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N. F. NIEDERLANDER.
DEVICE FOR OPERATING TRAIN PIPE COCKS.

APPLICATION FILED APR. 6, 1904.

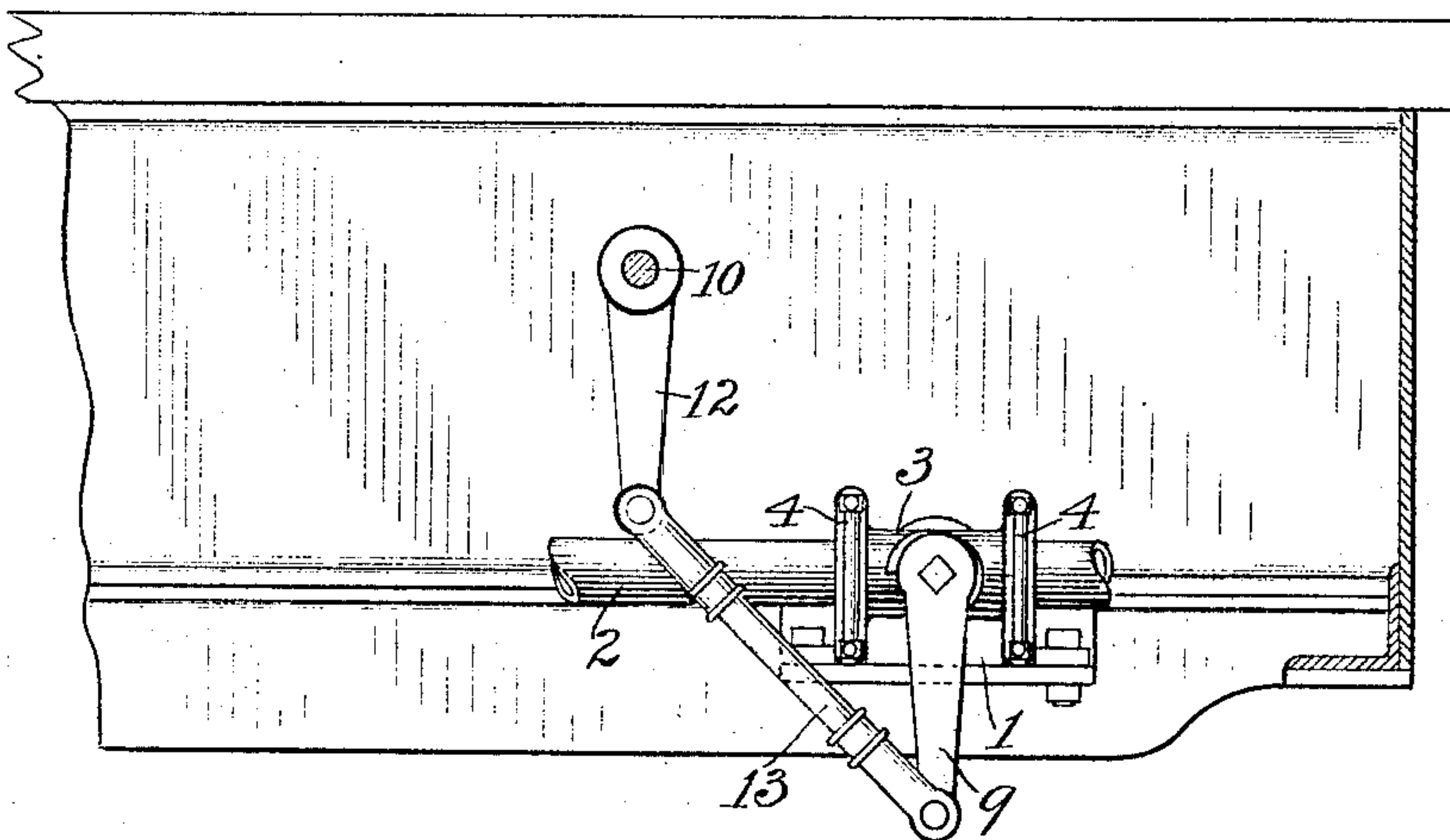


Fig. 1

Fig. 2

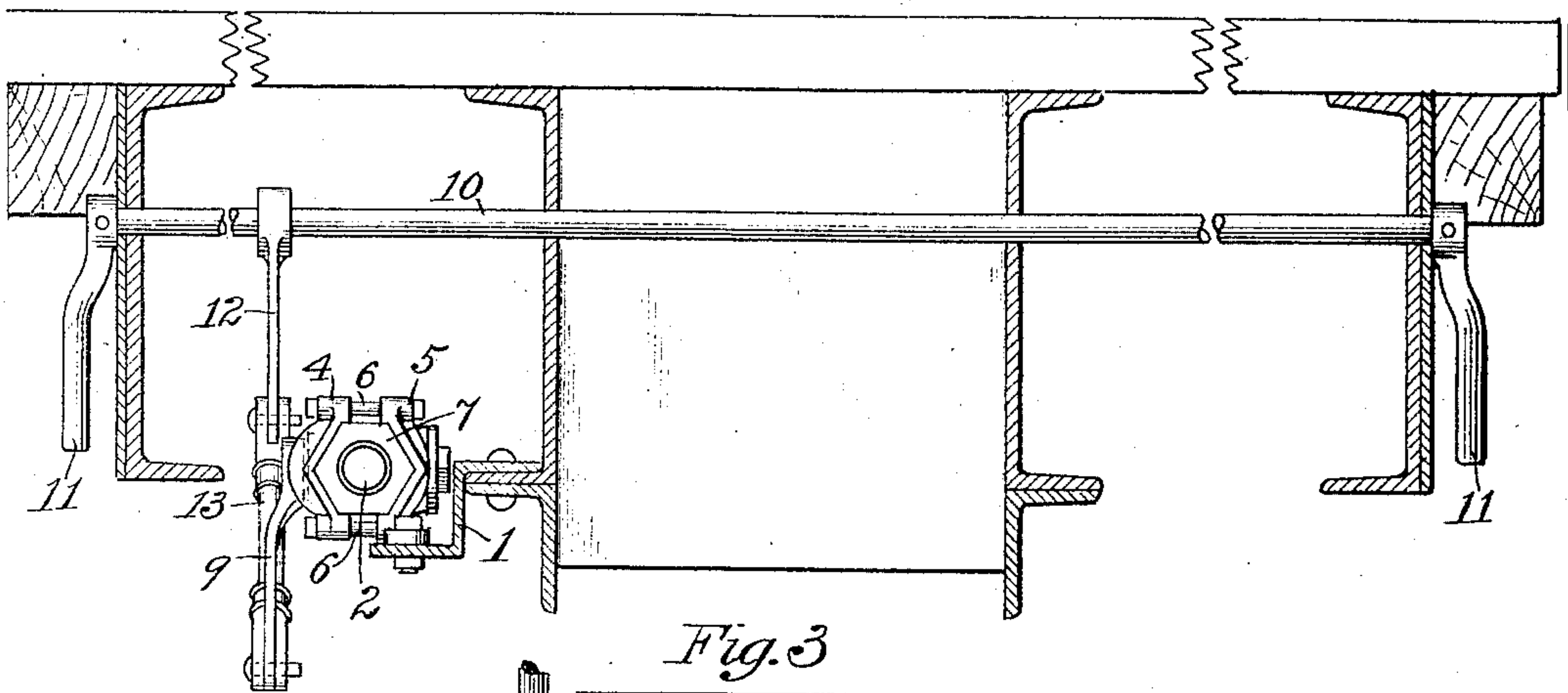
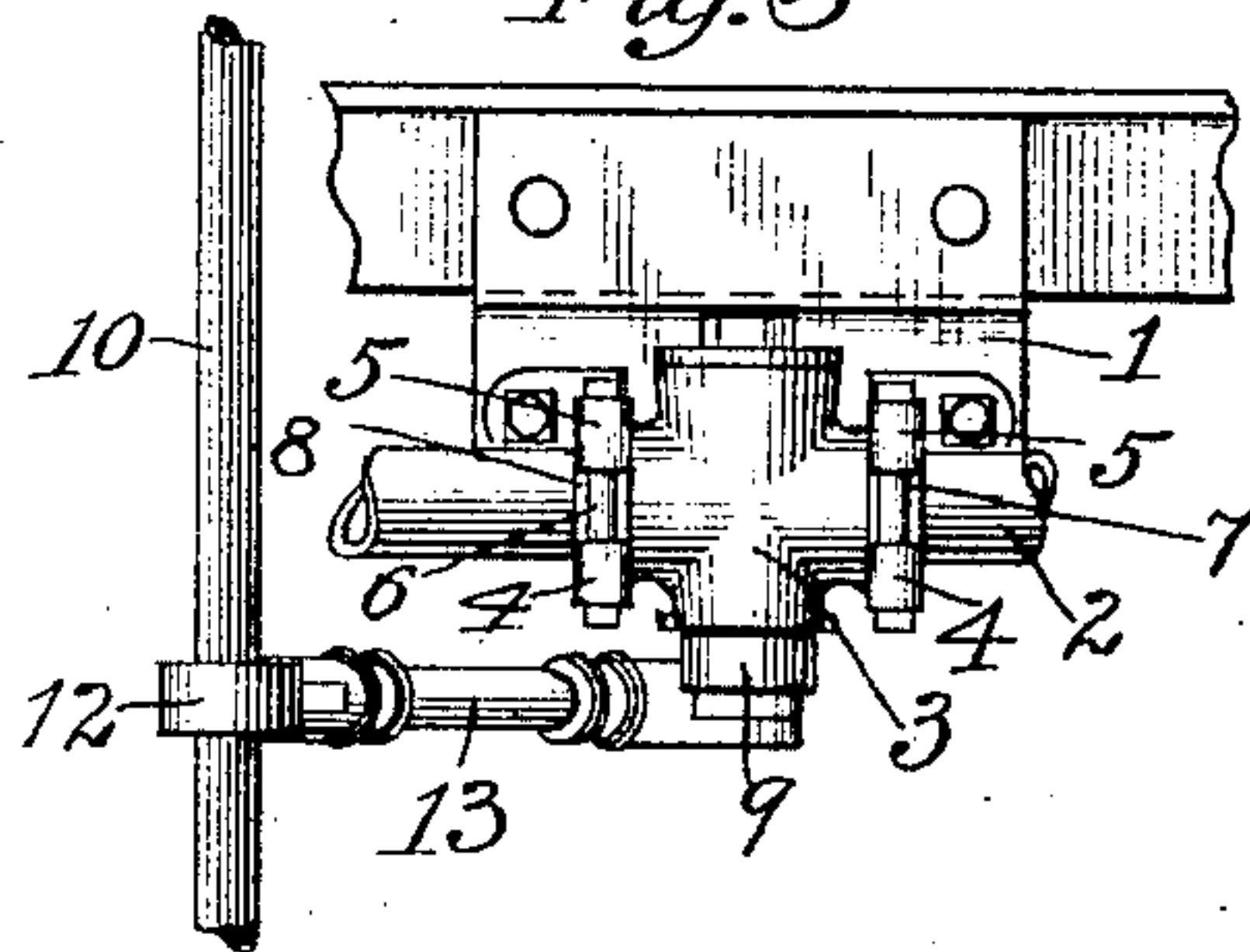


Fig. 3



WITNESSES

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UNITED STATES PATENT OFFICE.

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DEVICE FOR OPERATING TRAIN-PIPE COCKS.

No. 839,878.

Specification of Letters Patent.

Patented Jan. 1, 1907.

Application filed April 6, 1904. Serial No. 201,814.

To all whom it may concern:

Be it known that I, NICHOLAS F. NIEDERLANDER, a citizen of the United States, residing in St. Louis, State of Missouri, have invented a certain new and useful Improvement in Devices for Operating Train-Pipe Cocks, of which the following is a specification.

This invention relates to hand-operated devices for opening and closing stop-cocks or angle-cocks of train-pipes from the side of the cars and without going between the same.

In the coupling and uncoupling of cars which are provided with automatic car-couplers and automatic train-pipe couplings it is desirable that the angle-cocks or stop-cocks in the train-pipes at the ends of the cars also be operated from the side of the cars in order that it may be unnecessary to go between the cars for any purpose in connection with the operation of coupling or uncoupling of the cars.

Heretofore devices comprising a push-rod and a horizontally-movable lever for opening and closing train-pipe cocks from the side of the car have been proposed; but it often happens that the arrangement of sills and style of framework of the car-body is such as to preclude the use of the horizontally-movable lever beneath the car; and the principal object of my invention is to provide an improved mechanism embodying a vertically-movable lever for this purpose which may be readily applied to nearly any type of car-framing and be operated without any interference with the sills or floor-beams of the car.

In the accompanying drawings, Figure 1 is a longitudinal section of a portion of a car-frame, showing my improvement in side elevation; Fig. 2, a broken transverse section of the car-frame, showing an end view of my improved operating device; and Fig. 3, a plan view, the ends of the operating-shaft being broken off.

According to this construction a bracket 1 is secured in any convenient manner to one of the sills or floor-beams of the car-frame for supporting one or more train-pipes 2 and stop-cocks 3. A pair of clamps each composed of the members 4 and 5, secured together by bolts 6, is supported on the bracket 1, the clamp members being provided with angular seats adapted to fit over the hexago-

nal ends 7 and 8 of the cock-casing and securely hold the same in position, as clearly shown in Fig. 2.

The cock 3 is placed in a horizontal position and is provided with a vertically-movable lever 9 for operating the same.

An operating-shaft 10 in the form of a rock-shaft is placed transversely across the car and may extend directly through the longitudinal sills or stringers, as indicated, and can therefore be applied to nearly any type of car-frame. The opposite ends of this rock-shaft are provided with handles 11, which may also have any convenient stop device for retaining the handles in either position to which they may be set. Suitably mounted on the rock-shaft is the arm 12, which is connected by means of coupling-rod 13 with the lever 9 of the train-pipe cock.

By means of this construction the movable parts—such as the rocker-arm, coupling-rod, and cock-lever—all operate in a vertical plane, and therefore require very little space transversely beneath the car.

When it is desired to either open or close the train-pipe cock, one of the handles 11 at the side of the car may be turned through a certain angle, usually about ninety degrees, thereby actuating the rocker-arm and cock-lever through substantially the same angle, the usual stops being provided for defining the open and closed positions of the cock. It will now be seen that by placing the cock horizontally with its lever operating in a vertical plane, as shown, I have provided a very simple and efficient device for operating stop-cocks and one which may be applied to any and all forms of car-frames, since sufficient space is always available in a vertical plane between the sills to permit of the operation of this improved construction. It will also be evident that two or more cocks could be operated from the rocker-arm, if desired.

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

1. A device for operating train-pipe cocks, comprising a bracket secured to the car-frame, a clamp supported upon said bracket and holding the cock-casing, a cock-lever movable in a vertical plane, and means extending from the side of the car for operating said lever.

2. A device for operating train-pipe cocks, comprising a bracket secured to the car-frame, a clamp supported upon said bracket and holding the cock-casing, a cock-lever 5 movable in a vertical plane, a rock-shaft extending from the side of the car, and connections from said shaft to said cock-lever.

3. A device for operating train-pipe cocks, comprising a bracket secured to the car- 10 frame, a clamp supported upon said bracket and holding the cock-casing, a cock-lever movable in a vertical plane, a rock-shaft extending from the side of the car, an arm mounted on said shaft in substantially the 15 same plane with the cock-lever, and a rod connecting said arm with the cock-lever.

4. A device for operating train-pipe cocks, comprising a horizontally-located stop-cock with a vertically-movable lever, and means 20 extending from the side of the car for operating said lever to open and close the cock.

5. A device for operating train-pipe cocks,

comprising a horizontally-located stop-cock with a vertically-movable lever, and a transverse rock-shaft having an arm positively 25 connected to said lever.

6. The combination with a train-pipe and a cock located therein, of a transverse rock-shaft extending from the side of the car, and means operated by said rock-shaft for open- 30 ing said cock.

7. The combination with a train-pipe and a cock located therein, of a transverse rock-shaft extending from the side of the car, and a positive mechanical connection between 35 said rock-shaft and the cock-lever for opening and closing said cock.

In testimony whereof I have hereunto set my hand.

NICHOLAS F. NIEDERLANDER.

Witnesses:

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