H. HAMMOND.

Carriage Axle-Box.

No. 161,955. Patented April 13, 1875.

Fig. 1.

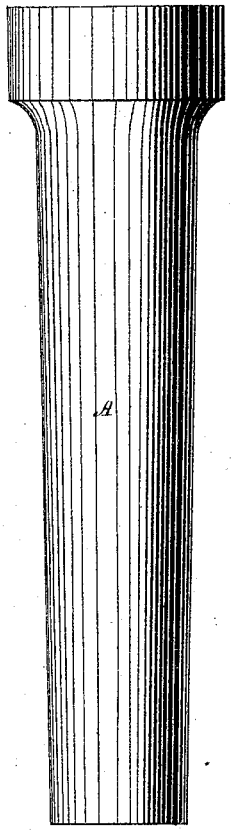


Fig. 2.

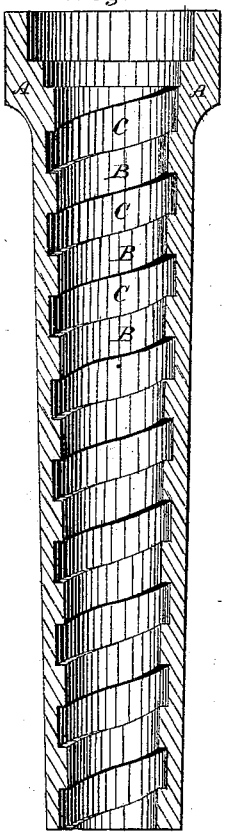
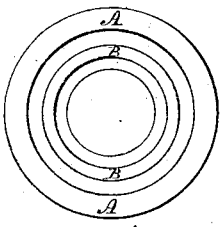


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

HENRY HAMMOND, OF HARTFORD, CONNECTICUT.

IMPROVEMENT IN CARRIAGE-AXLE BOXES.

Specification forming part of Letters Patent No. **161,955**, dated April 13, 1875; application filed October 8, 1874.

To all whom it may concern:

Be it known that I, HENRY HAMMOND, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Carriage-Wheel Boxes; and I do hereby declare that the following is a full, clear, and exact description thereof, whereby a person skilled in the art can make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Like letters in the figures indicate the same parts.

The object of my invention is to provide a wheel-box that shall more evenly distribute the oil or other lubricant upon the axle while the wheel is running; and, also, to make the bearing-surface of the box of a harder or better-wearing metal than the body of the box.

My invention consists in a box, the interior of which is a screw or spiral band of steel or other superior metal, and the exterior is of wrought-iron, in the usual form.

In the accompanying drawing, Figure 1 is an outside view of the box. Fig. 2 is a horizontal section through the middle, showing the interior of the lower half. Fig. 3 is an end view of the box.

A is the main body of the wheel-box or exterior shell. This is of the usual form, and is inserted in the hub of the wheel in the customary manner. B is the inside spiral, which forms the bearing and wearing surface upon the axle. This is preferably made of steel, but may be made of any suitable metal. C is a spiral groove left between the convolutions of the spiral band B.

My improved box is constructed in the following manner: The spiral band B is first placed upon a mandrel of the same form as the axle. The outside shell or body A is then placed over it, heated sufficiently to be plastic, and the whole is forged to the proper shape in suitable dies, or in any other ordinary manner.

The operation of my improved wheel-box is as follows: The hard band B bears upon the axle, touching every part as the wheel revolves, and wears it equally in all parts of its surface. Its spiral form carries along and distributes the lubricant upon the axle, which remains chiefly in the groove C, and is carried from the outer or lowest end of the axle-bearing up the incline to the upper or inner end. For this purpose the screws are made right or left handed, according to the side of the carriage upon which the wheel belongs.

What I claim as my invention is—

A carriage-wheel axle-box, constructed with an internal spiral, B, of steel or other hard metal, forged into a wrought-iron casing, A, substantially as and for the purpose described.

HENRY HAMMOND.

Witnesses:

THEO. G. ELLIS,

WENDELL R. CURTIS.