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R. BREWER.

Improvement in Journal Box for Railway Cars.

No. 122,219.

Patented Dec. 26, 1871.

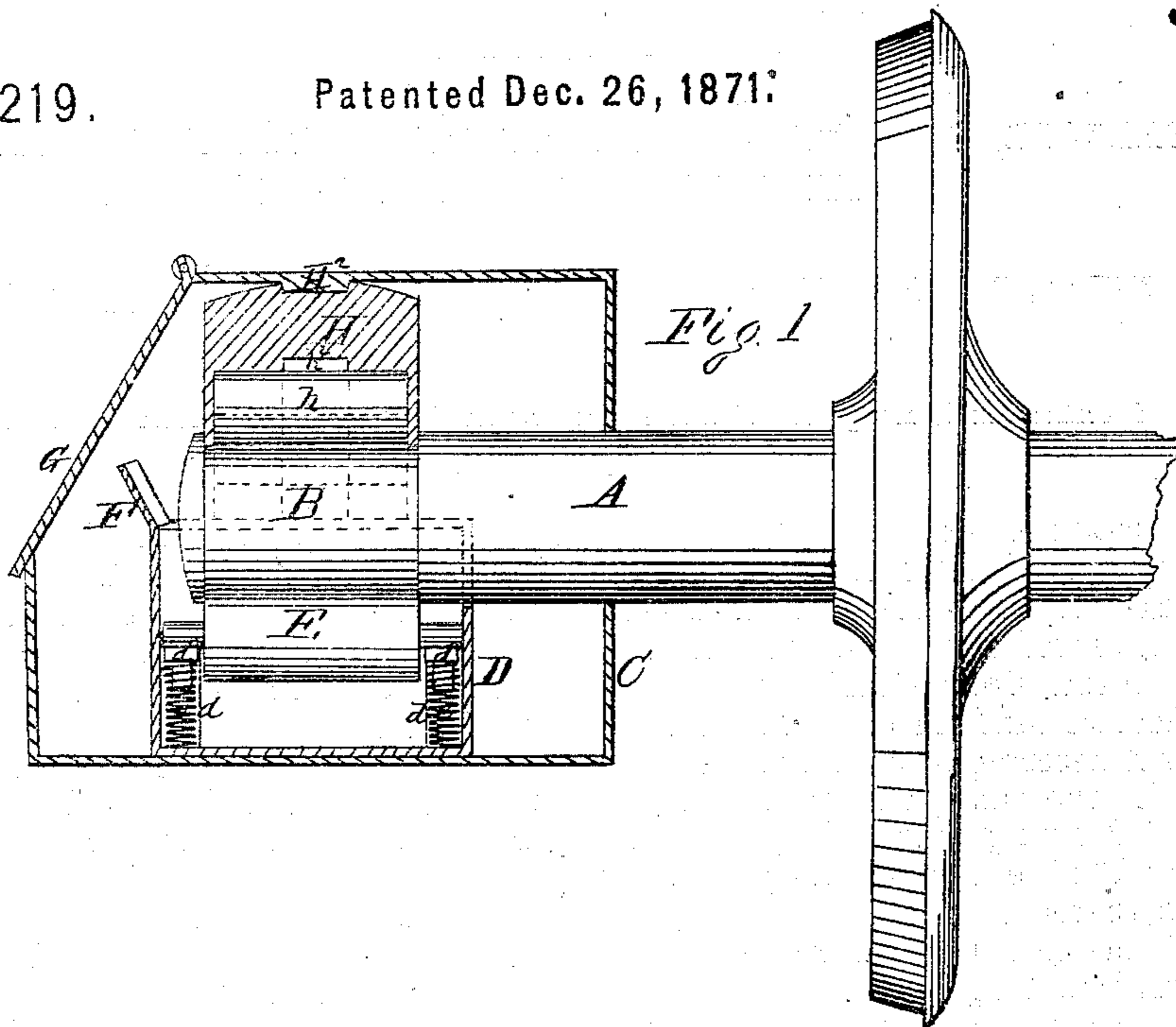


Fig. 2

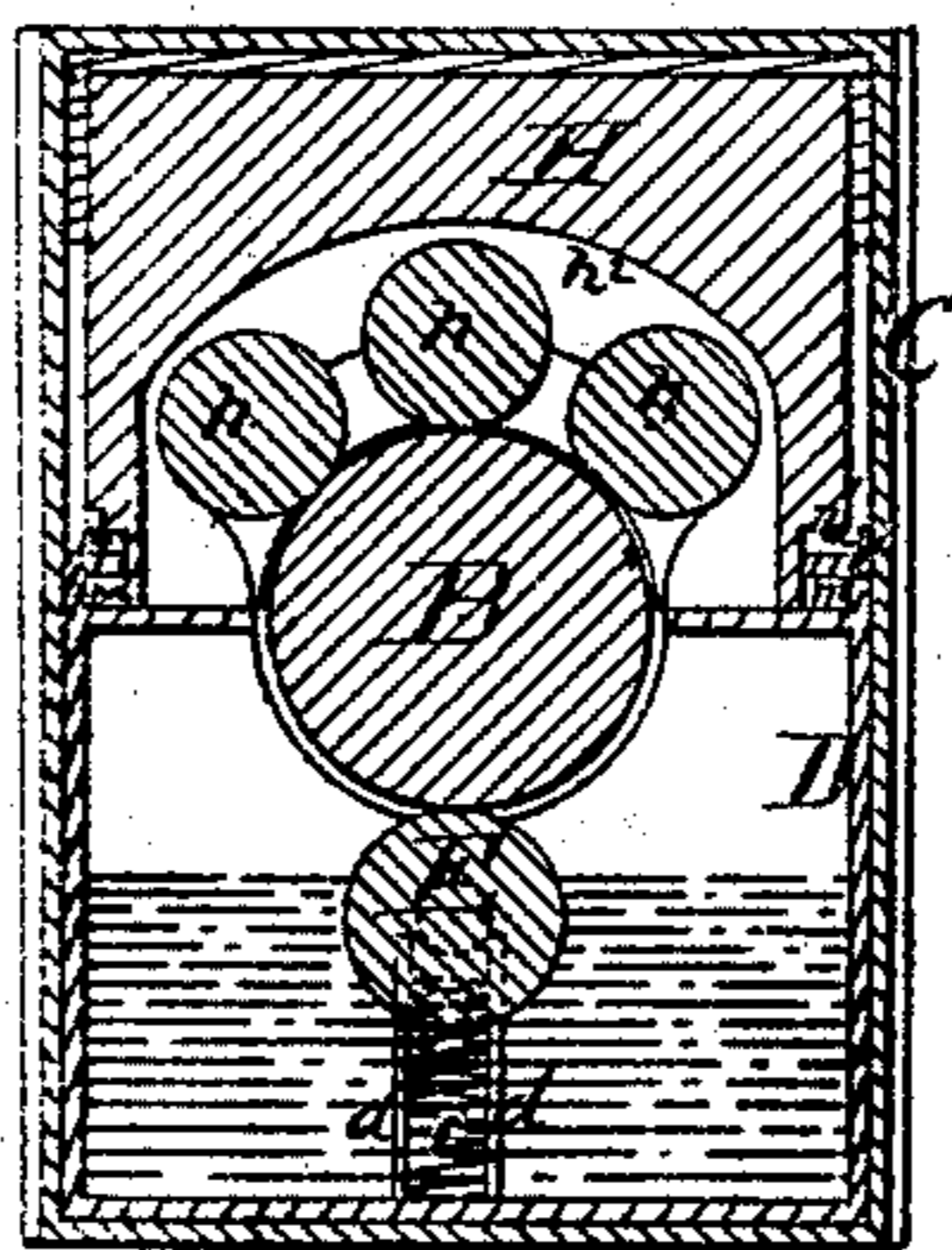
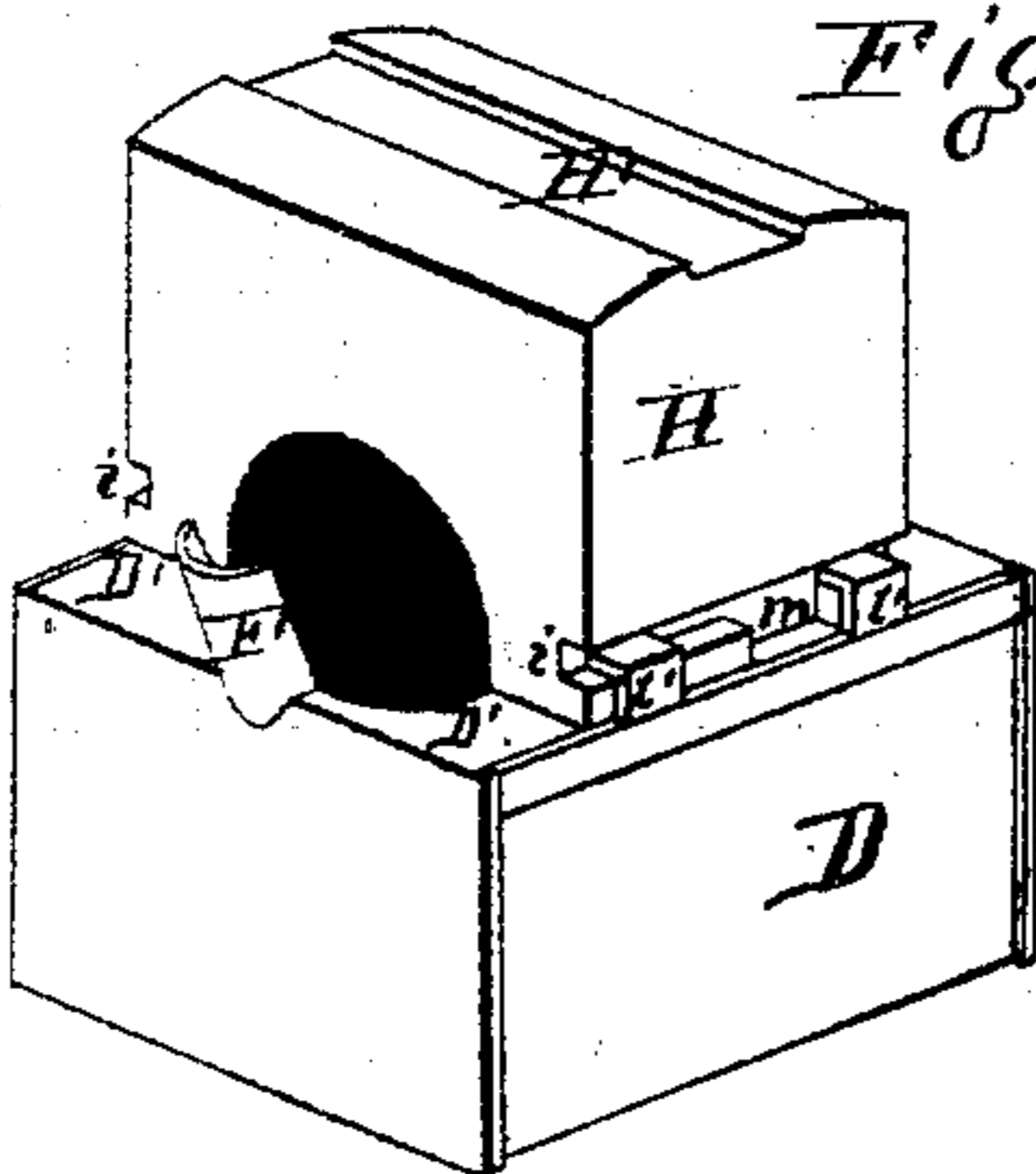


Fig. 3



Witnesses
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UNITED STATES PATENT OFFICE.

RUSSELL BREWER, OF PONTIAC, ASSIGNOR TO HIMSELF AND LYMAN P. TOMPKINS, OF LINCOLN, ILLINOIS.

IMPROVEMENT IN JOURNAL-BOXES FOR RAILWAY CARS.

Specification forming part of Letters Patent No. 122,219, dated December 26, 1871.

To all whom it may concern:

Be it known that I, RUSSELL BREWER, of Pontiac, in the county of Livingston and State of Illinois, have invented a new and valuable Improvement in Journal-Box for Railway Cars; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a central vertical longitudinal section of my invention. Fig. 2 is a central vertical transverse section. Fig. 3 is a perspective view, partial.

This invention has relation to journal-boxes for railroad car-axes; and it consists in the construction and novel arrangement of devices by means of which the journals and their bearings are kept continually lubricated and their friction reduced, substantially as hereinafter described.

Referring to the accompanying drawing, A designates the axle of a railroad car. At B a journal is formed on said axle. C represents a metallic housing inclosing the end of said axle, together with the improved self-lubricating journal-box. D denotes a metallic box, having a semicircular recess cut in one end to receive the axle A. The journal fits within said box, and rests upon a horizontal roller, E, which is supported by spiral springs *e*, resting on the bottom of the box D, and held in place by means of flanges *d*. The journals of the roller E rest upon concave blocks *d'*, having shanks which fit inside the spirals of the springs *e*. The box D is designed to contain lubricating oil, which is supplied to it through a spout, F. G represents a door hinged to the front of the housing in such a position that when opened access may be had to the spout F. H designates a recessed block containing a series of rollers, *h*, arranged in a row concentric with the journal B. The block H rests upon the box D, and is channeled horizontally on opposite

sides at *i* to receive the bent lugs *i'*, which project upwardly and inwardly from the sides of the box D, as shown. When the block and box are fitted to the journal B the rollers *h* are in contact with it, and, with the roller E, revolve as the axle turns.

The oil is fed to the journal by means of the roller E, and is carried by the journal to the rollers *h*, which relieve it of its surplus, conveying the latter to a channel, *h*², surrounding the rollers *h*. By said channel the surplus oil is returned to the box. The roller E is held by springs, so that it may be allowed to give when the axle is sprung by the jolting of the car-wheels.

In order to connect the box D and block H together, openings *m m* are formed from the bottom of the block into the channels *i*. The block is laid on the ledges D' of the box, two of the lugs on opposite sides passing through the openings *m m*. The block is then adjusted to the position shown in Fig. 3, and held in place by the lugs. In the top of the block H is formed a transverse groove, H¹, in which fits a cleat or ridge, H², projecting from the top of the housing, and designed to aid in keeping the housing and block in their proper relative positions.

I do not claim, broadly, suspending the oil-box from the block H; but

I claim as my invention—

1. The oil-box D having the lugs *i'* bent upon it, in combination with the block H having the channels *i*, and the car-axle A, substantially as specified.

2. The block H having the channels *i* with openings *m* to receive the lugs *i'* projecting from the sides of the oil-box D, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

Witnesses: RUSSELL BREWER.

F. B. CURTIS,

T. A. CONNOLLY.

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