J. J. LEHAYE.

Car-Axle Box.

No. 54,563. Patented May 8, 1866.

Fig. 1.

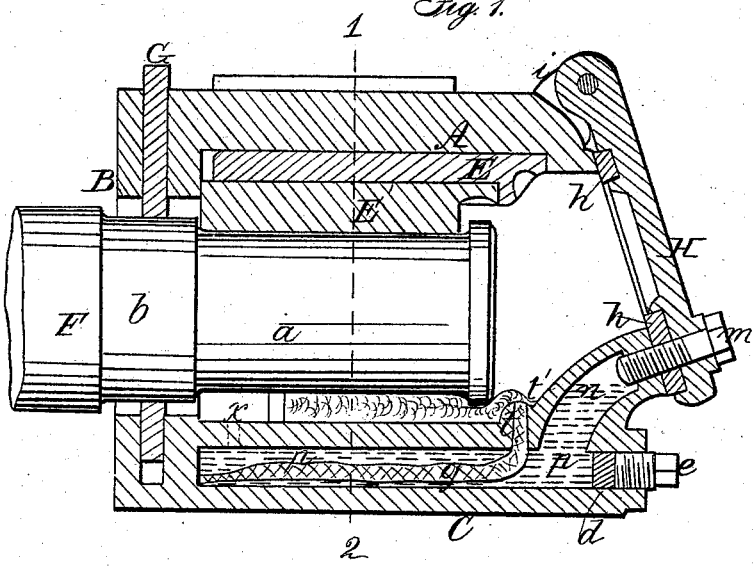
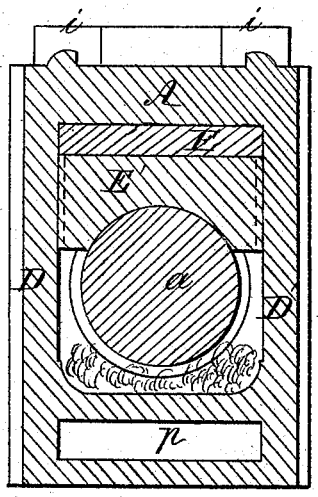


Fig. 2.



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UNITED STATES PATENT OFFICE.

JOHN J. LAHAYE, OF READING, PENNSYLVANIA.

IMPROVED RAILROAD AXLE-BOX.

Specification forming part of Letters Patent No. **54,563**, dated May 8, 1866.

To all whom it may concern:

Be it known that I, JOHN J. LAHAYE, of Reading, Berks county, Pennsylvania, have invented certain Improvements in Axle-Boxes; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention consists, first, of the combination of an axle-box having an oil-chamber at the under side and an opening, when the said opening is situated as described hereinafter, so as to allow for the ready introductian and removal of the wick, and when the opening is surrounded by a flange, which prevents the oil from flowing back into the chamber; secondly, of a passage for the introduction of oil to the oil-chamber, the said passage being so arranged that it can be closed by the lid.

In order to enable others skilled in mechanism of this class to make and use my invention, I will now proceed to describe its construction and operation.

On reference to the accompanying drawings, which form a part of this specification, Figure 1 is a vertical section of an axle-box with my improvements, and Fig. 2 a transverse vertical section on the line 1 2, Fig. 1.

A is the top of the box; B, the end of the same; C, the bottom, and D and D′ the opposite sides.

In the inside and against the top A of the box bears the usual detachable key E, and against the latter the bearing E′, which is adapted to the said key and to the journal *a* of the axle F in the usual manner.

At the rear of the box is a vertical chamber for receiving the wood packing G, which, fitting closely to the collar *b* of the axle, serves to exclude dust and sand from the box and to maintain the lubricating material within the same.

To lugs *i i* at the top, and near the front end of the box, is hinged an inclined lid, H, the cork packing *h h* at the back of which fits against the edge of the opening in the front of the box, as seen in Fig. 1.

The lid is confined to the box by a single bolt, *m*, the hole *n* for receiving which is continued downward, so as to communicate with a chamber, *p*, formed in the bottom of the box for the reception of the lubricating material.

A narrow opening, *t*, round the top of which extends a flange, *t′*, forms a communication between the chamber *p* and the interior of the box, and through this opening passes a wick, *q*, one portion of which is contained in the chamber *p* and there immersed in the lubricating material, the other portion occupying a position beneath the journal *a*, there being between the wick and the journal cotton-waste or other like fibrous material.

In front of the box, and communicating with the chamber *p*, is another opening, *d*, to which is adapted a screw-plug, *e*.

In ordinary boxes of this construction the openings through which the wick passes are directly beneath the axle, so that it is extremely difficult to gain access to the same. There is also no provision to prevent the oil from flowing back from the axle into the chamber *p*, and the oil, as it thus flows back, carries with it particles of dust, which soon cause the oil in the chamber to become so thick and gummy that it will no longer flow up the wick.

It will be seen that in the box above described the openings *t* are situated in front of the axle, so that the wicks can be readily removed and replaced without lowering the box, while the flange *t′* prevents the oil which has once been raised into the box from flowing back into the chamber.

Oil may be introduced into the chamber *p* by different channels; but I prefer the opening *n*, forming a continuation of the hole for receiving the bolt *m*, as the most appropriate and only channel through which oil should be introduced into the said chamber, inasmuch as the packing of the lid H forms a perfectly-tight joint and prevents the escape of oil through the passage *n*.

After the withdrawal of the screw-plug *e* the interior of the chamber *p* may be cleaned. The opening *d*, too, affords facilities for the proper disposal of the wick by a suitable instrument.

If deemed advisable the wick may be made to pass through two openings into the chamber *p*.

I claim as my invention and desire to secure by Letters Patent—

1. The combination of an axle-box having

an oil-chamber at the under side and an opening, *t*, when the said opening is arranged in front of the axle and is surmounted by a flange, *t'*, as and for the purpose described.

2. The passage *n*, communicating with the chamber *p*, and so situated that its upper end can be closed by the lid H.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN J. LAHAYE.

Witnesses:

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