(No Model.) 2 Sheets—Sheet 1.

# H. C. SWAN.

## FIFTH WHEEL.

No. 503,917. Patented Aug. 22, 1893.

*Fig. 1.*

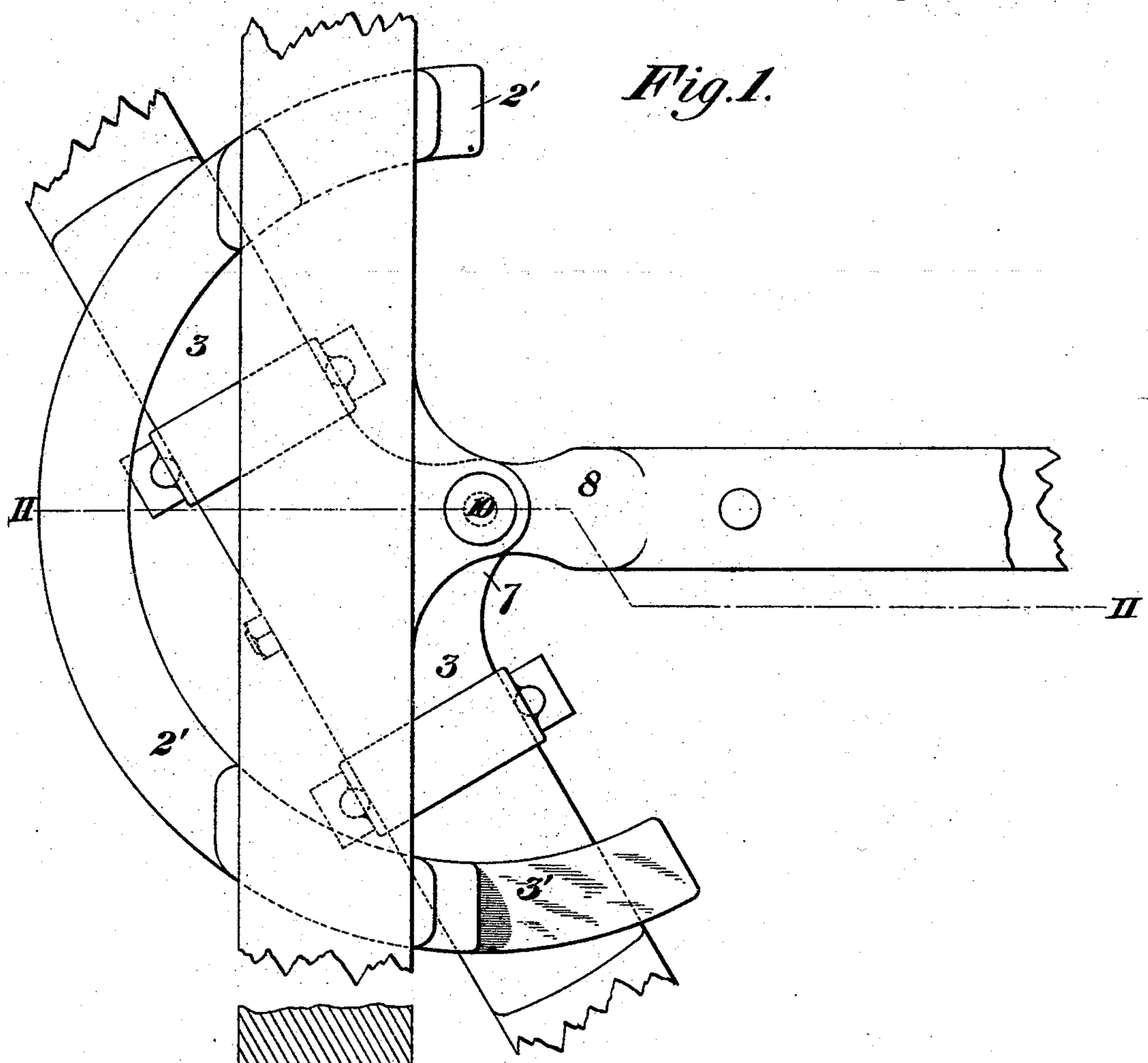
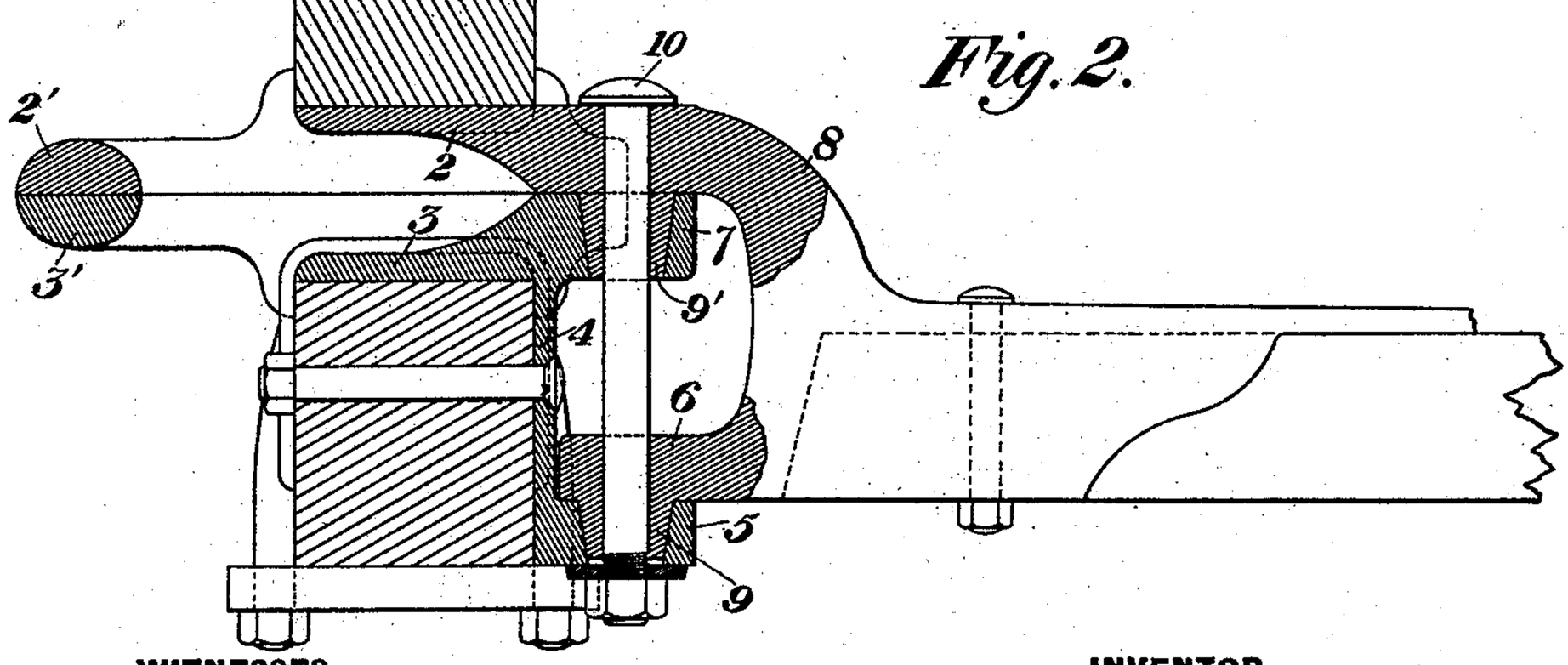



*Fig. 2.*




WITNESSES

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(No Model.) 2 Sheets—Sheet 2.

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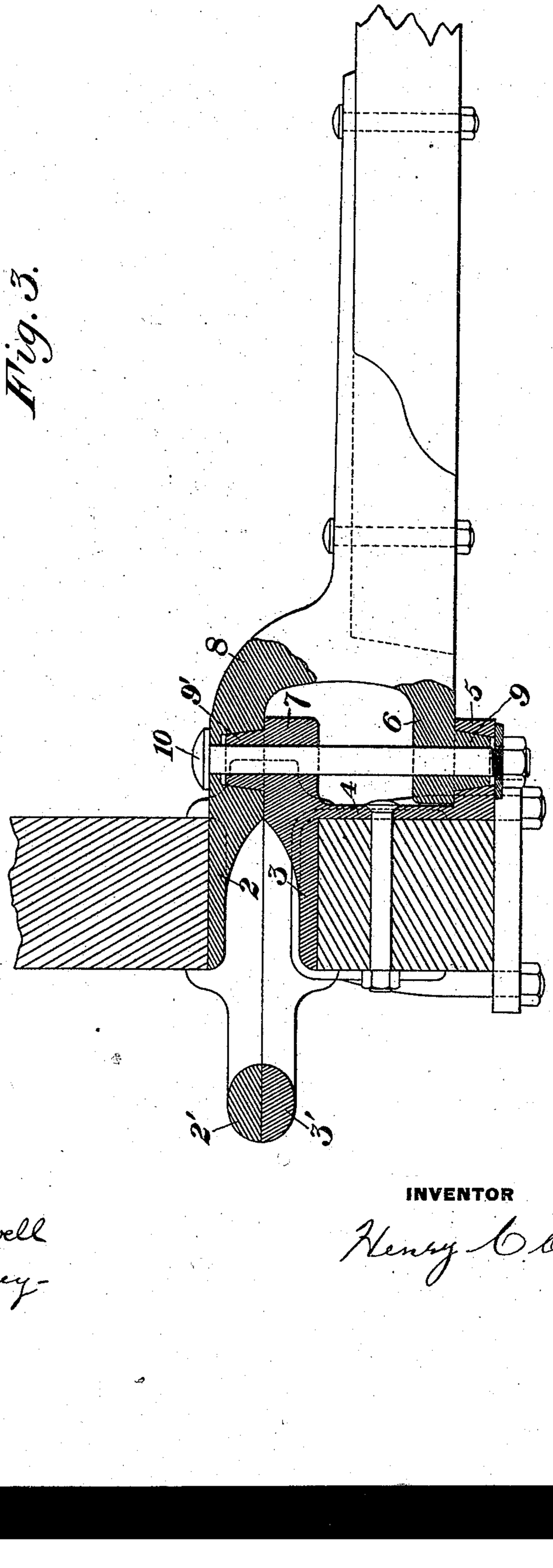
## FIFTH WHEEL.

No. 503,917. Patented Aug. 22, 1893.

*Fig. 3.*




WITNESSES

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INVENTOR

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# UNITED STATES PATENT OFFICE.

HENRY C. SWAN, OF OSHKOSH, WISCONSIN.

## FIFTH-WHEEL.

SPECIFICATION forming part of Letters Patent No. 503,917, dated August 22, 1893.

Application filed April 5, 1893. Serial No. 469,174. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY C. SWAN, of Oshkosh, in the county of Winnebago and State of Wisconsin, have invented a new and useful Improvement in Fifth-Wheels, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 shows in plan view a fifth-wheel for vehicles embodying my invention. Fig. 2 is a vertical section on the line II—II of Fig. 1; and Fig. 3 is a view similar to Fig. 2, showing a modification.

The object of my invention is to provide a front-perch-coupling and fifth-wheel for vehicles, which shall be of few pieces, noiseless in operation, and easily and cheaply manufactured, and yet strong in proportion to the amount of material employed.

In the drawings, 2 represents the head-block plate, having the upper circle-plate 2′ attached thereto,—either an entire circle-plate, or one or more segmental plates, as may be desired. The axle plate 3 has also a corresponding lower circle-plate or plates 3′, and the plates 2 and 3 are fixed to the head-block and axle, respectively, by bolts or clips.

4 is a plate or skirt which extends from the lower circle-plate downwardly back of the axle, and is secured thereto by bolts or otherwise. At its lower end this plate 4 has an outwardly projecting socket or lug 5, formed with a perforation to receive on its upper side a projection 9 on the guard-stay 6, hereinafter described, and at its upper end it has a similar socket or lug 7, which is perforated to receive on its upper side a projection 9′ on the perch-iron 8. The construction just described may, within the limits of my broader claims, be varied. For example, the lugs 9 and 9′ may be made on the projections 5 and 7, and the parts 6 and 8 provided with sockets to receive the lugs, or the sockets and lugs may be omitted altogether, and parts 6 and 8 adapted to fit directly upon the projections 5 and 7, in which case the swiveling connection between the parts would be made by the king-bolt alone. The lugs 9 and 9′ may be arranged as shown in Fig. 3. The perch-iron 8 and the guard-stay 6 are formed of a singe piece of metal, having a socket to receive the perch. The axle-plate 3, the plate 4, and the projections 5 and 7 are also formed of an integral piece. The perch-iron 8 and the guard-stay 6 both have seats on the upper surface of their respective projections 5 and 7, and the interfitting lugs and sockets are preferably conical, being correspondingly tapered, so that when in use the tendency is for the parts to move together and to make a perfect joint. As the head-block-plate, perch-iron and guard-stay are formed in a single piece, having their pivotal center in a single axial line, it is impossible for the head-block-plate and top circle to rock to and fro under their load, and therefore, as the circle-plate cannot leave its bearing, the parts do not rattle when in use. The construction above noted is of great advantage, and is different from prior constructions, in which the guard-stay bears on the bottom of the axle or axle-plate, as the case may be, and in which, the perch-iron, settling from wear, is apt to force the guard-stay off its seat. As illustrated in the drawings, the parts are connected by a king-bolt 10, which passes vertically through the head-block-plate, the lug 9′, guard-stay and lug 9, and is fitted with a head and a nut at its opposite ends. The king-bolt may, however, be dispensed with, and other devices used to secure the parts together, or short separate bolts may be employed.

I claim as new—

1. A fifth-wheel for vehicles, having a head-block-plate, a perch-iron and a guard-stay formed in a single piece; substantially as described.

2. A fifth-wheel for vehicles, having a perch-iron and a guard-stay formed in a single piece; substantially as described.

3. A fifth-wheel for vehicles having a top axle-plate and upper and lower projections integral therewith and extending from the rear of the axle, in combination with a head-block-plate, perch-iron and guard-stay formed of one piece and adapted to bear upon the upper surfaces of said projections; substantially as described.

4. A fifth-wheel for vehicles having upper and lower projections extending from the axle, and a perch-iron and guard-stay made of one piece and bearing on the surfaces of said projections respectively, said parts hav-

ing interfitting lugs and sockets; substantially as described.

5. A fifth-wheel for vehicles having an axle-plate, with a plate or skirt extending vertically therefrom at the back of the axle, and having upper and lower projections, and a perch-iron and guard-stay made of one piece and bearing on the upper surfaces of said projections respectively; substantially as described.

In testimony whereof I have hereunto set my hand.

HENRY C. SWAN.

Witnesses:
JOHN H. BAEHR,
EMIL W. JAITE.