(No Model.)

S. H. CARPENTER.

Carriage Axle Clip.

No. 235,069. Patented Dec. 7, 1880.

Fig. 3.

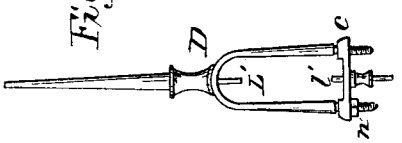

Fig. 2.

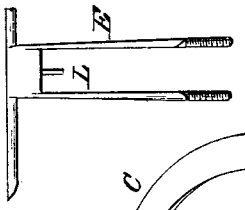

Fig. 1.

Witnesses:
W. C. Chaffee
W. L. Huntemann

Inventor.
Smith H. Carpenter
by J. R. Nottingham
Asso. Atty

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

SMITH H. CARPENTER, OF VIRGIL, NEW YORK.

CARRIAGE-AXLE CLIP.

SPECIFICATION forming part of Letters Patent No. 235,069, dated December 7, 1880.

Application filed September 17, 1880. (No model.)

To all whom it may concern:

Be it known that I, SMITH H. CARPENTER, of the town of Virgil, in the county of Cortland and State of New York, have invented certain new and useful Improvements in Carriage-Axle Attachments; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to a clip king-bolt and other clips for securing the wooden portion of the axle to the metal portion, and also to a fifth-wheel bearing, which forms, by downwardly-extending arms, which are threaded, as shown, an additional clip made in one with the fifth-wheel bearing; and the novelty consists in the combination and arrangement of parts, as will be more fully hereinafter set forth.

In this art it is extremely necessary that the king-bolt should not move upon the axle from lateral strain, and it is also necessary that the iron axle and the wooden portion thereof should be held firmly together.

I am aware that clip king-bolts have been formed with a lug or stud to prevent lateral motion of the top of the clip.

In my invention I provide a bifurcated king-bolt clip, the lower ends of the arms of which are screw-threaded to receive a plate provided with a pin or lug, which is secured beneath the metal axle by means of proper nuts.

In the accompanying drawings, Figure 1 represents a perspective view of my invention, and Figs. 2 and 3 detailed portions thereof.

The letter A indicates the metal portion of the axle, B the wooden portion thereof, and C the fifth-wheel bearing. Said fifth-wheel bearing is provided with downwardly-extending arms E, which are screw-threaded upon their lower extremities, and receive a plate, *c*, which is provided with proper shoulders to receive the metal axle, and with a pin or stud, *l'*, which operates in proper perforations in the metal axle to prevent lateral motion. The upper portion, within the arms, is also provided with a lug or pin, L, which operates within a hole in the wooden portion of the axle.

G indicates the thill-clips, which may be similarly constructed.

D indicates the king-bolt, having the upper pin, L', and plate *c*, having lug or pin *l'*, secured upon the embracing-arms by nuts *n*.

It will be observed that, the pins operating one above within the wooden portion of the axle and the other below in the metal portion thereof, all lateral play is avoided, and also that this construction of the fifth-wheel bearing is of great utility in this class of vehicles.

Various modifications may be made without departing from the principle or sacrificing the advantages of this invention, the essential features of which are the upper and lower pin-fastenings and the fifth-wheel-bearing clips.

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

In combination with the metallic and wooden portions of the axle, the king-bolt clip and fifth-wheel-bearing clips provided with pins for engaging the wooden portion of the axle, and the securing-plates provided with similar pins for engaging the metallic portion, whereby the king-bolt and fifth-wheel bearing are secured in place and the metal and wooden portions of the axle firmly bound together against longitudinal as well as lateral displacement, substantially as specified.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

SMITH H. CARPENTER.

Witnesses:

ALFRED GREENE,

ARTHUR L. KNIGHT.