

J. O'FARRELL.
Side-Bar Wagon.

No. 212,152.

Patented Feb. 11, 1879.

Fig. 1.

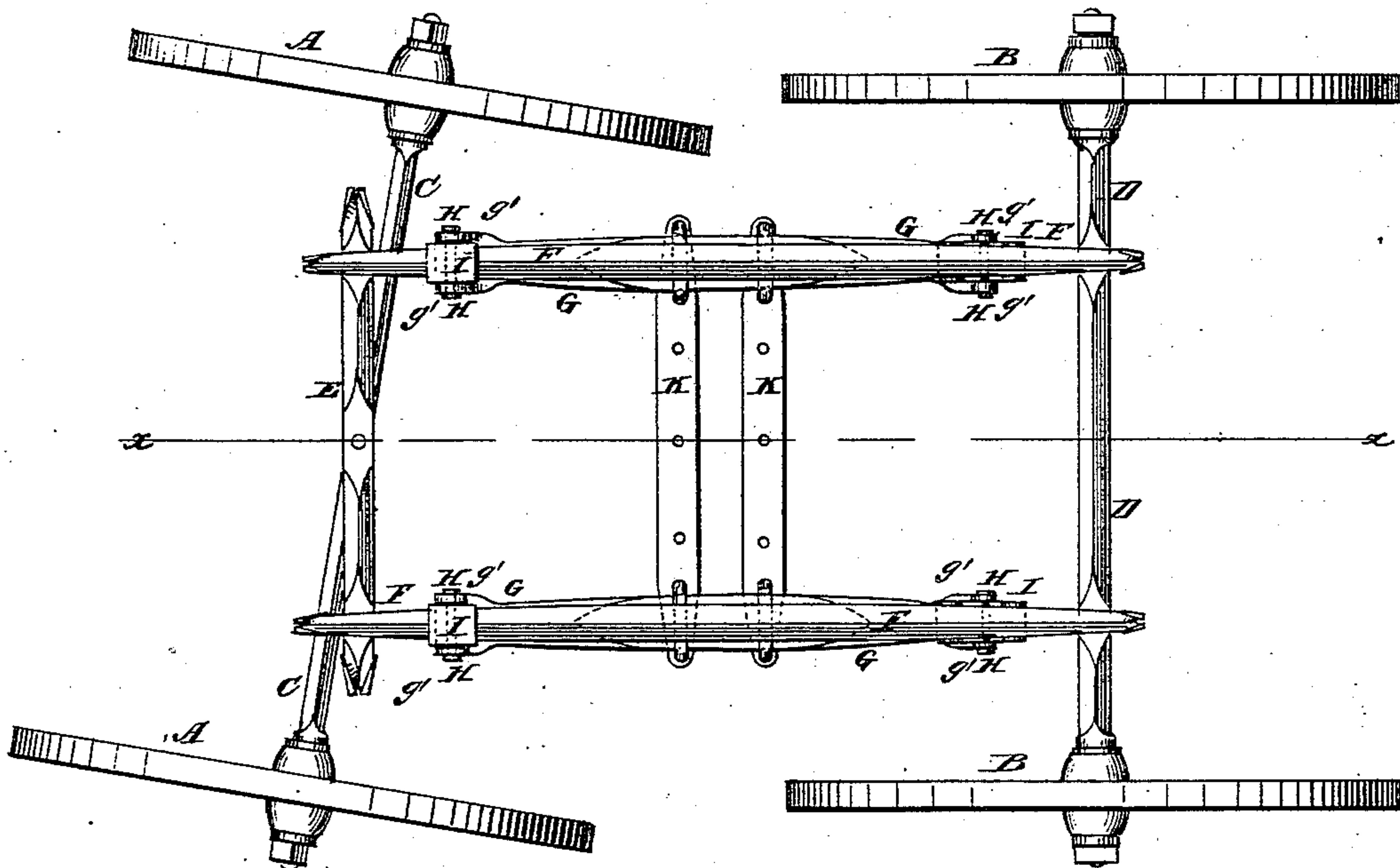
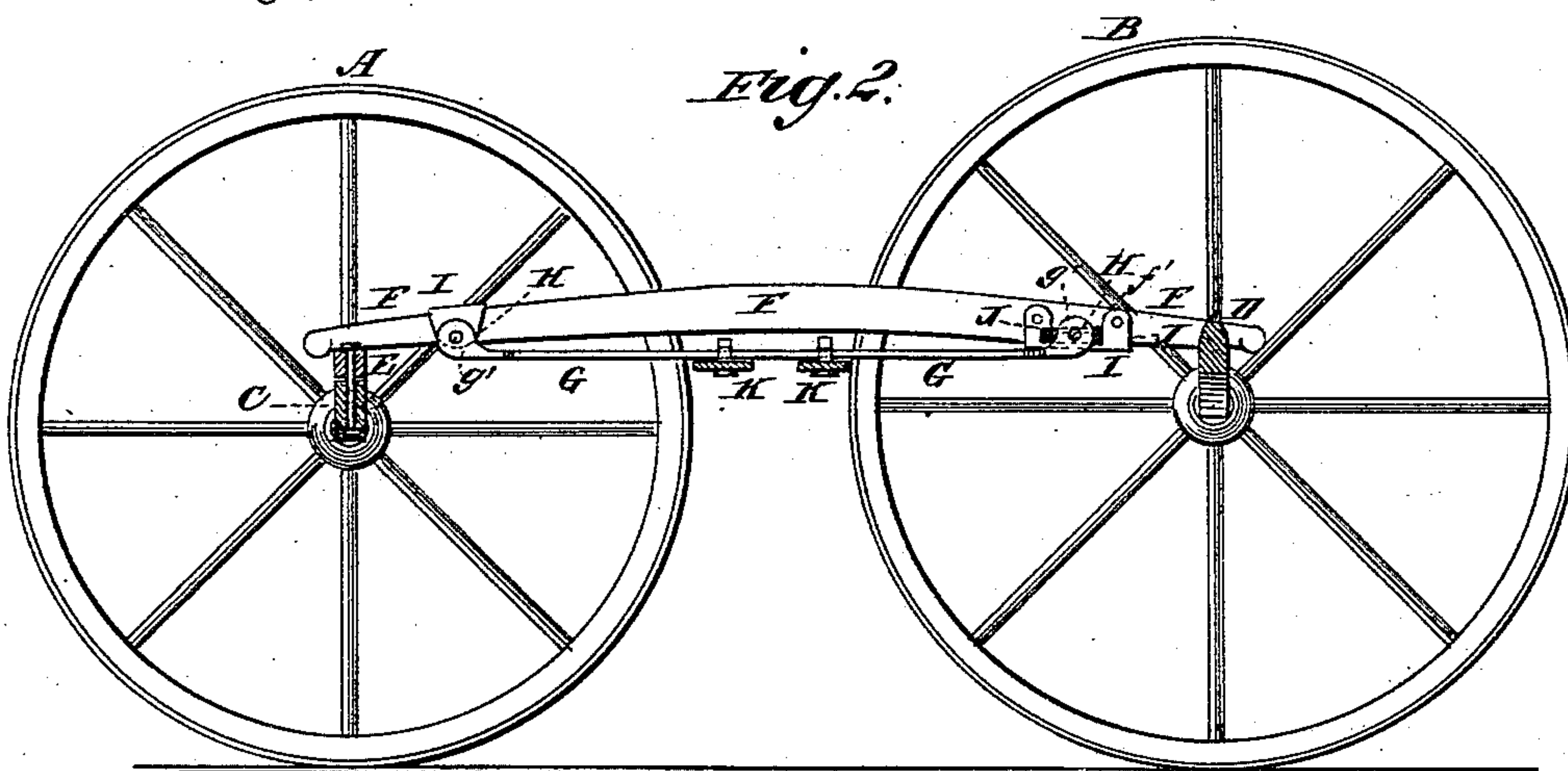


Fig. 2.

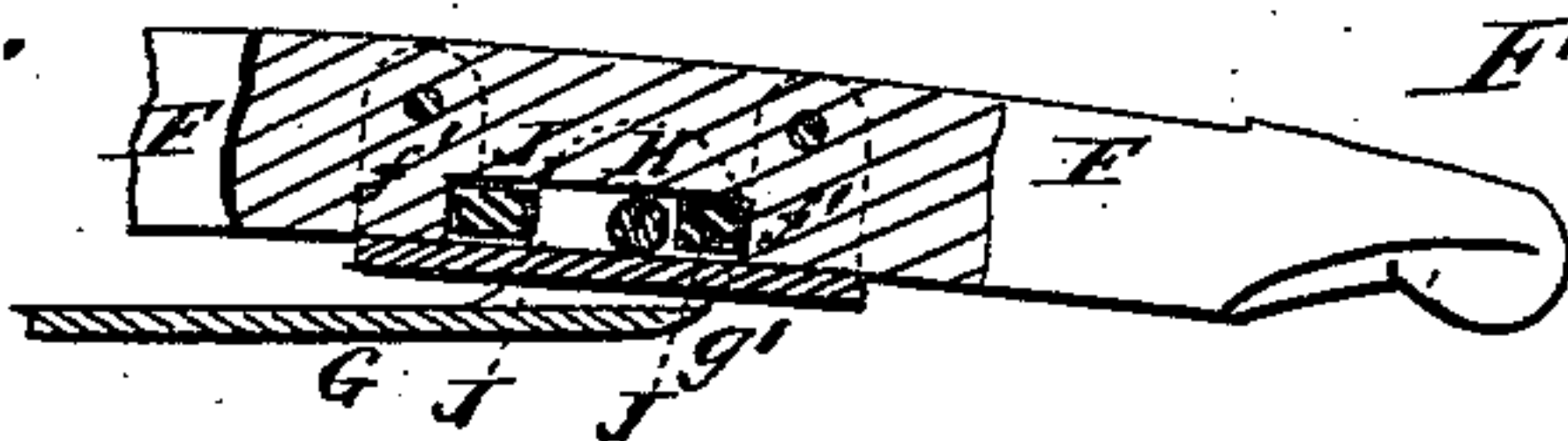


WITNESSES:

INVENTOR:

F. Mc Ardle.
C. Sedgwick

Fig. 3.



BY

J. O'Farrell
Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOSEPH O'FARRELL, OF MORRISON, ILLINOIS.

IMPROVEMENT IN SIDE-BAR WAGONS.

Specification forming part of Letters Patent No. **212,152**, dated February 11, 1879; application filed July 27, 1878.

To all whom it may concern:

Be it known that I, JOSEPH O'FARRELL, of Morrison, in the county of Whiteside and State of Illinois, have invented a new and useful Improvement in Side-Bar Spring-Wagons, of which the following is a specification:

Figure 1 is a top view of the running-gear of a side-bar wagon to which my improvement has been applied. Fig. 2 is a vertical longitudinal section of the same, taken through the line *x x*, Fig. 1. Fig. 3 is a detail sectional view, showing the connection between the springs and side bars.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish side-bar spring-wagons, which shall be so constructed that the elasticity of the springs may be regulated as required, which will prevent the springs from being broken by the rebound, and which will enable better results to be obtained with a less amount of steel than when the ordinary construction is used.

A are the forward wheels of the wagon. B are the rear wheels. C is the forward axle. D is the rear axle. E is the head-block, and F are the side bars. The forward ends of the side bars, F, are connected with the head-block E, and their rear ends are connected with rear axle, D, by bolts, clips, or other suitable means. As thus far described there is nothing new in the construction.

G are the springs, which may be made of one or more leaves, as may be desired, and which are placed directly beneath the side bars, F. Upon the ends of the springs G are formed lugs *g'*, which overlap the sides of the side bars, F, and have holes formed through them to receive the bolts H. The bolts H pass through slots *f'* in the side bars, F, which are strengthened and protected from wear by metal plates I, attached to them.

Slots *f'* for the bolts H may be formed in the side bars, F, at one or both ends of the springs G, to give the necessary play to the said springs. In the latter case, rubber blocks J should be placed in the ends of the slots *f'* for the bolts H to strike against, as shown in Fig. 3.

To the middle parts of the springs G are attached, by clips or other suitable means, the ends of two cross-bars, K, to which the wagon-body is to be attached.

By this construction the elasticity of the springs may be increased and diminished by moving the bars K closer to and farther from the centers of the springs G.

By this construction, should the wagon be overloaded, the bolts H will be drawn to the inner ends of the slots *f'*, and the springs G and side bars, F, will become trusses, and capable of sustaining a great weight.

By this construction, also, the springs G being placed directly beneath the side bars, F, the said springs cannot be broken by a rebound.

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

In combination with the wooden side spars, F F, the springs G G, arranged underneath the side spars, hinged at one end and sliding in boxes at the other end, said boxes being provided with rubber cushions on each side of the sliding part, and the springs being connected near the center by cross-bars K K, for supporting the wagon-body, substantially as herein set forth.

JOSEPH O'FARRELL.

Witnesses:

GEO. A. WHITCOMB,
R. S. W. ELY.