

L. Grim.
King Bolt.

N^o 86,150. Patented Jan. 26, 1869.
Fig. 1.

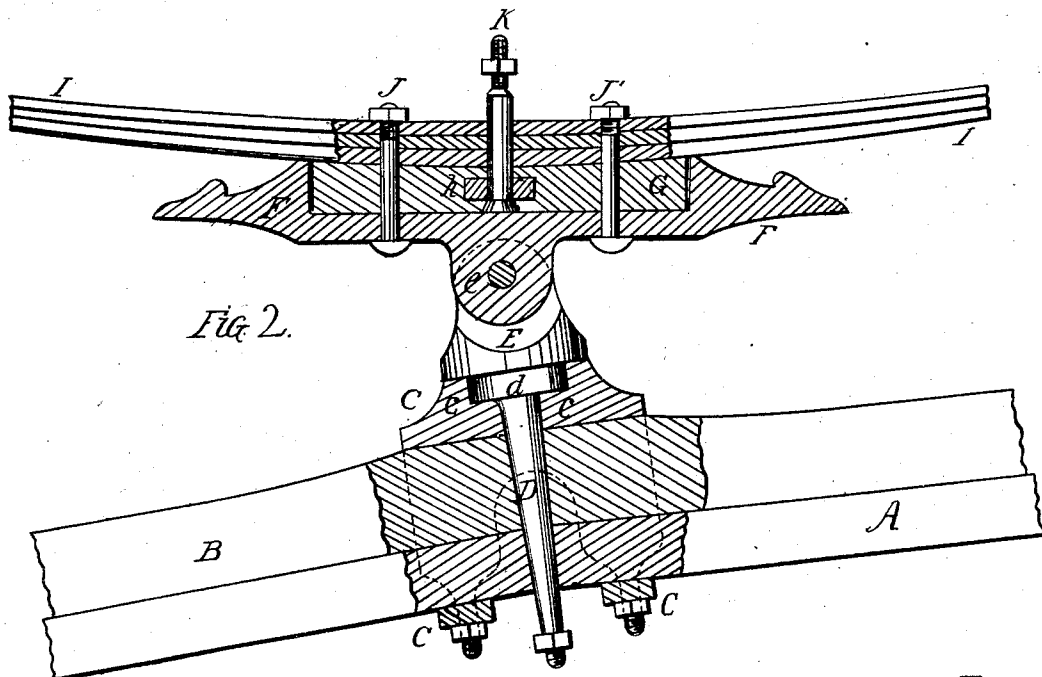
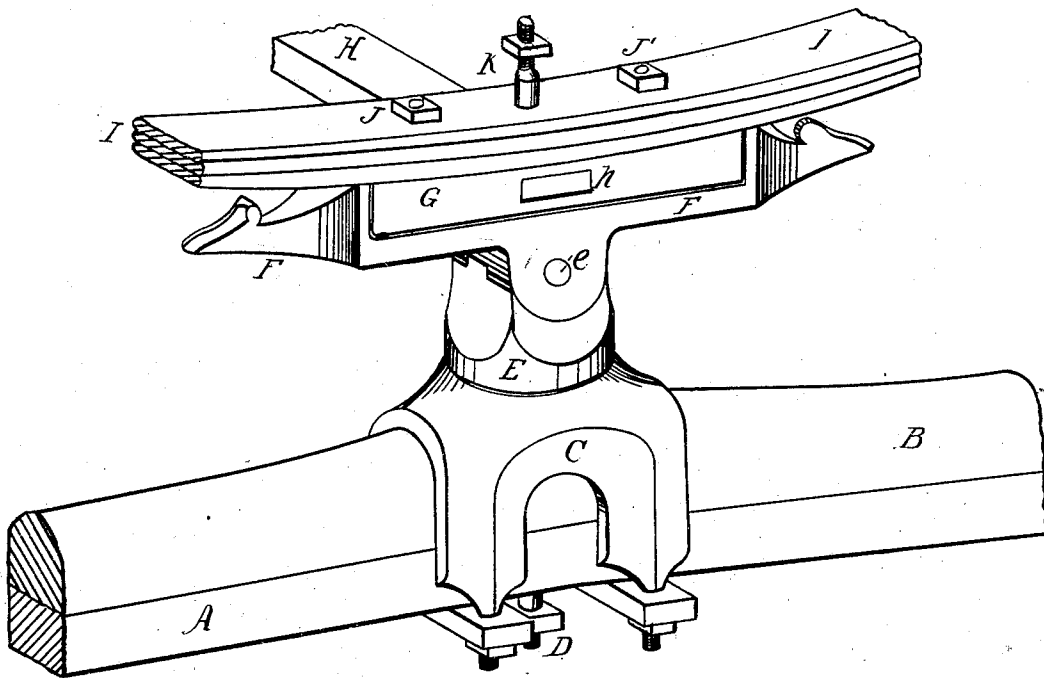


Fig. 2.

Witnesses:

James H. Bayman.
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LEWIS GRIM, OF FORT BRANCH, INDIANA.

Letters Patent No. 86,150, dated January 26, 1869.

IMPROVEMENT IN CARRIAGE-COUPLING.

The Schedule referred to in these Letters Patent and making part of the same.

To whom it may concern:

Be it known that I, LEWIS GRIM, of Fort Branch, Gibson county, Indiana, have invented certain new and useful Improvements in Carriage-Couplings; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

This invention relates to a novel method of attaching the front axle to the bed or body of a carriage; and

The improvement consists in constructing the coupling in such a manner as to permit of the carriage-body maintaining a horizontal position, no matter how much said axle may be inclined.

In the accompanying drawings—

Figure 1 is a perspective view of a carriage-coupling embodying my improvements, and

Figure 2 is a vertical section of the same in the plane of the axle.

A represents the front axle of a carriage, and this axle is, at its mid-length, united to the customary axle-bed B, by means of a clip, C, whose upper end is provided with a circular recess, *c*, which is adapted to receive the collar or boss *d* of the king-bolt D.

The upper end of the king-bolt terminates in a head, E, which is hinged to the metallic portion, F, of the head-block, by means of the pintle or pivot *e*.

The metallic portion, F, of the head-block has fitted within it a wooden portion, G, into which the perch H is mortised, and to which the spring I is attached by the bolts J J'.

K is a bolt, which passes through the wooden portion G of the head-block, and also through the tenon *h* of the perch, and this bolt may project a sufficient dis-

tance above the spring to receive one end of a stay or brace-bar, whose other end may be secured to the perch at any convenient place.

Whenever it is desired to construct the carriage with side-braces, their front ends may be mortised into the wooden portion G of the head-block.

The collar *d*, which rotates within the recess *c* of the clip, not only performs the duty of a fifth-wheel, but it also receives all of the strain which the king bolt is usually subjected to, and thereby effectually prevents the bending or breaking of the latter member of the coupling.

In case either end of the axle A should be elevated, the carriage-body is not tilted, as the king-bolt D merely turns upon its hinged connection *e*, and allows the carriage to maintain its horizontal position, as clearly shown in fig. 2.

It will be seen that the operative parts of my coupling are few and simple in their construction, and that they can be readily applied to any carriage or spring-wagon.

I claim herein as new, and of my invention—

A carriage-coupling, consisting of the clip C, king-bolt D *d* E, hinged connection *e*, combined metallic and wooden head-block F G, and attaching-devices J J', or their mechanical equivalents, for the purpose herein described and set forth.

In testimony of which invention, I hereunto set my hand.

LEWIS GRIM.

Witnesses:

GEO. H. KNIGHT,
JAMES H. LAYMAN.