

(No Model.)

E. H. BOOTH.  
VEHICLE SPRING.

No. 471,414.

Patented Mar. 22, 1892.

Fig. 1.

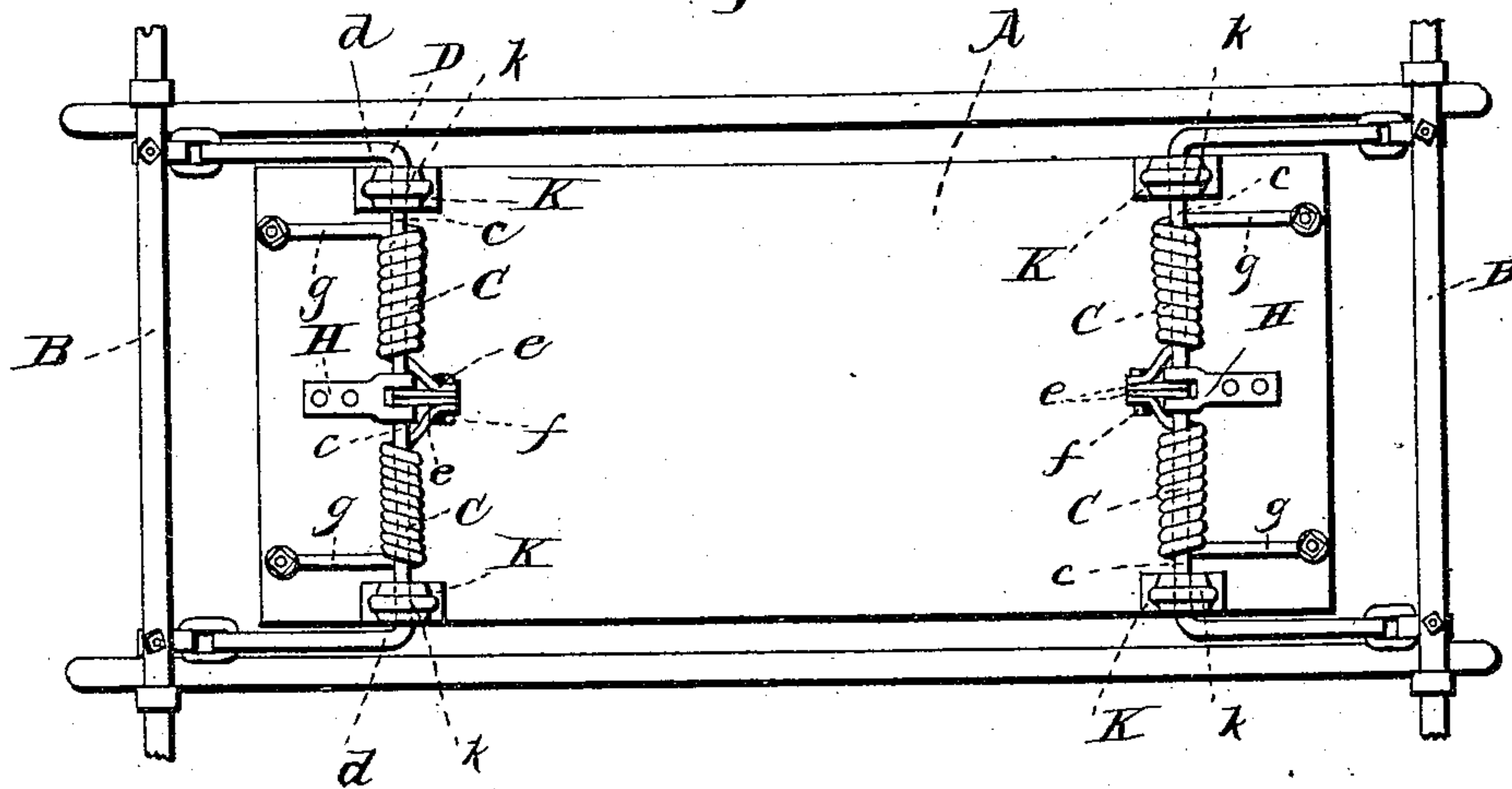


Fig. 2.

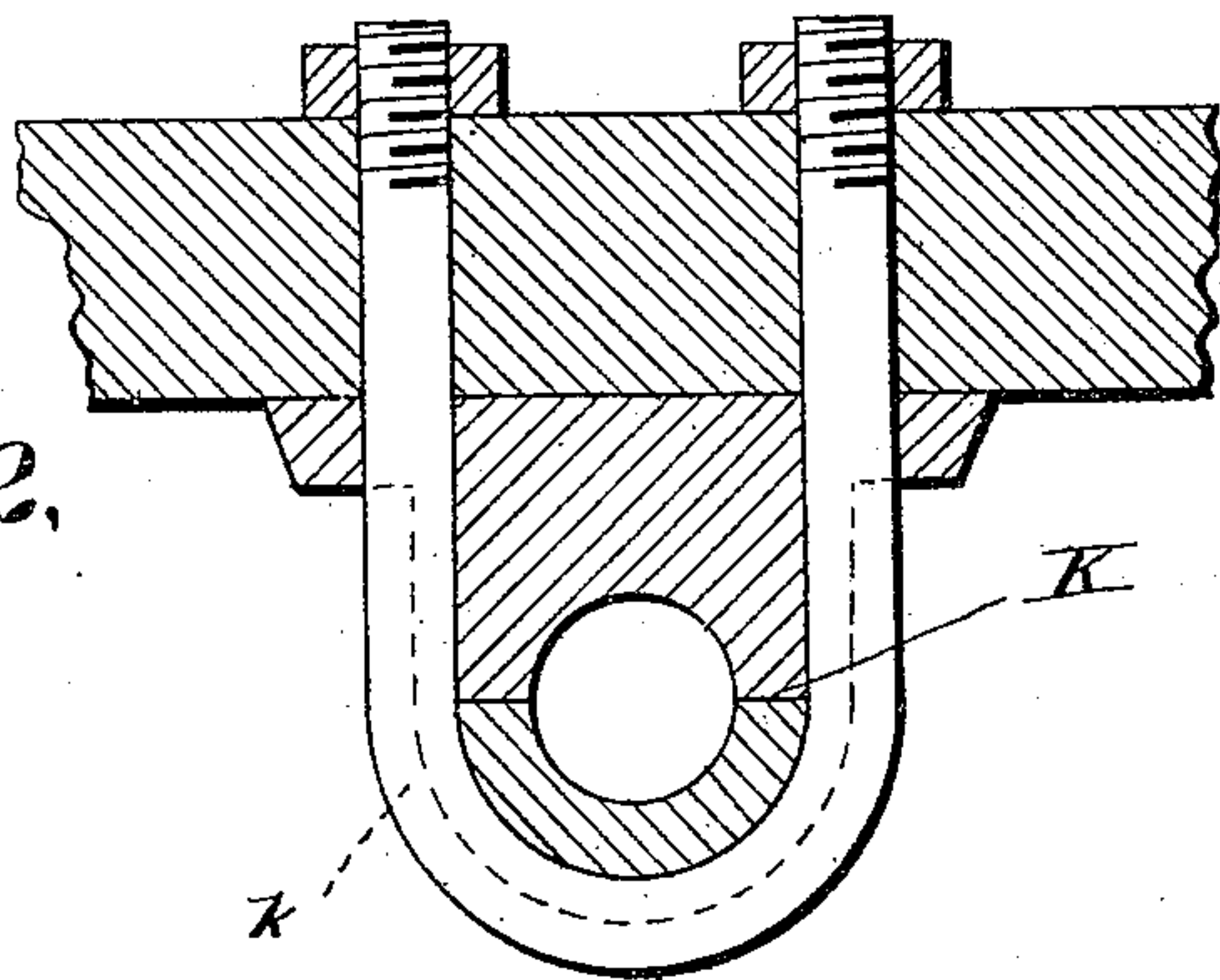
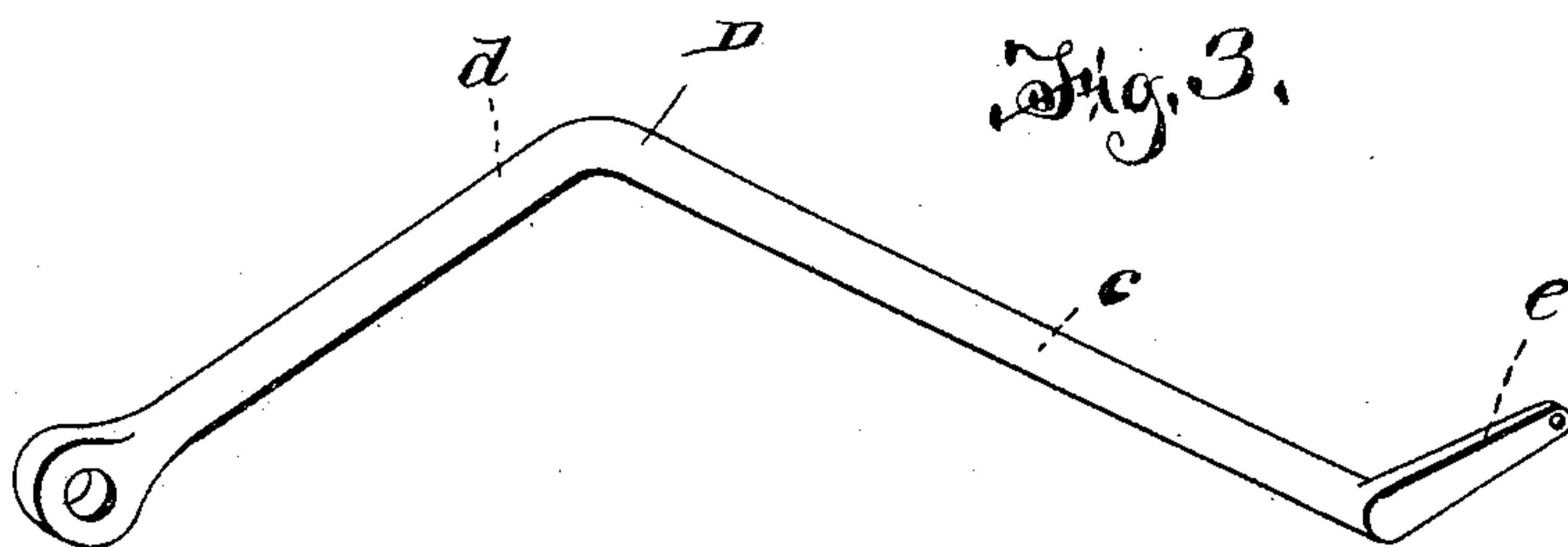


Fig. 3.



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# UNITED STATES PATENT OFFICE.

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## VEHICLE-SPRING.

SPECIFICATION forming part of Letters Patent No. 471,414, dated March 22, 1892.

Application filed August 6, 1891. Serial No. 401,899. (No model.)

*To all whom it may concern:*

Be it known that I, EBENEZER H. BOOTH, a citizen of the United States, and a resident of Kirkwood, in the county of Broome and State of New York, have invented certain new and useful Improvements in Vehicle - Springs; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is an under plan view of the invention. Fig. 2 is an enlarged sectional view of the bearing and clip. Fig. 3 is a perspective view of the equalizing-lever.

This invention has relation to vehicle-springs; and it consists in the novel features hereinafter described, and pointed out in the claims.

In the accompanying drawings, the letter A designates a wagon-body, and BB the axles. C C represent two spiral springs coiled around the lateral arms *c c* of an equalizing-lever D. The opposite arms of the lever are connected to the axle, it being designed to use one of the spring devices near the front and rear of the wagon-body. This lever D is made in two parts *d d* of similar construction and at their free ends have the arms *e e* at about right angles to the lateral arm portions *c c*. The arms *e e* have perforations in their ends, through which is passed the connecting pivot-pin *f*, said pivot-pin also passing through eyes in and securing the inner ends of the springs C C. The outer ends of the springs are extended, forming arms *g g*, which are secured to the wagon - body, preferably, by means of a loop and bolt. The inner ends of the arms *c c* of the equalizing-lever are held in a double loop or bearing H. By forming the equaliz-

ing-lever in two pieces *d d*, having a pivoted connection, a slight side motion is permitted when one side or one wheel of the vehicle passes over an obstruction and prevents the vibrating movement imparted to that side from being communicated to the opposite side, as would be the case in a continuous lever. As arranged, however, the device presents sufficient rigidity to prevent any objectionable side rocking. Each arm *c* of the equalizing-lever is pivoted in a box or bearing K, secured near each side portion of the vehicle-bottom, to which it is held by a suitable clip *k*. The box or bearing is formed in two sections, to allow the lever to be inserted therein.

These springs are applicable to two-wheeled as well as four-wheeled vehicles.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. The vehicle-spring comprising the equalizing-lever formed in two sections, each having a lateral arm connected to the arm of the opposite section at its inner bent end by a pivot-pin *a*, spiral springs connected at one end to the wagon-body, coiled around each said arm, and secured at their inner ends by said pivot-pin, and boxes or bearings for said arms, substantially as specified.

2. The combination, with the equalizing-lever D, formed in two sections *d d*, pivotally connected at their meeting ends and having springs coiled therearound, of the bearings for the arms C of said lever, comprising the sectional box held in a U-clip *k*, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

EBENEZER H. BOOTH.

Witnesses:

JOHN J. BOOTH,  
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