

S. J. McDONALD.
Running-Gear for Wagons.

No. 214,421.

Patented April 15, 1879.

Fig. 1.

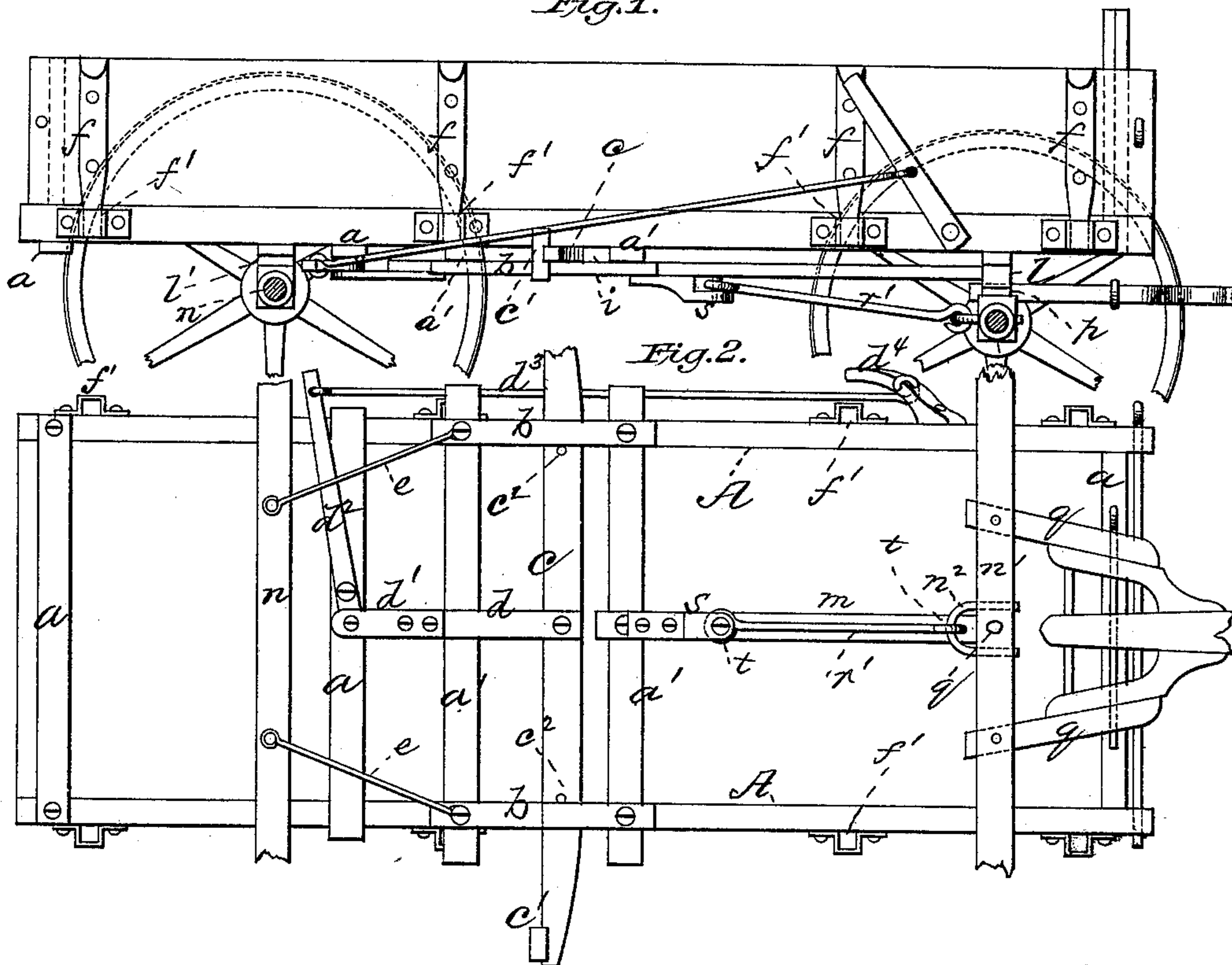


Fig. 2.

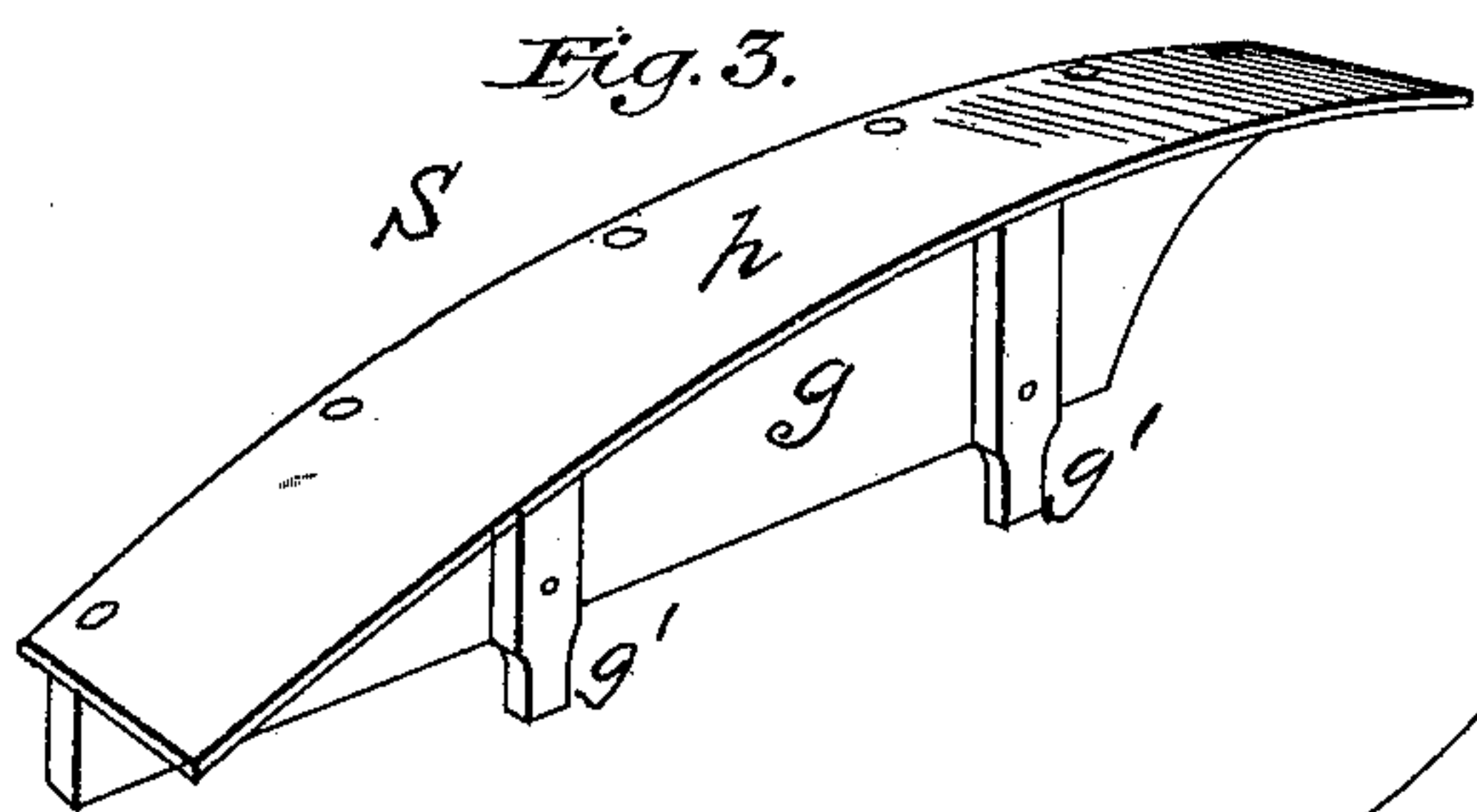
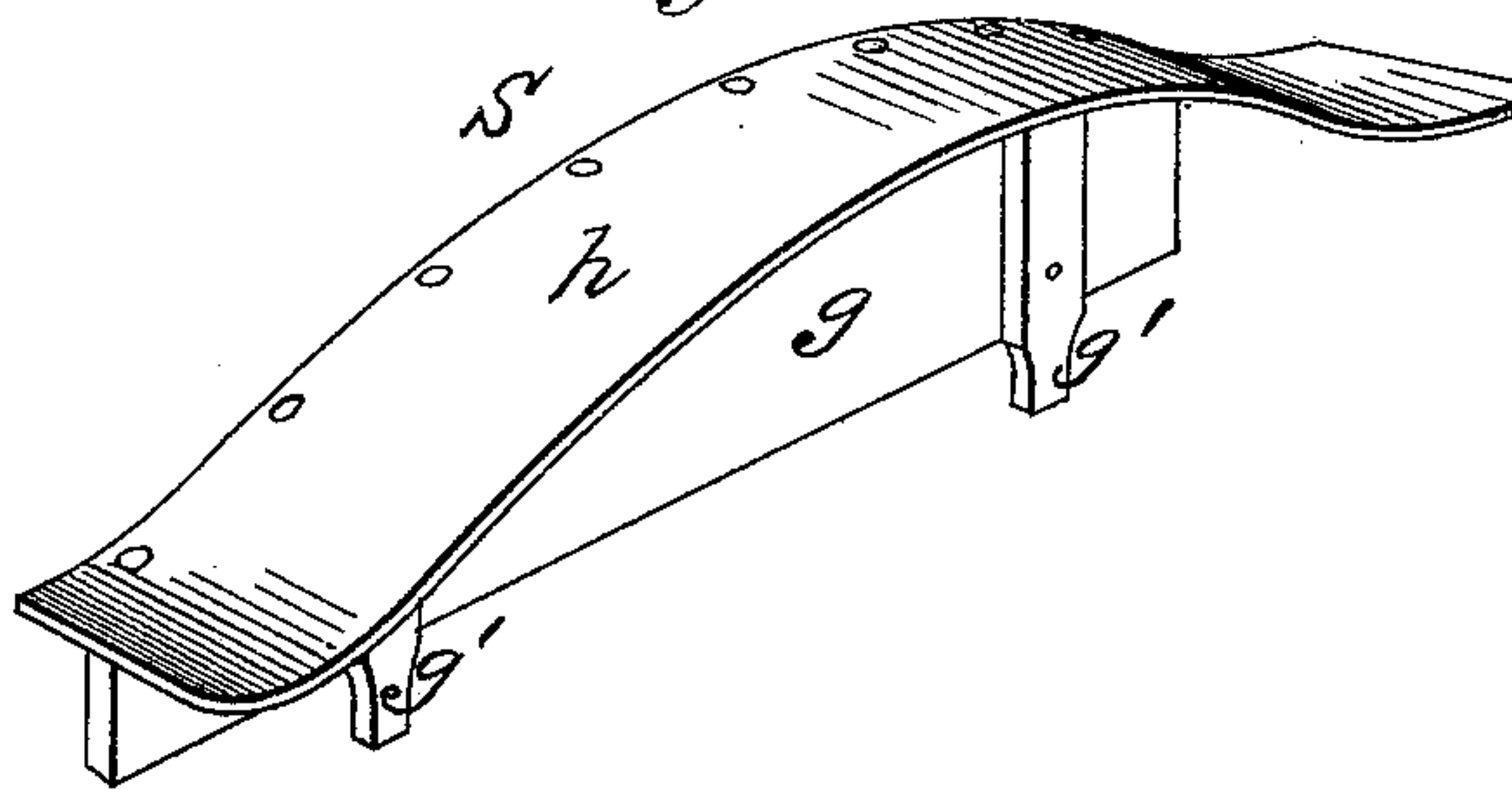


Fig. 4.



Witnesses:
John A. Allen.
H. J. Massie.

Inventor:
S. J. McDonald
by E. W. Anderson,
Attorney

UNITED STATES PATENT OFFICE.

SAMUEL J. McDONALD, OF GALLATIN, MISSOURI.

IMPROVEMENT IN RUNNING-GEAR FOR WAGONS.

Specification forming part of Letters Patent No. **214,421**, dated April 15, 1879; application filed March 8, 1879.

To all whom it may concern:

Be it known that I, SAMUEL J. McDONALD, of Gallatin, in the county of Daviess and State of Missouri, have invented a new and valuable Improvement in Wagons; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view of my improved wagon. Fig. 2 is a bottom view thereof; and Figs. 3 and 4 are details.

This invention has relation to improvements in road and farm wagons.

The nature of the invention consists in a certain novel construction of the parts of the wagon and running-gear whereby I dispense with the rear hounds, the rear extension of the front hounds, the reach, and the various iron-work trimmings appropriate to these parts, as will be hereinafter more fully set forth.

In the annexed drawings, the letter A designates the side sills of the frame of the wagon-bottom, braced at intervals by the cross-pieces *a* and *a'*, the latter being near the center of the frame. These braces *a'* are connected together at each end by the bars *b*, forming with the sills A, to which they are parallel, the spaces *i*. Extending transversely across the wagon-body through the spaces *i* is a brake-bar, *c*, carrying at each end a shoe, *c'*, and guided in its movements to and from the hind axle by the pins *c''*, or their equivalents. *d* indicates a stem or arm rigidly bolted to the bar *c* at its middle portion, and, being carried to the rear a sufficient distance, connected by a link, *d'*, to the weight end of a horizontally-vibrating lever, *d''*, having its fulcrum on one of the sills *a*. The power end of this lever is connected by means of a rod, *d'''*, to a vertically-vibrating lever, *d''''*, fulcrumed to the side of the said sill near the fore part of the body.

The box is constructed in the usual way with removable head and foot boards, and its sides

are provided with cleats *f*, the lower ends of which are received in steps or sockets *f'* secured to the sides of the sills, as shown in Fig. 1. The sockets are usually of iron.

The box may be lifted bodily from the body or frame and the hay-guards S, Figs. 3 and 4, substituted therefor. These consist, essentially, of wooden boards *g*, curved at their upper edges, and provided with the cleats *g'*, designed to be stepped in the sockets aforesaid, and of curved preferably metallic shields *h*, secured to the curved upper edges of the boards *g*. These boards *g* protect the hay from the sides of the wheels, and the shields prevent injury from the tires. The front and rear bolsters, *l* *l'*, are bolted securely to the sills, and the rear axle, *n*, is bolted permanently to the said rear bolster, and braced to the adjacent cross-piece *a'* of the frame by the metallic rods *e*, thus holding the axle in a constant position.

The front bolster, *l*, has mortised into it a longitudinal coupler, *m*, the rear end of which is bolted to the front cross-piece, *a'*, and the front axle, *n'*, and its sand-bar *p* are attached to the wagon-body by means of the usual king-bolt. *q* designates the hounds, arranged at a suitable distance apart, and having their rear ends engaged between the front axle and sand-board, and secured thereto by through-bolts. Rigidly secured to the rear of axle *n'* is a strong semicircular staple, *n''*, that is connected, by means of a rod, *r'*, to a bracket, *s*, secured to the rear end of the coupler *m*. This rod has at each end an eye, *t*, by means of which it is attached to the staple and to the bracket. The effect of rod *r* is that while it offers no obstacle to the turning of the fore axle, it relieves the king-bolt of strain and prevents it from bending.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a wagon having the front axle pivoted under the front bolster by a king-bolt extending through the axle, the middle cross-piece, *a'*, connecting the side sills, the coupler *m*, extending from said cross-piece *a'* to the front bolster, the rod *r'*, the semicircular staple *n''* in the front axle, and the bracket *s*

at the rear end of the coupler, said staple and bracket being connected by said rod r' , as specified.

2. A wagon having in rear its side sills A , connected by the cross-bars a a' , forming side ways i for the brake-bar c , and in front its front axle connected by means of a rear staple, n^2 , and rod r' with a center cross-piece, a' , thereby dispensing with a reach, strengthening the

middle of the wagon-frame, and affording free space for the brake-bar, as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

SAMUEL J. McDONALD.

Witnesses:

JEHIEL L. DAY,
HARLEY BRUNDIGE.