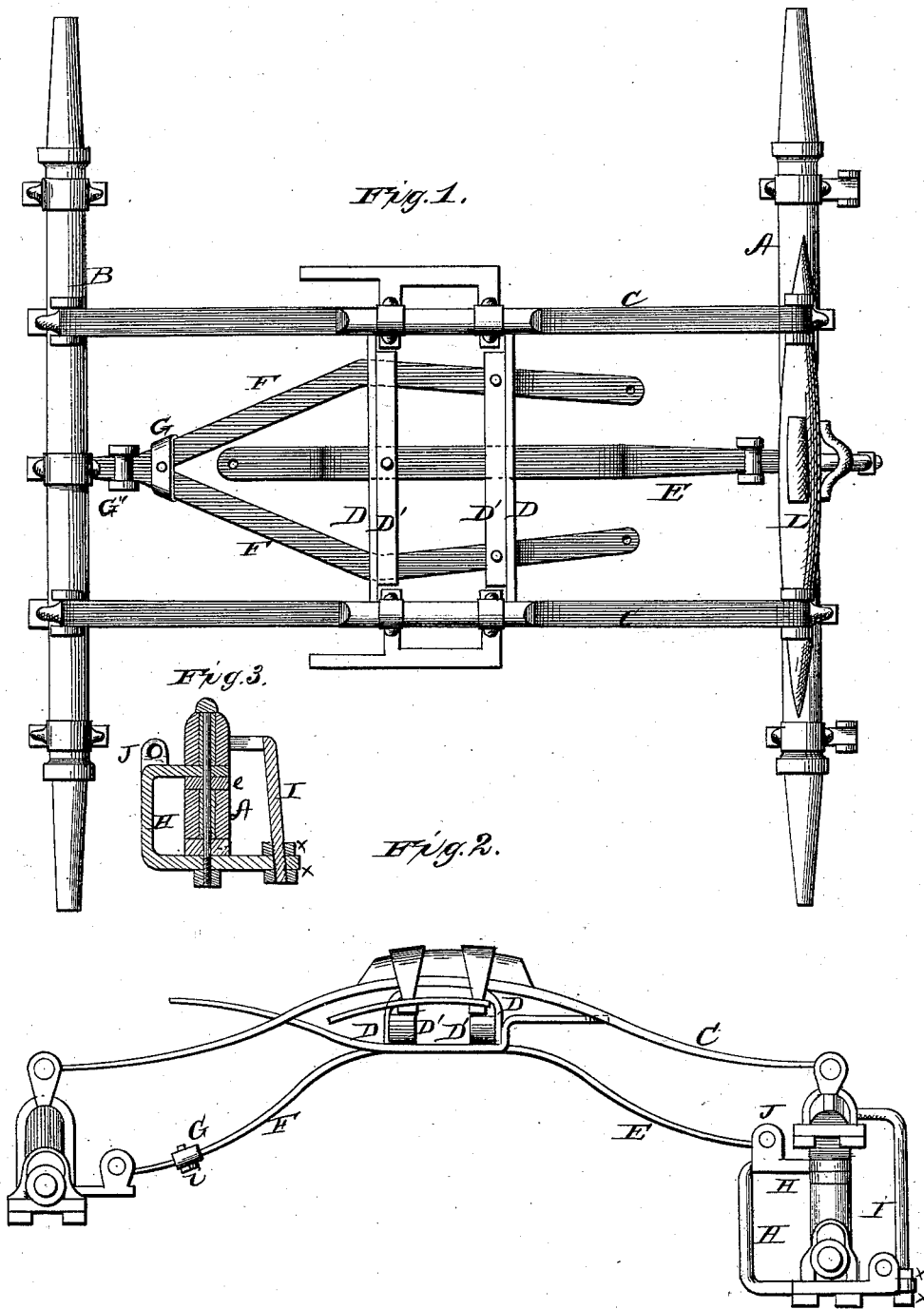


S. H. PRESTON.  
Vehicle Gear.

No. 201,829.

Patented March 26, 1878.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

SYLVESTER H. PRESTON, OF WORTH P. O., PENNSYLVANIA.

## IMPROVEMENT IN VEHICLE-GEARS.

Specification forming part of Letters Patent No. **201,829**, dated March 26, 1878; application filed February 11, 1878.

### *To all whom it may concern:*

Be it known that I, SYLVESTER H. PRESTON, of Worth P. O., in the county of Mercer, and in the State of Pennsylvania, have invented certain new and useful Improvements in Vehicles; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in certain improvements in vehicles, the peculiarities and details of which will be hereinafter more fully set forth.

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

In the accompanying drawings, making part of this specification, Figure 1 represents a plan view; Fig. 2, a side view, and Fig. 3 a vertical section taken through the head-block and exposing the king-bolt.

In the figures, A represents the front, and B the hind, axle of the vehicle, both of which are constructed in any of the well-known and usual ways.

C C represent the two side springs, which are in the form represented, and which have their rear ends clipped to the axle, and their front ends to the head-block, a little above each. These two springs are connected together at their centers by means of an iron stirrup-frame, D D, which is lined with the wooden bars D' D'. The frame D hangs under the springs, and is firmly clipped to them. It answers as a support for the body.

F F are two half stay-springs, which are fastened by a single clip at the center of the rear axle at its bottom. These springs diverge, and are bolted beneath the stirrup-frame near its ends. Their ends, extending a short distance beyond the frame, are provided with holes, through which they are bolted to the body of the vehicle.

Near the point where the springs F separate is placed a clamp, G, which is held in place by means of a bolt, which passes up through notches in the springs and through

the clamp. This clamp answers the purpose of keeping the springs firmly together at their rear ends.

E represents a half-spring, which is fastened by a clip, at its forward end, to the king-bolt yoke, and which extends back, and is bolted to the stirrup-frame, its end projecting beyond said frame, and secured to the body of the vehicle to give it further support.

H represents a yoke, through which the king-bolt passes. This yoke is so formed that one side of it lies beneath the axle, one side passes up back of the axle, and the third side lies under the head-block, and is securely fastened to it. A fourth side is formed by the rod I, one end of which connects to the yoke, while its upper end is securely fastened to the head-block.

There are two nuts upon the lower end of rod I, one beneath the part of the yoke through which it passes, and one above it, for the purpose of tightening up this yoke-piece and securing it in place.

An iron plate, e, is placed and secured upon the bed-piece of the axle, for the upper plate of the loop to rest and work upon.

Small metallic tubes are inserted, as seen in Fig. 3, both in the wood of the head-block and the bed-piece. The king-bolt passes down through these tubes, and thus the bearings of said bolt are all of metal.

It will readily be seen that when the front and rear axles of a vehicle are bound together as herein represented, and the several parts formed and connected as shown, the wagon must, of necessity, be very strong and durable, and may be made at the same time very light.

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

1. The yoke H, constructed substantially as described, with one end inserted between the head-block and the plate e, which covers the bed-piece, together with its rod I, in combination with the head-block, the axle, and the king-bolt, as and for the purpose specified.

2. The clamp G near the rear ends of the

springs F F, secured in place by means of a rivet or bolt, which passes through, or partially through, said springs, for the purpose set forth.

3. The combination of the springs C C, the stay-springs F F and E, and the stirrup-frame D, as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 11th day of January, 1878.

SYLVESTER H. PRESTON.

Witnesses:

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