J. TILTON.

Spring Side-Bar for Vehicles.

No. 160,244. Patented Feb. 23, 1875.

Fig. 1.

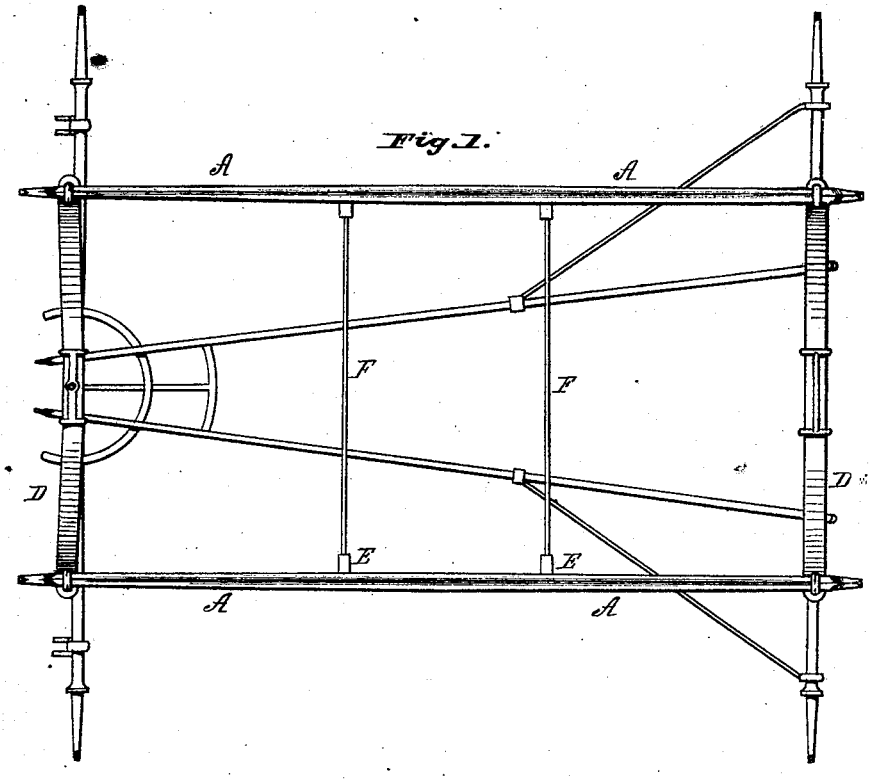


Fig. 2.

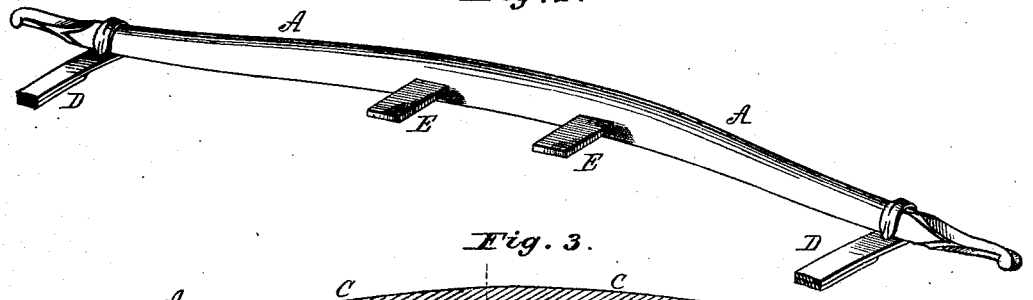


Fig. 3.

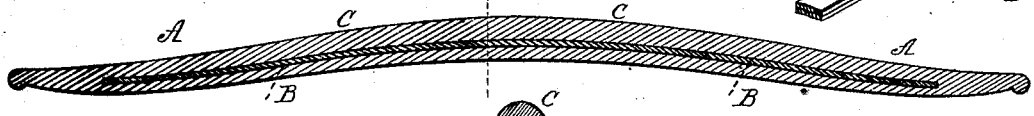
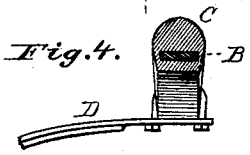


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOSEPH TILTON, OF NEW YORK, N. Y.

IMPROVEMENT IN SPRING SIDE BARS FOR VEHICLES.

Specification forming part of Letters Patent No. **160,244**, dated February 23, 1875; application filed January 29, 1875.

To all whom it may concern:

Be it known that I, JOSEPH TILTON, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Springs for Vehicles, of which the following is a specification:

This invention relates to certain improvements in that class of side bars for wagons in which a metallic bar is inserted edgewise into the wooden side bar for strengthening the same, and the wooden side bars provided with lateral arms for supporting the transverse body-springs; and the object of my invention is to provide a spring designed especially for buggies or side-bar wagons, &c., which shall be less complicated and more elastic than the springs heretofore devised. The invention consists in the incasing a steel spring composed of one or more leaves in a covering of vulcanized india-rubber, or other elastic material, so as to produce a compound or covered spring, which is more elastic and durable than an ordinary steel spring attached directly to the clip; a compound or covered spring so constructed being also designed to subserve the function or purpose of a side or body-supporting bar. The invention also consists in the provision of inwardly-extending arms or rests on the incased spring, which project through the rubber covering of the spring, and serve as supports for transverse body-supporting springs, or as attaching-points for transverse stay-rods.

In the accompanying drawing, Figure 1 is a plan view of the running gear of a side-bar wagon, representing my improved springs applied thereto. Fig. 2 is a perspective view of a compound or incased spring constructed according to my invention. Fig. 3 is a longitudinal section, and Fig. 4 is a transverse section, of the same.

A designates a combined side bar and compound spring, which is composed of a longitudinally-extending leaf or plate spring, B, made in one or more sections, and covered or incased in a bar of vulcanized india-rubber or other suitable elastic material, C. In practice, the metal spring is first embedded into or covered with the india-rubber, and then the parts are firmly united or rendered integral by vulcanizing the india-rubber in a suitable flask contrived or employed for this purpose. The india-rubber casing or spring-covering is also finished or shaped in such a way as to partake of the appearance of the ordinary side bar for wagons or light vehicles, which it is designed to supersede.

The compound side bar and spring may be used either separately in connection with the body which it is to support, or its ends may rest upon transverse springs D, secured to the front and rear bolsters of the running-gear or carriage-platform, as is shown in Fig. 1 of the drawing.

The compound side bars and springs, when applied in position, one at each side of the wagon, will serve to support the body in such a manner as to give the desired degree of elasticity, in many instances without resorting to other springs. The steel spring proper, by reason of its inclosed position in the rubber, and because it is not attached directly to the bolsters or platform of the vehicle, is permitted to assume a horizontal position when depressed, and to return to its original curve with a greater degree of ease and freedom.

The inclosed spring B may, in certain instances, be provided with projecting arms or short plates E, which project in an inward direction through the vulcanized-rubber covering, and serve as rests for supporting transverse body-supporting springs when such are used, or they may serve as attaching-points for transverse stay-rods F, as is shown in Fig. 1.

What I claim is—

The metallic spring or plate B, having a covering of elastic vulcanized india-rubber, C, for producing a combined side bar and spring for vehicles, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand.

JOSEPH TILTON.

Witnesses:

R. M. STIVERS,

GEO. E. W. STIVERS.