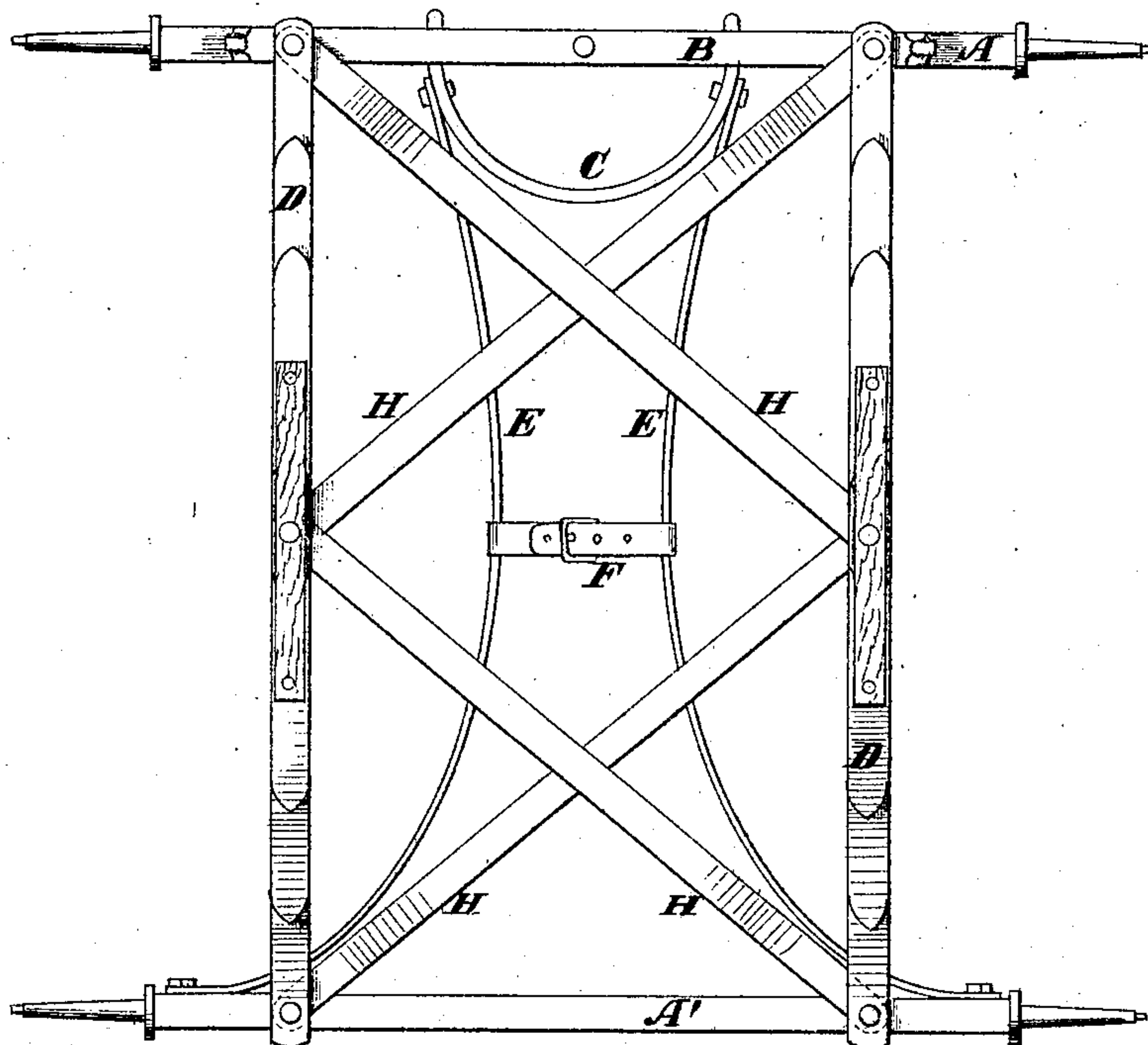


I. N. TOPLIFF.

Improvement in Elastic Buggy-Gear.

No. 127,441.

Patented June 4, 1872.



Witnesses

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Inventor.

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UNITED STATES PATENT OFFICE.

ISAAC N. TOPLIFF, OF ELYRIA, OHIO.

IMPROVEMENT IN ELASTIC BUGGY-GEARS.

Specification forming part of Letters Patent No. 127,441, dated June 4, 1872; antedated May 22, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, ISAAC N. TOPLIFF, of Elyria, county of Loraine, in the State of Ohio, have invented a new and Improved Elastic Buggy-Gear; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

Figure 1 is a view of the gear without wheels.

It is composed of nine springs, arranged in the following manner between the two axles: A represents the front axle; A', the hind one; B, the rocker; D D, the main side springs—they are the same as are now commonly used in similar buggies, except they should not be but about one-half as heavy. These springs may be fastened to the hind axle and the rocker either by bolts, clips, or a working joint; but no link is necessary at the ends as the springs can lengthen by crowding apart the axle and rocker. C represents the circle or fifth-wheel. This may be made in any of the usual forms, or it may be a bent-wood circle with an iron plate on the bottom. Upon the outside of this circle the springs E E are bolted fast, extending back in a curved manner to near the shoulder or collars of the hind axle; here they may either be bolted, clipped, or fastened with a working joint. These springs may be made of wood, bent in the proper form, or of spring-steel, the usual thickness and from one to two inches wide, according to the heft of the buggy. These springs take the place of a reach or reaches, which are now commonly used in buggies. F is an elastic strap, buckled around the springs E E. This strap is made of rubber, or it may be made of coil-wire, or anything that will be elastic.

The object of this elastic strap or spring is this: By buckling it up tight it will hold the springs E E firm in their place and thereby assist the springs D D to sustain a greater weight as they cannot settle down without straightening the springs E E. When a less load is to be carried, the strap can be let out or taken off.

H H H H represent four diagonal cross-springs. These are made of ordinary spring-steel, from three-fourths of an inch wide to one and one-half, according to the strength required. These springs are bolted or clipped onto the center of the main side springs D D. Those two that are fastened to the center of the spring on the right side of the buggy extend diagonally, one to the front, the other to the back end of the spring on the left side, and those on the center of the left spring in like manner to the right, where they are then made fast.

The object of these four spring is, first, to cause the wheels to track should the load be on one side of the body; second, they assist the body to carry level, should the weight be mostly on one side; third, they prevent the side motion; and fourth, they assist to sustain the load that is placed on the springs D D.

The whole, thus described, makes an easy, light, durable, and cheap buggy-gear.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The springs E E, for the purpose shown and described.
2. The combination of springs E E with strap F, as described.
3. The springs H H, arranged diagonally, for the purpose herein set forth.

ISAAC N. TOPLIFF.

Witnesses:

A. F. PARSONS,
F. D. HAYDEN.