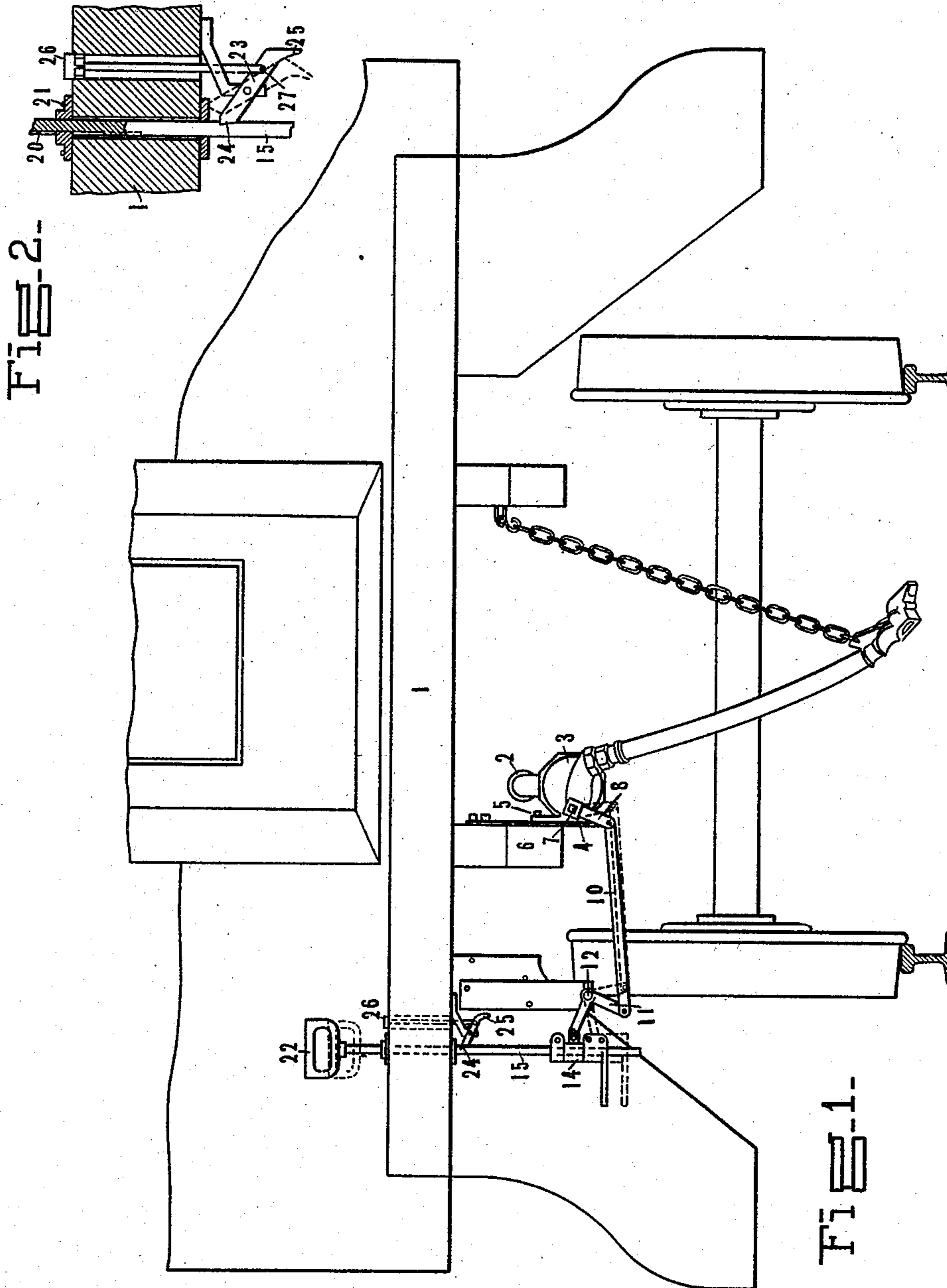


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 OPERATING MECHANISM FOR TRAIN PIPE VALVES.  
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# UNITED STATES PATENT OFFICE.

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## OPERATING MECHANISM FOR TRAIN-PIPE VALVES.

No. 915,907.

Specification of Letters Patent.

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*To all whom it may concern:*

Be it known that we, JOSEPH M. TOWNE and ELMER E. ALLBEE, citizens of the United States, residing at East Orange and Arlington, in the counties of Essex and Hudson and State of New Jersey, respectively, have invented certain new and useful Improvements in Operating Mechanism for Train - Pipe Valves, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to valve operating mechanism and more particularly to mechanism for operating valves adapted for use upon train pipes of railway cars or similar structures.

One of the objects of the invention is to provide new and improved mechanism for opening or closing a train pipe valve such that it may be manipulated from a position either above or below the platform of the car.

Another object thereof is to provide automatically locking means for the valve operating mechanism which may be conveniently manipulated to free the operating mechanism from its locked condition.

Other objects will be in part obvious and in part pointed out hereinafter.

The invention accordingly consists in the features of construction, combinations of elements and arrangement of parts which will be exemplified in the construction hereinafter set forth, and the scope of the application of which will be indicated in the following claims.

In the accompanying drawings, wherein is illustrated one of the various possible embodiments of our invention, Figure 1 is an end elevation of a portion of a railway car showing the same; Fig. 2 is a sectional view taken transversely through a portion of the platform of the car showing the locking means for the valve operating mechanism.

Similar reference characters refer to similar parts in both views of the drawing.

Referring now to the drawing, 1 indicates the platform of a railway car, beneath which extends a train pipe of usual construction, a portion of which is shown at 2. The valve, shown at 3, is mounted upon the end of the train pipe and is supported beneath the plat-

form of the car by means of a flange 4, which is secured as by means of bolts 5 to a strap 6, which, in turn, is secured to the sill of the railway car. Valve 3 may be of any desired character. In the present instance, however, said valve is of the type shown, described and claimed in the application of Elmer E. Allbee, filed April 16, 1908, Serial No. 427,319.

Extending from the stem 7 of the valve is an arm 8 to which is pivotally connected a link 10, the opposite end of said link being connected with one leg of a bell crank lever 11 pivotally mounted at 12 and in a hanger 13 supported beneath the platform of the car. The other leg of the bell crank lever 11 is provided with a pin which extends through a slot in a collar 14 mounted upon an operating rod 15. This rod extends upward through the platform of the car. Collar 14 is held against endwise movement along rod 15 by means of collars 16 and 17 fixed upon the rod, the lowermost of which is provided with a handle 18.

Rod 15, which is slidable upward and downward in platform 1, is held against rotation by means of a boss 20, provided on a floor plate 21 which is secured to the upper surface of the platform of the car, said boss entering a recess formed in the rod. A handle 22 is provided upon the upper end of rod 15 by means of which the same may be lifted. Rod 15 is held in the position shown in full lines of the drawings by means of a gravity operated locking member or trigger 23 which is weighted at its forward end, whereby when said rod is lifted it will fall into engagement with a notch 24 provided in the rod. Trigger 23 is provided with a tail piece 25 by means of which it may be manipulated from a position beneath the platform of the car to disengage the same from the rod. Trigger 23 may also be disengaged from said rod from a position above the platform of the car by means of a foot-piece 26 connected therewith at 27 and extending upwardly through the platform.

Having thus described the construction of this embodiment of our invention, the operation thereof is substantially as follows: When the valve is opened the operating mechanism is in the position indicated by the dotted lines. When rod 15 is slid up-

ward by the handle 22 to the position shown by the full lines, the valve is closed; trigger 23 automatically locking the same, as has been described. To open the valve it is only necessary to press the foot-piece downward, thereby disengaging the trigger from the rod, whereby the rod is free to move downward. When it is desired to open the valve from a position beneath the platform of the car, it is only necessary to press on the end 25 of trigger 23 to throw the latter out of locking position in the same manner as when operated from above the platform.

It will accordingly be seen that we have provided mechanism well adapted to attain, among others, all the ends and objects above enumerated. The operating mechanism is automatically locked when the valve is closed and this mechanism, as well as the locking means, may be conveniently operated from a position either above or below the platform of the car.

As many changes could be made in the above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense. It is also to be understood that the language used in the following claims is intended to cover all of the generic and specific features of the invention herein described and all statements of the scope of the invention which, as a matter of language, might be said to fall therebetween.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:

1. In a railway car or similar structure, the combination with the train pipe, of a valve mounted thereon, link and lever mechanism connected with the stem of said valve, a rod connected with said link and lever mechanism and extending upwardly through the platform of the car, said rod when raised, through said link and lever mechanism, being adapted to close said valve, and means for locking said rod in a raised position.

2. In a railway car or similar structure, the combination with a train pipe, of a valve mounted thereon, a rod extending upwardly through the platform of the car, link and lever mechanism connecting said rod with the stem of said valve, whereby when said rod is raised said valve will be closed, and means for automatically locking said rod in a raised position.

3. In a railway car or similar structure, the combination with the train pipe, of a valve mounted thereon, a rod extending upwardly through the platform of the car, link and lever mechanism connecting said rod with the stem of said valve, whereby when

said rod is raised said valve will be closed, and a gravity operated device for locking said rod in its raised position.

4. In a railway car or similar structure, the combination with the train pipe, of a valve mounted thereon, a rod extending upwardly through the platform of the car, a bell crank lever pivotally connected with said rod, an arm extending from the stem of said valve, a link connecting said bell crank lever with said arm, handles mounted upon said rod above and below the platform of the car, whereby the same may be raised, thereby through its connection with said valve, closing the same, and a pivotally mounted, gravity operating device for locking said rod in its raised position.

5. In a railway car or similar structure, the combination with the train pipe, of a valve mounted thereon, an arm extending from the stem of said valve, a link connected with said arm, a pivotally supported bell crank lever having one leg connected with said link, an operating rod extending upwardly through the platform of the car, a pivotal connection between said rod and the other leg of said bell crank lever, handles mounted upon said rod above or below the platform of the car, and a pivotally mounted, gravity operated member adapted automatically to lock said rod when the same is raised to operate said valve, said locking member being adapted to be moved to an unlocking position from a position either above or below the platform of the car.

6. In a railway car or similar structure, the combination with the train pipe, of a valve mounted thereon, an arm extending from the stem of said valve, a link pivotally connected with said arm, a pivotally mounted bell crank lever having one leg thereof connected with said link, a reciprocating rod extending upwardly through the platform of the car, said rod being provided with handles at its upper and lower ends, whereby the same may be reciprocated from a position either above or below the platform of the car, and a gravity operated locking member adapted automatically to lock said rod when the same is moved to an upward position, and means extending upwardly through the platform of the car for disengaging said locking member from said rod.

7. In a railway car or similar structure, the combination with the train pipe, of a valve mounted thereon, an arm extending from the stem of said valve, a link connected with said arm, an operating rod extending upwardly through the platform of the car, said operating rod being adapted to reciprocate with respect to said platform, means for holding said rod against rotation, a bell crank lever connecting said link with said rod whereby when said rod is lifted said valve will be closed, handles mounted upon

said rod at its upper and lower ends whereby the same may be operated from positions above and below said platform, a pivotally mounted, gravity operated member cooperating with said rod and adapted automatically to lock the same in its lifted position, means accessible from a position beneath the platform for disengaging said locking member from said rod, and means extending downwardly through the platform and connected with said locking member adapted when actuated to disengage said locking member from said rod.

8. In a railway car or similar structure the combination with the train pipe, of a

valve mounted thereon, link and lever mechanism connected with the stem of said valve, a rod connected with said link and lever mechanism and extending upwardly through the floor of the car, said rod when moved endwise being adapted to operate said valve, and means for locking said rod when the same has been moved endwise. 20

In testimony whereof we affix our signatures, in the presence of two witnesses.

JOSEPH M. TOWNE.

ELMER E. ALLBEE.

Witnesses:

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