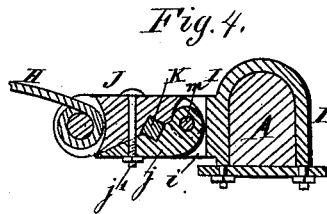
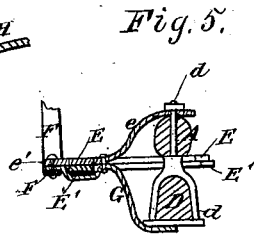
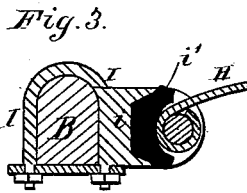
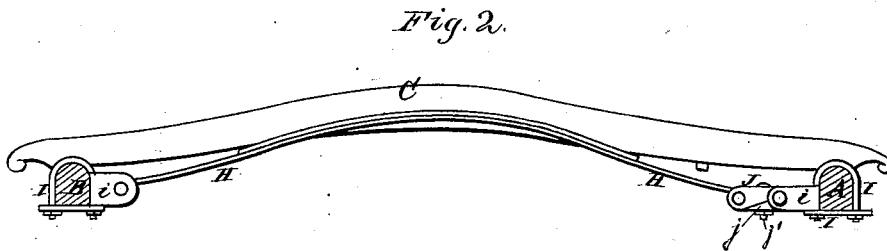
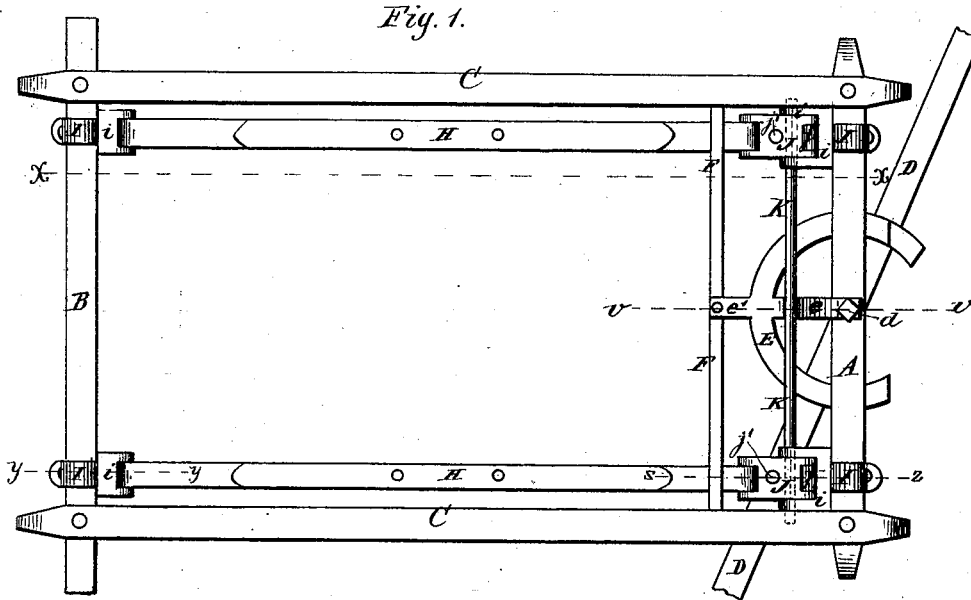


W. H. COLBY & W. H. COLBY.
Side-Bar Wagon

No. 201,389.

Patented March 19, 1878.



WITNESSES:
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C. Sedgwick

INVENTOR:
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BY *[Signature]*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM H. COLBY AND WARREN H. COLBY, OF MERRIMACPORT, MASS.

IMPROVEMENT IN SIDE-BAR WAGONS.

Specification forming part of Letters Patent No. 201,389, dated March 19, 1878; application filed January 8, 1878.

To all whom it may concern:

Be it known that we, WILLIAM HAIL COLBY and WARREN HAIL COLBY, of Merrimacport, in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Side-Bar Wagons, of which the following is a specification:

The invention will first be described in connection with the drawings, and then pointed out in the claim.

In the accompanying drawings, Figure 1 represents a top view of a frame for a light wagon or carriage. Fig. 2 is a longitudinal vertical section of the same, taken on the line *x x* of Fig. 1. Figs. 3, 4, and 5 are detail cross-sections on the lines *y y*, *z z*, and *v v*, respectively.

Similar letters of reference indicate corresponding parts.

A is the front bolster, and B the rear axle-tree, of the wagon, connected together by the side bars C. D is the front axle, and *d* the clip-bolt by which it is pivoted to the bolster A, and to the brace *e* of the upper circle E of the fifth-wheel, which latter is provided with a rear projection, *e'*, by which it is secured to and rests on the center of the cross-brace F, secured with its two ends to the side bars C.

The lower circle E' of the fifth-wheel (secured on the front axle D) is held in working contact with the upper circle E, and the bolt *d* is held from wearing loose and rattling by the stay G. This is bolted or riveted with its rear end to the brace *e* in two places, and to the brace F, (a recess being formed in the stay G between the two rivets for the lower circle E' to work in,) and its forward portion bent down and then up again, leaving the end about horizontal, and pressing against the under side of the front axle upon the lower end of clip-bolt *d*, for the purpose above stated.

H are the side springs. I are clips, secured to the axle-tree B and the bolster A, for connecting them to the ends of the springs H. For this purpose each clip I is provided with a block, *i*, formed on or attached to the clip, said block having two lugs with a recess between them. In the said recess between the

said lugs of the blocks of the axle-tree clips the eye of the rear ends of the springs H is inserted and secured by a pin put through it and through the said lugs.

By this construction the ordinary loop or link is dispensed with, and the springs H can be made a little longer than usual, thereby making them work better.

In the recess behind the rear end of the spring H a rubber spring or packing, *i'*, is inserted, for the spring H to butt against. The forward ends of the side springs H are secured in a manner similar to that of the rear ends between lugs formed on the rear ends of the hinged clamps J.

K is a round rod extending across the frame between the side bars C, and inserted through suitable holes arranged in line in the four lugs on the two blocks *i* of the front clips I attached to the bolster A. The part of either end of the rod K, which is thus left between the two lugs on each of the said blocks *i*, is made square to fit in the square hole of the clamp J, as seen in Fig. 4. This clamp is made in two parts, hinged together at *m*, one-half of the square hole to fit the rod K being made in each jaw of the clamp.

The hinged clamp J with the spring H attached being adjusted to grasp the square portion of the rod K, as in Fig. 4, the lower jaw *j* of the clamp J is secured to the upper by the bolt *j'* running through both jaws and tightened by a nut.

The forward ends of the said springs H being connected with the two ends of the rod K in the said manner, it is evident that the effect of a weight applied to depress either of the springs H will be conveyed by the hinged clamps J and the rod K to the other side spring, thus making them act to resist the pressure simultaneously, whereby jolting is obviated.

We are aware that it is not new to connect the ends of the side springs of a side-bar wagon by pivoting them to clips made fast to a cross-rod allowed to rock or oscillate for the purpose of distributing the weight equally upon the springs, no matter on which side of vehicle it may chance to be placed.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

The springs H H of a side-bar wagon, pivoted at one end to clamps J rigidly attached to a rock-shaft or rod. K, in combination with clips I, having block *i* with re-

cessed lugs and butt-springs *i'*, as shown and described.

WILLIAM HAIL COLBY.
WARREN HAIL COLBY.

Witnesses:

GEO. O. GOODWIN,
A. M. COLBY.