(No Model.)

C. W. SALADEE.

RUNNING GEAR FOR WAGONS.

No. 375,428. Patented Dec. 27, 1887.

Fig. 1

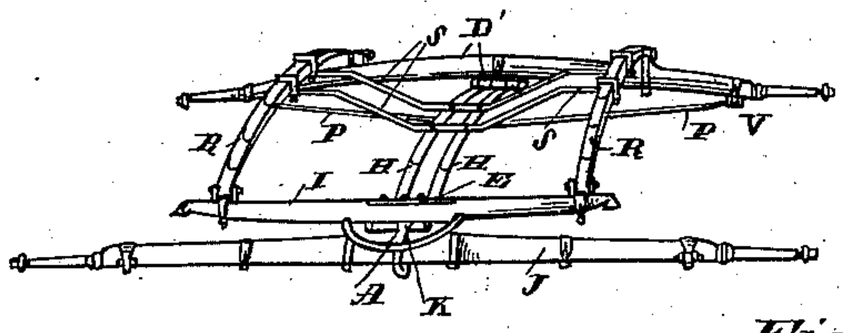


Fig. 2.

Fig. 3

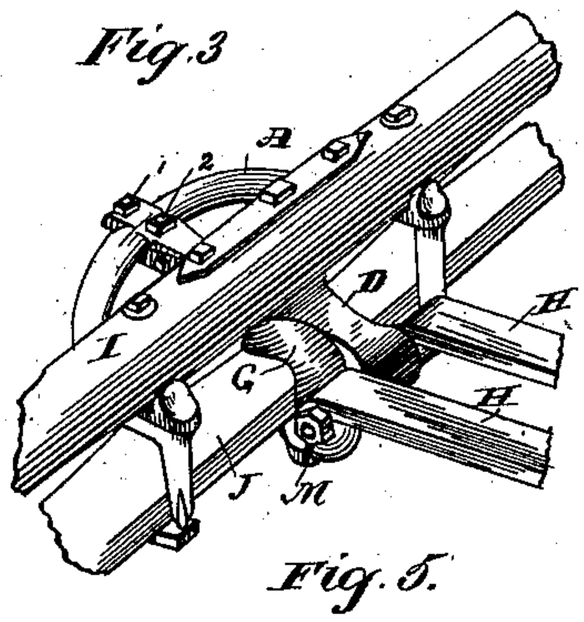


Fig. 4.

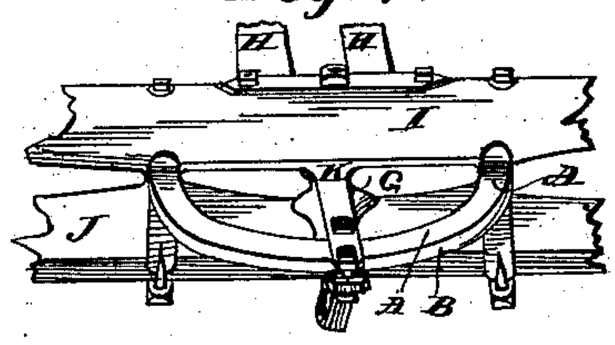


Fig. 5.

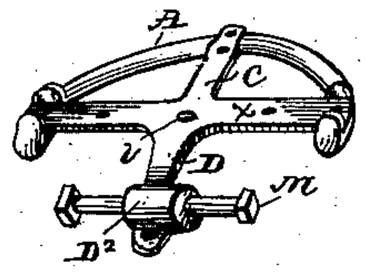


Fig. 6.

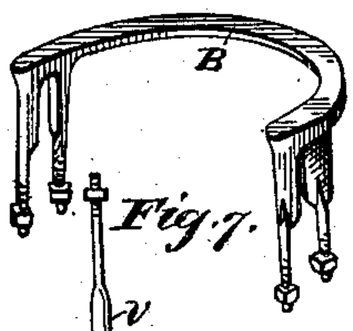


Fig. 8.

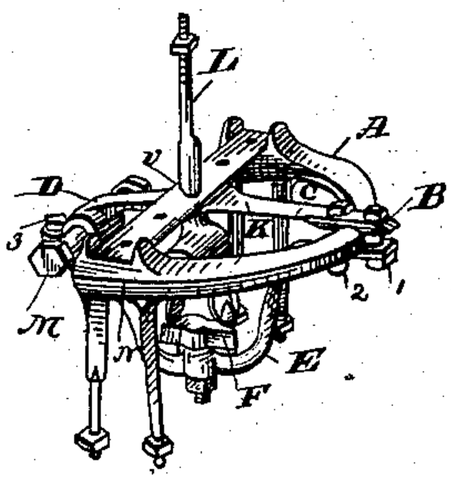


Fig 10.

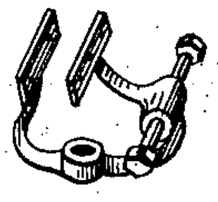


Fig 7.

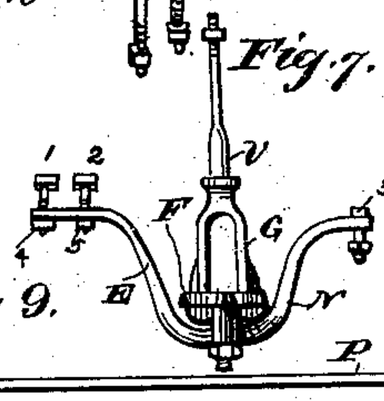
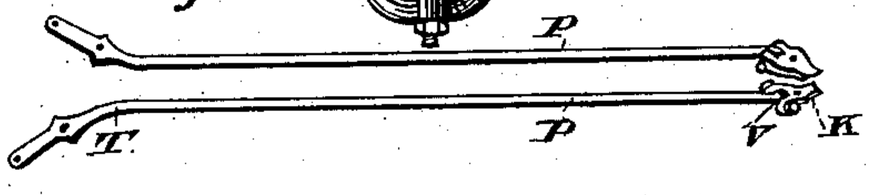


Fig 9.



WITNESSES

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UNITED STATES PATENT OFFICE.

CYRUS W. SALADEE, OF CLEVELAND, OHIO.

RUNNING-GEAR FOR WAGONS.

SPECIFICATION forming part of Letters Patent No. 375,428, dated December 27, 1887.

Application filed May 11, 1887. Serial No. 237,866. (No model.)

To all whom it may concern:

Be it known that I, CYRUS W. SALADEE, a resident of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Running-Gears for Road-Wagons; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

This invention relates to running-gear for road-wagons; and it consists in the construction and novel arrangement of devices, as hereinafter set forth, and pointed out in the appended claims.

In the drawings, Figure 1 is perspective top view of the complete wagon-gear embracing the several features of my invention. Fig. 2 represents detached views of the truss-braces connecting the side with the center springs, as seen in Fig. 1. Fig. 3 is an enlarged detached rear view, and Fig. 4 a like detached front view, of the fifth-wheel coupling interposed between the bolster and front axle. Figs. 5, 6, 7, 8, 9, and 10 are enlarged detached views of parts seen in Fig. 1, which will hereinafter be more fully described.

The axles and bolster, front and rear, are connected by two side springs, R R, and a spring-perch, preferably of two flexion members, H H, arranged side by side in the same horizontal plane. The center portion of the side and center springs are connected by the transversely-arranged truss-braces *s s*, detached views of which are seen in Fig. 2. Axle-stays P P are employed, as seen in Fig. 1, detached and enlarged views of which are seen in Fig. 9. The front ends, T, of these stays P are secured to the spring-perch at or about its middle portion between the ends, and their rear ends, V, are pivotally connected to the hind axle, at or near the shoulders thereof, by means of the shackle-plates K, Fig. 9. These axle-stays P must needs be straight to serve the purpose of a brace; but the springs to which their front ends attach are upwardly curved and flexed, and hence elongate as they are depressed under the load, while the axle-stays, being straight and rigid, cannot conform to the springs' action without suitable provision to admit of such requisite co-operation. Therefore the rear ends, V, of the stays P must be shackled to the hind axle at such required point below the pivotal connection D′ of the rear end of the spring-perch H as will compel the hind ends of these stays at V to move rearward to the same extent that the hind end of the spring-perch is moved in the same direction by the central depressions of the springs. This suspension of the rear ends, V, of the stays P below the line of the pivotal bearing D′ of the rear end of the spring-perch is necessitated for the reason that if the ends of the spring-perch at D′ and rear ends, V, of the stays P were all pivotally connected in a line with each other (the one being curved and flexion and the other straight and rigid) the action of the one would retard the action of the other, and thereby impose a longitudinal strain upon the several points D′ and V that would soon prove fatal to one or the other.

The other part of my invention relates to the fifth-wheel coupling, wherein A represents the top circle plate, as seen in Fig. 5, and B the bottom plate, as seen in Fig. 6. The bolster-plate X, Fig. 5, has a rearwardly-extended arm, D, terminating in the head D^2, through which passes the trunnion-bolt M, and from which latter is suspended the front ends of the spring-perch H H, as seen in Fig. 3. This head D^2 has integral with it a rearwardly-extending ear formed with a bolt-hole, through which is passed the bolt 3, (seen in Fig. 7,) whereby to secure thereto the rear end, N, of the under brace, E; also, the bolster-plate X, Fig. 5, has a forwardly-extended arm, *c*, connecting with the circle A, whose front end is pierced by bolt-holes for the passage of the bolts 1 and 2, (seen in Fig. 7,) connecting the front end of the under brace, E, thereto, as seen in Fig. 8. The holes through the front end of the brace E, Fig. 7, are internally screw-threaded to correspond with the screw-thread on the ends of the bolts 1 and 2, and after passing through are locked in any desired position to prevent the two plates A and B from rattling, as may be seen more fully in Fig. 8. A clip king-bolt, G, is employed in the usual way, having the yoke F, connecting the under brace, E, as seen in Figs. 7 and 8. The top end of this king-bolt passes up through the bolster I in the usual way. The arm D, Fig. 5, is made, preferably, integral with the plate X. In this instance I prefer to make this upper circle

plate A, Fig. 5, plate X, arms D and C in one casting of brass, malleable iron, or other suitable metal, yet these parts may be wrought separately and fitted together in any requisite manner, and it is my design to make this top plate either way, as described above.

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

1. In a road-wagon, the combination, with a spring-perch consisting of two similar flexion members arranged side by side, extended to connect the axles, of the axle-stays P P, having their front ends attached to said spring-perch and their rear ends connected with the rear axle at points below the point of connection of the spring-perch with the rear axle, and arranged to operate substantially as set forth.

2. In a road-wagon, the combination, with a spring-perch, of the axle-stays P P, having their front ends rigidly attached to the center portion of the perch and their rear ends pivotally connected to the hind axle at or near the opposite shoulders thereof, substantially as set forth.

3. In a road-wagon, the combination, with a spring-perch, of the axle-stays P P, having their front ends secured to the central portion of a spring-perch and their rear ends, V, pivotally connected to the hind axle at a point below the line of the pivotal bearing D′, supporting the rear end of the perch, substantially as and for the purpose set forth.

4. In a road-wagon, a fifth-wheel coupling consisting of the upper circle, A, provided with the rearwardly-extended arm D, trunnion-bolt M, and the bottom circle, B, substantially as set forth.

5. In combination with the fifth-wheel circles A and B, the under brace, E, its rear end supporting the rearwardly-extended arm D of the upper circle, A, its front end supporting the circle-plates A and B in front of the axles, and the clip king-bolt G, all combined and arranged to operate substantially as set forth.

6. In combination with the fifth-wheel circle-plates A and B, the under brace, E, having its front ends secured in front of the axle to the circle-plates by bolts 1 and 2, the latter having their thread cut in the end of the brace E and locked therein by set-nuts, substantially as specified.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CYRUS W. SALADEE.

Witnesses:
J. H. DEMPSEY,
L. F. LEUER.