

O. E. MILES.

Running-Gear

Patented Apr. 17. 1866

No. 54,001.

Fig: 1.

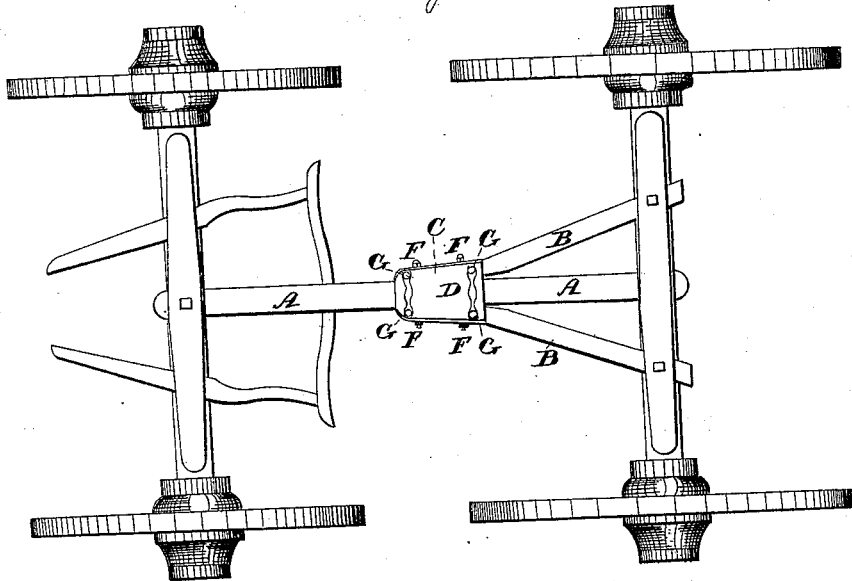


Fig: 2.

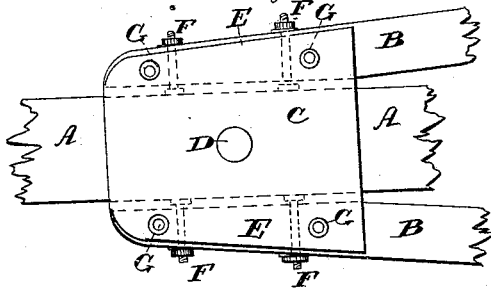


Fig: 3.

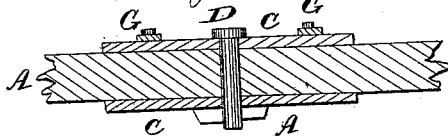


Fig: 4.

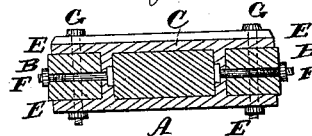
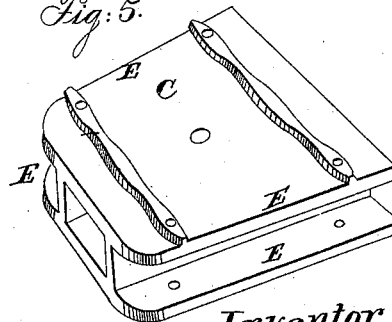


Fig: 5.



Witnesses

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OREN E. MILES, OF AURORA, ILLINOIS, ASSIGNOR TO DAVID B. TURNBULL.

IMPROVEMENT IN WAGONS.

Specification forming part of Letters Patent No. 54,001, dated April 17, 1866.

To all whom it may concern:

Be it known that I, OREN E. MILES, of Aurora, in the county of Kane and State of Illinois, have invented a new and useful Improvement in Wagons, being a device for more firmly uniting and securing the braces to the coupling reach or pole, and thereby increasing the strength of the running-gear; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and in which—

Figure 1 represents a top view of the running-gear of a wagon containing my improvement. Fig. 2 represents a top view of my improvement on an enlarged scale. Fig. 3 represents a vertical longitudinal section of Fig. 2. Fig. 4 represents a vertical cross-section of the same, and Fig. 5 represents a view in perspective of the cast-iron box with its flanges detached from the coupling-reach and braces.

The front and rear axles of the running-gear of wagons are connected by means of a coupling reach or pole, the front axle being secured to its front end by means of a king-bolt, so as to allow it to turn freely, while the rear axle is firmly united to the rear end of the coupling reach or pole at right angles thereto. In order to maintain the rear axle at right angles with the coupling-reach, braces are secured to the axle on each side of the reach and projecting forward, so that their front ends meet on either side of and are secured to the reach near the middle of its length.

Two methods have heretofore been adopted for securing the braces to the coupling-reach—viz., by bolts passing horizontally through the ends of the braces and coupling-reach; but this has been found to weaken the reach so as to cause it to break by the sudden jerking and twisting of the rear axle. The other method consists in securing the ends of the braces together and resting them upon the reach and securing them in that position by means of an iron staple or strap, which embraces the ends of the braces and the coupling-reach; but this method adds no strength to the coupling-reach, and the ends of the braces are liable to be broken off by the sudden jerk from one wheel or the other.

The object of my improvement is to secure the braces to the coupling-reach in a firm and

durable manner, whereby the strength of the coupling-reach, as well as that of the braces, is increased, so as to effectually resist the sudden straining or thrust of the axle to which they are attached; and it consists of a cast-iron box or socket-piece having a central opening and projecting flanges on either side, the central opening to receive the coupling-reach and the projecting flanges to form seats for the ends of the braces, so that when secured together by vertical and horizontal bolts each part contributes to strengthen the other and forms a firm and compact connection, which necessarily increases the strength of the running-gear.

In the drawings, A represents the coupling pole or reach for connecting the front and rear axles, and B B the braces for maintaining the axle at right angles to the coupling-reach.

The box C is cast in one piece, about twice the length of its width, having four sides, and open at each end to receive the coupling-reach, which fits closely therein. Through the center of this box and the coupling-reach a bolt, D, passes vertically for securing the two together. From the top and bottom plate of this box horizontal flanges E E project, so as to form seats, into which the ends of the braces are fitted and secured by horizontal bolts F F and vertical bolts G G, the latter passing through the flanges and braces, while the former pass through the sides of the box and the braces.

In order to use the horizontal bolts their heads must be countersunk on the inner vertical sides of the box, so as to allow the box to fit closely on the coupling-reach, as shown in Fig. 4 of the drawings. These bolts are secured by screw-nuts in the usual manner.

The flanges of the box may project from the upper or lower plate only, and the braces may be secured by vertical or horizontal bolts only. This box serves to form a very secure and durable connection of the braces with the coupling-reach, which is very desirable in the construction of wagons.

Previous to fitting the box on the coupling-reach the horizontal bolts F F should be placed in the openings in the vertical sides of the box, with their heads countersunk on the inner sides of the same, and the box is then

slid upon the reach before the latter is secured to the axles.

What I claim as my invention is—

The cast-iron box, with its central opening and projecting flanges in one piece, for the purpose of receiving and securing the ends of the braces to the coupling-reach, as herein shown and described.

In testimony whereof I have hereunto set my hand this 17th day of February, in the year 1866.

OREN E. MILES.

Witnesses:

H. W. MOSHER,
H. F. VAN NORTWICH.