No. 657,681. Patented Sept. 11, 1900.

J. A. SPANGLER.

FIFTH WHEEL.

(Application filed Dec. 16, 1899.)

(No Model.)

Fig. 1.

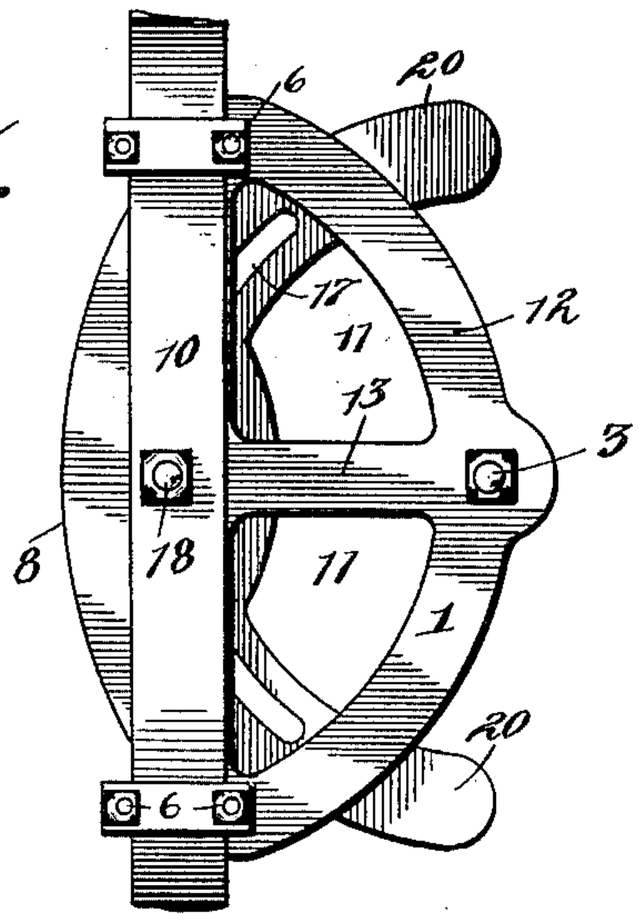


Fig. 2.

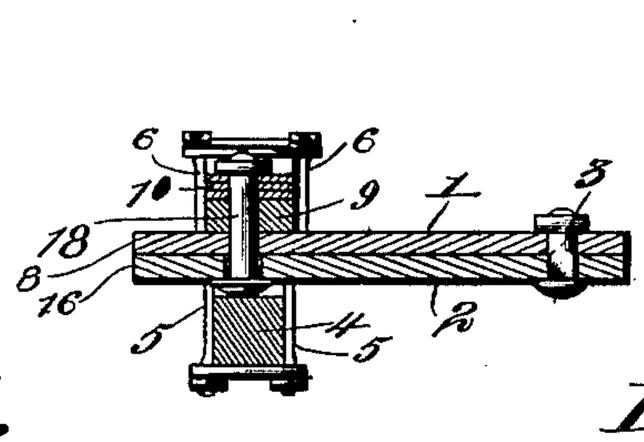


Fig. 3.

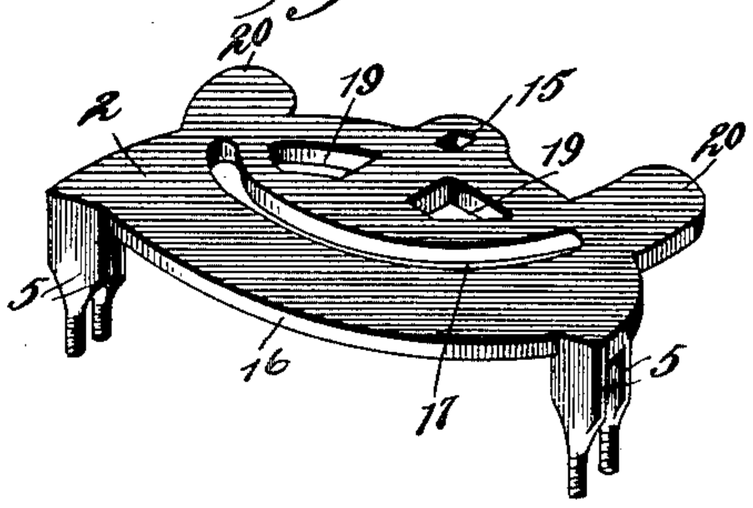
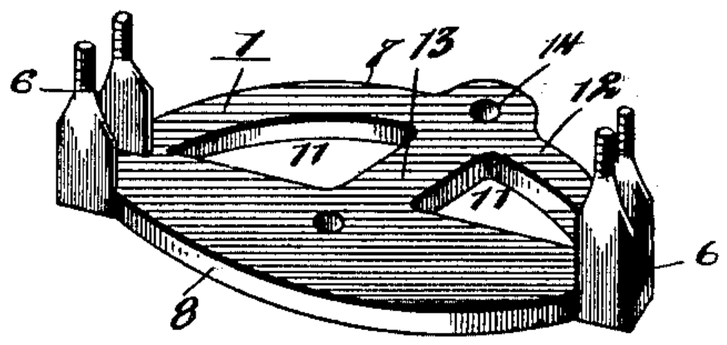


Fig. 4.



Witnesses
C. M. Walker
H. J. Riley

John A. Spangler Inventor
By his Attorneys,
C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

JOHN A. SPANGLER, OF SELL'S STATION, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO AARON HOSTETTER, OF HANOVER, PENNSYLVANIA.

FIFTH-WHEEL.

SPECIFICATION forming part of Letters Patent No. 657,681, dated September 11, 1900.

Application filed December 16, 1899. Serial No. 740,587. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. SPANGLER, a citizen of the United States, residing at Sell's Station, in the county of Adams and State of Pennsylvania, have invented a new and useful Fifth-Wheel, of which the following is a specification.

The invention relates to improvements in fifth-wheels.

The object of the present invention is to improve the construction of fifth-wheels and to provide a simple and comparatively-inexpensive one which will be strong and durable, adapted to be readily applied to a running-gear, and capable of enabling a vehicle to be turned in a small space.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a plan view of a fifth-wheel constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view. Fig. 3 is a detail perspective view of the bottom plate. Fig. 4 is a similar view of the top plate.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 and 2 designate upper and lower plates constituting the fifth-wheel and pivotally connected at the center of their rear edges by a king-bolt 3, and the said plates are provided with flat inner bearing-faces adapted to oscillate readily on each other. The lower plate 2, which is secured to the front axle 4 of a running-gear, is preferably provided with depending threaded arms arranged in pairs and forming clips 5 for engaging the said axle; but any other suitable means may be provided for mounting the plate 2 on the front axle. The upper plate, which has upwardly-extending arms 6, is approximately semicircular, its peripheral edge 7 being arranged at the back and its front edge 8 being slightly curved and extended slightly in advance of the axle to afford a broad bearing. The upwardly-extending arms 6 are threaded for the reception of nuts and form clips for securing a spring block or bolster 9 to the top plate and also for mounting the usual leaf-spring 10 thereon.

The top plate is provided at its rear portion with opposite quadrant-shaped openings 11 to lighten the construction and lessen the friction, and these openings form a curved bar 12 and a central brace or connecting-piece 13, as clearly illustrated in Figs. 1 and 4 of the accompanying drawings. The rear portions of the plates are provided with perforations 14 and 15 for the reception of the king-bolt 3. The perforation 14 of the upper plate is circular, while the perforation 15 of the bottom plate is rectangular or polygonal to conform to the configuration of the squared portion of the king-bolt, whereby the latter is locked against rotation.

The bottom plate 2 has an extended curved front edge 16, and it is provided with a curved slot 17, which receives a depending bolt 18, extending from the front portion of the top plate, and this slot, which is concentric with the king-bolt, permits the upper and lower plates to have a limited oscillation sufficient to turn a vehicle. The bottom plate is provided in rear of the slot with approximately quadrant-shaped openings 19, and it has rearwardly-extending arms 20, arranged on the same curve as the slot 17 and adapted to support the top plate at each side thereof and turn the vehicle, whereby the king-bolt and the bolt 18 are relieved of lateral strain.

It will be seen that the fifth-wheel is simple and comparatively inexpensive in construction, that it is adapted to be readily applied to an ordinary running-gear, and that it affords an efficient bearing.

What is claimed is—

A fifth-wheel comprising a bottom plate having its front and rear edges curved and provided at the back with oppositely-disposed rearwardly-extending curved arms, said bottom plate being provided in advance of the arms with a curved slot and having a perforation located at its rear edge at a point equidistant of the arms, the latter being located at the ends of the slot substantially concentric with the said perforation, the top plate provided with curved front and rear edges and having front and rear perforations registering with the slot and the perforation of

the bottom plate, a king-bolt passing through the perforation of the bottom plate and through the rear perforation of the top plate, the arms arranged in pairs at opposite sides of the plates and extending upward and downward therefrom, an axle secured between the lower arms, a spring and bolster mounted between the upper arms, and a central fastening device passing through the spring-bolster and the front perforation of the upper plate, and interlocked with the lower plate at the slot thereof, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN A. SPANGLER.

Witnesses:
J. W. MUMPER,
D. D. KRUY.