

J. E. TABER
Carriage-Spring.

No. 41,404.

Patented Jan 26, 1864.

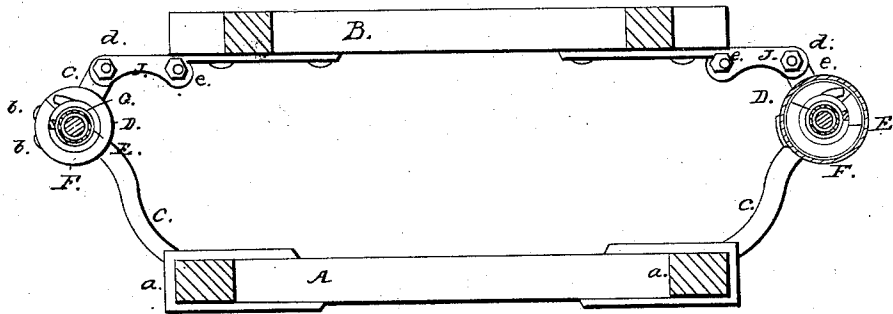


Fig. 1.

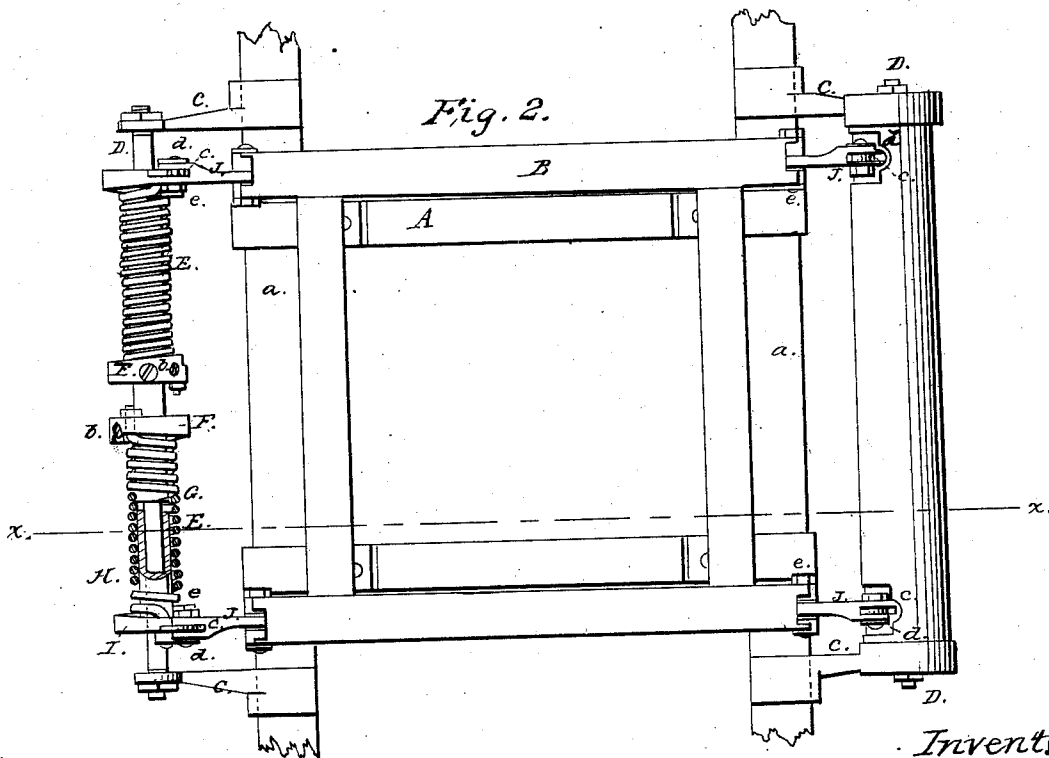


Fig. 2.

Witnesses:

John E. Taber

Geo. Reed

Inventor:

John E. Taber
per Munroe
Atty

UNITED STATES PATENT OFFICE.

JOHN E. TABER, OF FALL RIVER, MASSACHUSETTS.

IMPROVEMENT IN SPRINGS FOR WHEEL-VEHICLES.

Specification forming part of Letters Patent No. **41,404**, dated January 26, 1864.

To all whom it may concern:

Be it known that I, JOHN E. TABER, of Fall River, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Springs for Wheel-Vehicles; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a longitudinal vertical section of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a plan or top view of the same.

Similar letters of reference indicate corresponding parts in the two figures.

This invention consists in the employment or use of spiral springs applied to a wheel-vehicle in such a manner that the latter will have a yielding movement or play in any direction—that is to say, both forward and backward, laterally and vertically—and a very easy and comfortable pleasure vehicle obtained, and one which will not be liable to be racked or injured by jars or concussions in passing over rough and uneven roads, the springs also not being liable to be injured by being subjected to heavy loads.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the portion of a wheel-vehicle, with which the wheels are connected, and B is a frame on which the body of the same rests. The bars *a a* of the part A of the vehicle are the beds of the axles, and each bar *a* has two curved metal bars, C C, attached to it, one near each end. These bars C form supports for rods D, which are parallel with the bars *a*.

On each rod D there are fitted two spiral springs, E E, as follows: The inner ends of said springs are attached to collars F, which are secured to the rods by screws *b*. Each collar F has a tube, G, connected with it, and on said tubes the inner parts of the springs E are placed, the outer parts of the latter being fitted on tubes H, which have a collar, I, at their outer ends, the tubes H and collars I being placed loosely on the rods D.

The sides of the collars F I, against which

the ends of the springs E E bear, are made of screw form, corresponding to the convolutions of the ends of the springs, so that the latter may bear all around on the collars F I. (See Fig. 2.)

The collars I have each a radial projection, *c*, at their peripheries, and to each of these projections a bar, J, is attached by a bolt, *d*, forming a joint. The bars J are attached by joints *e* to the frame B.

From the above description it will be seen that the body of the vehicle will have a vertical or up-and-down movement, and also a forward-and-backward movement as well as a lateral movement, as the tubes H and collars I are allowed to slide on the rods D; and it will also be seen that when the body is lightly loaded the bars J will have a greater leverage power, said power decreasing as the body descends under the weight of its load, owing to the bars J assuming an inclined position as the frame B and body descends. Thus the springs and the load to which they are subjected are adapted to each other, and the former not liable to be overtaxed and injured or strained. By having the springs fitted on the tubes G H, and the collars F I made of screw form at one side, as described, the springs are prevented from cramping.

The rod D may be made solid or tubular, and the tubes G H may be of wrought or cast iron. I do not confine myself to either material.

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

1. The springs E, fitted on the rods D and connected thereto and the frame B, in connection with the tubes G H, collars F I, all arranged substantially as and for the purpose herein set forth.

2. The connecting of the springs E to the frame B by means of the bars J, collars I, and joints *e d*, when used for the purpose herein specified.

JOHN E. TABER.

Witnesses:

WILLIAM A. WINTER,
EMBERT HATHAWAY.