No. 888,535. PATENTED MAY 26, 1908.

F. H. ROYCE.

MOTOR ROAD VEHICLE.

APPLICATION FILED AUG. 12, 1907.

2 SHEETS—SHEET 1.

FIG. 1.

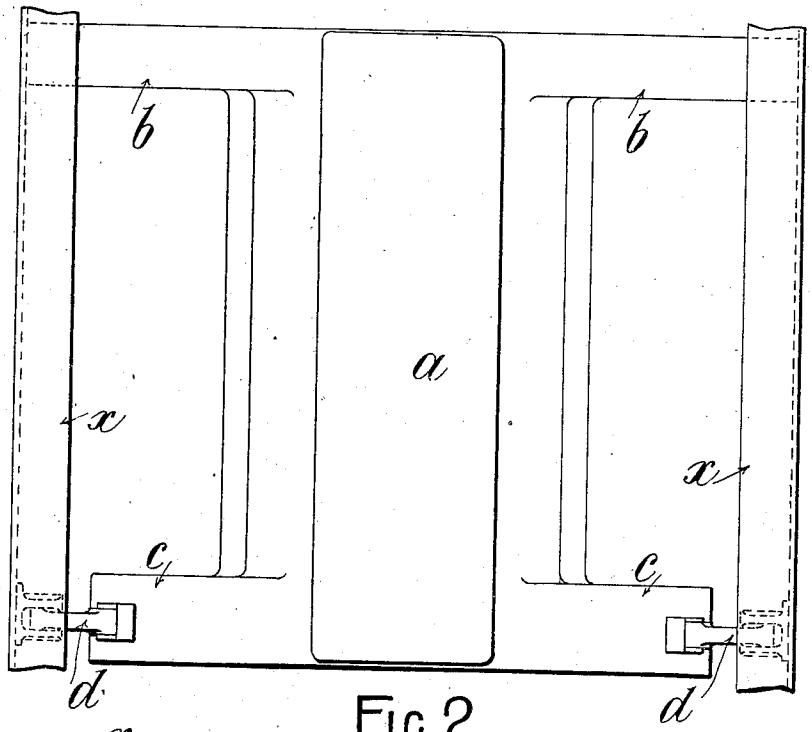


FIG. 2.

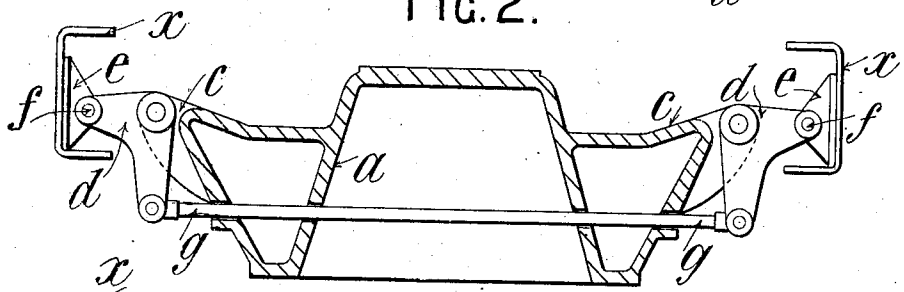
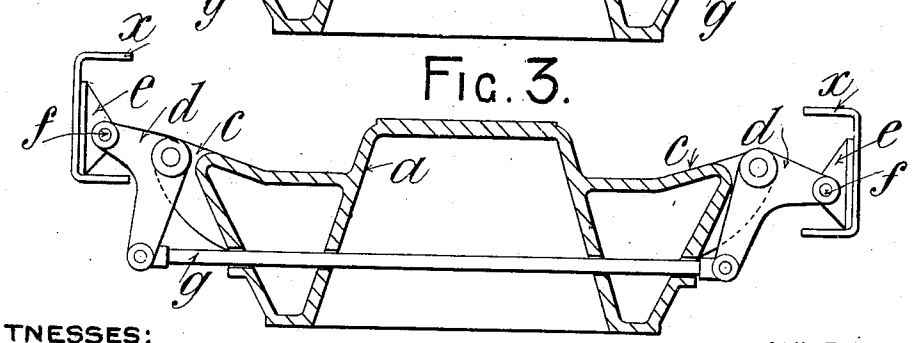


FIG. 3.



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2 SHEETS—SHEET 2.

FIG. 4.

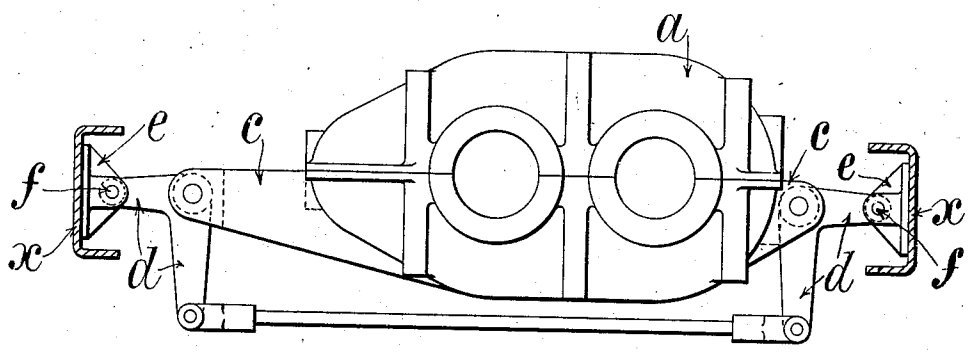
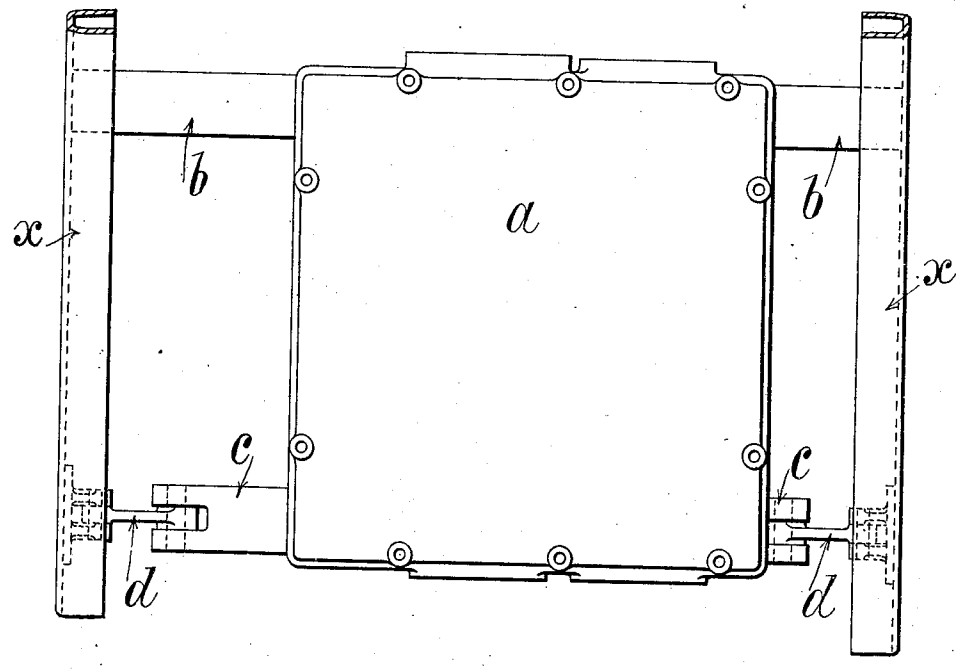


FIG. 5.



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FREDERICK HENRY ROYCE, OF MANCHESTER, ENGLAND.

MOTOR ROAD-VEHICLE.

No. 888,535. Specification of Letters Patent. Patented May 26, 1908.

Application filed August 12, 1907. Serial No. 388,159.

To all whom it may concern:

Be it known that I, FREDERICK HENRY ROYCE, a subject of the King of Great Britain and Ireland, residing at Cooke street, Hulme, Manchester, in the county of Lancaster, England, have invented new and useful Improvements in and Relating to Motor Road-Vehicles, of which the following is a full and complete specification.

This invention relates to motor road vehicles, and it consists of an improved method of mounting such parts of the power mechanism as the motor and the change speed gearing, in the frame adapted to carry same.

The usual method hitherto employed has been to fix such parts rigidly to the side members of the frame. With this construction the said parts operate as stays, and consequently when the vehicle travels over such uneven ground as will cause the side members to move relatively to each other, a considerable strain is thrown on the said parts. To overcome this defect I suspend the parts from the side members of the frame, as shown in the accompanying drawing in which:

Figures 1 and 2, Sheet No. 1, are views in plan and transverse section respectively showing the application of the invention to the suspension of a motor, part of the crank-chamber thereof only being shown. Fig. 3, Sheet No. 1, is a view in transverse section illustrating the action of the improved suspension, and Figs. 4 and 5, Sheet No. 2, are views in end elevation and plan respectively showing the application of the invention to the suspension of a gear box.

Throughout the views similar parts are marked with like letters of reference.

The part *a* to be suspended which may be either the motor as shown in Figs. 1, 2 and 3 or the gear box as shown in Figs. 4 and 5, has four arms *b b c c* projecting from it. The rear arms *b b* are rigidly fixed to side members *x x* of the frame in the usual manner. On the arms *c c* of the part *a* are pivoted bell-crank levers *d d*. The horizontal arms of these levers are connected to brackets *e* fixed on the side members of the frame by longitudinally arranged pins *f f* and the vertical arms of the levers are connected together by a coupling rod *g*. It will be seen that this construction allows either of the side members *x x* of the frame to move relative to the other—within certain limits— without tilting or moving the part *a* out of its normal plane and therefore without throwing any extra strain on said part.

In some cases it may be advisable to attach the parts constituting the power mechanism to the side members of the frame entirely by the novel device hereinbefore described, and it is within the spirit and scope of my invention so to do.

What I claim as my invention, and desire to secure by Letters Patent, is:—

1. Means for suspending the motor and gear box in the frame of a motor road vehicle comprising four arms projecting from each part the rear two of which are rigidly fixed to the frame, bell-crank levers pivoted to the other two arms, the one end of each bell-crank lever being connected to the frame, and a coupling rod connecting the other ends of said bell-crank levers, as set forth.

2. In a motor road vehicle, the combination with the frame, of a motor the casing of which is rigidly attached to the said frame at the rear end, two bell-crank levers pivoted to the front end of the casing of said motor one at each side thereof, the one arm of each bell-crank lever being pivoted to one of the side members of the frame, and a rod coupling the other arms of the two bell-crank levers, as set forth.

3. In a motor road vehicle, the combination with the frame, of a gear box one end of which is rigidly connected to the said frame, two bell-crank levers pivoted to the other end of said gear box one on each side thereof, the one arm of each said levers being pivoted to one of the side members of the frame, and a rod coupling the other arms of said levers, as set forth.

In testimony whereof I have signed my name in the presence of two subscribing witnesses.

FREDERICK HENRY ROYCE.

Witnesses:
JOHN DE LOOZE,
ARTHUR SANDERSON.