F. B. MORSE.

Carriage Clip.

No. 108,720. Patented Oct. 25, 1870.

fig. 1.

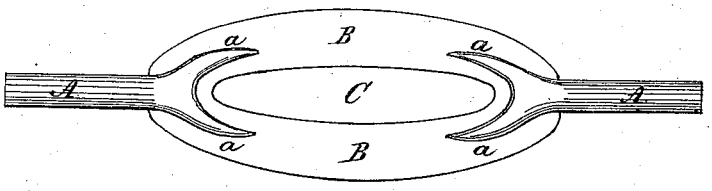

fig. 2.

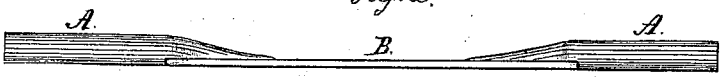

fig. 3.

Witnesses

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FRANCIS B. MORSE, OF PLANTSVILLE, CONNECTICUT, ASSIGNOR TO HIMSELF AND H. D. SMITH & CO., OF SAME PLACE.

Letters Patent No. 108,720, dated October 25, 1870.

IMPROVEMENT IN CARRIAGE-CLIPS.

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

To all whom it may concern:

Be it known that I, FRANCIS B. MORSE, of Plantsville, in the county of Hartford and State of Connecticut, have invented a new Improvement in Carriage-Clips; and I do hereby declare the following, when taken in connection with the accompanying drawing and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawing constitutes part of this specification, and represents in—

Figure 1, a top view;

Figure 2, a side view; and in

Figure 3, a single clip.

This invention relates to an improvement in carriage-clips, the object being to strengthen the clip at the intersection of the bolt, and also to divide the clip so that two bearings are had upon the upper side of the axle.

Heretofore clips have been formed of a single flat plate, with the bolt portion forged at the ends and dying out in a single branch upon the surface of the clip; hence, in turning on the nut, which must necessarily fit very tight, the twisting strain at the intersection of the bolt and clip is so great that the bolt portion is frequently wrenched from the clip or the clip twisted out of shape; and, further, in drawing clips down upon the wooden axle they are imbedded slightly into the surface, the object being to prevent the clip from moving on the axle, but this in very light clips is difficult to do.

By my invention these difficulties are entirely overcome, and consists in dividing the bolt portion into two branches, extending to the right and left onto the clip; also in dividing the clip into two parts, so as to form a space between the said two parts to give two bearings of the clip on the axle.

A A are the bolt portions of the clip, which, at their intersection with the clip proper, are divided into branches *a a*, to the right and left, extending onto and dying out on the clip, as denoted in figs. 1, 2, and 3.

These branches form a brace against the twisting strain, and so far strengthens the clip at that point as to entirely prevent or avoid the liability of breaking, as before described.

The body of the clip which extends from bolt to bolt I divide into parts B B, leaving a space, C, through the center.

This clip is formed in dies in the usual manner, and when bent over the wood portion of the axle the two parts B B are imbedded into the wood, thus doubling the resistance or inclination of the clip to a lateral movement on the axle, and the clip is produced at a very slight, if any, additional cost to the common clip.

I claim as my invention—

1. A carriage-clip, in which the bolt portion extends onto clip, and is divided into branches to the right and left, substantially in the manner set forth.

2. A carriage-clip, in which a recess, C, is formed in the body dividing it into the two portions B B, as and for the purpose described.

F. B. MORSE.

Witnesses:

A. J. TIBBITS,

J. H. SHUMWAY.