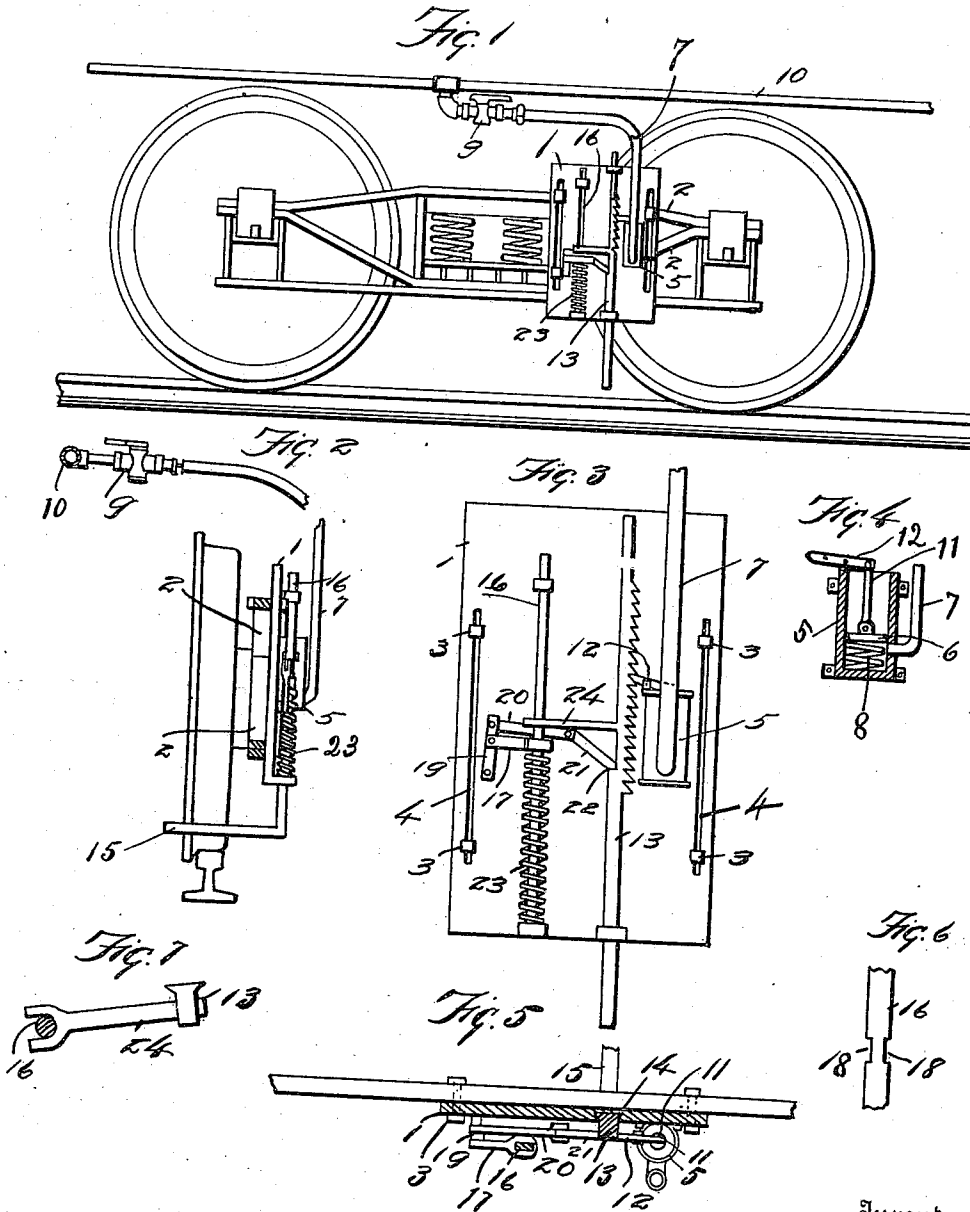


M. E. TROUTT.
 ACCIDENT BRAKE APPLIANCE.
 APPLICATION FILED MAY 24, 1910.

976,107.

Patented Nov. 15, 1910.



Witnesses:—

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ACCIDENT BRAKE APPLIANCE.

976,107.

Specification of Letters Patent. Patented Nov. 15, 1910.

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To all whom it may concern:

Be it known that I, MARTIN E. TROUTT, a citizen of the United States, residing at Fort Worth, Texas, have invented certain new and useful Accident Brake Appliances, of which the following is a specification.

My invention relates to devices for applying the brakes of a train in case of accident, and the object is to provide devices which will be automatically actuated to release the air of a train pipe in case of accident and thus apply the brakes throughout the train.

This invention relates more particularly to devices to be actuated by coming in contact with the rails of a railway in case of derailment.

Another object is to protect the brake applying devices themselves so that the brake applying devices will be removed to places of safety after the appliance of the brakes and still hold the brakes applied.

Other objects and advantages will be fully explained in the following description and the invention will be more particularly pointed out in the claims.

Reference is had to the accompanying drawings which form a part of this application and specification.

Figure 1 is a side elevation of a truck with the brake appliances mounted thereon. Fig. 2 is a front elevation of a car wheel, showing the relative position of the brake appliances. Fig. 3 is a detail elevation of the improvements, shown on a larger scale. Fig. 4 is a vertical section of the release valve, showing the manner of operating the same. Fig. 5 is a plan of the devices. Fig. 6 is a detail view of the guiding rod. Fig. 7 is a detail view of the arm for elevating the actuating member.

Similar characters of reference are used to indicate the same parts throughout the several views.

The drawings illustrate one way of mounting the brake appliances. A plate 1 is mounted on the arch bars 2 of the car truck by means of bolts 3, the plate 1 having slots 4 therein so that the plate 1 can be vertically adjusted. A valve 5 is mounted on the plate 1 and provided with a plunger head 6 movable therein. A flexible pipe 7 is connected with the valve 5 below the head 6 and the head 6 is supported above

the pipe connection by a spiral spring 8. The pipe is provided with a cock 9 and is connected with the train pipe 10. The head 6 is provided with a stem 11 pivotally connected thereto. The stem 11 is actuated by a lever 12 which is pivotally mounted or fulcrumed on the top of the valve 5. The lever 12 is actuated by a vertically movable rack 13. The rack 13 has a dove-tail connection 14 with the plate 1, the plate thus serving as a guide and means for holding the rack-bar 13 in operative position. The bar 13 carries an arm 15 which normally extends in front of the car wheel above the railway rail. The teeth of the bar 13 engage the end of the lever 12. In case of derailment, the car wheel drops down and the arm 15 strikes the rail. This forces the bar 13 upwardly and thus raises the end of the lever and depresses the head 6 below the pipe connection of pipe 7. This will apply the brakes or cause an application of the brakes. Means are provided for elevating the bar 13 still higher to prevent the same from being broken. A rod 16 is mounted on the plate 1. A pivoted clutch 17 engages the rod 16, the rod 16 being cut away at 18 to receive the clutch.

The clutch 17 is pivotally connected to a pivoted bar 19 and the bar 19 is pivotally mounted on the plate 1. The bar 19 carries an arm 20 which projects behind the rod 16 and a pawl 21 is pivotally connected to the arm 20. The pawl 21 engages a shoulder 22 on the rack bar 13. A spiral spring 23 is mounted on the rod 16 and is normally held compressed by the clutch 17. The rack bar 13 carries a forked arm 24 which engages the rod 16 and slides thereon when the rack bar 13 is elevated. The brakes are applied in the manner above stated, and in order to prevent the arm 15 from being broken, the rack is further elevated by the spring 23 which engages the arm 24 as the clutch 17 is shoved out of engagement with the rod 16. The shoulder 22 of the rack bar 13 engages the pawl and the pawl 21 moves the bar 19 backwardly, carrying the clutch 17. The spring 23 will elevate the arm 24 and the rack bar 13. The lever 12 will engage the teeth on the rack bar successively and hold the same at whatever height the rack bar be raised.

The mechanism herein shown will set the brakes in case of a broken axle, a broken journal, or a journal burned out, or in case of a broken arch bar, or in case of any other accident which would lower the truck.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is,—

1. A safety appliance for railway trains comprising a plate attached to a car truck, an air-controlling valve mounted thereon, a pipe connecting said valve with a train pipe, a rack bar slidably mounted on said plate and carrying an arm in proximity to the railway rail and extending above the rail, a piston in said valve, a lever fulcrumed on said valve and pivotally connected to said piston and projecting in the path of the teeth to be actuated by said teeth to open said valve, and means for guiding said rack bar in its vertical movement.

2. A safety appliance for railway trains comprising an air-controlling valve connected to the train pipe system, an actuating member operatively connected to said valve to open said valve in case of accident and carrying an arm above a railway rail, means for elevating said actuating member and holding the same elevated after the opening of said valve, and a rack on said actuating member for holding the valve open while elevated.

3. A safety appliance for railway trains comprising an air-controlling valve connected to the train pipe system, an actuating member operatively connected to said valve for opening the same in case of accident and carrying an arm above the railway rail, a spring for elevating said actuating mem-

ber after the opening of said valve, and means for guiding said actuating member.

4. A safety appliance for railway trains comprising an air-controlling valve connected to the train pipe system, a plate carrying said valve attached to the car truck, an actuating member operatively connected to said valve to open the same in case of accident and having a dovetail connection with said plate and slidable vertically thereon and carrying an arm above and in proximity to a rail of the railway, a spring for elevating said actuating member after the opening of said valve, means for normally locking said spring compressed, and means carried by said actuating member for releasing said spring.

5. A safety appliance for railway trains comprising an air-controlling valve connected to the train pipe system, a plate attached to the car truck and carrying said valve, an actuating member slidable on said plate and operatively connected to said valve to open the same in case of accident, a spring mounted on said plate for elevating said actuating member after the opening of said valve, tripping devices pivotally mounted on said plate for normally locking said spring compressed, and a shoulder carried by said actuating member for disengaging said tripping devices from said spring.

In testimony whereof, I set my hand in the presence of two witnesses, this 2nd day of May, 1910.

MARTIN E. TROUTT.

Witnesses:

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J. W. STEEL.