

(No Model.)

G. M. HUGHES.
GUIDE FOR SPRING BOLSTERS.

No. 429,449.

Patented June 3, 1890.

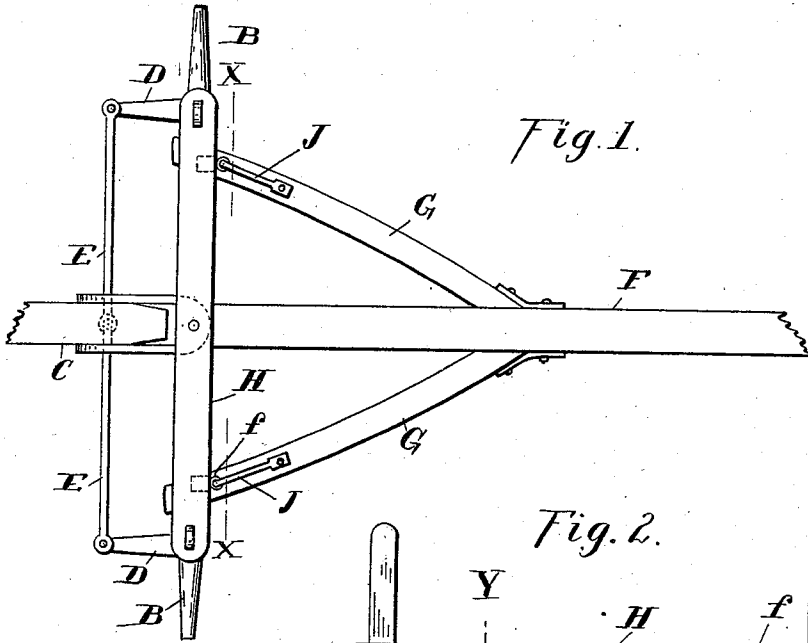


Fig. 1.

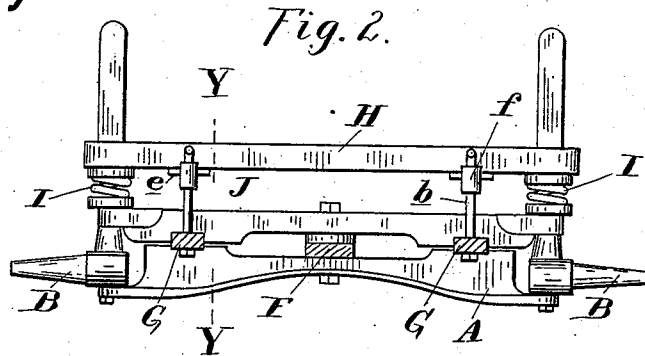
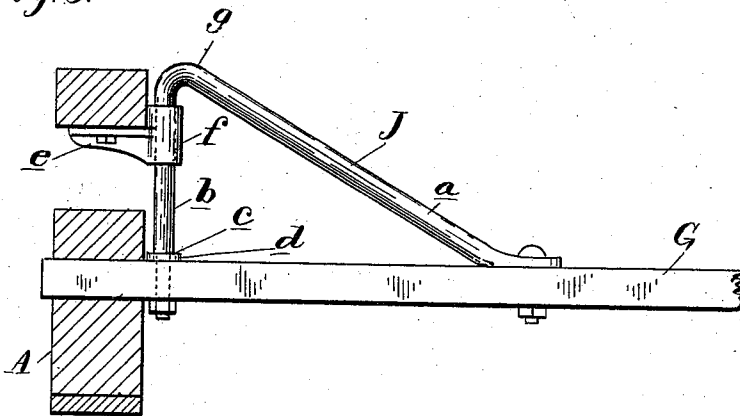


Fig. 2.

Fig. 3.



Witnesses:

Geo. A. Gregg.
A. L. Kobbie

Inventor

George M. Hughes.

By James Whittemore
Atty

UNITED STATES PATENT OFFICE.

GEORGE M. HUGHES, OF TROY, OHIO.

GUIDE FOR SPRING-BOLSTERS.

SPECIFICATION forming part of Letters Patent No. 429,449, dated June 3, 1890.

Application filed March 14, 1890. Serial No. 343,931. (No model.)

To all whom it may concern:

Be it known that I, GEORGE M. HUGHES, a citizen of the United States, residing at Troy, in the county of Miami and State of Ohio, have invented certain new and useful Improvements in Guides and Braces for Spring-Bolsters on Wagons; of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in guides and braces for spring-bolsters on wagons; and the invention consists in the peculiar construction and arrangement of a guide for the vertical movement of the bolster and a brace to hold it from lateral displacement, and, further, in the peculiar construction, arrangement, and combination of the various parts, all as more fully hereinafter described.

In the drawings which accompany this specification, Figure 1 is a plan view of the front gear of a wagon to which my improvement is applied. Fig. 2 is a cross-section thereof on line *x x*, and Fig. 3 is an enlarged vertical section on line *y y* in Fig. 2.

A is the axle, which in the construction herein shown is provided with the two stub-axles *B*, pivoted in the ends of the axle *A* and connected with the tongue *C* through arms *D* and connecting-rods *E*. The tongue is pivotally connected centrally with the axle *A*. *F* is the reach, and *G* are the hounds rigidly connected with the axle. *H* is the bolster, which is supported upon springs *I* at each end resting upon the axle. These parts are of known construction and operation.

In this construction of wagon, and in other constructions in which the bolster is supported upon springs, on heavy roads the bolster is apt to be thrown off of the springs either by rising off or being thrown to one side. To overcome this and yet allow the

bolster to have a free movement upon the springs, I construct my improved guide and brace *J* as follows: I preferably use a piece of bar-iron, bending it centrally to form the inclined brace-arm *a* and the vertical guide-arm *b*. The arm *a* is secured at its end to the hounds and extends upwardly to the top of the bolster. The guide-arm extends downwardly from this point beside the bolster, its lower end being secured in a suitable aperture in the hound. The lower end of the guide-arm is slightly reduced to form a shoulder *c*, resting upon the top of the hound, and I preferably interpose a washer *d*.

e is a bracket secured to the under side of the bolster and having a vertical tubular sleeve *f*, through which the guide-arm *b* passes, being guided thereon. These braces I preferably apply on each end of the bolster, one to each hound. The upward movement of the bolster is stopped when the top of the sleeve *f* strikes the bend *g* in the brace, thereby preventing the bolster from rising off the springs, yet allowing it to move freely downward upon the guide-arm. At the same time it is braced against any lateral displacement.

What I claim as my invention is—

In a wagon, the combination, with the hounds, of a spring-supported bolster, brackets on the bolster, having vertical sleeves on their forward portions, vertical guide-arms secured to the hounds and extending through the sleeves and inclined downward and forward, their outer ends being rigidly secured to the hounds, substantially as described.

In testimony whereof I affix my signature, in presence of two witnesses, this 8th day of March, 1890.

GEORGE M. HUGHES.

Witnesses:

W. B. MCKINNEY,
J. T. MCCASKEY.