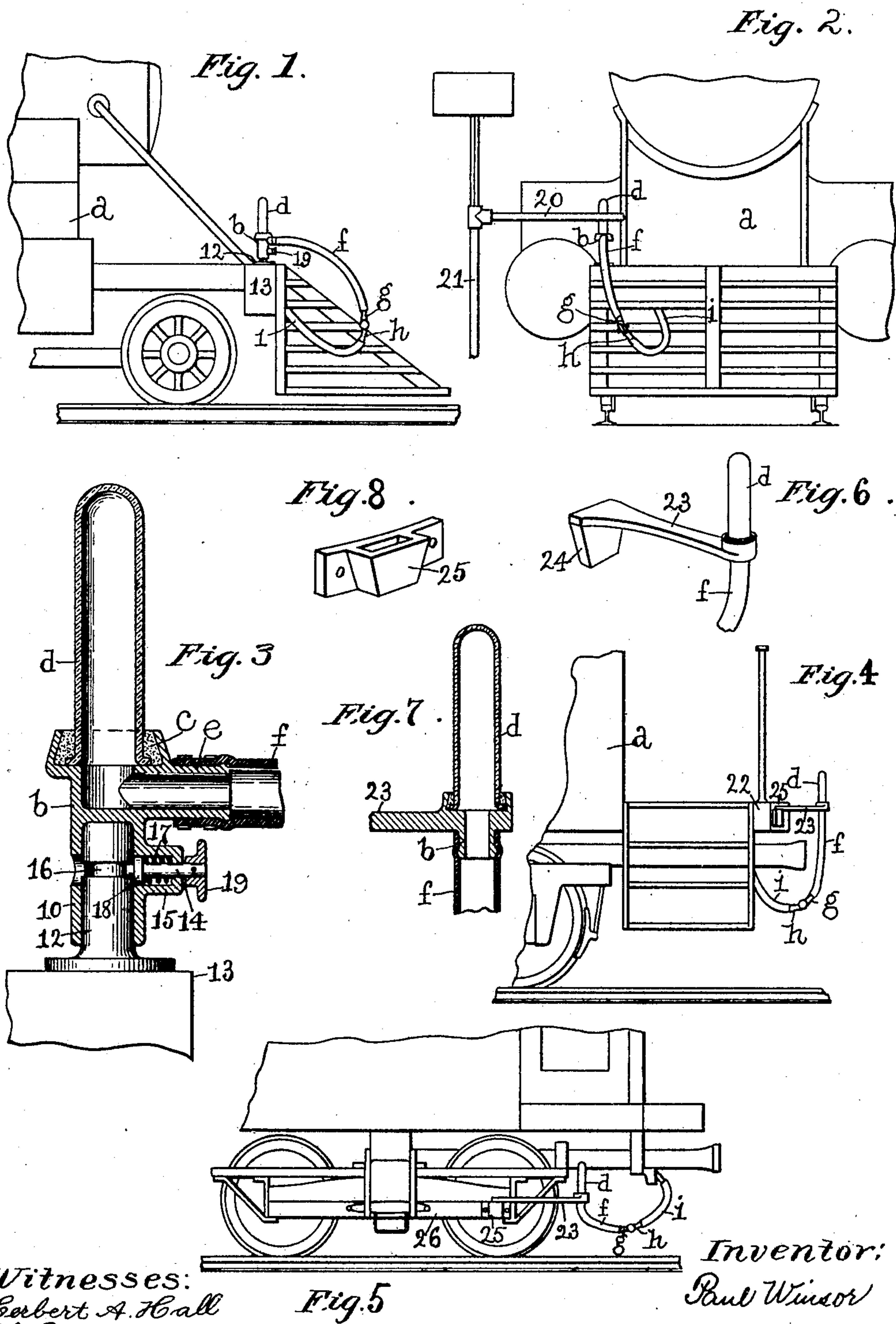


No. 878,263.

PATENTED FEB. 4, 1908.

P. WINSOR.
PORTABLE AUTOMATIC STOP MECHANISM FOR CARS.
APPLICATION FILED AUG. 21, 1907.



Witnesses:
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Fig. 5

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UNITED STATES PATENT OFFICE.

PAUL WINSOR, OF WESTON, MASSACHUSETTS.

PORTABLE AUTOMATIC STOP MECHANISM FOR CARS.

No. 878,263.

Specification of Letters Patent.

Patented Feb. 4, 1908.

Application filed August 21, 1907. Serial No. 389,475.

To all whom it may concern:

Be it known that I, PAUL WINSOR, a citizen of the United States, residing in Weston, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Portable Automatic Stop Mechanism for Cars, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to a portable automatic stop mechanism for use on railway cars and locomotives, employed on railways operating with steam, electricity, or other motive power.

The invention has for its object to provide a portable device, which is capable of being applied to either end of a car and operatively connected with the air brake system, so that said device when engaged by one of a series of actuating devices located along the tracks, will operate the air brake system to set the brakes and stop the car.

In accordance with this invention I employ a portable device having connected with it a standard brake or other coupling, whereby the device can be coupled to the train pipe of the air brake system by means of a coupling attached thereto, or to the regular coupling usually found at the ends of all locomotives, cars or trains.

Provision is made for supporting the device on the locomotive or car at either end in a position to be engaged by an actuating device located along the track.

These and other features of this invention will be pointed out in the claims at the end of this specification.

Figure 1 is a side elevation of a portion of a locomotive provided with an automatic stop mechanism embodying this invention. Fig. 2, a front elevation of the locomotive shown in Fig. 1. Fig. 3, an enlarged vertical section of the stop mechanism shown in Fig. 1. Figs. 4 and 5, modifications to be referred to, and Figs. 6, 7 and 8, details to be referred to.

In Figs. 1 and 2 I have represented one form of portable automatic stop mechanism applied to a locomotive *a*. The portable stop mechanism shown in Figs. 1, 2 and 3, consists of a chambered body *b*, to which is secured as by cement *c* or otherwise, a glass tube *d*, which is closed at its upper end and

open at its lower end to communicate with the chambered body *b*, which is provided as shown with a nipple *e*, to which is secured air-tight, one end of a flexible pipe or hose *f*, having attached to its opposite end a coupler *g* of any suitable construction, such as now employed on railway cars and which coöperates with a coupling *h* attached to or connected with the flexible pipe or hose *i* usually found at the ends of locomotives and cars equipped with the well-known air brake system.

The chambered body *b* provided with the frangible portion or glass tube *d* and with the hose section *f* having the coupler *g* constitutes a portable automatic stop mechanism, which is detachably secured to the car or locomotive so that it can be placed at either end thereof according to the direction in which the car or locomotive is running.

In Figs. 1, 2 and 3, I have illustrated one way of attaching the portable stop mechanism to the locomotive or car *a*, which consists of a hollow extension 10 projecting from the chambered body *b* and adapted to fit over a holder, shown as a post or upright 12 attached to the pilot 13 of the locomotive. The extension 10 may be secured to the post 12 by a locking pin 14 carried by a boss 15 on the extension and adapted to be forced into a groove 16 in the post or upright 12 by a spring 17 acting against a collar 18 on the said pin, which is provided with a suitable handle 19, by means of which, said pin may be disengaged from the post 12.

When the stop mechanism is placed in its operative position on the locomotive or car and coupled to the air brake system, it forms part of the latter and the air in said system may be released to apply the brakes, by venting the air brake system through the portable stop mechanism, which is accomplished as herein represented by breaking the glass tube *d*. The breaking of the tube *d* may be accomplished by an actuating device, which is projected into the path of movement of the portable stop mechanism. In the present instance, I have represented the actuating device as a horizontal arm 20 (see Fig. 2) attached to a vertical rod 21, which is located alongside of the track and may be suitably connected to the usual signal mechanism (not shown), so as to be turned into

the path of the stop mechanism when the signal goes to danger. The arm 20 may also be of frangible material, if desired, whereby it in turn will be shattered or otherwise injured, so as to give an indication that the automatic stop has been operated.

In Figs. 4 and 5, I have represented the portable automatic stop mechanism as applied to a railway car. In Fig. 4, the car *a* may be an ordinary passenger car, such as used on steam roads and the portable automatic stop mechanism is detachably secured to the platform 22 thereof. In this instance, the chambered body *b* is shown as a nipple (see Fig. 7) on the end of an arm or bracket 23, which is provided with a lug or finger 24 (see Fig. 6) to engage a socketed holder 25 (see Fig. 8) bolted or otherwise fastened to the platform of the car.

In Fig. 5, the holder 25 is shown as secured to the truck 26 of the car and the latter may be supposed to be an electrically operated car. It will be understood, that the car may be an ordinary freight car and the portable stop mechanism may be attached to the car body, its truck, or other part, and arranged so as to be engaged by the actuating device.

I have herein represented the chambered body as provided with a frangible portion, which is designed to be broken by contact with the actuating device, but I do not desire to limit my invention in this respect, as the chambered body may be provided with a valve or stop cock, whose stem is adapted to be struck by the actuating device so as to open the valve and vent the chambered body.

It will be observed that the automatic stop mechanism is portable and capable of being readily attached to either end of the car according to the direction in which the latter is traveling, and is also capable of being connected with the air brake system at either end of the car, train, or locomotive. Furthermore, it will be observed that but a single stop device is required for each train or car, and that the transfer to either end of the car can be effected in a substantially short time. So also, it will be observed that the portable stop mechanism is simple, inexpensive and can be adopted by any railway system at a minimum cost, as a single device for each car or train of cars, is sufficient.

By the term "car" as used in the claim, I desire to be understood as including a single car, either freight or passenger, a locomotive, or a train of cars.

If desired, the car coupler head may constitute the support or holder for the portable automatic stop, in which case the extension 10 may be inserted in the pin-hole in said coupler head.

Claims.

1. The combination with a car provided with an air-brake system, of a portable auto-

matic stop mechanism detachably secured to said car and comprising a chambered body portion, means to vent said body portion, a flexible pipe or hose connected with said chambered body portion, and a coupler attached to said pipe or hose and connected with the air brake system of the car, substantially as described.

2. The combination with a car provided with an air brake system, of a portable automatic stop mechanism detachably attached to said car and operatively connected with the air brake system, substantially as described.

3. An automatic stop mechanism for railway cars, comprising a chambered body having a frangible portion, a flexible pipe attached to said chambered body, and a coupler attached to said flexible pipe, substantially as described.

4. An automatic stop mechanism for railway cars, comprising a chambered body having a glass tube connected therewith, a flexible pipe attached to said chambered body, and a coupler attached to said flexible pipe, substantially as described.

5. An automatic stop mechanism for railway cars, comprising a chambered body normally closed air-tight and provided with means for venting the same, a flexible pipe attached to said chambered body, and a coupler attached to said flexible pipe, substantially as described.

6. The combination with a railway car provided with a holder, of a portable automatic stop mechanism having a chambered body provided with means for detachably securing said body to said holder, substantially as described.

7. The combination with a railway car provided at its opposite ends with a holder for an automatic stop mechanism, of said automatic stop mechanism having a chambered body provided with means for detachably securing said body to either of said holders substantially in an instant, substantially as described.

8. The combination with a railway car provided with an air brake system, of a portable automatic stop mechanism detachably secured to said car and to said air brake system to enable the said stop mechanism to be applied to either end of the car and connected with either end of the air brake system, substantially as described.

9. The combination with a car provided with an air brake system, of a portable automatic stop mechanism detachably attached to said car, and a coupler connected with said stop mechanism to form part thereof, substantially as described.

10. The combination with a railway car provided with an air brake system having a coupler, of a portable automatic stop mech-

anism detachably secured to said car, and a
coupler connected with said stop mechanism
and coöperating with the coupler of the air
brake system to detachably connect the
5 automatic stop mechanism with said air
brake system, substantially as described.

In testimony whereof, I have signed my

name to this specification in the presence of
two subscribing witnesses.

PAUL WINSOR.

Witnesses:

MARY H. MCKAY,
FREDERIC F. LOW.