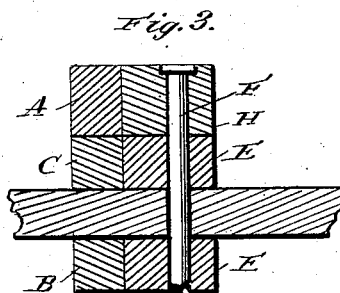
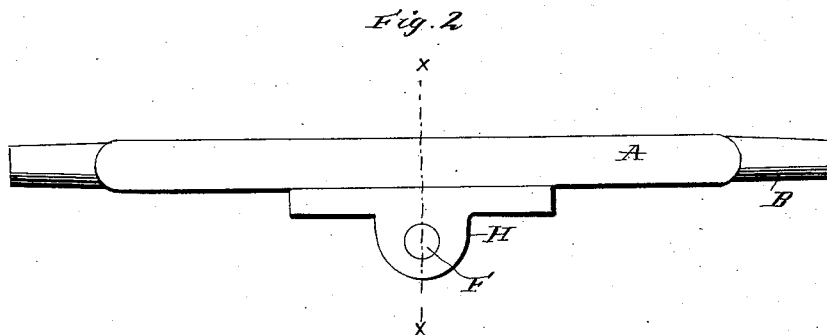
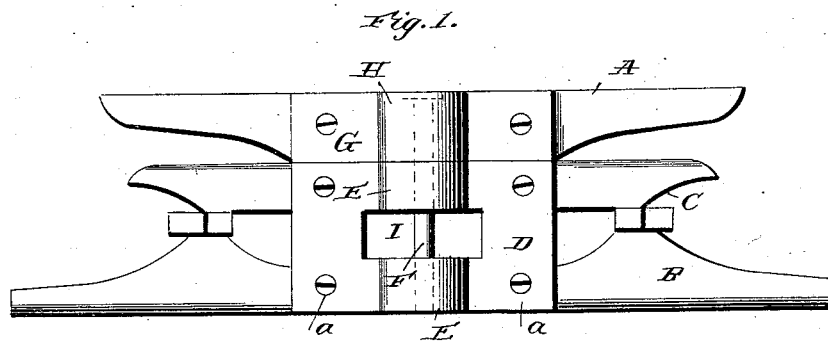


(No Model.)

J. J. MORRISON.  
VEHICLE AXLE COUPLING.

No. 455,849.

Patented July 14, 1891.



Witnesses:

*E. H. Raeder*

*Thomas E. Turpin*

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# UNITED STATES PATENT OFFICE.

JOHN J. MORRISON, OF LEWISTON, IDAHO.

## VEHICLE-AXLE COUPLING.

SPECIFICATION forming part of Letters Patent No. 455,849, dated July 14, 1891.

Application filed January 3, 1891. Serial No. 376,576. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN J. MORRISON, a citizen of the United States, residing at Lewiston, in the county of Nez Perces and State of Idaho, have invented certain new and useful Improvements in Axle-Couplings; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in devices for coupling the reach of a wagon to the front axle thereof; and it has for its object to provide a simple, strong, and efficient means for effecting said coupling in a pivoted manner.

A further object of the invention is to provide means whereby the bolster, which is designed to support the wagon-bed, may be pivotally mounted upon and connected with the axle and the head-block thereof, whereby the functions of a fifth-wheel may be performed and the front axle readily turned. These objects I accomplish through the medium of the devices illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of a wagon-axle, head-block, and bolster, illustrating my improvements in position. Fig. 2 is a top plan view of Fig. 1, and Fig. 3 is a vertical transverse sectional view taken in the plane indicated by the line *xx* of Fig. 2.

Referring by letter to the said drawings, A indicates the front bolster of a wagon, and B the front axle, which axle is suitably connected adjacent to its ends with a head-block or cross-bar C, upon which the bolster A rests, as will be presently described.

D indicates one of my improved coupling plates or blocks, which is provided in its central portion with a rectangular opening, as I, designed to receive the forward end of the wagon-reach, and the side walls of this opening I are preferably flared rearwardly, whereby the reach may have a greater angular play when the axle is turned.

The plate D, which is preferably of a rectangular form, is provided adjacent to its corners with bolt-apertures *a*, whereby it may be attached to the axle B and the head-block

C. Extending out from the said plate D, above and below the reach-opening I thereof, are bearing-blocks E, which are preferably rounded at their ends and are provided adjacent to their centers with vertical apertures in line with each other for the reception of a king-bolt F, which serves to pivotally connect the reach in the lower block or plate and to connect the said lower block or plate to the upper plate G attached to the bolster. The upper plate G is of an elongated form, as illustrated, and it is provided adjacent to its ends with bolt-apertures *b*, whereby it may be attached to the bolster. Extending forwardly from this upper plate G, adjacent to the middle thereof, is a block H, similar in form to those of the lower plate, and this block H is also provided with a vertical bolt-aperture in line with the apertures in the lower blocks.

In the practice of my invention it is obvious that the plates or blocks D and G may be formed in any suitable manner and of any approved material, although I prefer to cast them of iron; and it is also obvious that the said plates may be placed upon the front or upon the rear of the axle and bolster; but, as is obvious, it is preferable to place them upon the front, as a better action is thereby attained.

By the construction described it will be seen that I have provided a cheap, strong, and simple mode for connecting the reach and the front axle of a wagon, and also for pivotally mounting the bolster upon said axle, so as to obviate the necessity of a fifth or turning wheel; and it will further be seen that by the placement of the plates and the employment of the blocks thereof the major portion of the strain and the consequent friction is brought to bear upon said blocks, and the axle and bolster thereby protected.

In addition to the foregoing it will be seen that by attaching the plate D to the axle and the head-block thereof a re-enforcing connection is effected, whereby the strength of the axle and the head-block is greatly increased.

I am aware of the patent granted to Warmington and Bulger, 276,219, January 10, 1888, in which a running-gear is shown having the front axle provided with a sand-board above it and a

head-block above the sand-board, plates, one having a dovetail tongue and the other a corresponding-shaped groove, being secured to the inner faces of the head-block and sand-board, respectively. The axle is also provided with an opening to receive a hound, and the axle, sand-board, and head-block are provided with aligned apertures to receive a king-bolt. I therefore do not wish to be understood as claiming such devices, broadly; but,

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

The improved axle-coupling herein described, consisting, essentially, of the following instrumentalities in combination: the axle B, the block A, arranged upon the axle, and the block C, interposed between the axle and

the block A, said blocks being plain on their engaging faces and free from tongues and grooves, the plate D, connecting the axle to the block C and having the rectangular reach-apertures I, and also having the projected bearings E E, provided with aligned apertures, the plate G, secured to the block A and having a bearing H, and aperture corresponding with the apertures of the lower plate, and the king-bolt F, connecting the parts, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN J. MORRISON.

Witnesses:

J. M. HOWE,  
ANDREW HUMISTON.