

(No Model.)

W. ATKINS.
VEHICLE GEAR.

No. 584,125.

Patented June 8, 1897.

Fig. 1.

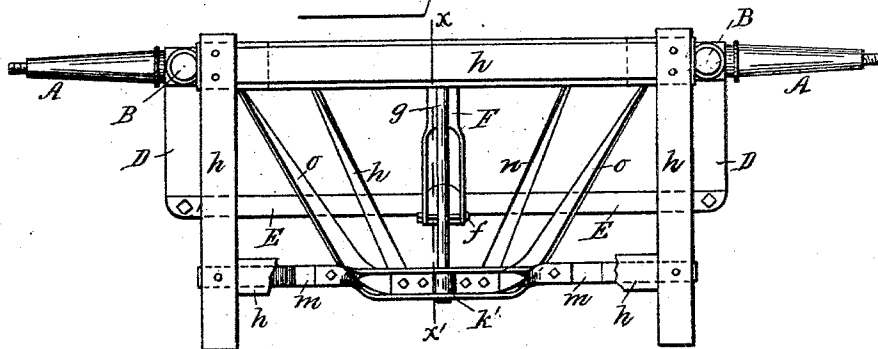


Fig. 2.

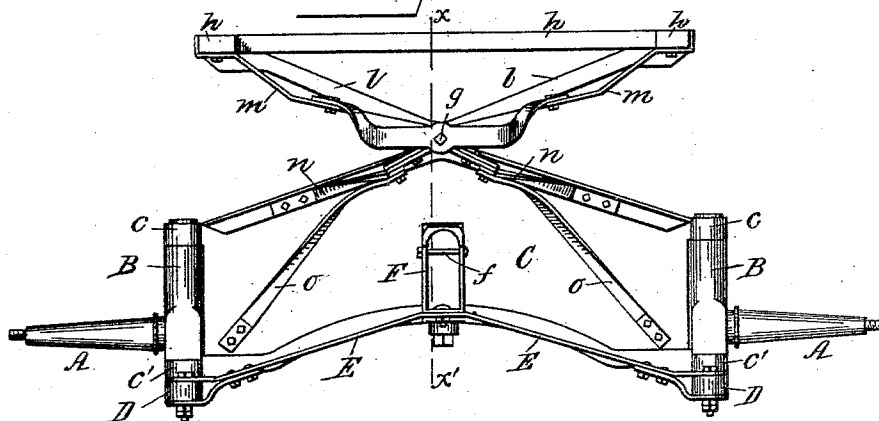
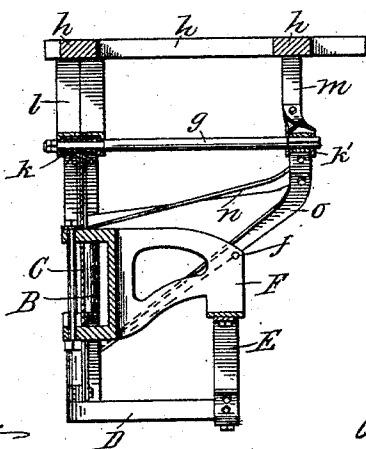


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

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VEHICLE-GEAR.

SPECIFICATION forming part of Letters Patent No. 584,125, dated June 8, 1897.

Application filed February 17, 1896. Serial No. 579,489. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM ATKINS, of the city of Auburn, State of New York, have invented certain new and useful Improvements in Vehicle-Gears, of which the following is a description, reference being had to the accompanying drawings, forming part of this specification.

The object of my invention is to enable a vehicle-body to rock sidewise upon the "arch-bar" or connecting-beam in vehicles provided with "T-arm" frontaxles. I accomplish this result by the use of a longitudinal pivotal connection between the vehicle-body and the arch-bar, which pivotal connection is placed midway between the T-arms.

In the drawings, Figure 1 is a plan view of a device embodying my invention. Fig. 2 is a front view of the same; and Fig. 3 is a side view, partly in section, upon the line $x x'$ of Figs. 1 and 2.

A A represent a pair of axle-arms; B B, the standards to which they are secured, forming a pair of T-arm axles. These T-arm axles are secured in vertical position at the ends of a transverse plate or beam C, called an "arch-bar," by means of bearings $c c' c c'$, within which the standards turn. Guide-arms D D are secured to the standards B B, and their front ends are connected by the bar E. A draw-head F is secured to the centers of the arch-bar C and the connecting-bar E, and in this the pole is secured, as by the bolt f . By means of this construction the pole and wheels placed on the arms A A are kept in parallel position as they are moved laterally.

$h h h$ represent portions of the vehicle body or platform.

g is the longitudinal pivot, placed in bearings at $k k'$. This pivotal connection between the vehicle body or platform and the arch-bar should either have one long bearing or, as I prefer and as shown in the drawings, two bearings, the object being that the arch-bar shall be held in its proper position relatively to the body by means of its connections to these bearings. I prefer a pivotal connection about as long as the distance which it is placed above the axle-arms, as this admits of bracing at about forty-five degrees from k' to the arch-bar. The drawings illustrate a

form which I have adopted for its lightness and strength, comprising a thin plate of iron or steel C, placed vertically transverse to the vehicle and with a set of light braces $n n o o$ to the bearing k' , while the other end of the pivotal connection rests upon the arch-bar at k . Nevertheless a massive construction of wood, for instance, having a square section, one face of which equals the length of the pivot g , would accomplish the result desired. The bolsters $l l m m$ are secured to the body or platform $h h h h$ and to the pivot g at $k k'$.

Other forms of braces may be used, such as readily suggest themselves to the skilled workman, the essential features being simply a transverse connecting-bar between the axle-bearings $c c' c c'$, a longitudinal pivot, as g , and such powerful supports as shall keep these bearings and the pivot in fixed relation to each other. For certain purposes it may be desired to have the extended bearing k' project to the rear of the arch-bar instead of to the front. This may be accomplished by changing the T-arms and draw-head F in their bearings.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a running-gear for vehicles, the combination with suitable axle-arms, of an arch-bar connecting said axle-arms, a platform or vehicle-body pivoted to the arch-bar by a longitudinally-placed pivot-rod, and braces to support the end of said rod.

2. In a running-gear for vehicles, the combination with suitable axle-arms, of an arch-bar connecting said axle-arms, and a vehicle-body mounted on said arch-bar and connected thereto by a long pivotal connection, and brace-rods for the remote end of said pivotal connection.

3. In a running-gear for vehicles, the combination with the T-headed axle-arms, A, of the arch-bar C mounted on said arms, a bearing for a vehicle body or platform on top of said bar at right angles to the same, braces extending upwardly from the lower part of said arch-bar, a second bearing carried by said braces, a vehicle-body and pivotal connections between said body and bearings.

4. In a running-gear for vehicles, the com-

ination with axle-arms A, of the T-heads
B at the inner ends of said axle-arms, the
arch-bar C mounted thereon, the bearing k
midway the axle-heads at right angles to said
5 arch-bar, the bracket-arms or brace-rods ex-
tending rearwardly and upwardly from said
arch-bar C, a second bearing k' carried by

said brace-rods, a vehicle body or platform,
and a long pivotal connection g between said
vehicle-body and bearings.

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Witnesses:

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