(No Model.)

A. E. HERMAN.

FIFTH WHEEL.

No. 480,403. Patented Aug. 9, 1892.

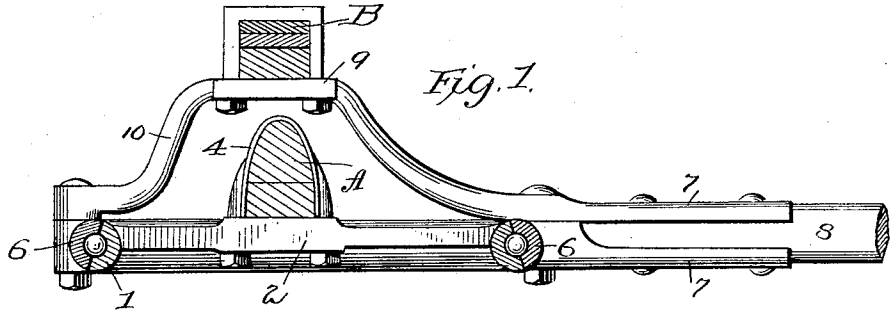

Fig. 1.

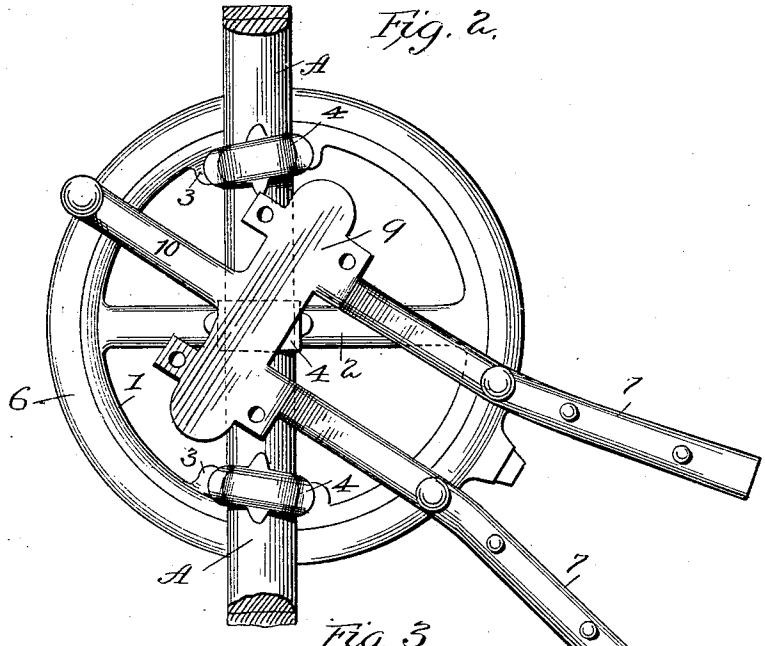

Fig. 2.

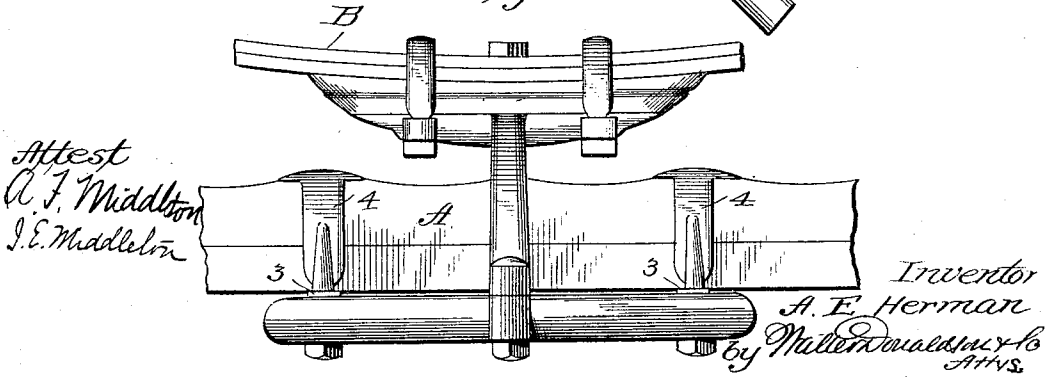

Fig. 3.

Attest
A. F. Middleton
I. E. Middleton

Inventor
A. E. Herman
by Miller Donaldson & Co
Attys.

UNITED STATES PATENT OFFICE.

ADOLPH E. HERMAN, OF TERRE HAUTE, INDIANA.

FIFTH-WHEEL.

SPECIFICATION forming part of Letters Patent No. 480,403, dated August 9, 1892.

Application filed October 21, 1891. Serial No. 409,427. (No model.)

To all whom it may concern:

Be it known that I, ADOLPH E. HERMAN, a citizen of the United States of America, residing at Terre Haute, in the county of Vigo and State of Indiana, have invented certain new and useful Improvements in Fifth-Wheels; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

It is the object of my invention to provide a simple and compact form of fifth-wheel in which the number of elements would be reduced to a minimum and the action of the wheel rendered most effective.

The invention consists in a fifth-wheel suspended or held beneath the axle, one section being secured thereto and a reach or bracket extending in arched form over the axle and connected with the other section of the fifth-wheel in front and rear, the reach being free from connection with the axle and serving to support the front spring.

My invention combines with the features above noted a special feature of anti-friction balls interposed between the section of the fifth-wheel, the whole combination being such as to render the device most compact and effective.

In the drawings, Figure 1 is a transverse sectional view, Fig. 2 a plan, and Fig. 3 a front view.

In the drawings, the axle A and the front spring B are of ordinary construction. The fifth-wheel is composed of two sections, the meeting faces of which have semicircular grooves therein, which are brought together to form a channel, as in my patent of the United States, No. 426,271, granted on the 22d day of April, 1890, into which anti-friction balls are introduced. The sections thus lie in the same horizontal plane and together constitute a ring cylindrical in cross-section. The inner section 1 has a central cross-brace 2, extending from front to rear, and at its sides it is formed with lugs 3. This section is suspended from beneath the axle by means of suitable clips 4, which pass through the lugs and openings in the cross-brace 2 and are secured by nuts 5 on their lower ends. The cross-brace and the upper surface of the inner section find a bearing on the under side of the axle and the connection is rendered rigid. The outer section 6 of the fifth-wheel has on its rear side integral extensions 7, which diverge from each other and to which the reaches or braces 8 are connected. These curve upwardly from the upper surface of the fifth-wheel and converge into a plate 9, located directly over the axle, but free from connection therewith. The plate has a forward extension 10, constituting, practically, a forward extension of the reaches, and this curves downwardly and is bolted to a lug formed on the outer section 6 of the fifth-wheel. The plate 9 extends laterally far enough to afford a bearing for the front spring, which is connected directly thereto. The curved reaches, the plate, and the forward extension form an arch over the axle, which arch at its ends is supported upon the outer section of the fifth-wheel, which in turn furnishes a firm support for the spring. It will be seen that the elements are arranged in the most compact form and the inner section with the axle is permitted to turn freely through a large enough arc to meet all the requirements of the vehicle. From this construction it will be seen that the ordinary head-block is dispensed with. It will be noticed that the inner section is wider at the bottom than at the top and the meeting faces are inclined. This construction furnishes additional support to the outer section than is afforded by the connecting-balls alone.

I claim as my invention—

1. In combination, the axle, the section 1 of the fifth-wheel secured thereto, a second section 6, supported by the first, and the arched brace extending over the sections and connected to the second section 6, and the spring carried by said arch, substantially as described.

2. In combination, the axle, the fifth-wheel comprising the two sections beneath the axle, one section being secured thereto, the arched brace extending from side to side of the second section 6, said arch extending over the axle and being free therefrom, and a spring supported thereon, substantially as described.

3. In combination, the two sections ar-

ranged in the same horizontal plane with their vertical faces adjacent to each other, means for holding the sections together, means for supporting the inner section to the axle and beneath the same, the arched brace extending over the axle and connected to the outer section, and the spring supported upon said arched brace, substantially as described.

4. In combination, the fifth-wheel comprising the first section secured to the axle, the second section supported by the first, the reach connected to the second section and converging into a plate 9 above the axle, and an extension 10, curving downwardly and connected with the second section 6 at the front side thereof, substantially as described.

5. In combination, the two sections, one secured to the axle and the other to the frame, the said sections having their meeting faces inclined and grooved and the connecting means between the sections in the grooves.

In testimony whereof I affix my signature in presence of two witnesses.

ADOLPH E. HERMAN.

Witnesses:
M. A. HERMAN,
GEO. C. SMITH.