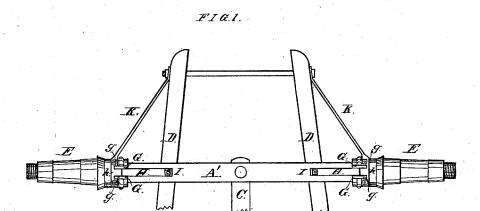
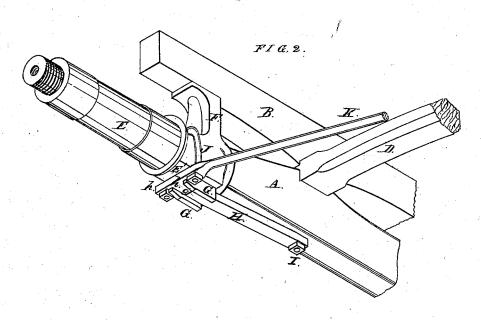
C. GESTRING & J. S. FULLERTON. Vehicle-Axle Skeins.

No. 209,248.

Patented Oct. 22, 1878.





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GeoHtmight. Walter Allen Inventors:

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UNITED STATES PATENT OFFICE.

CASPER GESTRING AND JAMES S. FULLERTON, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN VEHICLE-AXLE SKEINS.

Specification forming part of Letters Patent No. **209,248**, dated October 22, 1878; application filed May 14, 1878.

To all whom it may concern:

Be it known that we, CASPER GESTRING and JAMES S. FULLERTON, both of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Wagon-Axles and Thimble-Skeins, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

Our improvement relates to the connection of the thimble-skein to the axle, hounds, and reach; and it consists in two hooked lugs that are cast upon the skein, having between them a rectangular recess, in which fits the The inner end of this **T**-headed stay-bar. bar may be attached to the axle by a bolt that passes through the axle and hound, or the bar may extend across from skein to skein. The cross-bar at the outer end engages under the hooked ends of the lugs and forms the bridle-piece of the clip passing around the skeins. In the case of the hind axle one end of the cross-bar is extended forward to form the brace-connection to the hounds and reach, and in the front axle the bar connects with the tongue-hounds.

In the drawings, Figure 1 is an under view of the front axle. Fig. 2 is an under perspective view of one end of the rear axle.

A is the hind axle, and A' the front axle; B, the bolster or sand-board. C is the reach, and D the hounds. E E are the thimble-skeins, that may be made of usual pattern. I show them with a post or block, F, supporting the end of the sand-board. This post differs from that shown in the Wheeler patents for thimble-skeins, numbered, respectively, 123,135 and 162,729, as it is not attached in any manner directly to the sand-board; it merely forms a prop or support for the end of the board.

G G are two lugs cast upon the bottom of the thimble-skein. The inner faces are parallel, and between them is a rectangular channel, on which fits the stay-bar H. The staybar has a cross-head, h, which engages the hooked ends g g of the lugs G, and rests against a flat part, E', of the thimble-skein.

The inner end of the bar H is shown connected to the axle by a bolt, I, which passes vertically through the axle and the hound; but the two bars H may be made in one piece extending from skein to skein.

The cross-head h has holes for the passage of the screw-threaded ends of the clip J, which extends around the top of the skein, and is secured by nuts under the cross-head h.

K K represent brace-rods, which in the case of the hind axle are made in one piece with the cross-head and extended forward to the front ends of the hounds, where they are attached to the reach. In the case of the front axle the brace-rods are connected to the tongue-hounds.

The described connection of the thimbleskein and the stay-bar H is such that the skein is firmly braced by the bar against vertical and horizontal strain, as the bar fits tightly between the lugs, and also in hooks a.

tightly between the lugs, and also in hooks g. We have shown the stay-bar H and rod K as of separate construction, and secured together by bolts. They may, however, be welded or otherwise made in one piece.

We claim as our invention—

1. The combination, with the thimble-skeins, of the two hooked lugs G and the T-headed stay-bar H, substantially as set forth.

2. The combination of the skein E with hooked lugs G and the T-formed stay-bar H of the clip J, secured to said bar and surrounding the thimble-skein.

3. The combination, with the **T**-formed staybar H, of the brace-rod K, substantially as set forth.

4. The combination of axle A, thimble-skeins E E, with hooked lugs G G, T-ended stay bar or bars H, and clips J, substantially as set forth.

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Witnesses:

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