

(No Model.)

G. C. APPLE & C. W. BRANDON.
VEHICLE.

No. 374,441.

Patented Dec. 6, 1887.

Fig. 1.

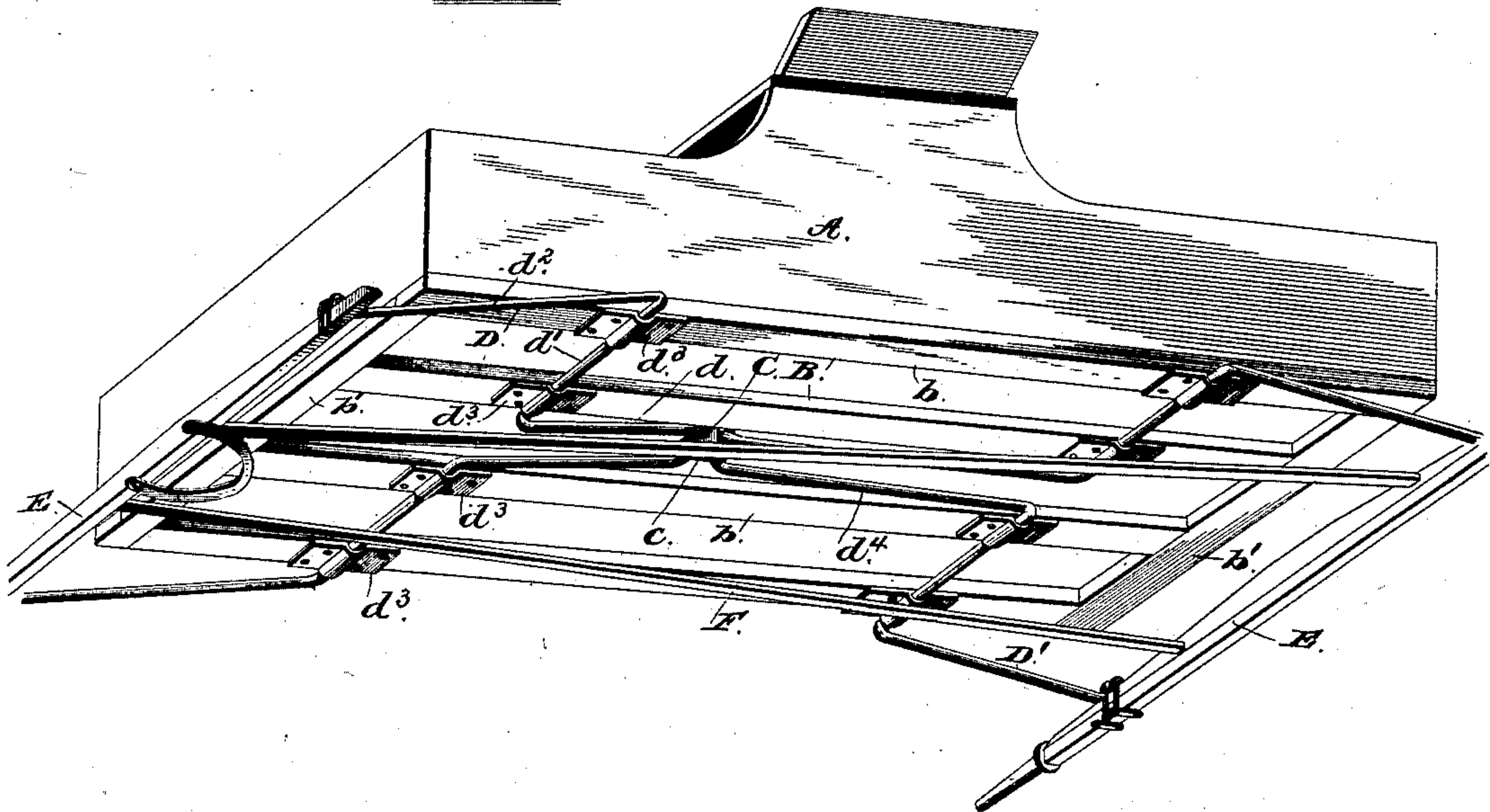
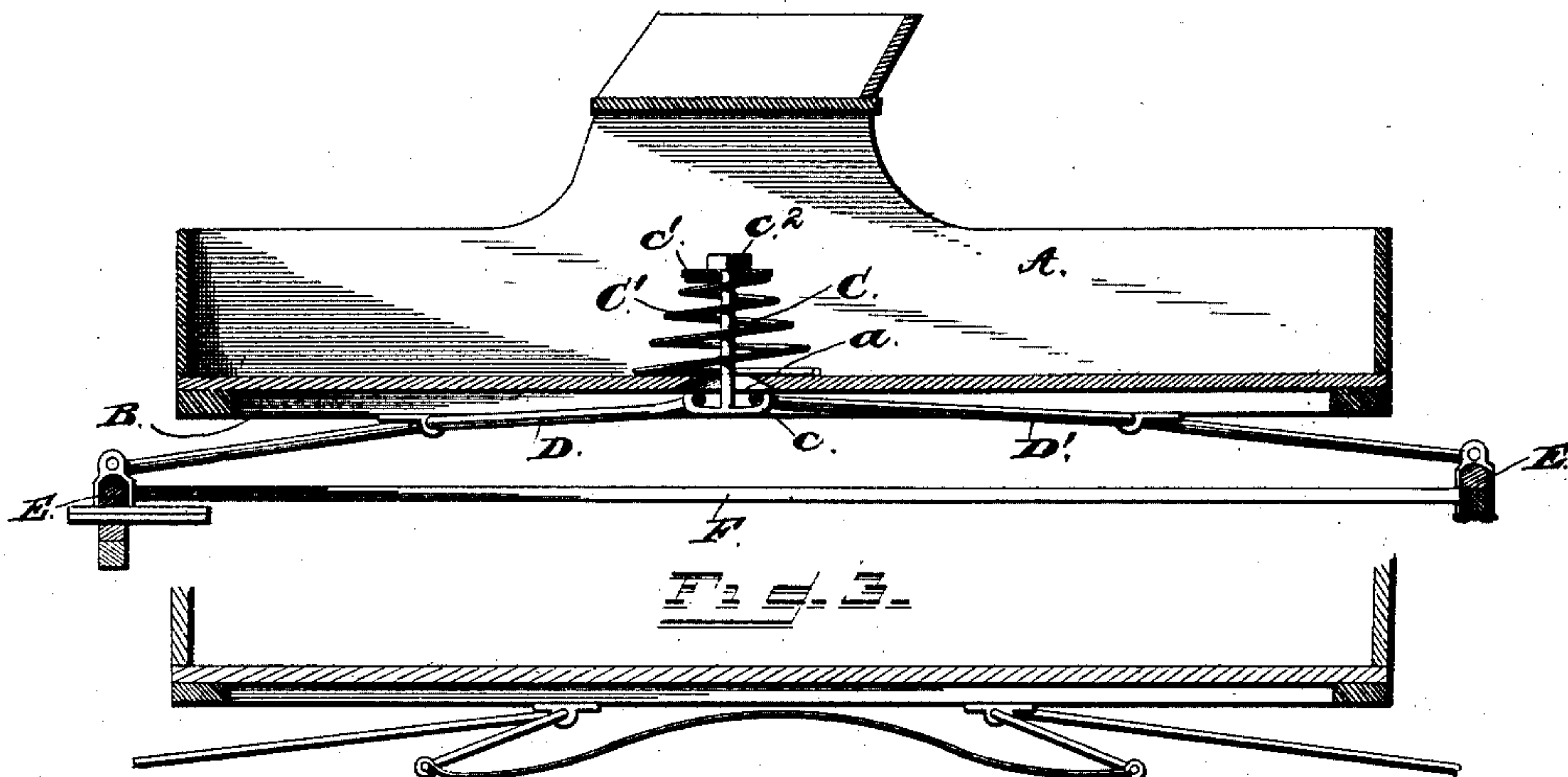


Fig. 2.



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WITNESSES

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VEHICLE.

SPECIFICATION forming part of Letters Patent No. 374,441, dated December 6, 1887.

Application filed October 20, 1887. Serial No. 252,925. (No model.)

To all whom it may concern:

Be it known that we, GEORGE CALVIN APPLE and C. WEBSTER BRANDON, citizens of the United States of America, residing at Greenville, in the county of Darke and State of Ohio, have invented certain new and useful Improvements in Vehicles; and we do hereby 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 or figures of reference marked thereon, which form a part of this specification.

Our invention relates to certain new and useful improvements in vehicles; and it consists, essentially, in the peculiar construction and arrangement of the springs therefor, which will be more fully hereinafter described, and specifically pointed out in the claim.

The object of our invention is to provide angularly-shaped lever-arms having central loops in connection with a central vertically-mounted coiled spring, the one lever being longer than the other, to equalize the strain and spring action. We attain this object by the construction illustrated in the accompanying drawings, wherein like letters of reference indicate similar parts in the several views, and in which—

Figure 1 is a perspective view of our improved form of spring as applied, showing the vehicle raised at an angle, and looking at the bottom thereof. Fig. 2 is a longitudinal vertical section thereof. Fig. 3 is a detail view, in section, showing a modified form of our improvement.

A indicates the vehicle-body, having a frame, B, secured to the bottom thereof, which is constructed of longitudinal strips *b*, connected by transverse end strips, *b'*. The bottom of the body A is formed with an aperture, *a*, through which a bolt, C, has movement. The bolt C is formed with a lower double-hooked end, *c*, and with an upper head, *c'*; and resting adjacent to said head *c'* is a washer, *c'*, against which the upper end of a spiral spring, C', has bearing, the lower portion of said spring bearing against the top surface of the bottom of the vehicle-body.

Engaging with the lower double-hooked end of the bolt C are loops *d* and *d'* of the angular levers D and D'. These lever-arms D and D' are constructed with the central loops, as above described, and extending out from the said central loops are transverse angular arms *d'*, which have longitudinal angular arms *d''* formed with the outer ends thereof, which project downwardly and are secured to the bolsters E. The transverse portions *d'* of the lever-arms pass through bearing loop-plates *d''*, which secure the said lever-arms to the longitudinal strips *b* of the frame B. By this means the said lever-arms are movably secured. The said lever-arms D and D' are similarly constructed and attached, with the exception that the central loop, *d'*, of the rear arm, D', is considerably longer than the loop *d* of the forward arm, D. By this means the leverage of the rear arm, D', is increased, and the position of the body sustained in a horizontal position when loaded in the rear, and prevented from sagging.

A downward pressure on the body A depresses the arms D and D', which draw downward on the coiled spring C', and the vehicle is thereby cushioned.

Our improved form of construction is adapted to be applied in connection with any form of vehicle, and is strong and durable in its construction.

The utility and adaptability of our improved construction being obviously apparent, it is unnecessary to further enlarge upon the same herein.

As shown in Fig. 3, the loops of the angular levers are connected by a flat spring, which has the same action therewith as in the form hereinbefore described.

Having thus described our invention, what we claim as new is—

The combination, with a vehicle-body, of the frame B, constructed as described, the forward and rear lever-arms, D and D', of angular configuration, secured to the frame B by bearing-plates and having central loops, *d* and *d'*, the latter loop being longer than the former, to increase the leverage of the arm with which it is formed, the vertical bolt C, having the lower double-hooked end *c*, with

which the loops d and d^* engage, and having a head, c^2 , formed at its upper end, the washer c' , resting against said head, and the spiral spring C' , encircling said bolt C and bearing against the washer c' at its upper end and resting upon the upper surface of the vehicle bottom at its lower portion, as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

GEO. CALVIN APPLE.

C. W. BRANDON.

Witnesses:

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