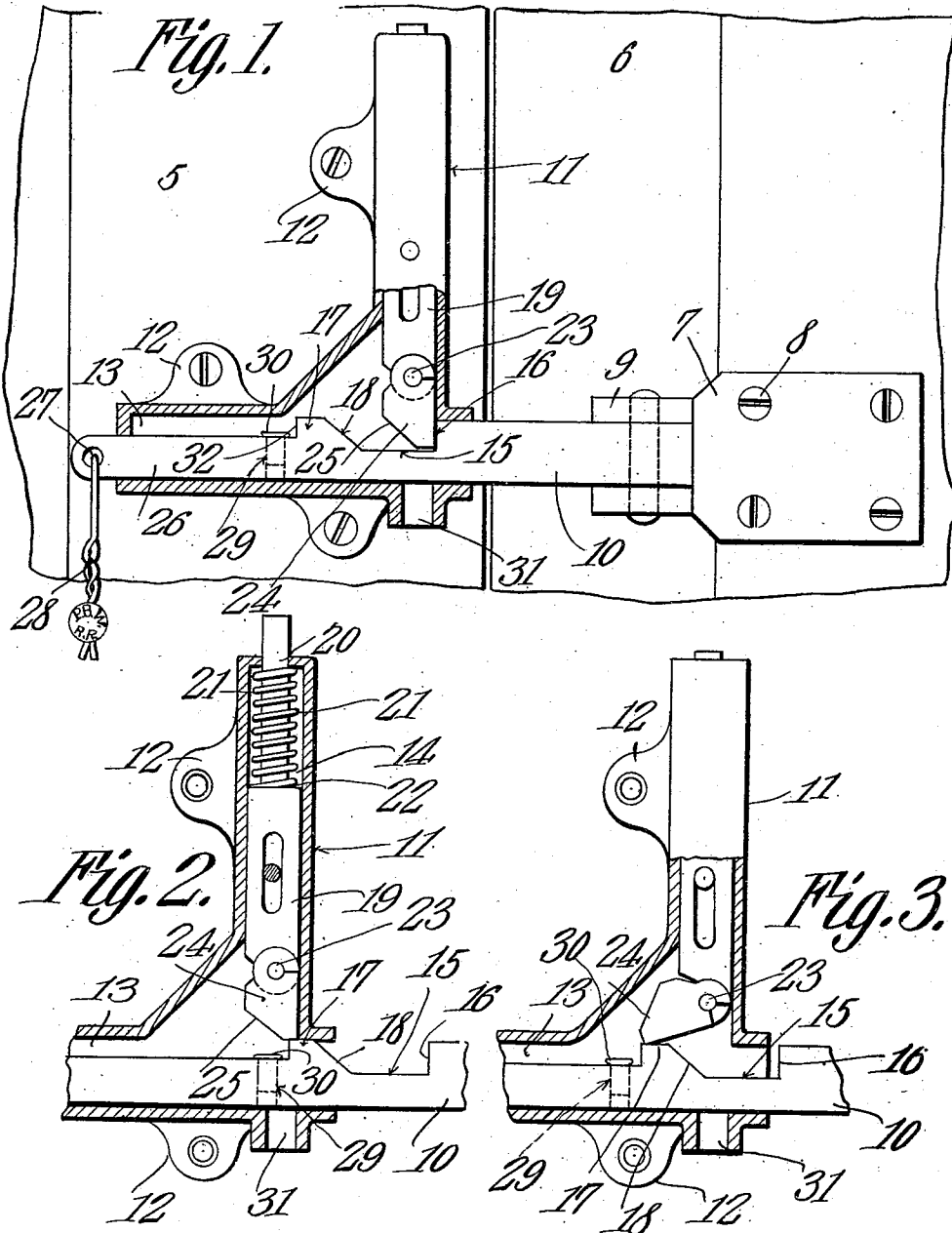


E. L. PENCE.
 DEVICE FOR PREVENTING THEFT FROM CARS.
 APPLICATION FILED FEB. 13, 1909.

968,494.

Patented Aug. 23, 1910.



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UNITED STATES PATENT OFFICE.

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DEVICE FOR PREVENTING THEFT FROM CARS.

968,494.

Specification of Letters Patent.

Patented Aug. 23, 1910.

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To all whom it may concern:

Be it known that I, EDWARD L. PENCE, a citizen of the United States, residing at Memphis, in the county of Shelby and State of Tennessee, have invented a new and useful Device for Preventing Theft from Cars, of which the following is a specification.

This invention relates to burglar alarms and more particularly to an alarm or signal especially designed for attachment to the sliding doors of freight cars and other railway rolling stock, thereby to warn the yard watch-man or other person that the cars are being tampered with.

The object of the invention is to provide an alarm or signal including co-acting members one of which is provided with a detonating cap and the other with a spring pressed plunger adapted to explode the cap and sound an alarm in case a person attempts to open the door and obtain access to the interior of the car.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings forming a part of this specification: Figure 1 is a front elevation partly in section of a burglar alarm constructed in accordance with my invention showing the parts in locked or operative position. Fig. 2 is a vertical sectional view showing the position of the pivoted tongue or detonating carrier when the door is partially open. Fig. 3 is a similar view showing the position assumed by the parts as the door is being moved to closed position.

Similar numerals of reference indicate corresponding parts in all of the figures of the drawings.

The improved burglar alarm forming the subject matter of the present invention is principally designed for attachment to freight cars and the like and by way of illustration is shown in position on a car of the ordinary construction in which 5 designates the body of the car and 6 the sliding door or closure.

The device includes a movable member or bracket 7 having one end thereof secured to the door 6 by screws or similar fastening devices 8 and its opposite end provided with

spaced ears 9 between which is pivotally mounted a longitudinally disposed tongue or detonating carrier indicated at 10.

Secured to the body of the car adjacent the door 6 is a casing or housing 11 having laterally extending attaching ears 12. The casing 11 is provided with communicating compartments 13 and 14 preferably disposed at right angles to each other, one of which is designed to receive the tongue 10. The upper longitudinal edge of the tongue 10 is provided with a locking recess 15 defining a stop shoulder 16, there being a lug 17 disposed at one end of the recess and having a beveled face 18 inclined in the direction of the base of the recess 15, as shown.

Slidably mounted in the compartment 14 is a spring pressed plunger 19, the upper end of which is reduced at 20 and extended through an opening in the top of the casing, there being a coiled spring 21 surrounding the extension 20 and interposed between a shoulder 22 on the plunger and the upper end of the casing for normally and yieldably supporting the plunger in lowered or extended position.

Pivotally mounted at 23 on the lower end of the plunger is an impact head or hammer 24 having one side thereof inclined at 25 to conform to the inclined face of the lug 17 so that when a longitudinal pull is exerted on the tongue 10, the inclined face 18 will bear against the inclined face 25 of the head and thus elevate the plunger against the tension of the spring 21. The free end of the tongue 10 is reduced at 26 and extended through the adjacent end of the casing 11, the reduced portion of the tongue being provided with an opening 27 for the reception of a car seal 28 of any approved construction. An opening or pocket 29 is formed in the reduced portion 26 of the tongue for the reception of a detonating cap or cartridge 30, the latter being exploded by impact with the hammer 24 when the car door is moved to open position. An exhaust port or opening 31 is preferably formed in the casing in alinement with the plunger 19 to permit the escape of the products of combustion incident to the explosion of the cap or cartridge 30.

When the door 6 is moved to closed position the tongue 10 will slide longitudinally within the compartment 13, thus causing the vertical face 32 of the lug 17 to tilt the head

24 on its pivot 23 to the position shown in Fig. 3 of the drawing, a further longitudinal movement of the tongue causing the recess 15 to register with the plunger and in which position the head 24 will drop by gravity into engagement with the shoulder 16. Should an attempt be made to open the door the initial longitudinal pull on the tongue 10 will cause the inclined face 18 of the lug to bear against the inclined face 25 of the head and elevate the plunger against the tension of the spring 21 to the position shown in Fig. 2 of the drawings. As soon as the lug 17 clears the head 24 the spring 21 will force the plunger downwardly in the direction of the tongue, thus causing the head to engage and explode the detonating cap 30, thereby to sound an alarm and warn the yard watch-man and other persons that the car is being opened.

When the car is in open position the tongue 10 may be swung laterally on its pivot to a position parallel with the exterior face of the door so as to be out of the way when loading and unloading the car.

While it is preferred to use a seal on the locking tongue it is obvious that the seal may be dispensed with without departing from the spirit of the invention.

Having thus described the invention what is claimed is:—

1. The combination with co-acting relatively stationary and movable members, a tongue pivotally mounted on one of said members and provided with means for supporting a detonator, a spring pressed plunger slidably mounted on the other member, and a head pivotally mounted on the lower end of the plunger and adapted to engage and explode the detonator when a longitudinal pull is exerted on the tongue.

2. The combination with co-acting stationary and movable members, of a tongue carried by one of the members and provided with means for supporting a detonator, a spring pressed plunger slidably mounted in the other member, a head pivotally mounted on the plunger and provided with an inclined face, a lug having a correspondingly inclined face adapted to engage the inclined face of the head for elevating the plunger when an initial longitudinal pull is exerted on the tongue, and means for actuating the

plunger to explode the detonator when a further pull is exerted on said tongue.

3. The combination with co-acting stationary and movable members, of a tongue carried by one of the members and provided with means for supporting a detonator and with a recess defining a stop shoulder, a spring pressed plunger slidably mounted in the other member, a head pivotally mounted on the plunger and adapted to bear against the shoulder on the tongue, said head being provided with an inclined face, a lug secured to the tongue and having a corresponding inclined face adapted to engage the inclined face of the head for moving the plunger to elevated position when an initial longitudinal pull is exerted on the tongue, and means for actuating the plunger to explode the detonator when a further pull is exerted on said tongue.

4. The combination with a car having a sliding door, of a bracket secured to the door, a tongue pivotally mounted in the bracket and provided with means for supporting a detonator, a casing mounted on the car and provided with intersecting chambers, one of which is adapted to receive the tongue, a spring pressed plunger slidably mounted in the other chamber, and a head pivotally mounted on the plunger and arranged to explode the detonator when the door is moved to open position.

5. The combination with a car having a sliding door, of a bracket secured to the door, a tongue pivotally mounted on the bracket and provided with means for supporting a detonator, a casing secured to the car and having intersecting chambers, one of which is arranged to receive the tongue, a spring pressed plunger slidably mounted in the other chamber and having a pin and slot connection with the casing, and a head pivotally mounted on the lower end of the plunger and arranged to engage and explode the detonator when the door is moved to open position.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

EDWARD L. PENCE.

Witnesses:

W. B. CLEVELAND,
Mrs. M. CAIN.