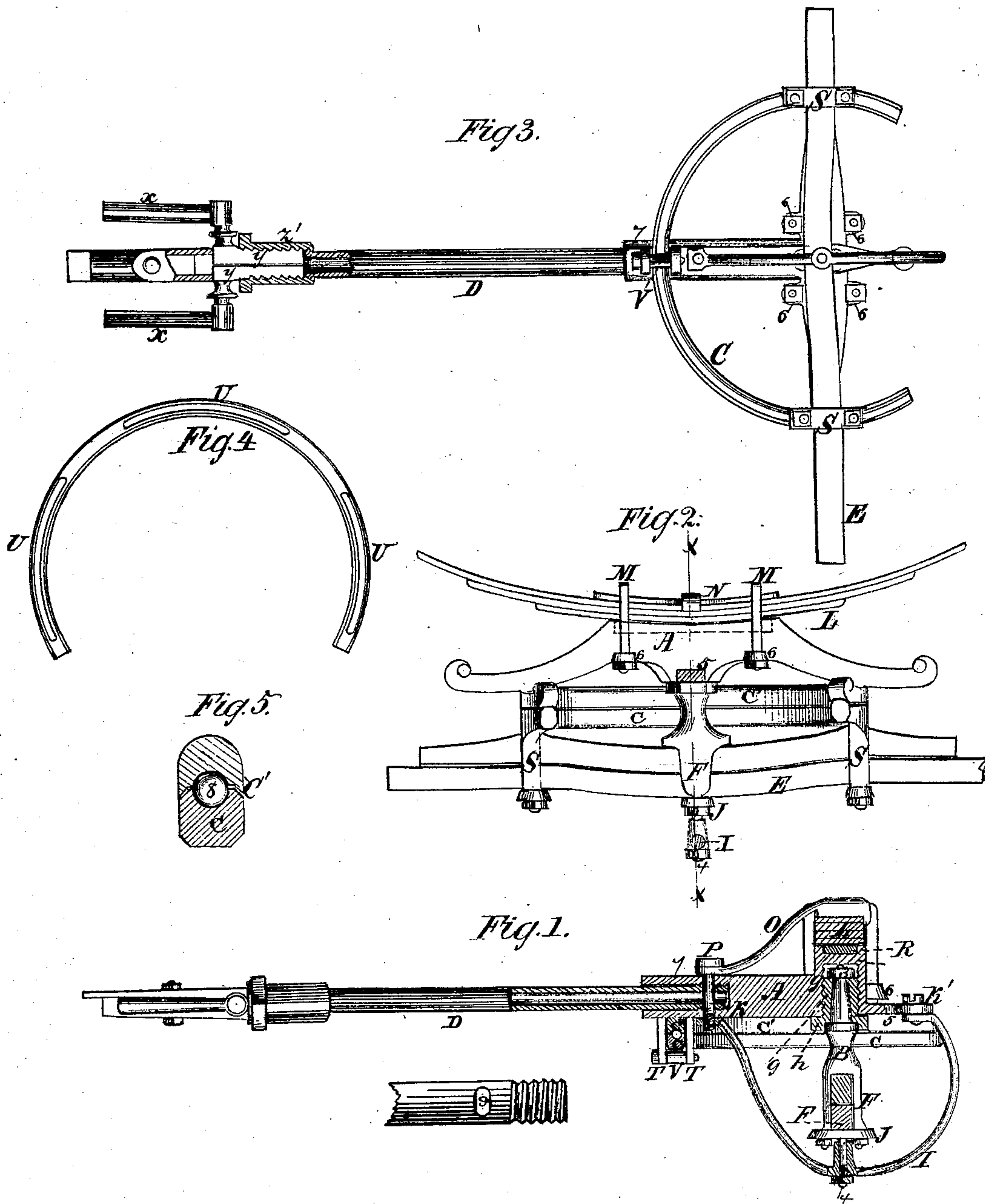


P. M. GUTCHES.
Head-Blocks for Vehicles.

No. 147,126.

Patented Feb. 3, 1874.



Witnesses
John Becker.
Geo W. Mabee

Inventor
P. M. Gutches
per *Wm. L.*
Attorneys.

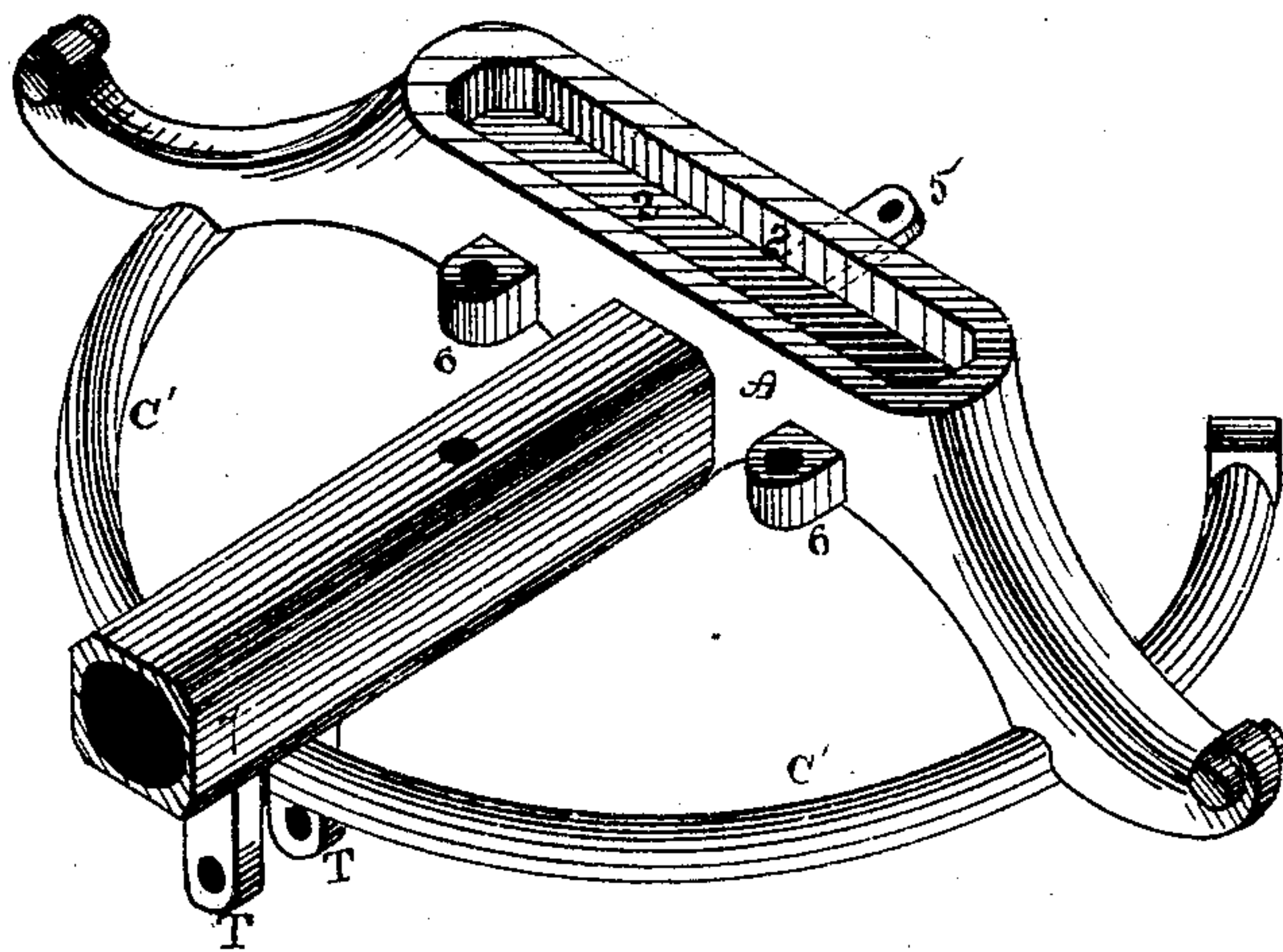
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Fig. 6.



WITNESSES-

*Jas. E. Hutchinson -
 J. W. Barnes*

INVENTOR.

*Paul M. Gutches
 per
 F. A. Lehmann, Atty.*

UNITED STATES PATENT OFFICE.

PAUL M. GUTCHES, OF GALENA, OHIO.

IMPROVEMENT IN HEAD-BLOCKS FOR VEHICLES.

Specification forming part of Letters Patent No. **147,126**, dated February 3, 1874; application filed February 10, 1872.

To all whom it may concern:

Be it known that I, PAUL M. GUTCHES, of Galena, in the county of Delaware and State of Ohio, have invented a new and useful Improvement in Head-Block and Gear for Carriages, of which the following is a specification:

The invention will first be fully described, and then clearly pointed out in the claim.

In the accompanying drawing, Figure 1 represents a vertical longitudinal section taken on the line *x x* of Fig. 2. Fig. 2 is a back view. Fig. 3 is a plan view of the reverse side of the gear. Fig. 4 is a detail view of the under side of the top part of the fifth-wheel. Fig. 5 is a detail, showing the friction-ball arrangement between the two parts of the fifth-wheel. Fig. 6 is a perspective of the head-block alone.

The head-block A is made of metal, and has formed with it, in a single piece, the socket for the king-bolt B, the socket for the reach D, the upper part *e'* of the fifth-wheel, and a socket or recess, 2, in its top, to receive the spring L.

The head of the king-bolt does not pass up through the block A and spring in the usual manner, but is held in the socket *g* by a head, 3, of any suitable kind, and a tubular nut, *h*, which screws into the socket.

By this arrangement of parts the head-block and spring do not have to be drilled through, the parts are not uselessly weakened, and the nut which secures the block and bolt together is not exposed and liable to constantly work loose. The lower part of the bolt B is bifurcated, so as to straddle over the top of the axle-bed, and thus forms the clip F for securing the head-block thereto. The clip-plate J has a screw-bolt, 4, projecting from its under side, which passes down through the curved brace I, which passes down under the axle-bed, and has its ends fastened to the under side of the head-block A, at the points *k* *k'*, the projection or ear 5, extending outward from the back of the block A and cast with it, being formed for this purpose. In the top of the block A is formed an elongated recess, 2, in which is placed a cushion, of wood or

rubber, R, upon which the spring L rests. This cushion equalizes the bearing-surface of the spring, and prevents the liability of straining or breaking it. The spring is secured in position by means of the two clips M, the ends of which pass down through the ears 6 formed with the block A, and the curved brace O having the plate N formed with it, which rests upon the top of the spring and passes under each of the clips. The front end of the brace O is fastened to the top of the screw-socket 7 by the bolt P, which passes downward through both of the braces I O and end of the reach D. Cast with the block A, and forming part of it, are the two ears T, which project downward from the under side of the socket 7, and form guides, between which the under part C of the fifth-wheel moves. This part C has a clip, S, formed with it at each end, and by which it is secured in position. In order to make the two parts of the fifth-wheel move as easily as possible, the friction-roller V is placed under the under side of the part C, and in the under surface of the top part and top surface of the under part there are formed a number of circular grooves, U, shown in Figs. 4 and 5, in which are placed the friction balls or rollers 8. The reach D consists of a metal tube of any desired size, and has its front end provided with a screw, so as to screw it into the socket 7. Through this end of the reach is formed an elongated hole or opening, 9, at right angles to the reach, and through which the bolt P passes.

By means of this hole the reach can be turned partially around in either direction, so that either one of the wheels can run down into a rut without straining or injuring the reach. The screw-thread prevents the whole strain from coming upon the bolt alone, and in case the bolt should break the thread prevents the reach from coming out of the socket.

Near the rear end of the reach there is cut a slot, in which, from opposite sides, are inserted the shanks of the hounds *x*. These shanks *y* are just sufficiently thick to fill the slot up flush with the surface of the reach and have the screw-thread, which also extends

around the reach, cut in their outer surface, so that by screwing up the nut z' they will be secured firmly in place.

Having thus described my invention, I claim—

The head-block Λ , having a socket, g , for the head of the king-bolt, the socket 7 for the reach, the upper part C' of the fifth-wheel, and

a socket or recess, 2, in its top, to receive a cushion for the spring, the whole being formed in a single piece of metal, substantially as set forth.

PAUL M. GUTCHES.

Witnesses:

JOSEPH J. ADAMS,
HENRY COOK.