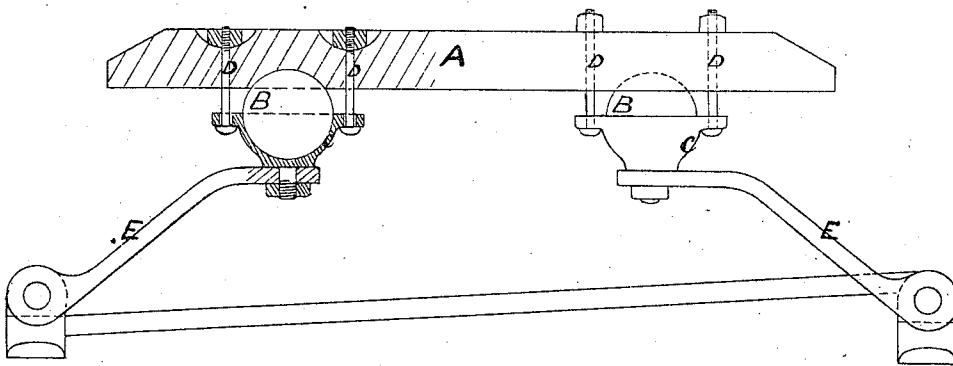


C. H. GUARD.

Improvement in Wagon-Springs.

No. 133,150.

Patented Nov. 19, 1872.



Inventor

Chauncey Holmes Guard
By Donald W. Kidder
His Attorney

Claud H. Cayley
J. H. Bartlett } *"Witnesses."*

UNITED STATES PATENT OFFICE.

CHAUNCY H. GUARD, OF NEW YORK, N. Y.

IMPROVEMENT IN WAGON-SPRINGS.

Specification forming part of Letters Patent No. **133,150**, dated November 19, 1872; antedated November 15, 1872.

To all whom it may concern:

Be it known that I, CHAUNCY HOLMES GUARD, of the city of New York, in the State of New York, United States, temporarily residing in the city of Toronto, Canada, have invented certain Improvements in Springs for Wagons, &c., of which the following is a specification:

My invention relates to an improved spring for wagons and other vehicles; and consists essentially in supporting the body of the vehicle on rubber balls held in cups properly constructed, which cups are attached to the said body by bolts either on a swing-joint or working in slots for the purpose hereafter described.

The drawing is a side elevation, one-half being in section.

A, body of vehicle; B, rubber balls; C, cup for holding balls; D, bolts; E, supports attached to axle-tree. The bolts D pass through oblong holes in the cups C, thereby permitting the supports E to sink and give in proportion to the weight carried on the body A; for, if rigidly bolted, no motion could be obtained. The same object might be secured by having a hook-and-eye joint. It will be noticed that the top of the balls B fit into the body A, their bottoms resting in the cups C. It follows, therefore,

that the bottoms resting in the said cups move with them as they approach the center, while the top of the balls remain stationary in the body A, thus giving to the body A the necessary spring, keeping it in a horizontal position, (or nearly so,) and is the essential and principal feature I wish to secure. As represented by drawing, there is a ball at each corner, making four in all; but, of course, I have no intention of confining myself to this number. Instead of two bolts on each cup, one may, in some cases, be made to answer; and instead of the supports E working on the axle-trees, as shown, an iron or steel bar bent into a suitable shape and attached rigidly to the cross-bar or axle-tree may be, with advantage, sometimes substituted.

I do not claim a rubber spring nor the combination of a rubber ball and cups, for I believe they have before been used; but

What I claim as my invention is—

Resting the rubber ball B on swinging joints, as described.

City of Toronto, 5th day of March, 1872.

CHAUNCY HOLMES GUARD.

Witnesses:

CLAUD L. CAYLEY,
DONALD C. RIDOUT.