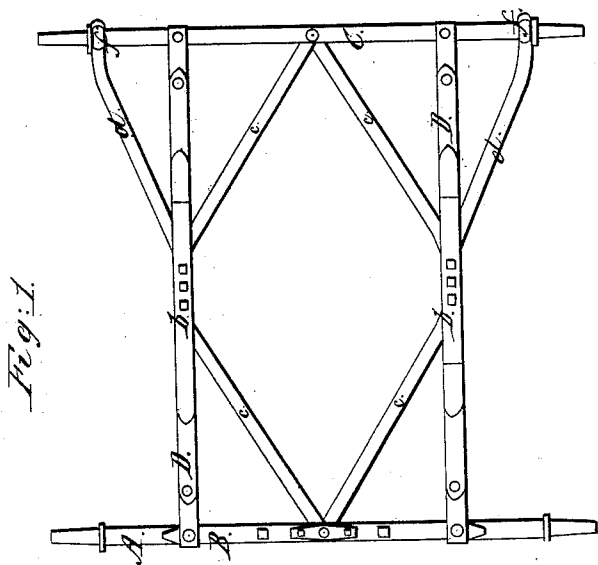


*A. K. Stone,*

*Carriage Spring,*

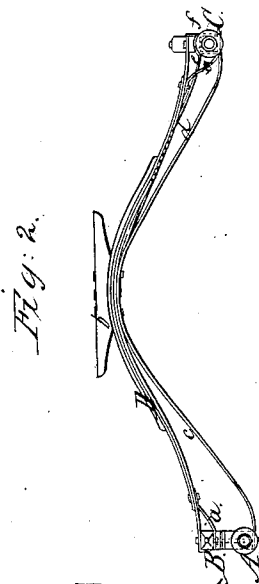
*N<sup>o</sup> 63,668.*

*Patented Apr. 9, 1867.*



*Witnesses*

*Samuel C. Piper,  
George H. Andrews.*



*Inventor,*

*A. K. Stone,  
by his attorney  
R. H. Udell.*

# UNITED STATES PATENT OFFICE.

ANSON K. STONE, OF ORONOCO, MINNESOTA.

## IMPROVEMENT IN WHEEL-CARRIAGES.

Specification forming part of Letters Patent No. **63,668**, dated April 9, 1867.

*To all persons to whom these presents shall come:*

Be it known that I, ANSON K. STONE, of Oronoco, in the county of Olmstead and State of Minnesota, have invented a new and useful Improvement in Wheel-Carriages; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a top view, and Fig. 2 a side elevation, of my invention as applied to the front and rear axles and the sweep-bar of a common pleasure-wagon.

In such drawings, A denotes the front axle, B the sweep-bar, and C the rear axle.

From the sweep-bar to the rear axle I extend two metallic arched springs, D D, they being arranged with respect to such sweep-bar and axle, and formed as exhibited in the figures. At or near their ends the said springs are to be bolted to the said bar and axle, and they may be further secured thereto by means of short braces *a a*, extending from each spring to the under side of the bar and axle. The wagon-body is to rest on the middles of the said two springs, to which it is to be fastened by bolts going through bearers *b b*.

To the under side of each axle, and at or near the middle thereof, two springs or elastic braces, *c c*, are bolted, they being extended obliquely and bolted to the two arched springs D D. Another elastic brace, *d*, is also secured to each of the arched springs at or near its middle, and is extended obliquely outward to and is fastened to the rear axle by one of two staples, *f f*, the arrangement of the aforemen-

tioned elastic braces being as represented in the drawings. The said elastic braces not only operate as springs to aid in giving support to the body of the carriage, but they serve to steady the main springs and carriage-body or prevent them from swaying laterally when the carriage may be in use.

I term my invention the "elastic gearing" for buggies or various other wagons. It has great advantages over the ordinary gearing or axle and spring connection. It is light, can be constructed at little expense, and causes the carriage to be very easy to persons when seated therein.

The elastic braces operate as an equalizer of pressure in this respect—that is, when one of the main springs is pressed downward by a force the braces tend to bring down the other spring, and thus cause it to lend its resisting power to that of the other main spring.

1. I claim the combination, as well as the arrangement, of the two main springs D D and the four elastic braces or brace-springs *c c c c* with the two axles and the sweep-bar, as specified.

2. I also claim the combination, as well as the arrangement, of the elastic braces *d d* with the four elastic braces *c c c c*, the two main springs D D, the two axles, and the sweep-bar, the whole being substantially as hereinbefore explained.

ANSON K. STONE.

Witnesses:

C. M. START,  
C. H. FOOT.