

MICHAEL MILLER.

IMPROVEMENTS IN WAGONS.

118257

PATENTED AUG 22 1871

Fig: 1.

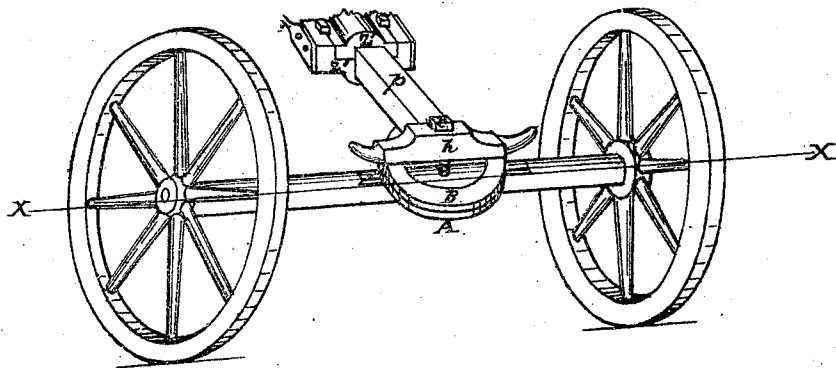


Fig: 2.

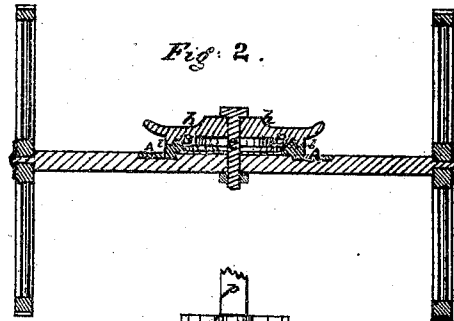
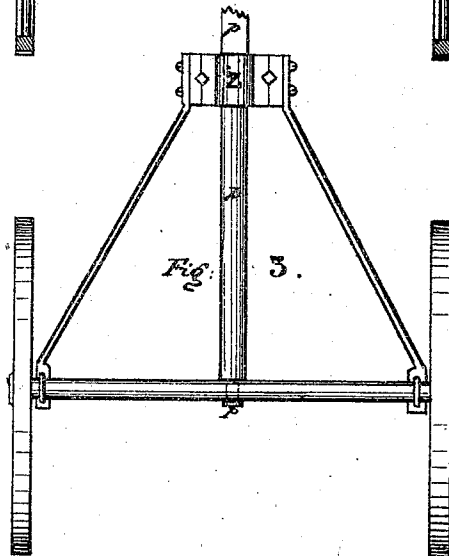


Fig: 3.



Witnesses:
Charles Herzog
H. G. Sawyer

Inventor:
Michael Miller
by Wm. H. H. H.

UNITED STATES PATENT OFFICE.

MICHAEL MILLER, OF WATERLOO, INDIANA.

IMPROVEMENT IN WAGONS.

Specification forming part of Letters Patent No. 118,257, dated August 22, 1871.

To all whom it may concern:

Be it known that I, MICHAEL MILLER, of Waterloo, in the county of De Kalb and State of Indiana, have invented a new and useful Improvement in Wagons, of which the following is a full, clear, and exact description, reference being made to the accompanying drawing, in which the various parts are designated by similar letters in all the figures.

The first part of my invention relates to an improved fifth-wheel, by which wagons are enabled to turn more easily and steadily than heretofore, and by its peculiar construction relieves the king-bolt of the greater part of the strain which it sustains in ordinary wagons.

Figure 1 is a perspective view of the first part of my invention attached to that part of a wagon to which it belongs; and Fig. 2 is a section of the same taken in the line *x x*, shown in Fig. 1.

It consists of two annular plates, one which I call the bottom plate, shown at A, being firmly attached in a horizontal position to the upper side of the fore axle-tree, so that the hole through which the king-bolt passes is at its center. The upper surface of this plate, with the exception of a ledge, *l*, around its outer edge, is ridge-shaped, the inner incline of the ridge being twice the extent of the outer, as shown in Fig. 2. The other, which I call the top plate, shown at B, is firmly attached to or forms part of the under side of the fore end of the coupling-pole, preferably in the manner shown in the drawing. The under surface of this plate is grooved to fit upon the upper surface of plate A, upon which it oscillates with the movements of the wagon. The two plates are held together when the wagon is coupled by the king-bolt *c* passing through the cross-head *h*, which forms the termination of the coupling-pole *p*. The two plates are of the same size, and I prefer to make them of the diameter of about one-third or fourth

the length of ordinary axle-trees and of convenient thickness.

It will be seen that in this invention a great degree of steadiness in running and facility in turning is attained, and that a large portion of the pull is sustained by the contiguous surfaces of the two plates A and B, which would otherwise fall upon the king-bolt, which is the case in ordinary wagons, too much strain being thereby centered on said bolt. The plates are made of metal or metal and wood combined.

Fig. 3 shows the second part of my invention, which relates to the manner in which the hind hounds of a wagon are attached to the coupling-pole. Instead of being rigidly fixed to said pole they are attached, by screws or otherwise, to a swiveling head, Z, made in two parts, Z' Z'', which head embraces the coupling-pole and turns upon it when either of the wheels of the wagon is raised, as when passing over obstacles or making short turns.

In ordinary wagons, when a short turn is made or a wheel on one side passes over an obstruction, there is a great strain upon the coupling-gear, as is well known, and various parts of it are frequently thus broken and twisted out of place. This is obviated by the second part of my invention, viz., the manner of attaching the hind hounds to coupling-pole by a swiveling head or its equivalent.

Having thus described my invention, what I claim is—

The combination of the swiveling head Z and the reach with the fifth-wheel, having upon its lower plate a V-shaped annular ridge, and in its upper plate a groove to fit therein, all as shown and described, and for the purpose set forth.

Witness my hand this 30th day of March, 1871.

Witnesses: MICHAEL MILLER.

A. J. SINCLAIR,
J. C. BOYER.