

S. GILZINGER.
Vehicle-Spring.

No. 204,556.

Patented June 4, 1878.

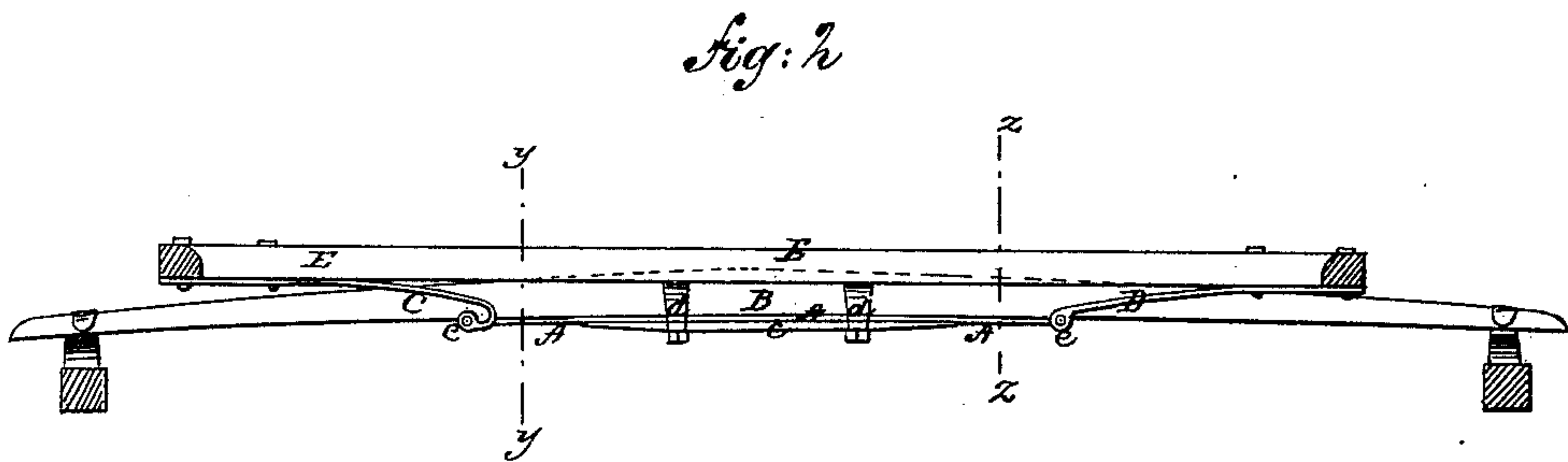
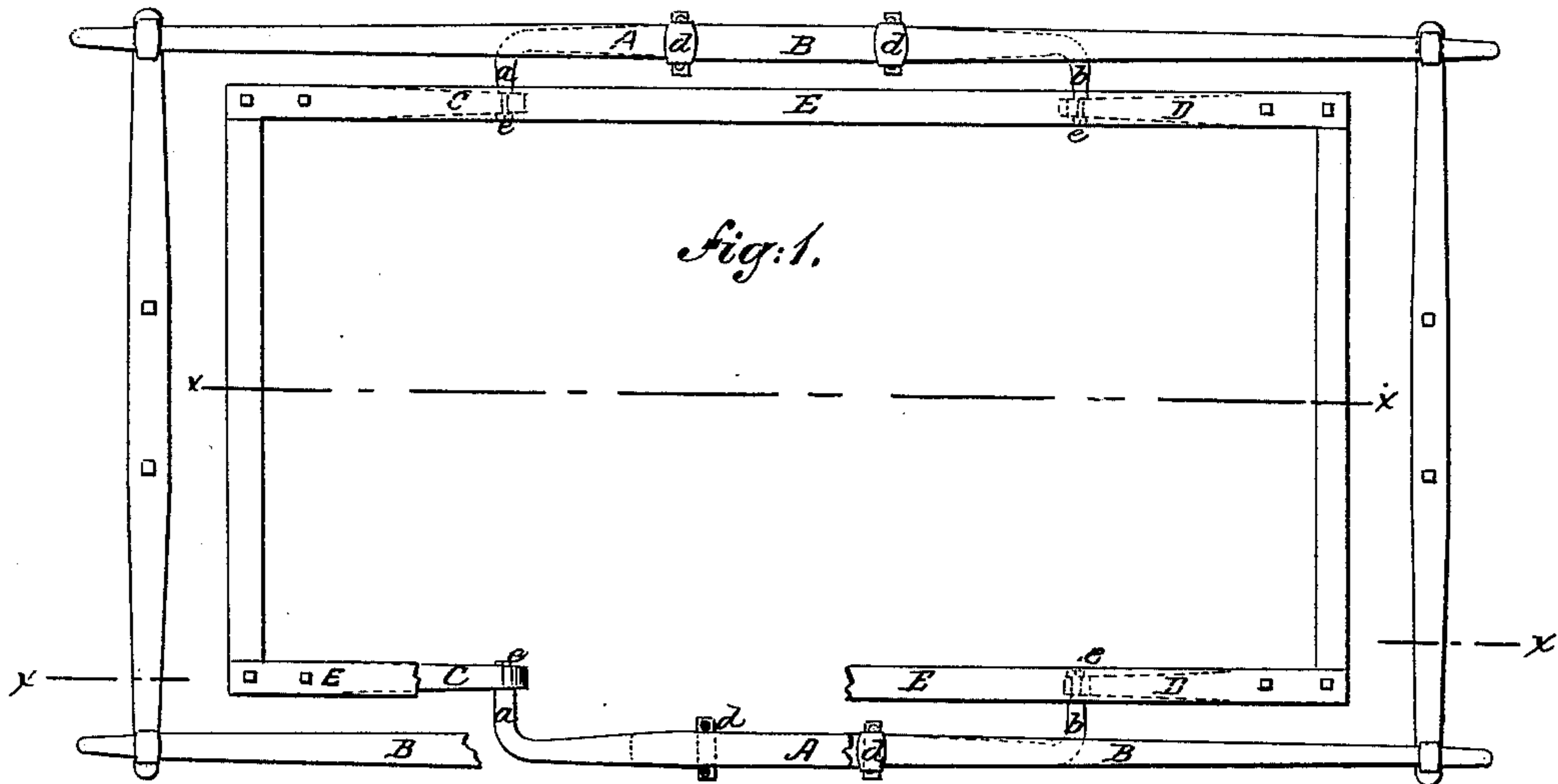


Fig: 3.

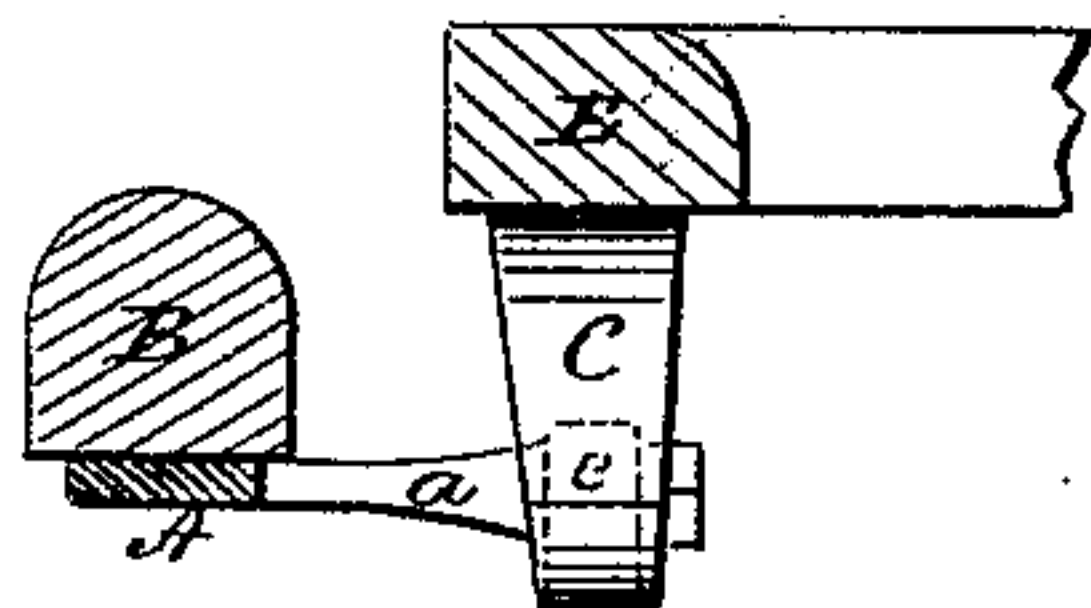
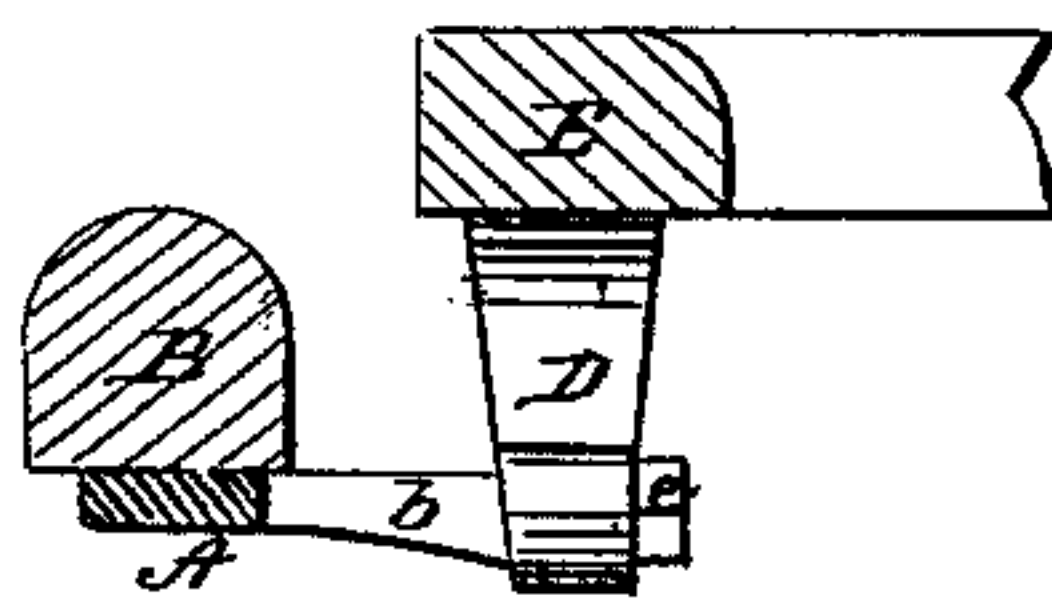


Fig: 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

SEBASTIAN GILZINGER, OF RONDOUT, NEW YORK, ASSIGNOR OF ONE-HALF HIS RIGHT TO ABEL A. CROSBY, OF SAME PLACE.

IMPROVEMENT IN VEHICLE-SPRINGS.

Specification forming part of Letters Patent No. 204,556, dated June 4, 1878; application filed May 6, 1878.

To all whom it may concern:

Be it known that I, SEBASTIAN GILZINGER, of Rondout, in the county of Ulster and State of New York, have invented a new and useful Improvement in Vehicle-Springs; and that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making part of this specification.

This invention is in the nature of an improvement in springs for vehicles; and the invention consists in vehicle-springs one part of which is a flat spring, with its ends bent substantially at right angles, to each of which ends, and by yielding joints, are affixed the ends of two other flat springs, the last-named springs being secured to the sill of the body, and the first-named spring to the side bars of the vehicle, substantially as hereinafter described.

In the accompanying sheet of drawings, Figure 1 is a plan or top view of my improved springs applied to side bar and body-sills; Fig. 2, a longitudinal section of same through line *x x*, Fig. 1; Fig. 3, a part cross-section through line *y y*, Fig. 2; and Fig. 4, a part cross-section through line *z z*, Fig. 2.

Similar letters of reference indicate like parts in the several figures.

While this invention is more particularly applicable to side-bar vehicles, still it may be applied advantageously to vehicles of other character.

In the construction of this spring a flat spring, A, is formed of any suitable length, and preferably of a width corresponding to the width of the side bar B, (if intended for a side-bar wagon). The ends of this spring are bent substantially at right angles to the length of the spring, the two bends being parallel with each other, and preferably inward; but they may, if desired, be bent outward for some forms of wagons. These bent ends, for convenience of reference, are designated *a* and *b*. This spring A may have in connection with it one or more leaves, *c*, to stiffen it when desired.

The spring and its leaf or leaves are firmly secured to the side bars B (one on each bar) by clips *d*, or in any other suitable manner.

To the ends *a* and *b*, by means of any suitable yielding joint, *e*, or attachment, are secured flat springs C and D. These springs are thus secured at one of their ends, as shown in the drawings, and their other ends are fastened, by bolts or otherwise, to the sills E of the body of the wagon. They (the springs C and D) may be bent at one of their ends to a C form, as is shown by C in Figs. 2 and 3; or they may have the form shown by D in Figs. 2 and 4, or any convenient and suitable form.

The springs, constructed and secured to the vehicle as described, yield a pleasant springiness to the wagon, neither too quick nor too slow, but a uniform elasticity, which enables the body of the wagon to accommodate itself to the inequalities of the road without shock or fatigue to the rider.

In their operation, the spring A is elastic from each side of the clips *d* or fastening devices, and the springs C and D are elastic from their point of attachment to the sill E of the wagon to the points where they are united to the bent ends *a* and *b* of the spring A, the yielding joint *e* permitting the springs to freely bend without danger of breaking.

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

A vehicle-spring consisting of three strap-springs, A C D, the spring A being secured to the side bars of the vehicle and having its ends bent substantially at right angles, to which bent ends, and by hinge-joints, are secured the ends of the springs C and D, which last-mentioned springs are also fastened to the sills of the body of the vehicle, substantially as and for the purpose described.

SEBASTIAN GILZINGER.

Witnesses:

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