J. S. McCLURE.

Improvement in Journal-Boxes.

No. 131,889. Patented Oct. 1, 1872.

Fig. 1.

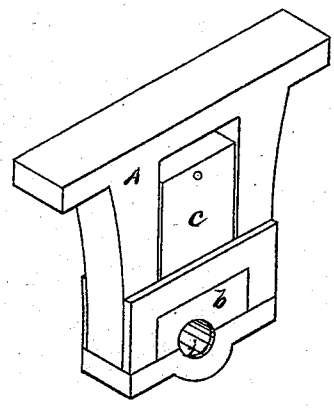


Fig. 2.

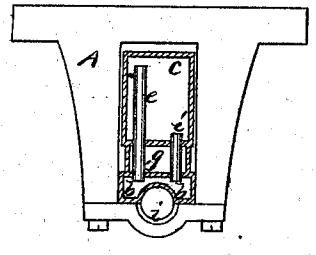
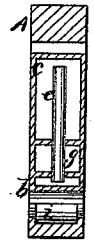


Fig. 3



Witnesses

J. L. Boone

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AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

JONATHAN S. McCLURE, OF GOLD HILL, NEVADA.

IMPROVEMENT IN JOURNAL-BOXES.

Specification forming part of Letters Patent No. **131,889**, dated October 1, 1872.

To all whom it may concern:

Be it known that I, JONATHAN S. McCLURE, of Gold Hill, Storey county, State of Nevada, have invented an Improvement in Axle-Boxes; and I do hereby declare the following description and accompanying drawing are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvement without further invention or experiment.

My improvements are especially applicable to the boxes of all kinds which are likely to become heated by the revolution of the journal. My improvements consist, first, in a water-tank attached to the box in such a manner as to keep the box cool, and prevent it from being overheated by the friction of the journal; and, secondly, in a novel arrangement for supplying oil to the journal for lubricating purposes.

In order to more fully illustrate and describe my invention, reference is had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a perspective view; Fig. 2 is a side sectional elevation; and Fig. 3 is an end transverse section.

A represents an iron frame for receiving the axle-boxes. The upper part *b* of the box, against which the journal bears, is made hollow, and a small tank, *c*, is connected to it by pipes or tubes *e e'*, so that the tank shall be supported by the pipes at a short distance above the box. The tank *c* is of the proper size to slip up between the legs of the frame A above the box and fit snugly between them. The pipe or tube *e* extends from near the top of the tank down through the bottom of the tank, into the hollow upper section *b* of the box, while the tube *e'* extends from near the bottom of the tank into the same section *b*. The tank *c* is to be kept filled with water which will always fill the upper section of the box, and as the box becomes heated by the friction of the journal the steam and hot water caused by the heat will rise through the tube *e* into the upper part of the tank, while the cold water in the lower portion of the tank will descend into the hollow box, and thus keep up a circulation of water, which will prevent the box from overheating. The space between the tank and hollow upper section of the box I inclose, so as to form an oil-reservoir, *g*. A suitable conduit or passage is then made from this reservoir down to the journal, so that the oil will feed down as required. The under side of the box is channeled out below the journal at *i*, and this channel is filled with a fibrous material, which will absorb the oil which flows down from the reservoir and keep the journal constantly lubricated.

By this means I provide a journal-box which cannot be overheated, as the continual circulation of water from the tank will keep it cool. The arrangement is simple and may be easily applied to the ordinary axle-boxes of railroad cars. The same application and arrangement can be employed on the stationary boxes of machinery for the same purpose and with equal benefit.

I am aware that water has heretofore been used for preventing axle-boxes from becoming overheated, and this I do not claim; but

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

1. Connecting the hollow upper section *b* of axle-boxes with a water-tank, *c*, by means of pipes *e e'*, so as to cause circulation of the water between the section and the tank as the water becomes heated, for the purpose described.

2. The combination of the hollow upper section *b* of the axle-box, lubricating chamber or reservoir *g*, and water-tank *c*, all combined and arranged as specified.

3. The hollow upper section *b* of the axle-box, for the purpose described.

In witness whereof I hereunto set my hand and seal.

JONATHAN STEVENS McCLURE. [L. S.]

Witnesses:
JNO. L. BOONE,
C. M. RICHARDSON.