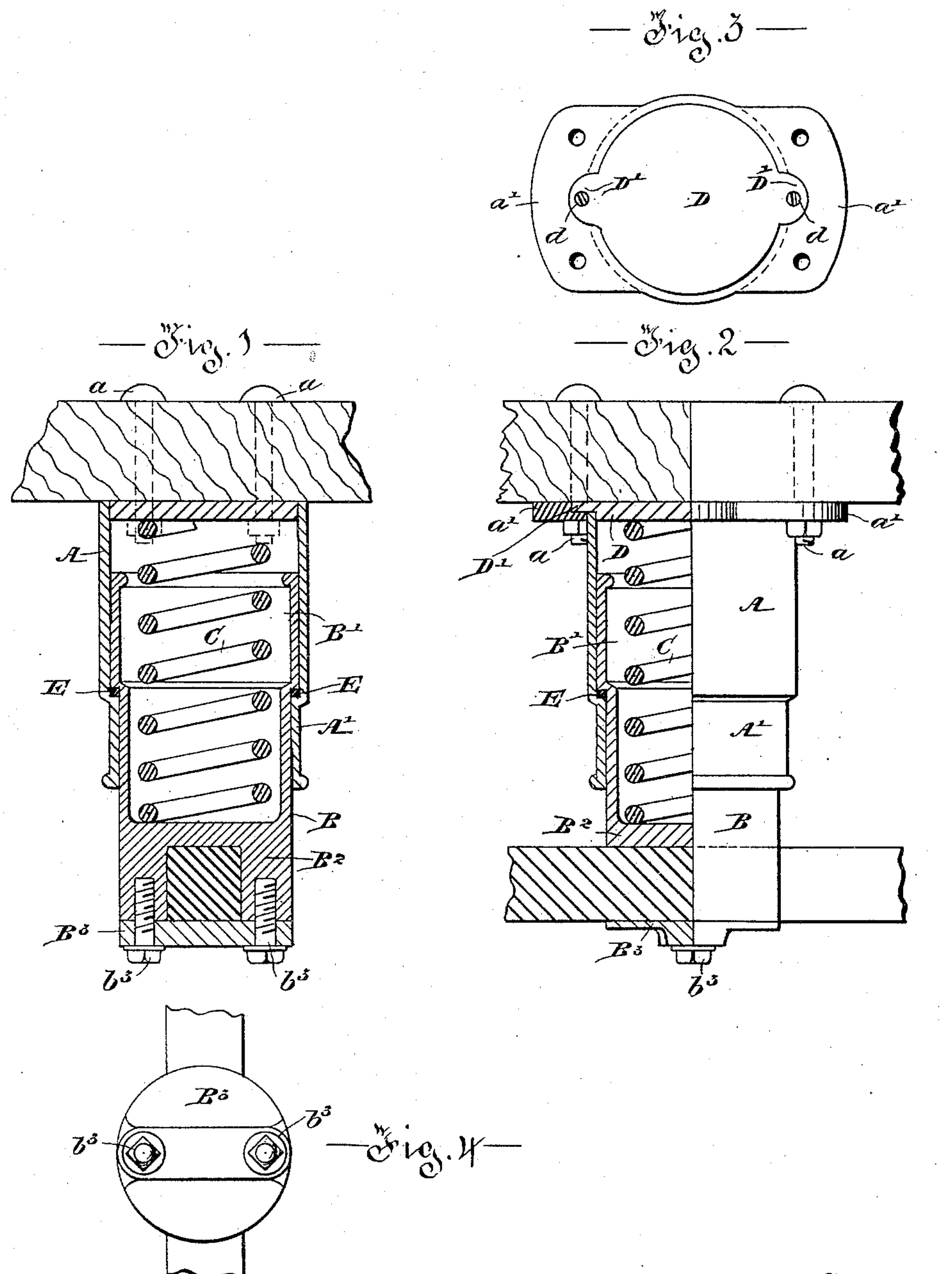
(No Model.)

L. S. BROWNING.

FIFTH WHEEL.

No. 474,332. Patented May 3, 1892.



Witnesses

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LEWIS S. BROWNING, OF MONTREAL, CANADA.

FIFTH-WHEEL.

SPECIFICATION forming part of Letters Patent No. 474,332, dated May 3, 1892.

Application filed February 12, 1891. Serial No. 381,205. (No model.)

To all whom it may concern:

Be it known that I, LEWIS STEWART BROWNING, of the city of Montreal, in the district of Montreal and Province of Quebec, Canada, have invented a certain new and useful Improvement in Fifth-Wheel Attachments for Vehicles; and I do hereby declare that the following is a full, clear, and exact description of the same.

This invention is intended to produce a device which will replace the usual king-bolt, circle-plate, and elliptic springs of wagons, carts, carriages, &c., with a view to simplifying the construction of same generally, besides improving their qualities as to comfort, strength, lightness, and efficiency of movement.

The invention consists of a telescoping cylinder containing a yielding resistance—such as a spiral spring or springs—and situated between the carriage-body and the axle, to which parts the respective ends of the cylinder are secured in any desired way.

For full comprehension, however, of the invention reference must be had to the annexed drawings, in which like symbols indicate corresponding parts, and wherein—

Figure 1 is a vertical section of the device, taken transversely to the axle; Fig. 2, a part elevation and section at right angles to Fig. 1; Fig. 3, a plan view of the device, and Fig. 4 a bottom view of same.

A tubular section A, forming the upper part of the cylinder, has one of its ends contracted in diameter, preferably as shown at A′, and is connected to the body of the vehicle by means of bolts $a\ a$, taken through side flanges $a'\ a'$ at the top of such section.

Another tubular or cup section B, having one of its ends expanded in diameter, preferably as shown at B′, and the other end blocked, as at B^2, and slotted to receive the axle, forms the lower portion of the cylinder, the axle being secured to it by means of a bottom plate B^3 and bolts $b^3\ b^3$. The lower portion B is inserted narrow end foremost into the wider end of the upper part A and drops into position with the respective expanded and contracted portions in contact, a rubber washer E being preferably located between them, as shown, to relieve the metal. A coiled spring, such as C, (or, if preferred, a graduated spring or springs,) is then inserted, one end of which will bear on the blocked seat B^2 of the lower section B and the other end against the under side of a plate D let into the upper section A and secured thereto by ears D′ and screws d, the upper surface of such section and the flanges $a'\ a'$ thereof being recessed to receive such ears. Any desired lubricating-channels communicating with an external port can be formed in the upper section A, and, if desired, rubber cushions located at each end of the spring C to prevent sudden jars.

The small number of parts and the simplicity of their construction renders the device very light and easily set in place, and the close-fitting and extensive vertical bearing-surface between the sections of the cylinder will prevent any chance of the vehicle tilting, and thus secure greater comfort to the occupants, while the circular form of such cylinder naturally renders the device very strong. Furthermore, there is hardly any possibility of dust accumulating on and a consequent interference with the efficiency of the working parts.

What I claim is as follows:

In a fifth-wheel attachment for vehicles, the combination of the cylindrical section A, the cylindrical section B, the yielding resistance C, and means for securing such sections, respectively, to the vehicle-body and the axle, the section A having an extended contracted end and the section B an extended expanded end adapted to bear, respectively, upon the main portions of the sections to furnish substantial bearing between and prevent the disconnection of such sections.

Montreal, February 6, 1891.

LEWIS S. BROWNING.

Witnesses:
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