G. H. SPENCER.

Combined Standard and Spring.

No. 161,173. Patented March 23, 1875.

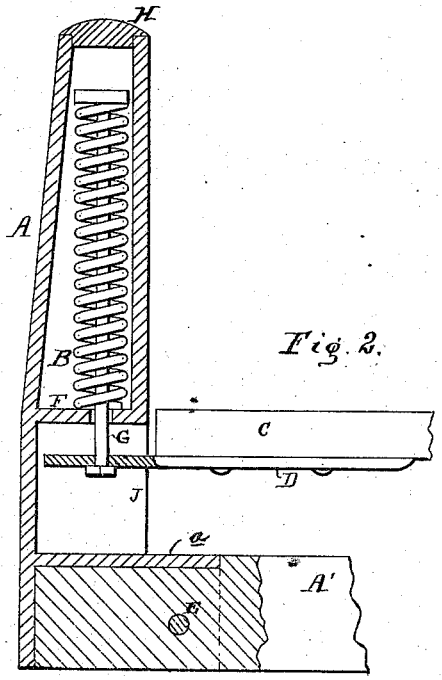

Fig. 2.

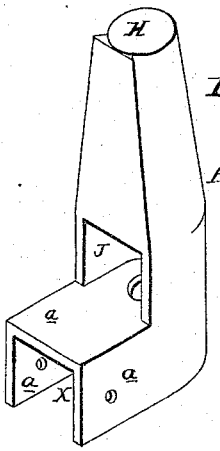

Fig. 1.

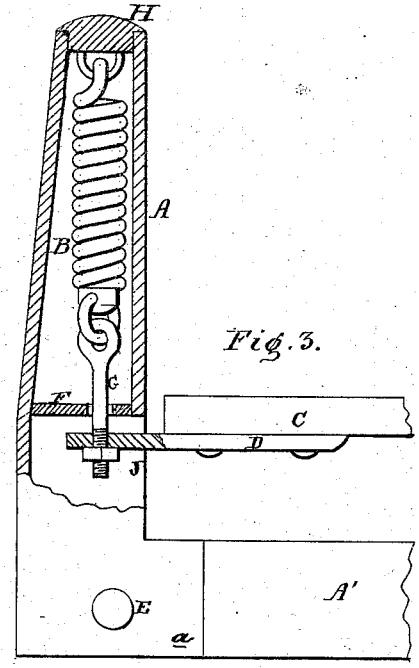

Fig. 3.

Witnesses:

W. E. Evans

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UNITED STATES PATENT OFFICE.

GEORGE H. SPENCER, OF JERSEY CITY, NEW JERSEY.

IMPROVEMENT IN COMBINED STANDARDS AND SPRINGS.

Specification forming part of Letters Patent No. **161,173**, dated March 23, 1875; application filed August 22, 1874.

To all whom it may concern:

Be it known that I, GEORGE HARRISON SPENCER, of Jersey City, county of Hudson, State of New Jersey, have invented a Combined Standard and Spring Support for Vehicles, of which the following is a specification:

The object of my invention is a combined standard and spring support for vehicles, consisting of a hollow standard, A, (shown in perspective in Figure 1, and in section in Fig. 2,) and containing a spring, B, of coiled wire or rubber.

The standard A is connected to the bolster A′ in the usual position, and to the spring B is suspended one end of one of the cross-bars C, there being four standards and four springs. The latter, therefore, support the entire body of the vehicle, which rests on the cross-bars. In the present instance the standard is in the form of a tubular case of cast metal, having an opening, J, at one side to admit the end of a plate, D, bolted to and projecting from the cross-bar, and provided at the lower end with projecting flanges *a a a*, which inclose a socket, *x*, for receiving the end of the bolster, the standard being confined to the bolster by a cross-bolt, E. The spring B, inclosed in the upper tubular portion of the standard, rests upon a flange, F, through an opening, in which passes a rod, G, connected at the lower end to the plate D, and having a head that rests on the upper end of the spring. A detachable cap, H, fitted to the upper end of the standard permits the ready insertion and removal of the spring, which, however, instead of resting on the flange F, may be hung to the cap or to a projection at the upper end of the standard, as shown in Fig. 3.

The standard being of cast metal is strong, light, and cheap. It is securely attached by the bolt E to the bolster, and prevents the access of moisture to the end of the latter, and the consequent rotting of the wood so liable to occur at this point. The springs being completely inclosed are protected from injury. They may be much more readily applied and removed than the ordinary elliptic springs, while they afford a yielding support equal in every respect to that afforded by springs of a far more expensive construction. The guided rods G maintain the springs in a central position, and prevent the wear that would result from their contact with the sides of the standard.

Without confining myself to the precise construction and arrangement of parts described I do not claim, broadly, a hollow standard containing a spring for supporting the body of the vehicle; but

I claim—

1. A hollow standard, A, provided with a spring, B, and rod G, connected at the lower end to the body of the vehicle, all combined as set forth.

2. The hollow standard A containing a spring, B, and having at the lower end a socket, *x*, for receiving the end of the bolster, all combined as set forth.

3. The combination, with the hollow standard and its spring B, of the rod G, guided as described, so as to prevent contact of the spring with the standard.

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

GEORGE HARRISON SPENCER.

Witnesses:

WM. A. STEEL,

CHARLES E. FOSTER.