

F. B. HUMPHREYS

DEVICES FOR SETTING METALLIC WAGON-AXLES.

No. 174,250.

Patented Feb. 29, 1876.

Fig. 1.

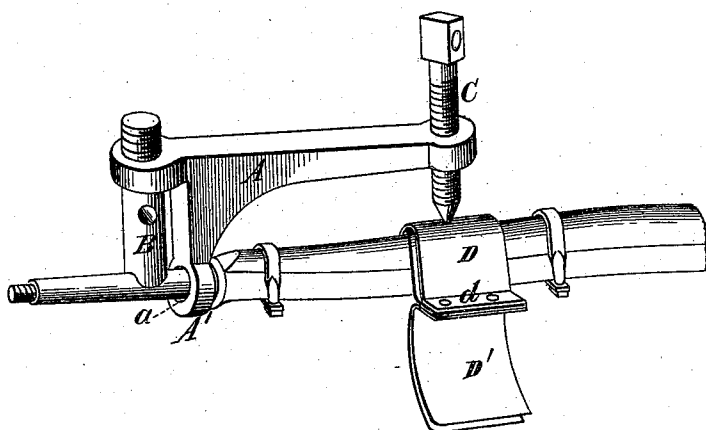


Fig. 2.

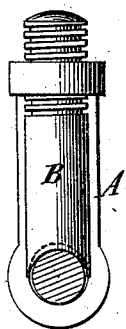
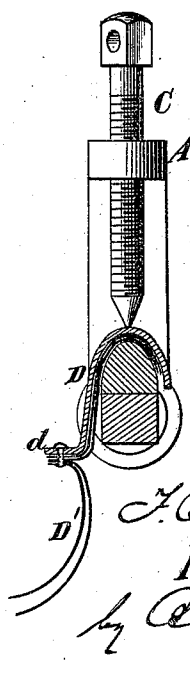


Fig. 3.



Witnesses.

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FOUNTAIN B. HUMPHREYS, OF SEA SIDE, VIRGINIA.

IMPROVEMENT IN DEVICES FOR SETTING METALLIC WAGON-AXLES.

Specification forming part of Letters Patent No. **174,250**, dated February 29, 1876; application filed February 5, 1876.

To all whom it may concern:

Be it known that I, FOUNTAIN B. HUMPHREYS, of Sea Side, in the county of Accomac and State of Virginia, have invented a new and useful Improvement in Implements for Straightening Axle-Journals, of which the following is a specification:

This invention relates to devices which are adapted for resetting or straightening the journals of vehicle-axles which may have been bent accidentally without requiring the detachment or heating of such axles, and which consist, ordinarily, of a lever carrying a transverse screw-spindle at one end and a bender at the other end, near which an arm or hook is provided to engage the journal at the collar, and form a fulcrum.

My improvement consists, first, in making the bender of a device such as described vertically adjustable, so that the straightening device can be used with equal advantage on the varying sizes of axle-journals; secondly, in the combination, with the screw-spindle, of a metal shield adapted to be placed on the axle-tree to receive the pressure of the screw-spindle, and thus guard against the marring of the axle-tree thereby, the shield being provided with a number of flaps of canvas, cloth, or other soft material, one or more of which can be applied to its interior side to still further guard against disfigurement of the axle-trees, as well as to fit the shield to the varying sizes thereof.

In the annexed drawing, Figure 1 illustrates the application of my improved implement to an axle-tree in position for straightening the journal thereof. Figs. 2 and 3 are detail views.

Similar letters of reference indicate like parts.

A refers to the lever, near one end of which an arm, A', is formed projecting from it at right angles. The arm has near its extreme end an eye, a, to receive the journal of an axle-tree, the eye being made large enough to let the heaviest journal penetrate up to the collar. Directly in front of this fulcrum-arm the lever has a screw-threaded aperture, in which the screw-threaded end of the bender B is fitted. The bender terminates in a concave end, so as to conform approximately to the curved surface of axle-journals, and can be vertically adjusted with reference to the

eye of the arm, so that all sizes of journals can be accurately calipered between its concave end and the bottom of said eye. The other end of the lever carries in its screw-threaded eye a screw-spindle, C, arranged transversely with reference to the lever, and in a line with the bender and the fulcrum-arm, the steel point of the spindle pointing in the same direction as the latter. The implement is applied as shown clearly in Fig. 1. The screw-spindle, instead of bearing with its point directly on the axle-tree, presses against a metal shield, D, adapted to be hooked over the axle-tree directly under the screw-spindle. The shield is of hook form, as shown, and has a flange, d, to which a number of flaps of cloth, D', or other soft material, are attached, one or more of which flaps can be folded upon the interior surface of the shield for the purposes already stated. The exterior surface of the shield may have a number of counter-sinks to afford a better footing for the point of the screw-spindle. This feature is particularly useful when a journal requires to be bent in an oblique direction to straighten it, as it may be with my implement and shield.

It will be understood that, as the screw-spindle is forced against the shield on the axle-tree, the lever will be tilted on its fulcrum-arm, causing the bender to act on the journal so as to force its free end over in proportion to the movement of the spindle.

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

1. The implement for straightening bent carriage-axles, composed of the lever having a laterally-projecting fulcrum-arm, the vertically-adjustable bender, and the screw-spindle, substantially as specified.

2. The combination, substantially as specified, with the screw-spindle of an implement for straightening carriage-axles, of a metallic shield adapted to be applied to the axle-tree, and provided with flaps of cloth or similar material.

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

FOUNTAIN B. HUMPHREYS.

Witnesses:

JAMES H. SMITH,
LEWIS T. PHILLIPS.