

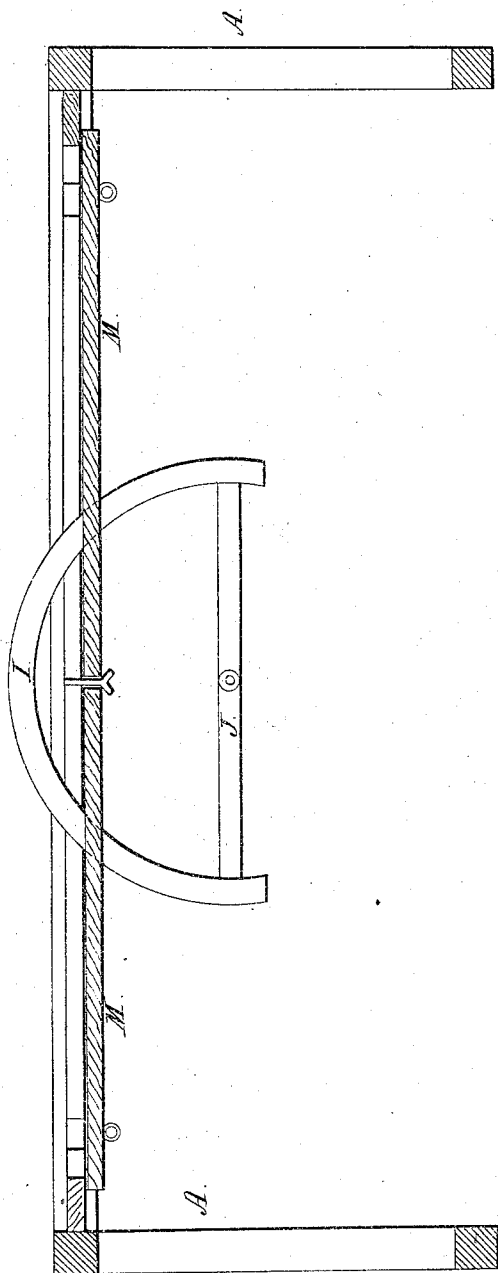
F. Gerrard.

Sheet 1,
2 Sheets.

Locomotive Water Pipe.

N^o 98,685.

Patented Jan. 11, 1870.



Inventor.

F. Gerrard

PER

Mumford
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Witnesses.

M. Voluntary

John Brooks

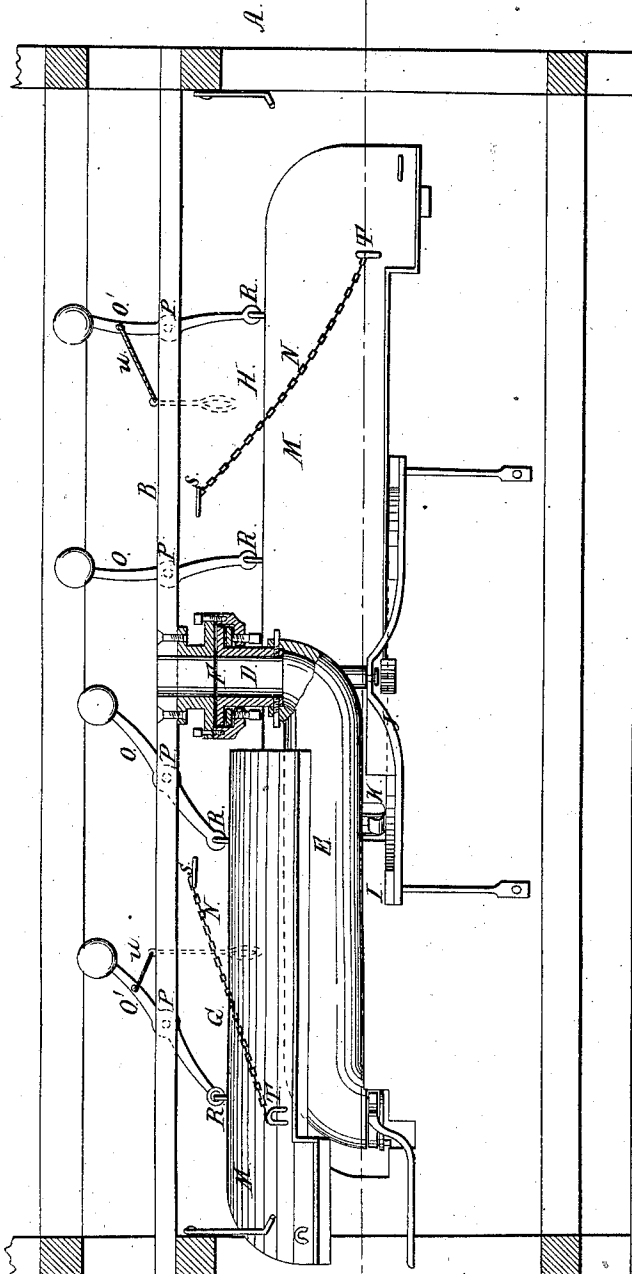
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Sheet 2,
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Locomotive Water Pipe.

N^o 98,685.

Patented Jan. 11, 1870.



Witnesses.

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FRANK GERRARD, OF KANSAS CITY, MISSOURI.

Letters Patent No. 98,685, dated January 11, 1870.

IMPROVEMENT IN WATER-SUPPLY PIPES FOR LOCOMOTIVES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, FRANK GERRARD, of Kansas City, Jackson county, State of Missouri, have invented a new and useful Improvement in Locomotive Water-Pipes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification.

This invention relates to a new and useful improvement in the construction and arrangement of feed-water pipes for locomotives at railroad watering-stations; and consists in the novel construction of the joint, and in so arranging it that it is entirely enclosed within the tank-house, by means of doors, when not in actual use, as will be hereinafter more fully described.

In the accompanying sheets of drawing—

Figure 1, sheet 1, represents an inside view of the tank-house, showing the water-pipe and the doors by which the pipe is enclosed.

Figure 2, sheet 2, is a vertical longitudinal section of fig. 1, through the line $x x$.

Similar letters of reference indicate corresponding parts.

A represents the tank-house.

B is the tank-tub floor.

C is the water-pipe, which is made in two parts, D and E.

The upper part, D, is so constructed that it connects with the old style of valve-seat at the bottom of the tank, forming a flanged joint, as seen at F, which allows the cast pipe E to freely swing in and out of the house, through the doorways G H.

I is a horizontal semicircular plate, in the form of the letter D.

The centre of the bar J forms a pivot-support for the centre of the vertical portion of the pipe, and the semicircular portion forms a track for the support of the pipe, when the latter is swung out for use.

K is a friction-roll attached to the bottom of the pipe E, which traverses the semicircle when the pipe is passed out through the doorways G H.

L L are braces for supporting the plate I.

M M are the doors, which are suspended from chains N, and from the weighted levers O by hinges.

P represents the fulcrum of the levers. The arrangement is such, that when one of the levers O of each door is thrown toward the centre, the doors (or either of them) will be thrown longitudinally in an opposite direction and raised by the chain N, so that the pipe will readily swing in or out.

The connections R act as hinges, on which the doors turn up when drawn upon by the chain N, one end of the chain being rigidly fixed to the side of the house, as seen at S S, and the other to the doors, as seen at T T. The pipe, thus arranged, moves perfectly easy, and no water can remain therein or be wasted, as the water has a free passage, and the joint works perfectly tight.

The doors M are so arranged that the pipe can swing in or out in either direction. They close by their own gravity, but the levers O O are operated from the outside by means of the cords $u u$, which pass through the side of the tank-house.

By this arrangement, the great damage and loss, occasioned by the freezing of the water-pipes at watering-stations in cold weather, are avoided, as the pipe can be kept within the tank-house, except when it is in actual use.

The advantages of this arrangement in other respects are many, and must be obvious to all who are acquainted with the subject.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the water-pipe, swivel-jointed at F, and having friction-roll K thereon, with the horizontal semicircular plate I, all arranged in the manner specified.

2. The combination of swinging doors M M, chains N, and pivoted and weighted levers O O, all arranged and operating as described.

3. The swivel-pipe joint F, formed in three parts, and coupled together as shown.

FRANK GERRARD.

Witnesses:

EDWARD A. PHILLIPS,

H. O. BREWER.