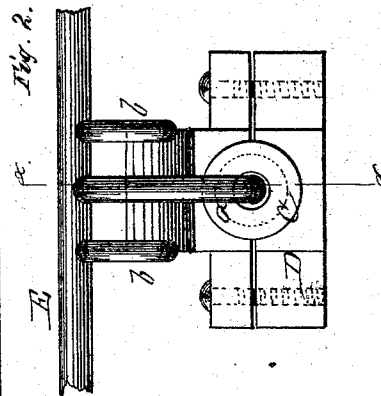
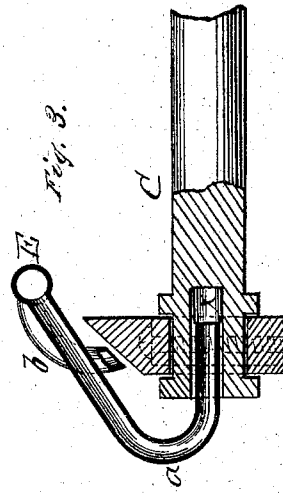
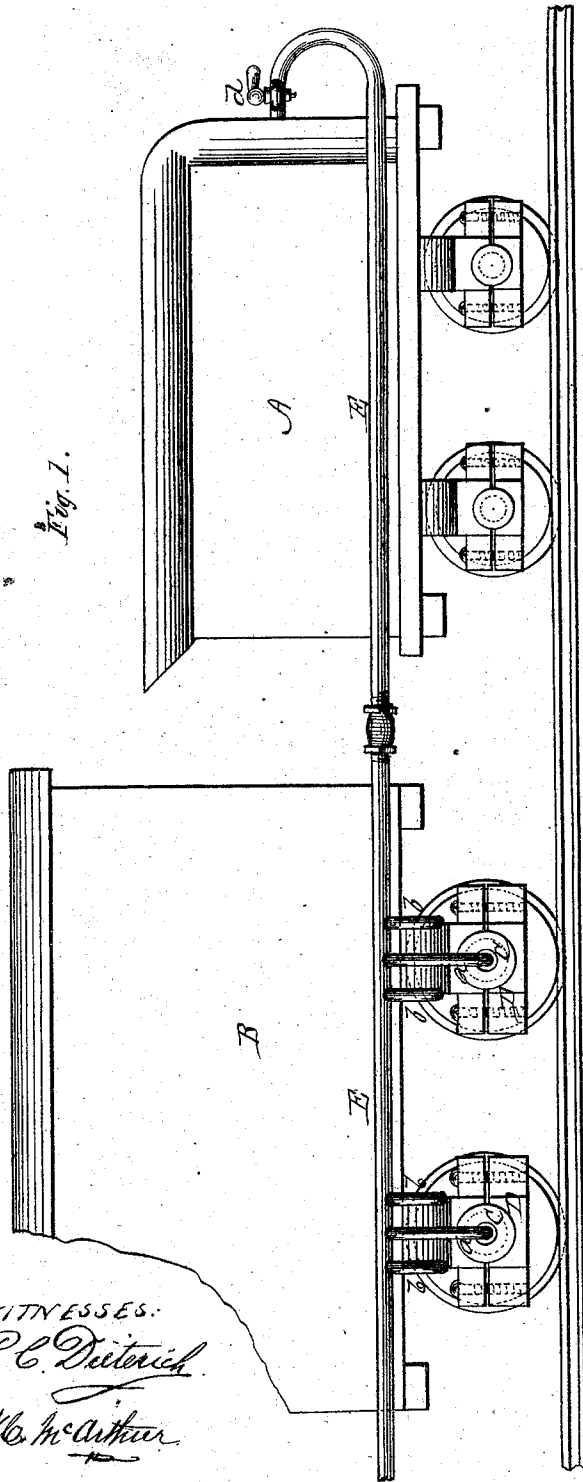


W. E. TINNEY.

Apparatus for Cooling Car-Axles.

No. 158,151.

Patented Dec. 22, 1874.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM E. TINNEY, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN APPARATUS FOR COOLING CAR-AXLES.

Specification forming part of Letters Patent No. **158,151**, dated December 22, 1874; application filed December 7, 1874.

To all whom it may concern:

Be it known that I, WILLIAM E. TINNEY, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Attachment for Railroad-Cars; 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 which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a device for cooling hot axle-boxes and journals on railroad-cars, as will be hereinafter more fully set forth.

In the accompanying drawing, Figure 1 is a side elevation of a tender and a railroad-car embodying my invention. Fig. 2 is an enlarged end view of a car-axle with axle-box, and my invention applied thereto. Fig. 3 is a longitudinal section of the same.

A represents the tender or water-tank of a locomotive, and B is a passenger-car connected thereto. C represents the axle of the car B, and D is the axle-box, all constructed in any of the known and usual ways. E represents a pipe leading from the water-tank A at a suitable height, and running the entire length of the train at or near the bottom of the cars, either on the outside or inside, as may be deemed most convenient. The pipe E will, of course, be made in sections and coupled together by flexible connections between the cars. From the pipe E, over each axle-box, extend three small pipes, *a* and *b b*. The pipe *a* is curved and its end inserted in the end of the axle C, which, for this purpose, has a longitudinal bore, *x*, in the end of suitable length. The pipes *b b* are located one on each side of the pipe *a*, and extend nearly to

the top of the axle-box D. In the pipe E, near its connection with the water-tank A, is a stop-cock, *d*, to shut off the water from the pipe. When this stop-cock is opened the water at once runs through the pipe E and through the small pipes *a* and *b b*, sprinkling and cooling the journal and the axle-box. The water may be admitted whenever desired by the fireman, by simply turning the stop-cock *d*, or it may be arranged to run continuously at any desired rate.

It is of course understood that there will be one of the continuous pipes E on each side of the cars. Any other liquid may be used instead of water, if desired, by connecting the pipes E with the tank or reservoir containing the same. The two side pipes *b b* may bear upon the side of the axle-box as well as upon the top.

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

1. In combination with the continuous water-pipe E, the curved branch *a* extending into a hole made in the end of the axle C, substantially as and for the purposes set forth.

2. In combination with the continuous water-pipe E the branches *b b*, with their ends bearing on the journal-box D, substantially as and for the purposes set forth.

3. The combination, with the water-tank A, axle-boxes D, and axles C, having holes *x* in their ends, of the continuous pipes E with stop-cocks *d* and branches *a* and *b b*, substantially as and for the purposes set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

WM. E. TINNEY.

Witnesses:

HENRY C. BANKS,
G. G. SATTLER.