

J. H. COMBS.
CARRIAGE KING-BOLT.

No. 190,555.

Patented May 8, 1877.

Fig. 1.

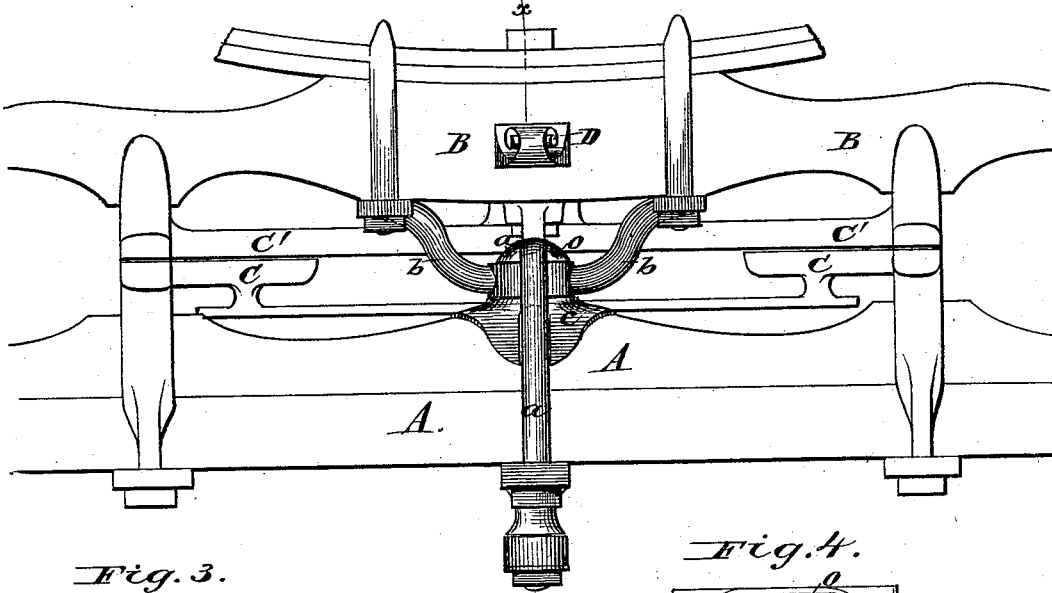


Fig. 3.

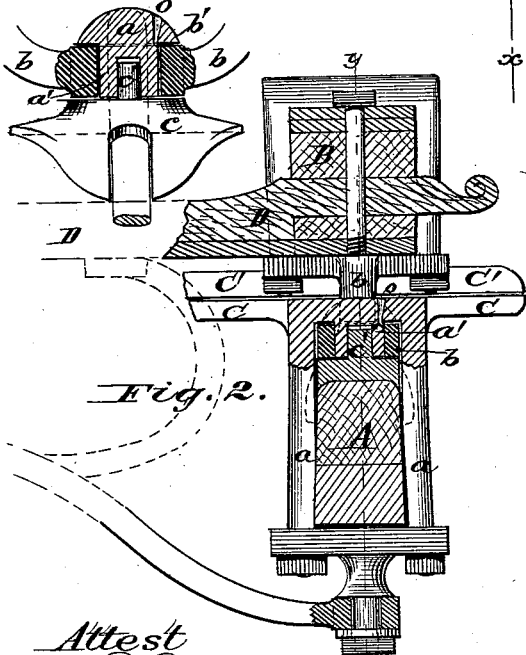


Fig. 2.

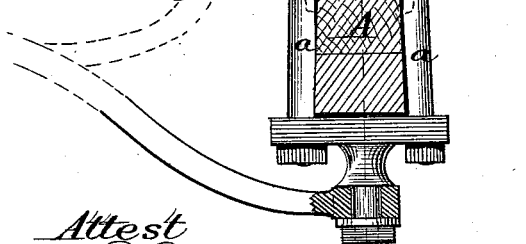
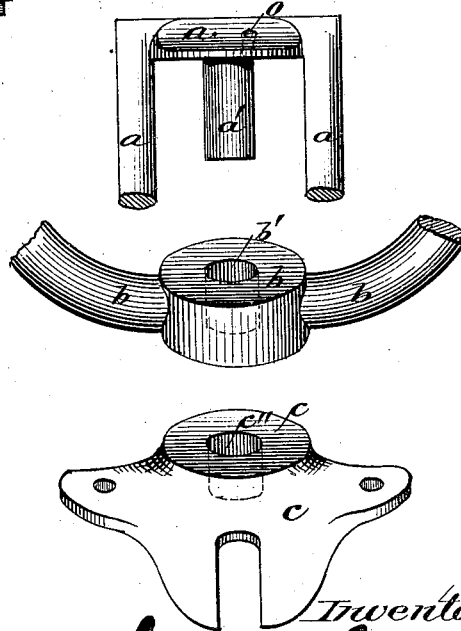


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN H. COMBS, OF STAMFORD, ASSIGNOR OF ONE-HALF HIS RIGHT TO
BRYAN A. TREAT, OF NAUGATUCK, CONNECTICUT.

IMPROVEMENT IN CARRIAGE KING-BOLTS.

Specification forming part of Letters Patent No. 190,555, dated May 8, 1877; application filed
December 13, 1876.

To all whom it may concern:

Be it known that I, JOHN H. COMBS, of Stamford, Fairfield county, Connecticut, have invented an Improvement in King-Bolts for Carriages; and I do hereby declare the following to be a full and correct description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a front view; and Fig. 2 is a cross-section taken through xx , Fig. 1. Fig. 3 is a transverse section taken on line yy , Fig. 2; and Fig. 4 is a detail view, showing a modification.

My invention relates to that class of devices known as "king-bolts," and used to secure the forward axle of a carriage or other land conveyance to the head-block or reach. It may also be used to secure the whiffletree to the pole, or may be used in any other suitable place about a carriage.

My invention consists in interlocking a clip having a centering-pin, and straddling the axle, with a clip fastened to the under side of the head-block, both of which clips bear upon a centering-plate upon the axle. This construction avoids the perforation of the head-block, spring, or axle; may be easily oiled, and is an additional security in case the centering-pin should break.

In the drawings, A represents the axle of a carriage, and B the head-block, with a portion of a spring shown upon its top.

U and U' are the fifth-wheel, part of which is secured to the axle and part to the head-block, in the usual manner.

D is the reach, passing through the head-block. a is a clip, straddling the axle A, and secured by a plate and nuts underneath, in the usual manner. The clip a has a centering-pin, a' , underneath its head, projecting downward.

Secured to the under side of the head-block B is the clip b , having a center orifice, b' , into which the centering-pin a' operates, the head of the clip a' resting upon the top of the clip b .

Beneath the clip b , and resting upon the axle A, is a centering-plate, c , screwed or oth-

erwise secured to the top of the axle, and embracing the legs of the clip a . Upon this plate is another centering-pin, c' , projecting upward into the centering-pin b' .

The plate c , however, may have a hole, c'' , through it, and the centering-pin b be solid and extend down into said hole c'' , as shown in Fig. 4. This construction is sometimes preferable, and is fully embraced by my invention.

Through the head of the clip a is an oil-hole, o , into which oil may be poured into the joints below, completely oiling all the parts in contact without taking the bolt apart, which is an advantage over all other king-bolts in use.

Another advantage arising from my improvement is, that no holes are made in the axle, head-block, or spring, thus allowing them to retain their original strength and durability.

Still another advantage is, that if the centering-pin should break, the clips being interlocked, the axle and head-block would still be held together, and a serious accident may be avoided.

The same advantages and features are also applicable to whiffletree-bolts, or other parts of carriages.

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

1. A king-bolt for a land conveyance, in which the clip upon the axle is interlocked with the clip upon the head-block and combined with a centering-pin, substantially as described.

2. A king-bolt for a carriage, consisting of the parts a , b , and c , combined and arranged substantially as described.

The above specification of said invention signed and witnessed, at Stamford, this 25th day of November, A. D. 1876.

J. H. COMBS.

Witnesses:

F. B. SCOFIELD,
CHAS. W. KNAPP, Jr.