

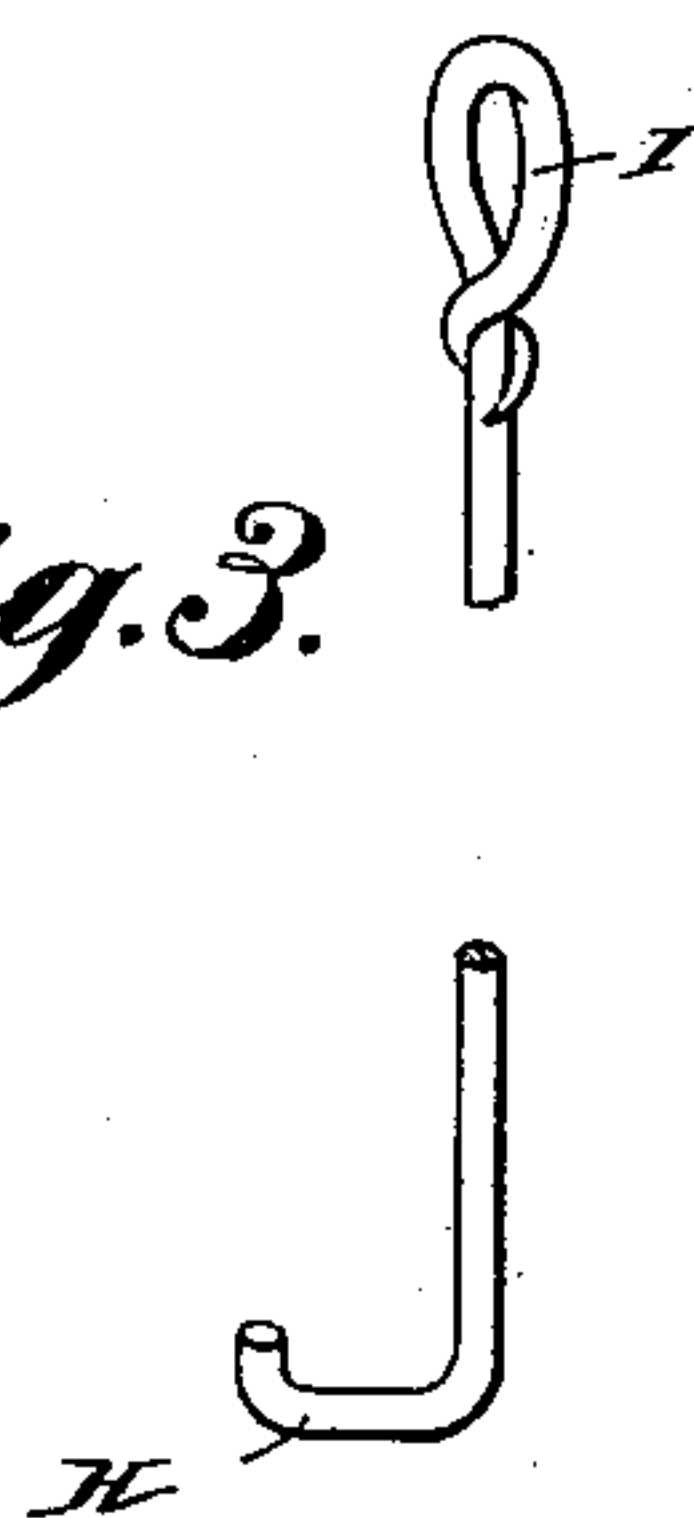
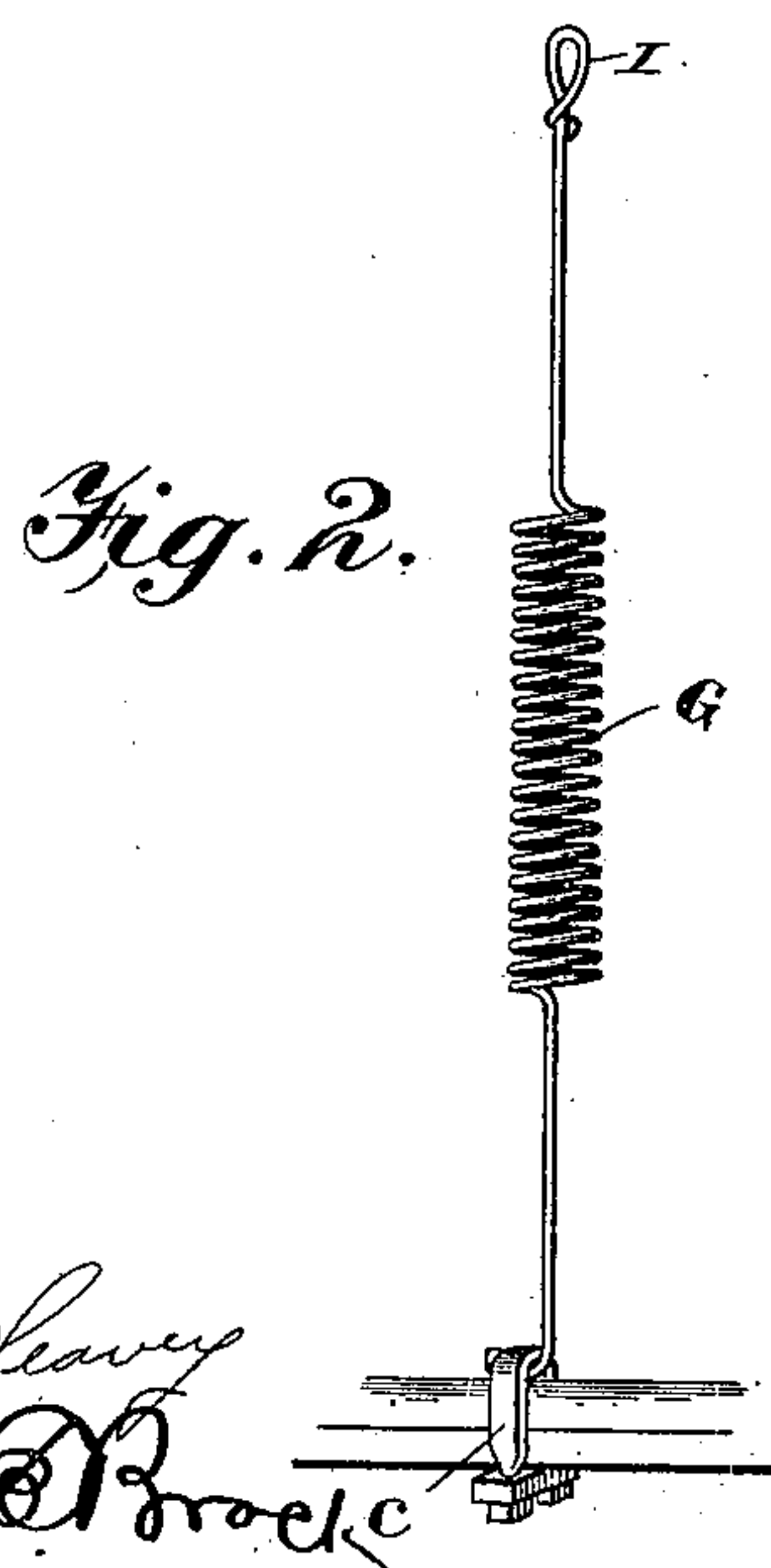
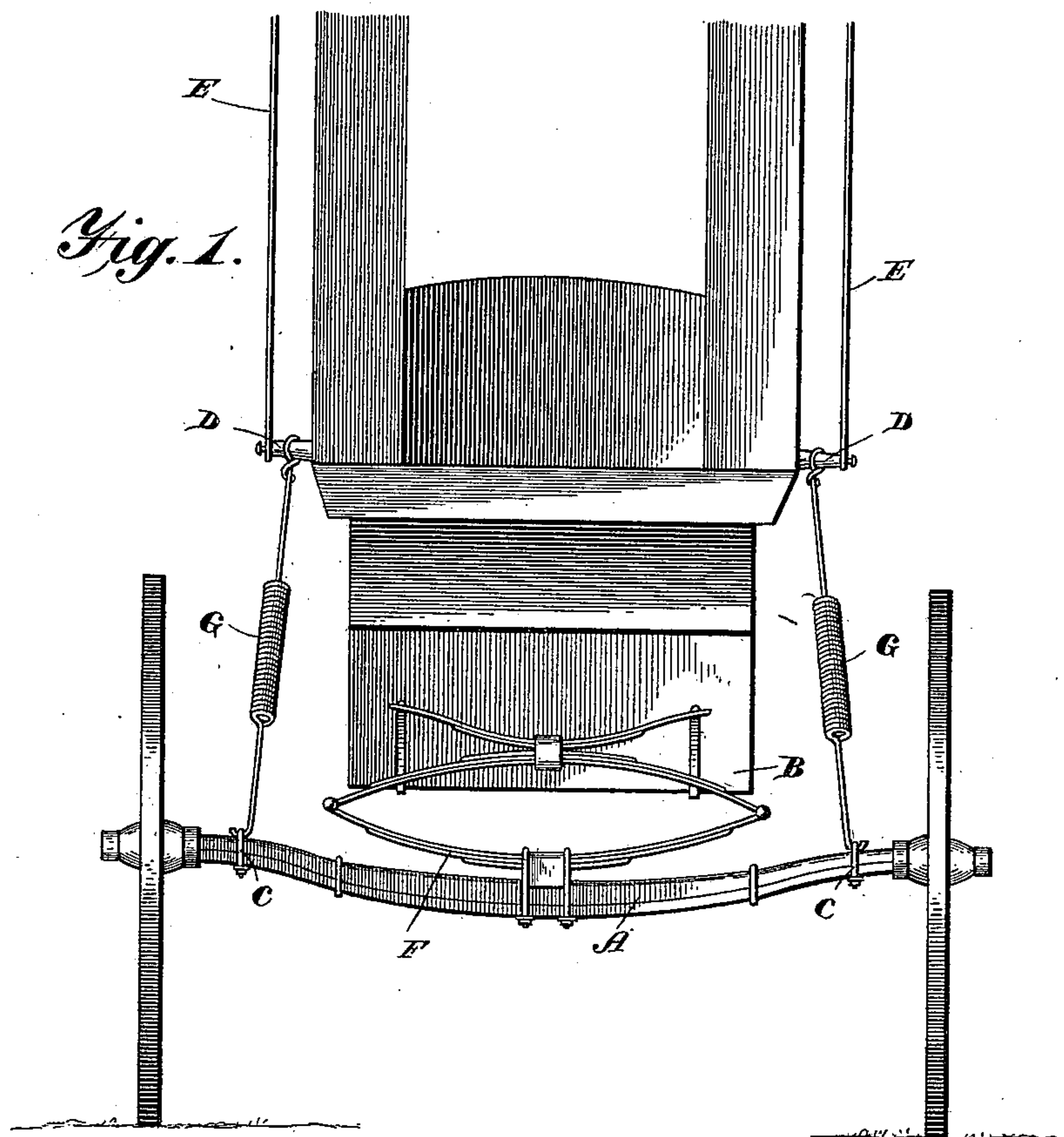
No. 619,748.

Patented Feb. 21, 1899

W. C. HOLLAND.
VEHICLE SPRING.

(Application filed May 3, 1898.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

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VEHICLE-SPRING.

SPECIFICATION forming part of Letters Patent No. 619,748, dated February 21, 1899.

Application filed May 3, 1898. Serial No. 679,616. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. HOLLAND, a citizen of the United States, residing at Newport, in the county of Cocke and State of Tennessee, have invented a new and useful Vehicle-Spring, of which the following is a specification.

My invention relates to vehicle-springs, and has for its object to provide supplementary springs to prevent the side swinging and tilting of the body of a buggy, surrey, phaeton, or other vehicle.

With this object in view my invention consists in providing a vehicle of this class with a pair of springs secured at their lower ends to the rear axle and at their upper ends to the body on opposite sides.

My invention further consists in the improved construction, arrangement, and combination of parts hereinafter fully described and afterward specifically pointed out in the appended claims.

In order to enable others skilled in the art to which my invention most nearly appertains to make and use the same, I will now proceed to describe its construction and operation, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a rear elevation of a buggy equipped with my invention. Fig. 2 is a detail perspective view, on an enlarged scale, showing one of my improved springs with its lower end secured to the axle. Fig. 3 is a detail perspective view, on a still larger scale, of the upper and lower ends of my improved spring, the central portion being broken away.

Like letters of reference mark the same parts wherever they occur in the different figures of the drawings.

Referring to the drawings by letters, A indicates the axle; B, the box or body; C, the axle-clips, and D the pins, upon which the supporting-bars E of the shifting top are pivotally attached. The body is supported upon the axle through the medium of the springs F of any ordinary well-known construction.

G G indicate my improved springs, the lower ends of which are hooked, as at H, and the upper ends looped, as at I, the lower hooked ends being engaged (see Fig. 1) in the axle-

clip C and the upper looped ends being passed over the pins D.

My improved springs when intended for use on buggies or phaetons will be made of No. 10 spring-wire, or about that size, while for surreys or heavy vehicles the wire will be larger.

Although the ordinary spiral spring would answer the purpose intended when properly connected up, I prefer to have the coil of my springs extend only about one-third of the distance of the points of connection when the springs are not distended, the upper and lower portions being simply continuations of the wire of the spring formed with the loop I and hook H, as before described.

The advantages attending the use of my invention are numerous. By it the rocking of the body and top of the vehicle is prevented, thereby rendering these parts more lasting and preventing their going to pieces from continual shaking. It also braces the top and serves to prevent extreme strain upon the regular supporting-springs of the vehicle caused by abruptly releasing them when pressed downward—as, for instance, when persons step off the vehicle. In such case the snapping upward, due to the sudden release of the spring, is prevented and all strain taken off the spring.

My improved springs also brace the vehicle, so as to prevent forward and backward motion, and serve to maintain the body in a level position when two persons of largely different weights ride in the vehicle or only one person rides on one side thereof.

While I have illustrated and described what I now consider to be efficient means for carrying out my invention, I do not wish to be understood as limiting myself to the exact details of construction shown and described, but hold that such slight changes or variations as might suggest themselves to the ordinary mechanic would properly fall within the limit and scope of my invention.

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

1. The combination with the axle, the body and the supporting-springs of a buggy, phaeton or like vehicle, of supplementary springs

secured at their upper ends to the body of the vehicle, at either side, and at their lower ends to the rear axle, near the wheels, substantially as described.

- 5 2. The combination with the axle, the supporting-springs of the body and the top of a buggy, phaeton or like vehicle, of supplementary springs, provided with loops at their upper ends engaging over the pivotal bar of
10 the shifting top at each side, and connected at their lower ends to the rear axle, near the wheels, substantially as described.

3. The combination with the axle, supporting-springs, body and shifting top of a buggy, phaeton or like vehicle, of supplementary 15 springs, provided with loops at their upper ends engaging over the pivotal pins of the shifting top, and with hooks at their lower ends engaging in the outer axle-clips, substantially as described.

WILLIAM C. HOLLAND.

Witnesses:

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