

No. 641,404.

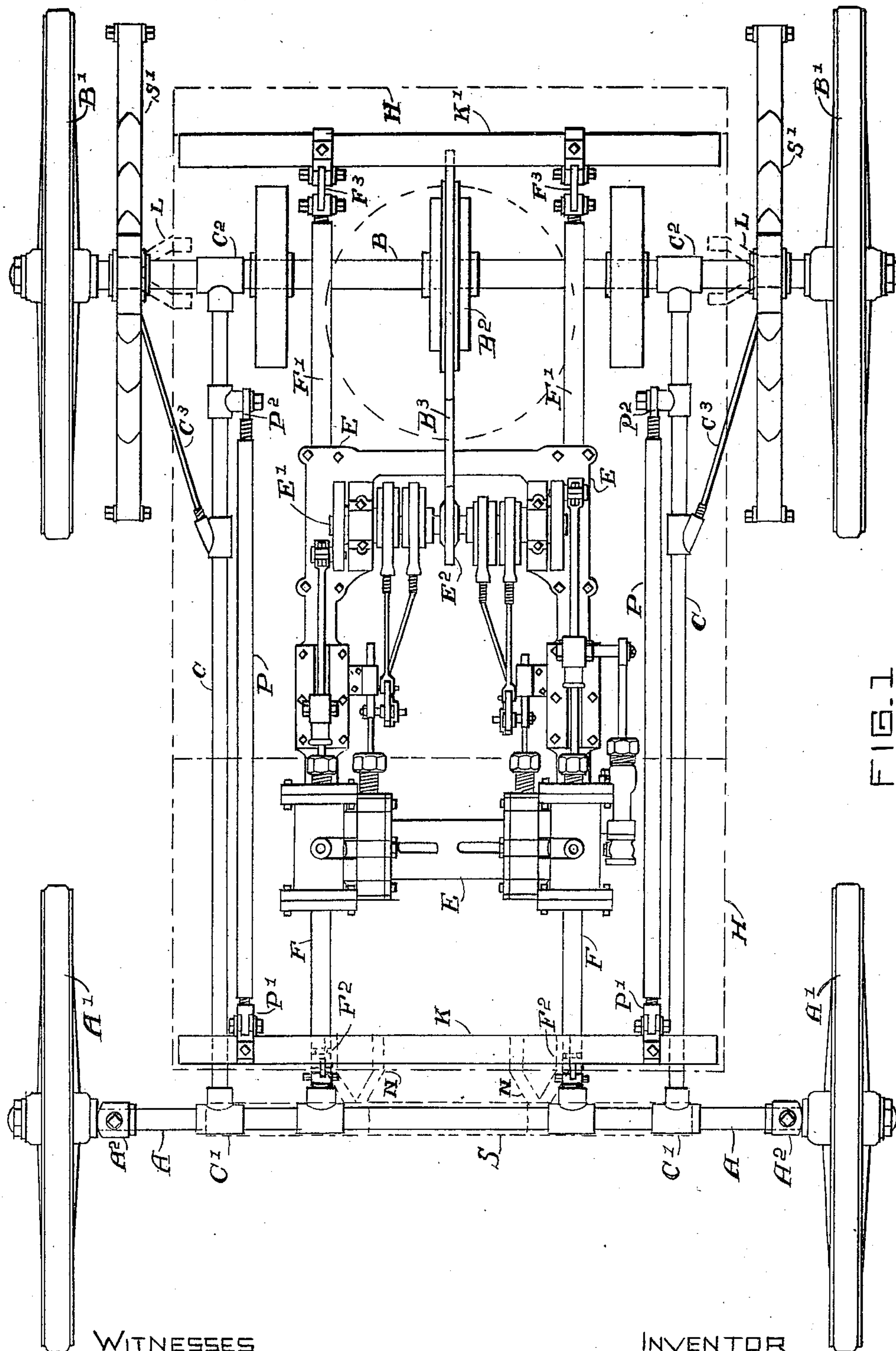
Patented Jan. 16. 1900.

W. E. PEARSON.
MOTOR CARRIAGE.

(Application filed Nov. 4, 1899.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES

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Alfred H. Bryant

INVENTOR

William E. Pearson

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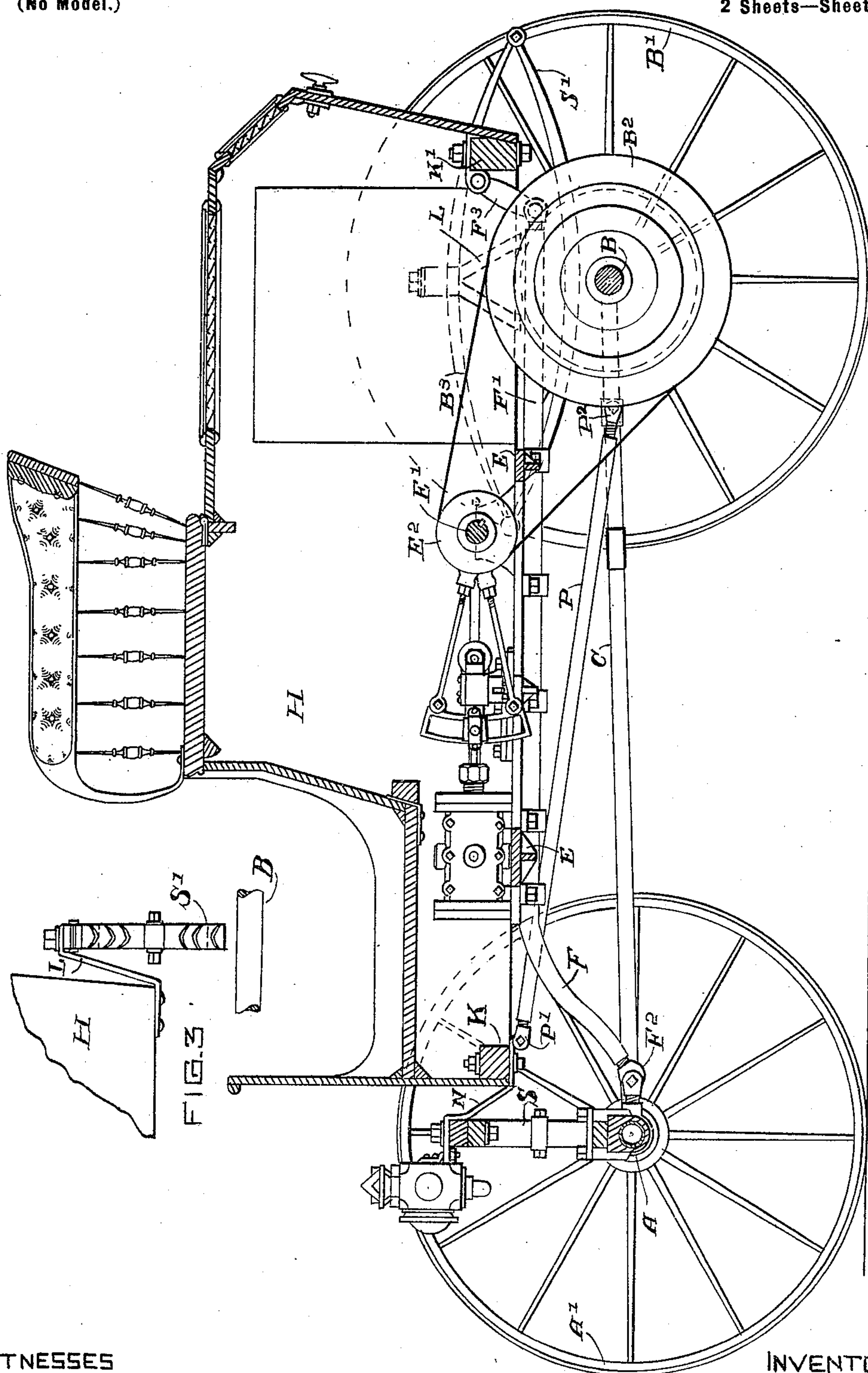


FIG. 2

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UNITED STATES PATENT OFFICE.

WILLIAM E. PEARSON, OF BOSTON, MASSACHUSETTS.

MOTOR-CARRIAGE.

SPECIFICATION forming part of Letters Patent No. 641,404, dated January 16, 1900.

Application filed November 4, 1899. Serial No. 735,830. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. PEARSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Motor-Carriages, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to a method of supporting and staying the several parts of a motor-carriage and its motor; and it consists in mechanism for supporting and staying the motor and carriage in such a manner that the vibration of the motor will not be communicated to the carriage—that is, the motor and the carriage will be comparatively independent of each other so far as shocks and vibrations are concerned.

The mechanism in which my invention is involved is illustrated in the accompanying drawings, in which—

Figure 1 is a plan view showing the parts as they would appear if the body of the carriage were removed. Fig. 2 is a longitudinal section taken through the center. Fig. 3 is a detail illustrating the manner of supporting the rear end of the carriage.

In the drawings I have indicated the carriage-body by H. I do not confine myself to any particular style or kind of carriage, as my improvements will apply to any kind of vehicle equally as well. This carriage-body has a strong frame the end sills of which are indicated by K and K', and it is supported at its front end by angle-iron straps or brackets N and the spring S. The rear end of the carriage-body is supported by angle-irons L L, which connect with the top of the springs S' S'. The said springs are attached to the rear axle B.

The running-gear and its frame may be described as follows: The front axle A is fixed rigidly to the frame and does not rotate on its axis nor swivel in relation to the carriage-body. Its wheels A' A' are connected to the axle by short journals, which are connected to the ends of the axle A by joints A² A² in the usual manner. The rear axle B is rigidly attached to its wheels B' B', so as to rotate with them. The front and rear axles are connected by rods or tubes C C. The said rods are connected to the front axle by T-joints C' C' and to the rear axle B by T-joints C² C².

The said rear axle B turns freely in the joints C² C². Inclined braces C³ C³ connect with and brace the rods C C. From the above it is seen that the front and rear axles, the rods C C, and braces C³ C³ make together a running-gear frame that is not directly connected with the body of the carriage nor directly connected with the base-plate or engine-frame, as will be explained.

The base-plate that the engine or motor is built upon is represented by E E and is supported by rods or tubes F F' and F F'. The ends F F' of these rods are connected to the front axle A by hinged joints F² F² and the ends F' F' to the rear sill K' of the body of the carriage by swinging links F³ F³, that are suspended from the said sill, as shown in Fig. 2, thus preventing the vibrations of the engine and its bed-plate from being communicated to the carriage-body. By thus supporting the engine upon a bed-plate that is pivotally hung to the forward axle by the joints F² F² and to the rear sill of the body of the carriage by swinging links F³ F³, I practically insulate the engine from the body of the carriage so far as vibration is concerned and yet have a good and strong kinematic connection between the engine and the running-gear.

The front of the body of the carriage is connected indirectly to the rear axle B by means of rods P P. The forward ends of these rods P P are connected to the front sill K by pivot-joints P' P', and the rear ends are connected to the axle-frame rods C C (and by them to the rear axle) by the pivot-joints P² P².

In case it is desirable to place the engine or motor at the rear end of the carriage then the rods F F' F F' should have their front ends connected by swinging links, like F³, to the front sills K and their rear ends to the rear axle B by pivot-joints, like F².

Motion is communicated from the engine to the shaft E' and sprocket-wheel E², and thence by the sprocket-chain B³, sprocket-wheel B², and rear axle B to the traction-wheels B' B'.

I claim—

1. In a motor-carriage an actuating-motor supported upon a frame detached from the body of the carriage, one end of said frame being attached to one axle of the carriage by a hinged joint, the other end being attached

to the swinging links suspended from one end of the body of the carriage substantially as and for the purpose set forth.

2. In a motor-carriage, a rigid running-
5 gear frame, consisting of the front and rear
axles, side rods (as C C) and inclined braces
connecting said side rods with one of the
axles; a motor-supporting frame, detached
from the body of the carriage, one end of
10 said frame being attached to one axle of the
carriage by a hinged joint, and the other end

being attached to swinging links suspended from the end of the body of the carriage substantially as and for the purpose set forth.

In testimony whereof I have signed my 15
name to this specification, in the presence of
two subscribing witnesses, on this 31st day of
October, A. D. 1899.

WILLIAM E. PEARSON.

Witnesses:

HARRY C. CLAPP,

ALFRED H. BRYANT.