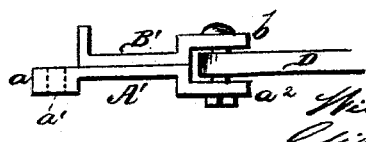
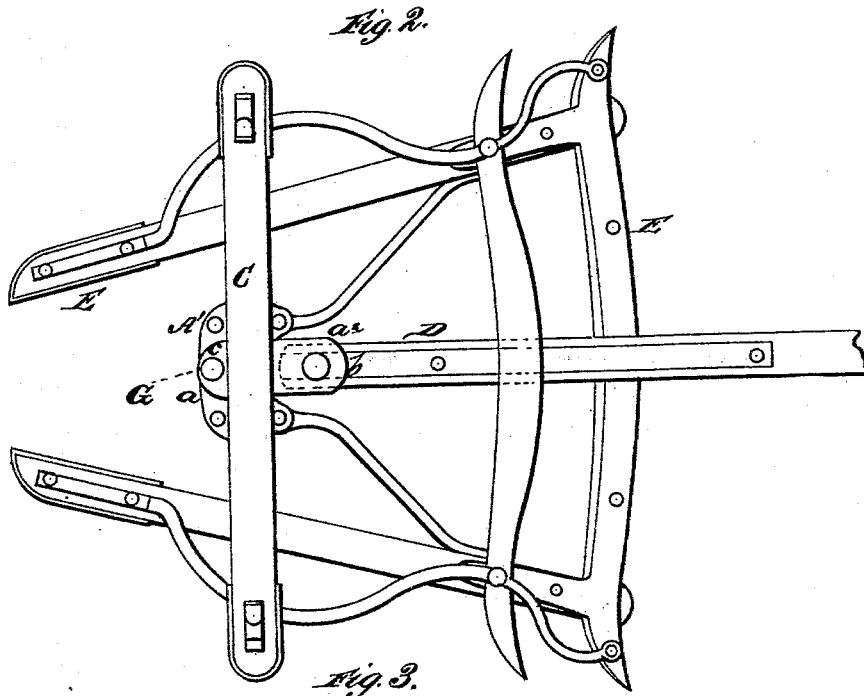
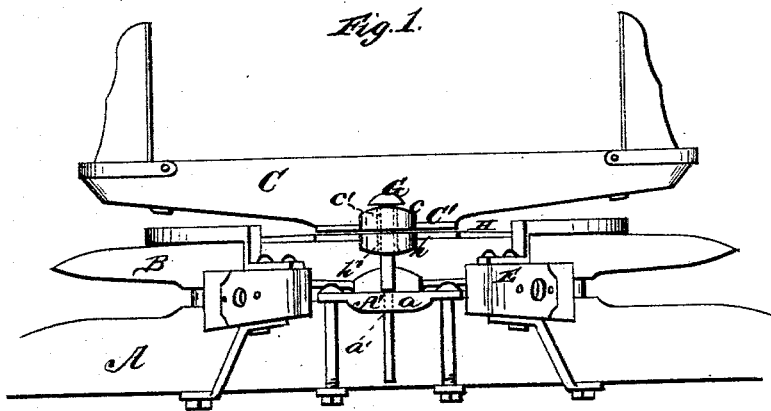


W. LEHMANN.  
Fifth-Wheel Coupling.

No. 210,789.

Patented Dec. 10, 1878.



WITNESSES  
*Robert Smith*  
*A. Clay Smith*

By

INVENTOR.  
*William Lehmann*  
*Gilmore, Smith & Co.*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

WILLIAM LEHMANN, OF MENOMINEE, MICHIGAN.

## IMPROVEMENT IN FIFTH-WHEEL COUPLINGS.

Specification forming part of Letters Patent No. **210,789**, dated December 10, 1878; application filed November 2, 1878.

*To all whom it may concern:*

Be it known that I, WILLIAM LEHMANN, of Menominee, in the county of Menominee and State of Michigan, have invented a new and valuable Improvement in Bolster and Axle Attachments for Wagons; 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 drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a front elevation of my bolster and axle attachment for wagons, and Fig 2 is a top-plan view of the same.

My invention relates to an attachment for wagons, being connection of bolster, axle, &c.; and the novelty consists in the construction and arrangement of parts, as will be more fully hereinafter set forth, and pointed out in the claim.

I have discovered that where the king-bolt pierces or passes through the bolster, axle, &c., that portion of such axle or bolster becomes weakened and breaks. I have also discovered that an extended bearing between the bolster and the surface upon which it rests causes a wrenching of the king-bolt, which either bends and finally breaks the bolt, or wears the bolt-holes laterally, such result attaining from unevenness of the ground and tipping of the axle.

By my construction and arrangement I save the excessive wear upon the sand-board and axle by the reach, by pivoting the reach between plates at the rear of the axle-plane.

The attachment upon which the forward axle swivels allows the front wheels to better accommodate themselves to ruts and irregularities of the road without that wrenching or twisting strain, and consequent enlargement of the several holes, that attains when the long king-bolt through the axle, bolster, and sand-board is used.

Referring to the drawings, A represents the axle; B, the sand-board; C, the bolster; D, the

reach, and E the yoke. The axle is of ordinary construction, except that a metal plate, A', is bolted thereto by bolts, which operate outside of and do not pierce the axle, and this plate A' has a forwardly-extending projection, a, perforated at a', to receive the connecting-bolt G, and a backwardly-extending projection, a<sup>2</sup>, which forms one of the jaws within which the reach D is pivoted behind the forward axle A.

Upon the lower surface of the sand-board B is a metal plate, B', which bears upon the plate A', and it has a projection, b, rearward, which forms the other jaw for the reach, which is pivoted between these jaws b a<sup>2</sup>.

Secured to the upper portion of the sand-board is a plate, H, having forward projection h, with aperture h', slightly larger than the connecting-bolt G, which it receives.

The sand-board, yoke, and axle described, and the plates, are firmly secured together and properly braced.

C' represents a plate on the lower surface of the bolster, which bears on the plate H, and it has a projection, c, perforated at c', and corresponding in form with the projection h h'. The apertures c' h' receive the connecting-bolt G.

I am aware that pivoted reaches have been used before, and I do not, therefore, claim them broadly.

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

The bolster C, provided on its under face with the plate C' c', sand-board B, provided with the plate H h h', and the axle A, having plate A', in combination with the bolt G, passing through said plates and operating in front of said bolster, sand-board, and axle, substantially as and for the purposes set forth.

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

WILLIAM LEHMANN.

Witnesses:

WILLIAM H. JENKINS,  
E. N. DAVIS.