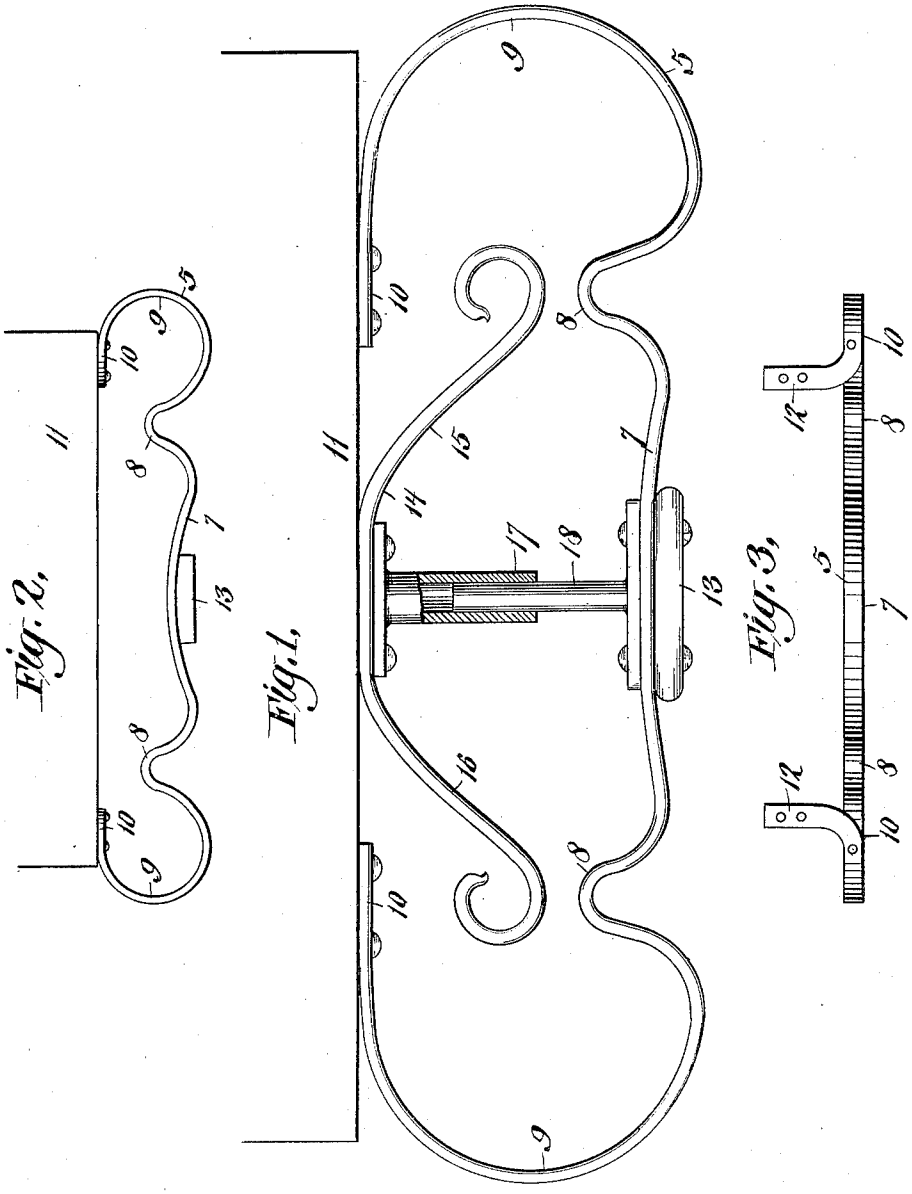
No. 662,876. Patented Nov. 27, 1900.

W. PARFREY.

SPRING FOR VEHICLES.

(Application filed Mar. 5, 1900.)

(No Model.)



WITNESSES:

G. M. Howell

Wm. T. Humbert

INVENTOR

William Parfrey

BY

Garry P. Van Wyck.

ATTORNEY

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM PARFREY, OF NEW YORK, N. Y.

SPRING FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 662,876, dated November 27, 1900.

Application filed March 5, 1900. Serial No. 7,373. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM PARFREY, a subject of the Queen of Great Britain, residing at New York, in the county and State of New York, have invented a new and useful Spring for Vehicles, of which the following is a specification.

My invention relates to springs for vehicles, and has for its object, first, to provide a spring so constructed that a cheaper grade of material or untempered metal may be used in the manufacture thereof; second, to provide a spring which will be very elastic under a light load and yet be able to sustain a heavy load and have great elasticity under the same, and, third, to provide means to prevent lateral play and to insure the bed of the vehicle being held in a horizontal position. I attain these objects by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a view of my improved spring and of the supplemental spring and of the steadying device. Fig. 2 is a view of the spring as used on the front of the vehicle or on the side thereof, and Fig. 3 is a top plan view of the spring shown in Fig. 2.

In the accompanying drawings the same numerals of reference refer to like parts in each of the views, and in the practice of my invention I provide a spring 5, constructed from a single piece of band-steel, which is preferably left untempered, and by bending the same, as shown in the drawings, I am able to make a spring having the required elasticity and great sustaining power. The spring as constructed consists of a central substantially horizontal portion 7, an upwardly-bent portion 8 at each side thereof, and a semicircular portion 9, extending from each portion 8 around upward and ending in an extension 10, adapted to be secured to the vehicle 11, and the spring may also have a lateral extension or arm 12. The spring should be supported centrally of the bottom thereof, as shown by the reach 13, or by any suitable support, and in operation the bent portions 8 sustain and give great elasticity to the curved portions 9, and the entire construction makes a very simple and efficient spring. In practice it is made of untempered spring-steel and is very durable, retains its shape perfectly, will not break as easily as springs constructed from tempered spring-steel, and costs comparatively little to manufacture. This form of spring I use on light vehicles, either in the front, at the rear, or on the sides. On heavy vehicles and on vehicles subjected to heavy loads at times I prefer to use a supplemental spring 14, consisting of two leaves 15 and 16, each of which projects outwardly and downwardly and is provided at the outer ends with an upwardly-curved extension. In practice the leaves 15 and 16 are held free from contact with the bent portions 8 of the spring 5 under a light load; but under a heavy load the curved portions 9 of the spring 5 will be depressed until the ends of the leaves 15 and 16 will contact with the said bent portions, as will be readily understood, and the spring 14 will then help sustain the weight of the load. It will thus be seen that I am able to use the regular spring under a light load and a supplemental spring in conjunction therewith under a heavy load. I may also use a steadying device, as shown in Fig. 1, which consists of a tubular socket 17 and a standard 18, working therein. This device is of great advantage where it is desirable that the bed of the vehicle should be held quite steady and also insures the perfect working of the spring 14 with the spring 5.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A vehicle-spring consisting of a horizontal portion 7, two bent portions 8, adjacent thereto, two circular portions 9, each describing substantially a half-circle, and extensions 10 adapted to be secured to the bed of a vehicle, substantially as and for the purpose set forth.

2. A vehicle-spring, consisting of a horizontal portion 7, two bent portions 8, two circular portions 9, and extensions 10, and lateral extensions 12, substantially as and for the purpose set forth.

3. A vehicle-spring comprising a spring 5, having horizontal portion 7, bent portions 8, circular portions 9, and extensions 10, and a supplemental spring 14, having leaves 15

and 16 adapted to coact with said bent portions 8, substantially as and for the purpose described.

4. The herein-described spring for vehicles, and steadying device therefor, comprising spring 5, having horizontal portion 7, bent portions 8, circular portions 9, and extensions 10, and a supplemental spring 14, with leaves 15 and 16, coacting with said spring 5, and a steadying device, comprising socket 17, and standard 18, substantially as and for the purpose described.

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

WILLIAM PARFREY.

Witnesses:
G. M. HOWELL,
M. T. HUNTER.