No 801,098. PATENTED OCT. 3, 1905.

W. MILLER.

FIFTH WHEEL.

APPLICATION FILED APR. 27, 1905.

2 SHEETS—SHEET 1

Fig. 1.

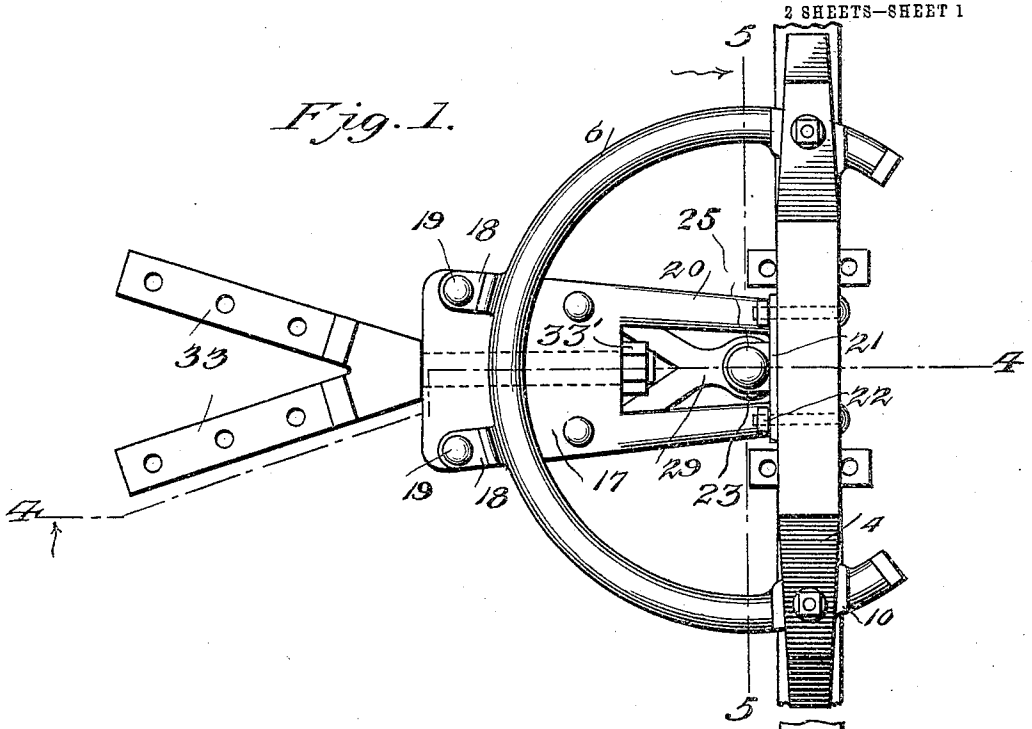
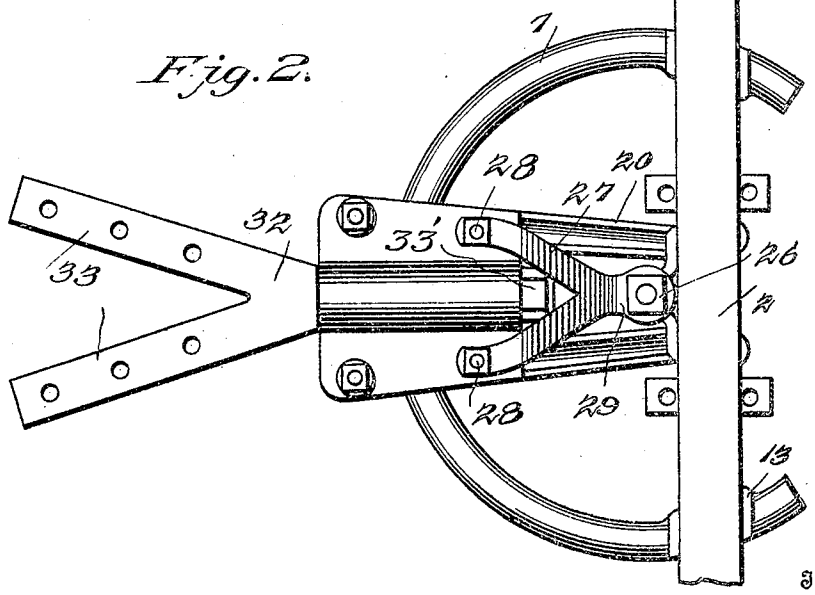


Fig. 2.



Inventor

William Miller

Witnesses

Edwin F. McKee

C. C. Hines.

By Victor J. Evans

Attorney

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2 SHEETS—SHEET 2.

Fig. 3.

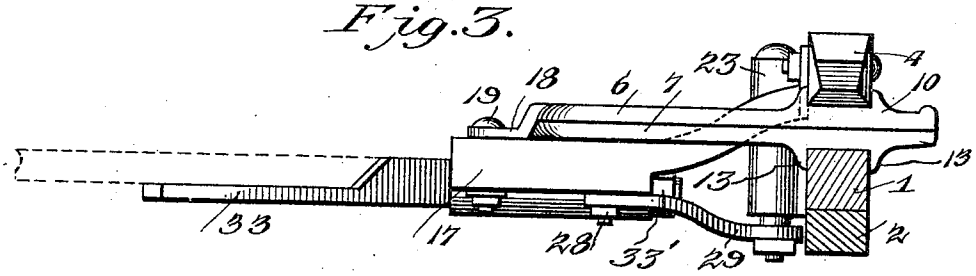


Fig. 4.

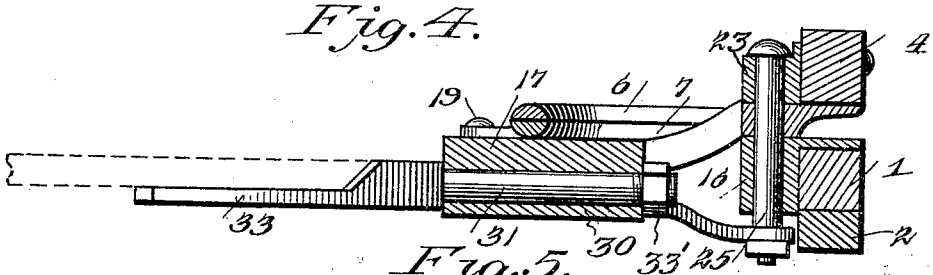


Fig. 5.

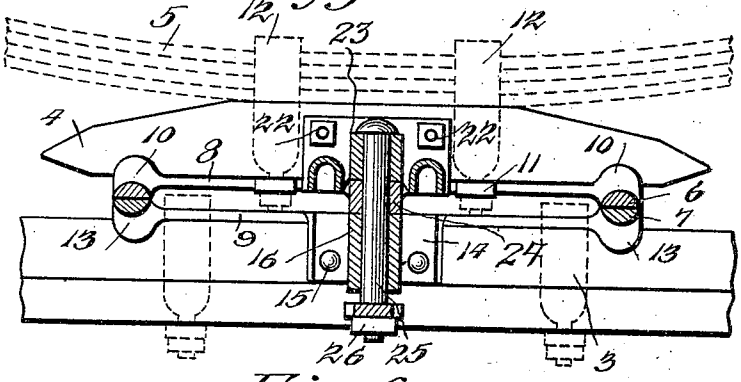
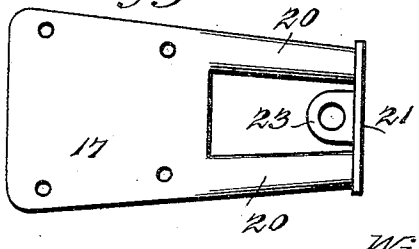


Fig. 6.



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By Victor J. Evans

Attorney

UNITED STATES PATENT OFFICE.

WILLIAM MILLER, OF BORDEN, INDIANA.

FIFTH-WHEEL.

No. 801,098. Specification of Letters Patent. Patented Oct. 3, 1905.

Application filed April 27, 1905. Serial No. 257,699.

To all whom it may concern:

Be it known that I, WILLIAM MILLER, a citizen of the United States, residing at Borden, in the county of Clark and State of Indiana, have invented new and useful Improvements in Fifth-Wheels, of which the following is a specification.

This invention relates to certain new and useful improvements in fifth-wheels; and its object is to provide a device of this character which is simple of construction, strong and durable, and which is adapted to permit the front axle to have oscillating play when the front wheels of the vehicle rise or descend in passing over irregular surfaces or into ruts or depressions, and thereby prevent the twisting strain ordinarily thrown upon the reach-iron and which frequently causes breakage thereof.

The preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a top plan view of the fifth-wheel and associated parts of the running-gear of a vehicle. Fig. 2 is a bottom plan view of the same. Fig. 3 is a side elevation, the axle and axle-bed appearing in section. Fig. 4 is a longitudinal section taken on line 4 4 of Fig. 1. Fig. 5 is a transverse section taken on line 5 5 of Fig. 1, and Fig. 6 is a plan view of the bearing block or bracket.

Referring now more particularly to the drawings, the numeral 1 designates the axle-bed; 2, the axle, secured thereto by clips 3; 4, the head-block, and 5 the front vehicle-spring. (Shown in dotted lines in Fig. 5.)

The fifth-wheel is formed of upper and lower circle plates or similar segmental members 6 and 7, provided at their front ends with transverse cross-braces 8 and 9. The cross-brace 8 of the upper member is provided at its ends with spaced lugs 10 to engage the ends of the head-block 4, which rest thereon and assist in supporting said block rigidly in position. On opposite sides of its center the brace 8 is further provided with apertured ears 11, projecting from the front and rear edges thereof and adapted to receive the threaded end of the clips 12, which fasten the head-block to the lower section of the spring 5. The transverse brace 9 of the lower member 7 is provided at its ends with downwardly-projecting lugs 13, which engage the front and rear sides of the axle-bed 1 and assist in supporting the same in position, and centrally from the rear edges of said brace depends an attaching-plate 14, which rests against the rear surface of the axle-bed and is secured thereto by bolts 15. The plate 14 is formed with a tubular boss or collar 16, through which the king-bolt passes, as hereinafter described.

The circle plate or member 7 rests in rear of the axle and head-block upon a bearing block or bracket 17, to which the upper member 6 is fastened by ears 18, projecting therefrom, and bolts 19, passing through said ears and the rear corner portions of the block. The block is formed at its front end with arms 20, which project upwardly and forwardly through the space between the circle plates and carry at their forward ends an attaching plate or bracket 21, which bears against the rear face of the head-block 4 and is fastened thereto by bolts 22. The arms 20 are preferably of channeled form to reduce weight and impart maximum strength thereto, and the plate 21 is provided upon its rear face and between said arms with a collar 23, which is arranged above the collar 16 on the plate 14. Interposed between the collars 16 and 23 is a collar 24, projecting rearwardly from the transverse brace-plate 8 of the upper circle plate or member 6. The king-bolt 25 passes downwardly through these collars and pivotally connects the two members of the fifth-wheel together. The lower end of the bolt is threaded to receive the usual securing-nut 26.

In order to effectually stay and brace the bearing block or bracket 17, a Y-shaped bracing-iron 27 is provided, the arms of said iron being secured at their free ends by bolts 28 to said block or bracket and integrally united at their forward ends and provided with an apertured extension or eye 29, receiving the lower end of the bolt 25 and disposed thereon above the securing-nut 26.

The block or bracket 17 is provided with a central longitudinal bore 30, which opens through its rear end and at its forward end between the spaced arms 20. This bore forms a bearing-opening for the reception of a spindle 31, carried by a reach-coupling 32, having diverging arms 33, to which the reach-bars may be bolted or otherwise fastened. The free end of the spindle 31 projects into the space between the arms 20 and is threaded to receive a nut 33′, whereby it is held from displacement and adjustably connected to compensate for wear. By this construction it will be seen that the fifth-wheel and associated parts of the running-gearing of the vehicle are

adapted to pivot upon the reach iron or coupler, so that they may oscillate to compensate for the passage of the front wheels of the vehicle over irregular surfaces, and thereby prevent the twisting strain ordinarily thrown upon the reach-iron and which when said iron is rigidly connected with the fifth-wheel frequently causes breakage thereof.

From the foregoing description, taken in connection with the accompanying drawings, the construction and mode of operation of the invention will be understood without a further extended description.

Changes in the form, proportions, and minor details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

Having thus described the invention, what is claimed as new is—

1. In a fifth-wheel, the combination of an axle, a head-block, an upper fifth-wheel member secured to the head-block, a lower fifth-wheel member secured to the axle, said members being provided with rearwardly-extending collars, a bearing-bracket fixed to one of said members and provided with arms projecting forwardly therefrom and carrying an attaching-plate fixed to the head-block, said attaching-plate carrying a collar arranged in alinement with the first-named collars, a king-bolt passing through said collars, a reach-iron pivotally connected with the bearing-block, and means for staying said bearing-block from the king-bolt, substantially as described.

2. In a fifth-wheel, the combination of an axle, a head-block, an upper fifth-wheel member secured to the head-block, a lower fifth-wheel member secured to the axle, said members being provided with rearwardly-extending collars, a bearing-bracket fixed to one of said members and provided with arms projecting forwardly therefrom and carrying an attaching-plate fixed to the head-block, said attaching-plate carrying a collar arranged in alinement with the first-named collars, a king-bolt passing through said collars, a reach-iron pivotally connected with the bearing-block, and a Y-brace connected by its arms to the bearing-bracket and provided with an eye engaging the king-bolt.

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

WILLIAM MILLER.

Witnesses:
THEODOR TRINDEITMAR,
LOUIS B. MILLER.