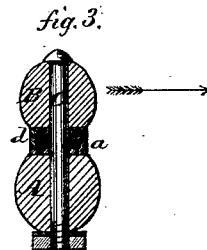
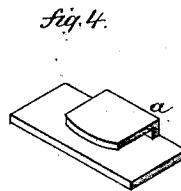
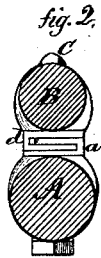
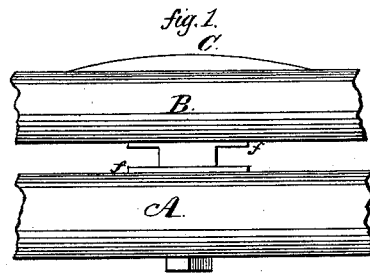


F. B. MORSE.

Whiffletree.

No. 111,866.

Patented Feb. 14, 1871.



Witnesses.

J. H. Hummway  
A. J. Tebbitz

Francis B. Morse  
Inventor

By his Attorney

John E. Earle

# United States Patent Office.

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

Letters Patent No. 111,866, dated February 14, 1871.

## IMPROVEMENT IN WHIFFLETREE-PLATES.

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 Whiffletree-Plates for Carriages; 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 rear view;

Figure 2, a side view;

Figure 3, a transverse central section; and in

Figure 4, a perspective view of each part of the plate, both parts being alike.

This invention relates to an improvement in the coupling by which the whiffletree is secured to the bar, commonly called whiffletree-plates; and

It consists in forming each of the two parts from flat steel, bent into U-form, the two parts being alike; one locks into the other, and the whiffletree-bolt passes through the two sides of each part, securely locking them together.

A is the whiffletree-bar, and

B the whiffletree, of common construction.

*a* is one part, and

*d* the other part of the whiffletree-plate.

From a flat or base-plate, F, a tongue is turned up into U-form, as seen in fig. 4.

One of these plates is secured to the whiffletree-bar, another to the whiffletree, as seen in figs. 2 and 3, so that the plate on each will pass into the plate on

the other, and through the whole the whiffletree-bolt passes, securing all together.

If, therefore, the bolt from any cause becomes detached or broken, the draft (being in the direction of the arrow in fig. 3) will only draw the parts together, and when properly fitted the draft may be made entirely upon the plates, the bolts serving only to prevent the separation of the plates.

The edge of each plate which locks into the other is curved sufficiently to give the necessary play to the whiffletree without bearing against the other part, but so that if, from any cause, one trace becomes detached, the other end, drawn forward, will bring the plates to a bearing at the limitation of the plates, and thus avoid accidents which frequently occur from detachment of the traces.

By this construction the plates are easily forged and at no more expense than the various kinds of plates now in use, which are necessarily made of cast metal; consequently the plate is proportionately stronger and safer, that is, less liable to accidents.

I do not wish to be understood as broadly claiming a whiffletree-plate constructed so that the two parts are locked together, as such I am aware is not new.

I claim as my invention—

As an article of manufacture, a whiffletree-plate formed from two parts, *a* and *d*, each part being substantially like the other, and combined in the manner described.

Witnesses:

A. J. TIBBITS,  
J. H. SHUMWAY.

F. B. MORSE.