

RAND B. WHITE.

Improvement in Wagons.

No. 115,797.

Patented June 6, 1871.

Fig. 1.

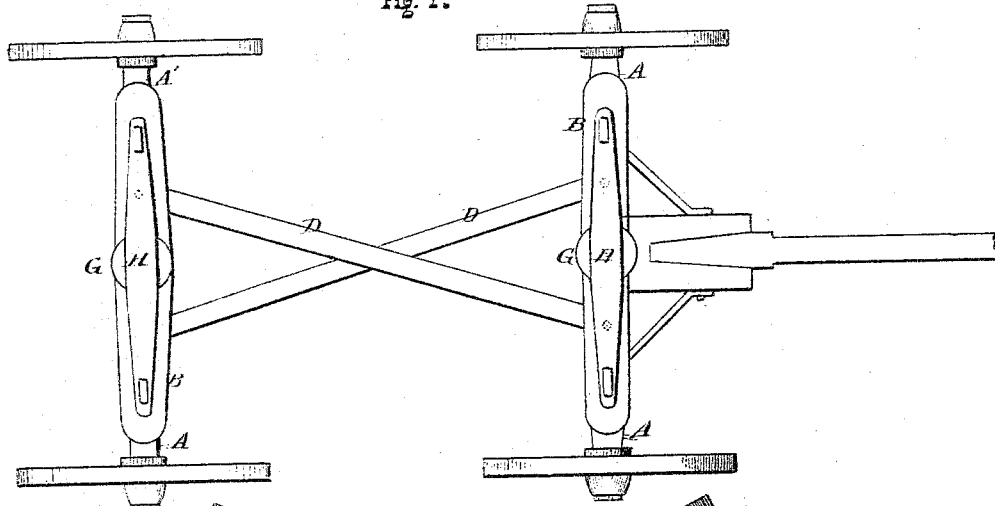


Fig. 2.

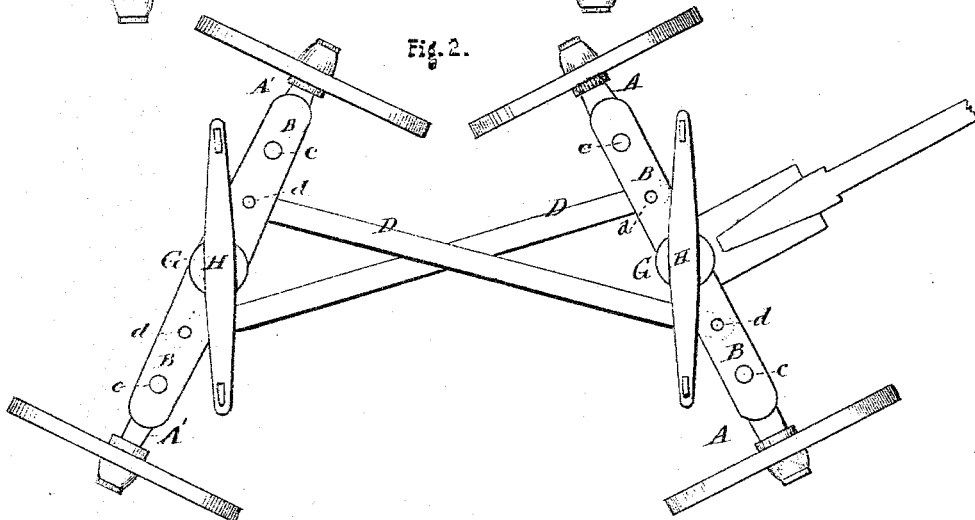
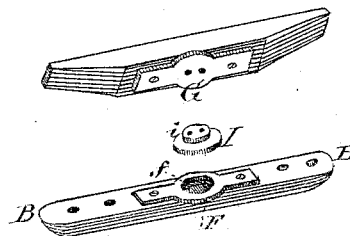


Fig. 3.



Witnesses.

J. H. Poole.  
John R. Young

Inventor.

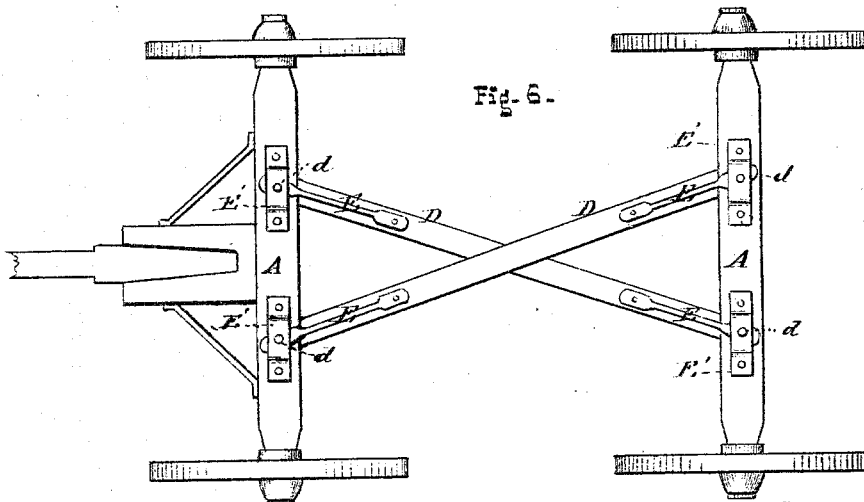
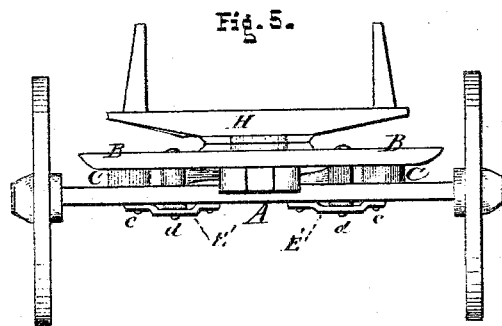
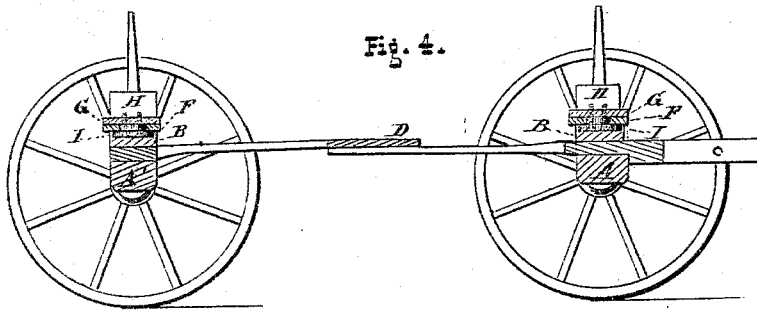
Rand B. White by  
Orinelle W. Byer,  
Attys.

RAND B. WHITE.

Improvement in Wagons.

No. 115,797.

Patented June 6, 1871.



Witnesses.

*C. H. Coole*  
*John B. Young*

Inventor.

*Rand. B. White, by*  
*Prindle and Dyer,*  
Att'ys.

## UNITED STATES PATENT OFFICE.

RAND B. WHITE, OF SHEBOYGAN FALLS, WISCONSIN.

## IMPROVEMENT IN WAGONS.

Specification forming part of Letters Patent No. 115,797, dated June 6, 1871.

*To all whom it may concern:*

Be it known that I, RAND B. WHITE, of Sheboygan Falls, in the county of Sheboygan and in the State of Wisconsin, have invented certain new and useful Improvements in Wagons; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a plan view of the upper side of my improved running-gear; Fig. 2 is a like view of the same, with the wheels "cramped;" Fig. 3 is a perspective view of the parts composing the fifth-wheel; Fig. 4 is a vertical central section of said running-gear on the line *xx* of Figs. 1, 5, and 6; and Figs. 5 and 6 are, respectively, a front elevation and a plan view of the lower side of said gear.

Letters of like name and kind refer to like parts in each of the figures.

My invention is an improvement in the running-gear of wagons; and it consists, principally, in the peculiar construction of the reaches and their combination with the axles, substantially as and for the purpose herein-after specified. It also consists in construction and combination of the various parts of the fifth-wheel, substantially as and for the purpose hereinafter set forth.

In the annexed drawing, A and A' represent the front and rear axles, respectively, having a uniform thickness horizontally, and each strengthened by means of a bar, B, corresponding in length to the distance between the wheel-hubs, and in width to the width of said axles, to or with which they are connected by means of three blocks, C, placed near their ends and at their longitudinal centers, and each containing a bolt, *e*, which, passing vertically through the several parts, firmly unites them together. As thus constructed a horizontal opening is left between each axle and bar upon either side of the center, each of which contains one end of a reach, D, that from thence extends diagonally across to space upon the opposite end of the opposite axle, there being two of said reaches, which cross each other, as shown in Figs. 1 and 6. The ends of the reaches are each connected with its axle by means of a pin or bolt, *d*, which, passing vertically downward through

the different parts, permits said reach to move horizontally upon or around said pin, which serves as an axial pivot. In order that additional strength may be given to the connection between the axles and reaches a metal brace, E, is attached to each of the latter, near its ends, and, extending outward and downward, has its end pivoted upon the lower end of the bolt *d*, immediately beneath the axle. A metal plate, E', is secured at its ends upon the axle, and, extending across the pivoted end of each brace, receives the lower end of the bolt so as to hold it in position, and also to prevent said brace from sagging. As thus arranged it will be seen that the turning of one axle to the right or left will cause a corresponding opposite movement of the opposite axle, by which means the wheels are caused to exactly track each other, and the space required for turning the wagon is reduced to the smallest possible limits. It being necessary that each bolster should be pivoted in order to allow a free movement of the axles upon their centers, the following-described means are employed for effecting this purpose: A plate, F, having the general form shown in Fig. 3, with an opening, *f*, passing through its center, is provided for the upper face of the bar B, and a corresponding plate, G, solid at its center, is provided for the lower face of the bolster H. A circular disk, I, somewhat larger than the opening *f*, is provided upon its upper face with a boss, *i*, which corresponds in size and shape with said opening, and has a height above said disk slightly greater than the thickness of the plate F, so that when passed upward through the opening, with said disk bearing against the lower side of said plate, the upper side of said boss shall be slightly above its upper surface. The disk and boss thus formed are placed in position against and within the plate F, and two or more bolts passed through the former into the plate G, so as to bind them firmly together, and confine between the same said plate F, which, however, is allowed to revolve freely in a horizontal plane.

The attachment or fifth-wheel being constructed as described, and its parts connected together, is attached by screws or bolts to or upon the bar B and bolster, and firmly unites the same, vertically, without the employment

of the usual king-bolt extending through said parts and the axle.

The special advantages possessed by my improvements are simplicity and cheapness of construction, efficiency and ease of operation, in combination with increased strength and durability.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

1. In combination with the axles A and A', the reaches D, pivoted and arranged substantially as and for the purpose specified.

2. The hereinbefore-described fifth-wheel, consisting of the plates F and G, and the disk I, provided with the boss *i*, when constructed and combined substantially as shown, and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 3d day of May, 1871.

RAND B. WHITE.

Witnesses:

JOSEPH KENNEDY,  
JNO. E. THOMAS.