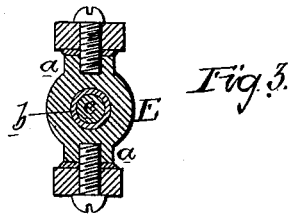
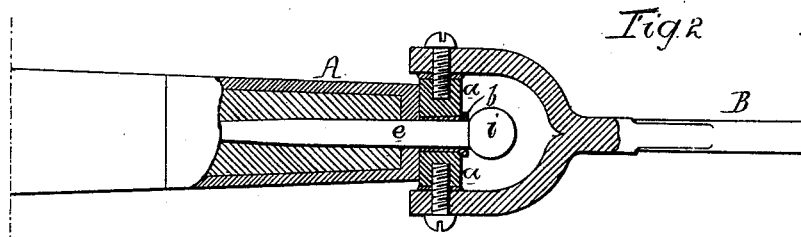
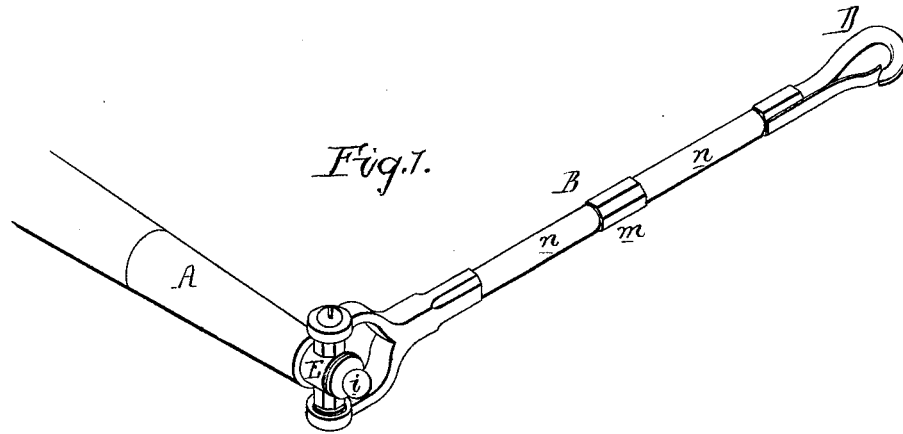


F. LECLÉRE.

HARNESS CONNECTION FOR VEHICLES.

No. 189,755.

Patented April 17, 1877.



Witnesses
Henry Howson, Jr.
Harry Smith

Francis Leclère
by his Attorneys
Howson and son

UNITED STATES PATENT OFFICE

FRANCIS LECLÈRE, OF DETROIT, ASSIGNOR TO WILLIAM L. BANCROFT,
JAMES GOULDEN, AND NATHAN S. BOYNTON, OF PORT HURON, MICH.

IMPROVEMENT IN HARNESS-CONNECTIONS FOR VEHICLES.

Specification forming part of Letters Patent No. 189,755, dated April 17, 1877; application filed
October 9, 1876.

To all whom it may concern:

Be it known that I, FRANCIS LECLÈRE, of Detroit, Michigan, have invented an Improved Harness-Connection for Vehicles, of which the following is a specification:

The object of my invention is to so construct a device for attaching traces to the whiffletrees, and collar-straps to the poles, of vehicles that it will not be open to any of the objections which apply to the ordinary loose chain connections; and this object I attain in the manner which I will now proceed to describe, reference being had to the accompanying drawing, in which—

Figure 1 is a perspective view of the improved connection; and Figs. 2 and 3, longitudinal and transverse sections, respectively, of the universal joint by which the connecting-bar is attached to the whiffletree or pole.

The ordinary method of connecting the ends of whiffletrees to the traces, and the ends of poles to collar-straps, is by means of chains and hooks, which are not only difficult to fasten and unfasten, but are liable to kink, and thus demand straightening before an attachment can be made.

These objections are especially prominent in the case of fire apparatus, where rapid hitching up of the horses is important.

These objections I overcome in the manner shown in the drawing, in which A represents the end of a whiffletree or pole of a vehicle, and B a rod of metal, preferably wrought-iron or steel, forked at one end and bent at the opposite end, and provided with a spring, so as to form a snap-hook, D.

The ends of the forked portion of the bar B are pivoted to a swivel, E, which can turn freely on a sleeve, b, surrounding a pin, e, the latter being driven into the end of the whiffletree or pole, and having at the outer end a knob, i, or other suitable enlargement for retaining the swivel in place.

This universal-joint connection permits the movement of the rod B in any desired position, and the rod itself, being rigid, serves as a handle for directing the snap-hook to its proper place.

It will be evident that by the above-described device connections between the collar-strap and pole or traces and whiffletree can be effected much more readily than with the ordinary chains, and that the connection, when made, is more liable, accidents such as the kinking of the chain when the speed of the horse is slackened, and its fracture when suddenly strained while kinked, being prevented.

If desired, the rod B may be made in sections—that is, a center piece, *m*, and end pieces *n n*, the center piece *m* being tubular and threaded internally to correspond with threads formed on the ends of the sections *n*, so that the rod B can be lengthened or shortened at pleasure. I prefer to make the rod in one single piece, however, so that it may better resist the strains to which it is subjected.

I claim as my invention—

1. The combination of the whiffletree or pole of a vehicle with a rod, B, having at one end a hook, D, and connected at the other end to said whiffletree or pole by a universal joint, as set forth.

2. The combination of the swivel E, pivoted to the whiffletree or pole, with the rod B, having a forked end pivoted to said swivel, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANCIS LECLÈRE.

Witnesses:

HENRY HOWSON, Jr.,
HARRY SMITH.