

A. CLIFF.

BRACE-ROD FOR VEHICLE-SPRINGS.

No. 171,778.

Patented Jan. 4, 1876.

Fig. 1

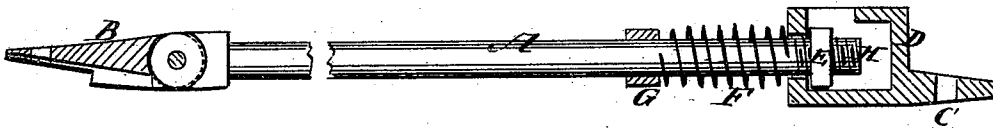
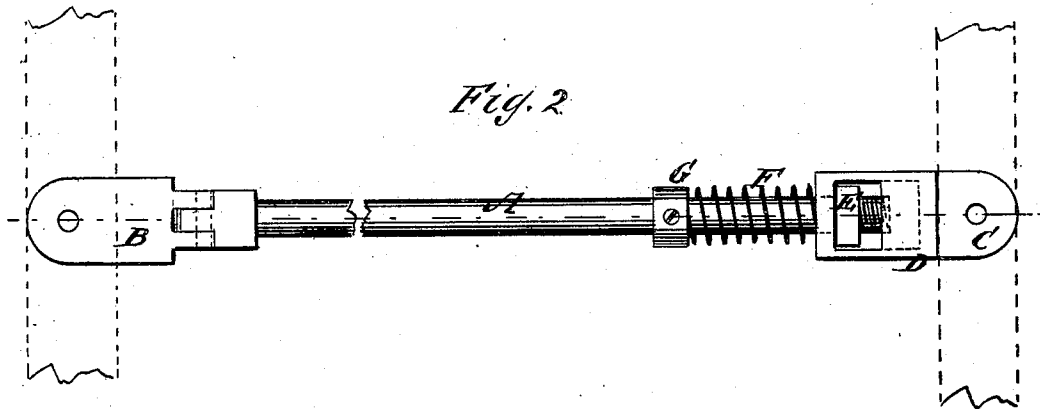


Fig. 2



WITNESSES:

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UNITED STATES PATENT OFFICE.

ALFRED CLIFF, OF LAPEER, MICHIGAN.

IMPROVEMENT IN BRACE-RODS FOR VEHICLE-SPRINGS.

Specification forming part of Letters Patent No. **171,778**, dated January 4, 1876; application filed November 27, 1875.

To all whom it may concern:

Be it known that I, ALFRED CLIFF, of Lapeer, in the county of Lapeer and State of Michigan, have invented a new and Improved Carriage-Spring Connecting-Rod, of which the following is a specification:

My invention consists of a rod for connecting the front and hind springs of a carriage to stay them against forward and backward motion, which has an attaching-plate connected by a pivot-joint at the end for connecting to the front spring, and a joint near the other end, which allows of longitudinal extension and contraction to compensate for the lengthening and shortening of the distances between the connections on account of the independent vertical movements of the springs, the said joints being formed of a box, an adjusting-nut, and a spring, contrived to afford the necessary rigidity to the rod, while allowing the extension and contraction, and being adjustable to enable the rod to be set as required.

Figure 1 is a longitudinal section of my improved spring-connection. Fig. 2 is a plan view.

Similar letters of reference indicate corresponding parts.

A is a rod of iron, not quite as long as the distance between the springs, having an attaching-plate, B, pivoted to one end, and at the other end being connected to the attach-

ing-plate C by entering the chamber of a box, D, and having a nut, E, screwed on the end, and a spring, F, fitted between the box and a collar, G. The plate B is connected to the upper main plate of the lower part of the front spring, and plate C is connected to the lower main plate of the upper part of the hind spring.

The necessary endwise play to accommodate the springs in their independent up-and-down motion is afforded by the space between the end H of the rod and the opposite side of the box, and this is varied, as may be required, by screwing the nut forward and backward on the rod.

The bracing of the springs is effected by the pulling of the rod on one side of the box by the nut E, and pushing against the other side by the end H of the rod.

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

A carriage-spring connecting-brace, consisting of rod A and attaching-plates B C, one of which is pivoted to the rod, and the other is coupled by the box D, nut E, and spring F, substantially in the manner described.

ALFRED CLIFF.

Witnesses:

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