May 23, 1950 F. GILLESPIE 2,508,510

ATTACHMENT FOR RAILROAD CAR JOURNAL BOXES

Filed July 15, 1946

Fig. 1.

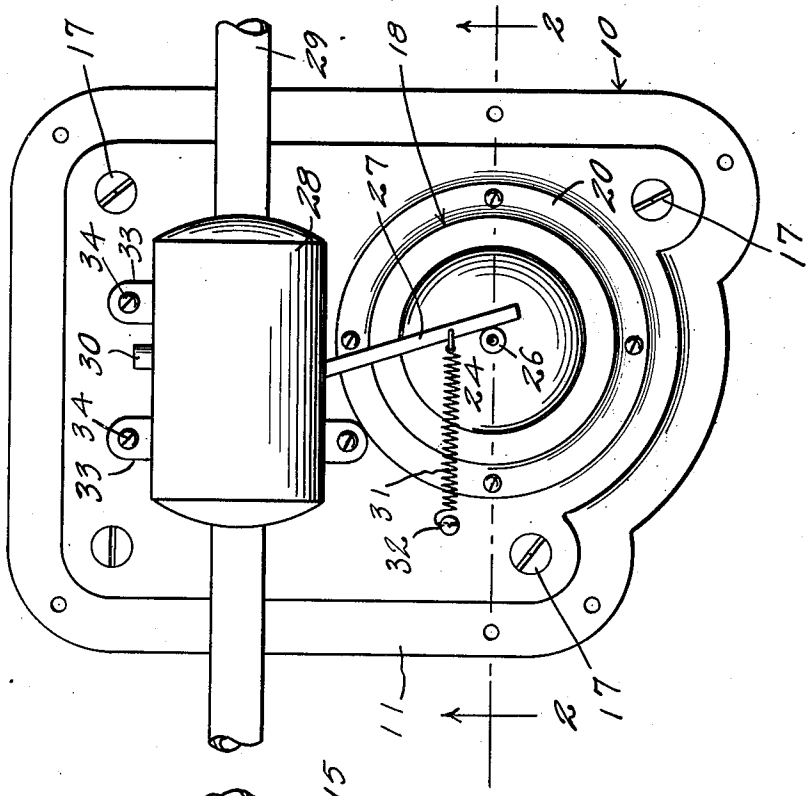
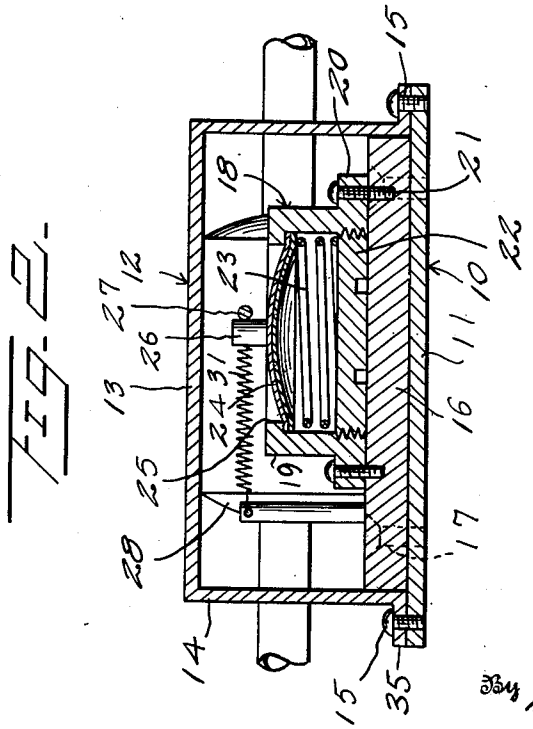


Fig. 2.



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ATTACHMENT FOR RAILROAD CAR JOURNAL BOXES

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2 Claims. (Cl. 246—169)

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This invention relates to journal boxes of rail cars and to an improved means for stopping the train when a journal becomes heated to a predetermined degree.

An object of this invention is to provide in combination with a journal box, thermostatically operated means correlated with the air brake system for setting the brakes when the journal box becomes heated to a predetermined degree.

Another object of this invention is to provide in a journal box and in combination with an air valve, automatically operable means for effecting operation of the air valve when the journal box becomes unduly heated.

A further object of this invention is to provide a simple, sturdy device of this kind which will readily withstand the strains and stresses incident to the use of the car.

With the above and other objects in view, my invention consists in the arrangement, combination and details of construction disclosed in the drawings and specification, and then more particularly pointed out in the appended claims.

In the drawings,

Wherein similar reference characters designate similar parts throughout the respective views,

Figure 1 is a top plan of an attachment for a journal box for regulating the operation of the air brakes in accordance with the temperature of the journal box,

Figure 2 is a sectional view taken on the line 2—2 of Figure 1.

Referring to the drawing, the numeral 10 designates generally a housing which is adapted to be mounted on the upper wall of a journal box. The housing 10 includes a bottom wall 11 and a cover, generally designated as 12. The cover 12 includes a top wall 13, right angular flanges 14 extending from the top wall 13, and outwardly extending base flanges 35 which are adapted to engage the base plate 11 and are adapted to be secured thereto by fastening members 15. The plate 16 is secured by fastening members 17 to the bottom wall 11 of the housing 10, and the plate 16 has mounted thereon a thermostatic valve operator generally designated as 18.

The valve operator 18 includes a cylindrical member 19 formed with an annular flange 20, which is secured by fastening members 21 to the plate 16. The cylindrical member 19 has threaded into the inner end thereof a spring tensioning plate or nut 22 bearing against the inner end of a spring 23. The spring 23 at its outer end bears against a bi-metallic plate 24 which is dished outwardly and which, at its marginal portion engages

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the inwardly projecting flange 25 carried by the cylindrical member 19. The bi-metallic member 24 has extending from the axial center thereof a roller 26 which is adapted to engage the elongated valve operating lever 27 so as to hold the lever 27 in valve opening position. An air valve 28 of conventional construction is disposed at one side of the thermostatic member 18 and is interposed in the air line 29 connected to the air brake of the rail car.

The valve 28 includes an air exhaust 30 for exhausting the air when the valve lever 27 is moved under the action of a spring 31 to valve cut-off position. One end of the spring 31 is connected to the valve lever 27 and the other end of spring 31 is secured to a post or pin 32 carried by the plate 16.

In the use and operation of this device, the housing 10 is mounted on the top of the journal box and the valve 28 which is formed with ears 33 is secured to one side of the thermostatic member 18 by fastening members 34. When the journal box becomes unduly heated, the thermostatic member 18 will move the valve lever holding roller 26 inwardly until this roller becomes disengaged from the lever 27. At this time the lever 27 will be moved under the action of the spring 31 to valve cut-off position so as to permit the release of air from the exhaust 30. This will cause the air brakes to become operative and thereby stop the train.

I do not mean to confine myself to the exact details of construction herein disclosed, but claim all variations falling within the purview of the appended claims.

Having thus described my invention, what I desire to claim is:

1. In an air brake valve attachment for a journal box having an air brake valve and spring pressed valve operating lever biased to braking position, a lever releasing device comprising a cylindrical body open at the ends thereof, an outturned flange at one end of said body for attachment to said box, an inturned flange on the other end of said body, a bi-metallic disc loosely disposed in said cylindrical body, a spring in said body biasing the periphery of said disc into engagement with said inturned flange and an upstanding lever engaging member on said disc normally restraining said lever in brake releasing position and releasable upon distortion of said diaphragm upon reaching an undue temperature of said journal box whereby said lever may be reset to brake releasing position, when said journal box is cool, by depressing said disc into said cylindrical body.

2. In an air brake valve attachment for a journal box having an air brake valve and a spring pressed valve operating lever biased to braking position, a lever releasing device comprising an open ended body for attachment to the journal box, a bi-metallic disc slidable in said body and normally bowed to an outwardly convex disposition, a valve lever engaging member on said disc normally restraining said lever in brake releasing position and releasable upon distortion due to overheating of said journal box, and spring means supporting said disc in the open end of said housing whereby said brake lever restraining member normally protrudes therefrom and said disc and restraining member may be depressed for resetting said lever when said journal box has cooled.

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