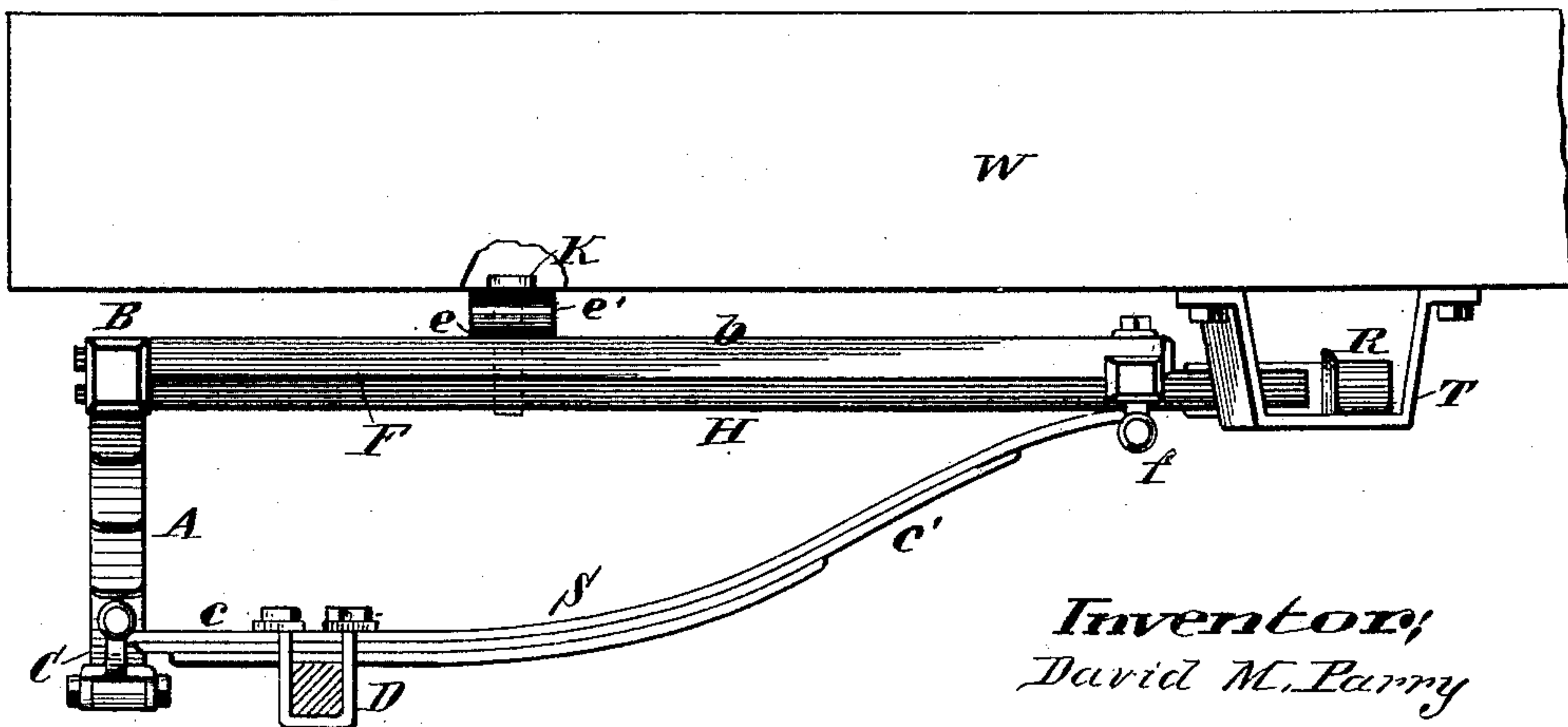
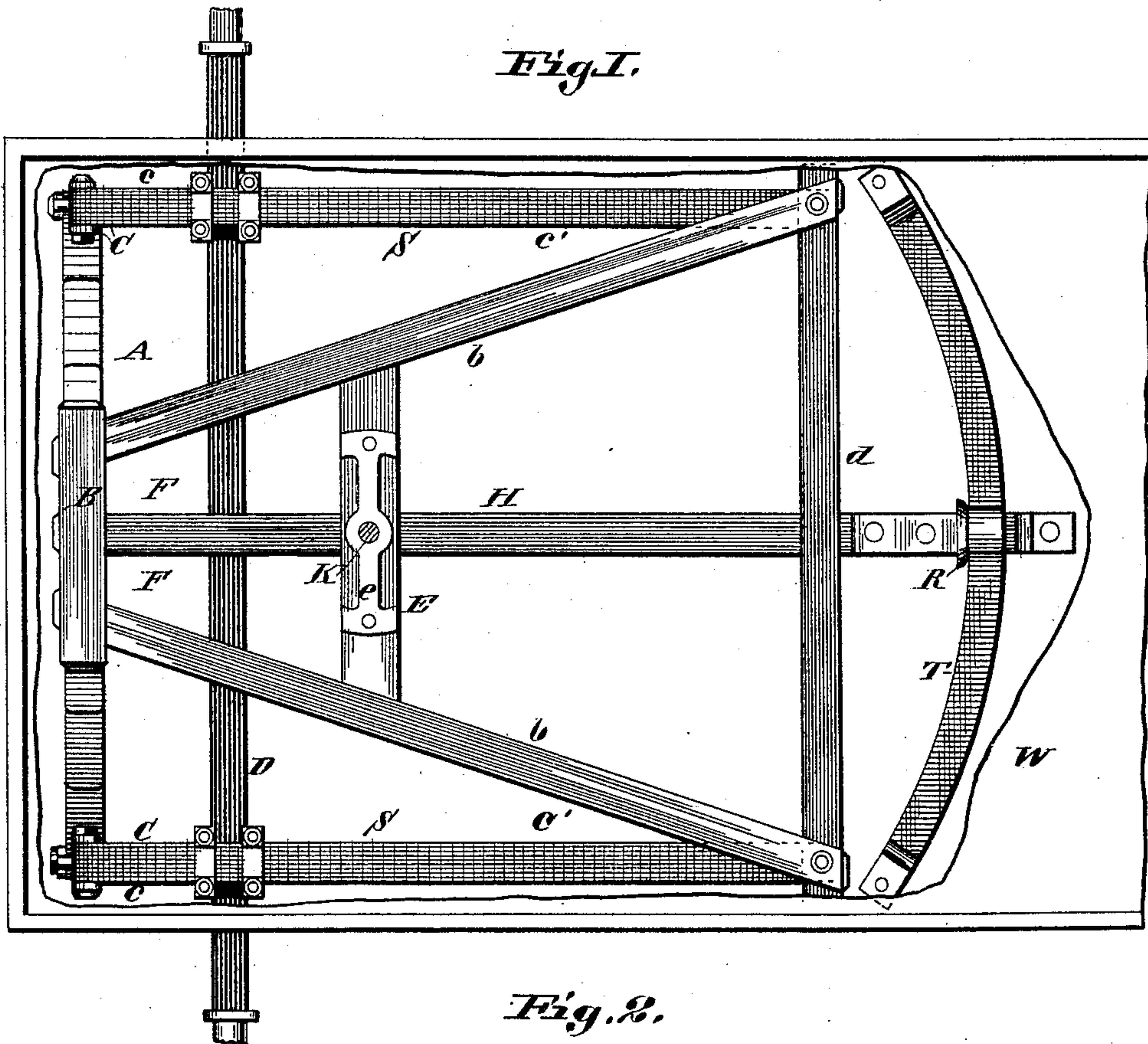


(No Model.)

D. M. PARRY.  
SHORT TURNING VEHICLE.

No. 432,554.

Patented July 22, 1890.



Attest;  
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# UNITED STATES PATENT OFFICE.

DAVID M. PARRY, OF INDIANAPOLIS, INDIANA.

## SHORT-TURNING VEHICLE.

SPECIFICATION forming part of Letters Patent No. 432,554, dated July 22, 1890.

Application filed March 10, 1890. Serial No. 343,367. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID M. PARRY, a citizen of the United States, residing in the city of Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improvement in Short-Turning Vehicles, of which the following is a specification.

My invention relates to improvements in short-turning vehicles; and it consists in the arrangement and combination of parts hereinafter described and claimed.

The object of my invention is to construct a cheap and durable short-turning vehicle without cutting under the body or elevating the same above the wheels; also, to construct a vehicle which has its pivotal points of connection of the platform to the body in rear of the front axle in such a manner as to dispense with expensive and cumbersome track-plates heretofore used in such vehicles; also, to prevent the friction of track-plates rubbing on each other when the vehicle is being turned and consequent noise attendant thereon. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of my running-gear with a part of the body of the vehicle cut away, so as to show the front portion of the running-gear. Fig. 2 is a side elevation of my running-gear and body.

A is a semi-elliptic spring securely fastened to a head-block B, and is hung in the usual manner to the short rigid ends of sectional springs S S by means of swinging shackles or clips C C, so as to provide for both the free spread of the spring A as well as that of the sectional springs S S. These sectional springs S S are made with a short rigid end *c c* and a long elastic end *c' c'*, and are each securely clamped to the front axle D at their crowning portion a short distance from the wheels on the axle. They are pivotally connected to the frame-work F by an ordinary pivotal connection, as seen at *f*, which consists of an ordinary shackle pivotally connected to the end of the spring and bolted through the corner of the frame-work, as shown. This frame-work F consists of a head-block B and two laterally-extending arms *b b*, securely fastened to said head-block B and to an end cross-piece *d*.

E is a cross-bar extending from the two arms *b b* and uniting the same, and is intersected by the bar H, which is fastened into the head-block B in front and passes back and under the bar E and under the cross-piece *d*, to both of which it is securely fastened. It is provided at its rear end with a friction-roller R, which is adapted to traverse a track-plate T, which track-plate is securely fastened to the frame-work of the body W and serves to keep the frame-work F in a horizontal position. The cross-bar E is provided at its center with a friction-plate *e*, which is securely fastened on top of said cross-bar, and through this plate, bar E, and bar H passes a king-bolt hole, upon which the front spring-platform and frame-work turn. On top of this plate *e* rests a plate *e'*, which is fastened to the bottom of the frame-work of the body. Through this frame-work of the bottom of the body and through the plate *e'* and plate *e* and bars E and H passes a king-bolt K, upon which the whole front spring-platform, consisting of the axle, springs, and frame-work, turns, and being situated in the rear of the axle, to which may be attached the front wheels of a vehicle, it is obvious that the body will be thrown around out of the way of the cramping-wheel as the vehicle is turned, and will thus enable the vehicle to be turned in a much shorter space than ordinary vehicles, and will also prevent all of that screeching noise which takes place in like vehicles which have track-plates rubbing against each other. It is also obvious that the body of a vehicle having this construction will be relieved of any twisting strain caused by unevenness of ground over which the vehicle passes, as it has no counter track-plates to bind the body of the vehicle to the twist of the axle in its movement; but the axle and its spring-platform are left free to act in their twisting movement independent of the body as an ordinary bolster of a wagon. Thus I secure the pivotal point in rear of the front axle, and thus am able to turn the vehicle in a shorter space than ordinary vehicles, and at the same time by dispensing with the track-plates on the platform get rid of the strain on the body of the vehicle, which are important advantages in the durability of bodies of such class of vehicles.



My invention does not apply to vehicles which have the front axle and pivotal point of connection of the body and platform coinciding with each other, but is only applicable  
 5 in vehicles which have the king-bolt or pivotal point of connection of the body and platform in rear of the front axle and far enough in the rear of the front axle to permit the vehicle to be turned in a shorter space than ordinary vehicles without the wheels cutting  
 10 under the body. It is therefore not intended to be applied to a vehicle which has the king-bolt passing through the axle, or even immediately in rear of the axle, where such construction of king-bolt serves the purpose of  
 15 not weakening the axle, and not the purpose of throwing the axle and wheels away from the body as the vehicle is cramped on being turned, which mine does; nor does it contemplate  
 20 making the platform of one piece of wood, as such constructions are wholly impracticable for the purposes of my invention without combining it with a connection or king-bolt situated in rear of the axle sufficiently far  
 25 to throw the body and wheels away from each other sufficiently far to allow the vehicle to turn in a shorter space than the ordinary vehicle would turn in.

It is obvious in my construction, where the  
 30 axle is placed on the lateral springs S S in front of the king-bolt or pivotal point of connection of the platform and body of the vehicle, as shown, and when the only bearing-point of the body on the platform is in the  
 35 rear of the axle, that the weight on the platform from the front end of the body will cause the rear end of the platform to continuously press down in whatever position the wheels and axle may be, and will thus cause  
 40 the roller R to continuously bear down on the top of the track T as it traverses it back and forth, thus dispensing with the necessity of a lower friction-roller adapted to traverse the under side of the track-plate. It is also  
 45 obvious that by this continuous pressure of the roller R on the top of the track-plate the clatter and noise which would occur if the bearing-point of the body on the axle was not in the rear of the axle is prevented. This noise  
 50 and clatter are always present when the downward pressure of the body is directly over or nearly over the front axle, and where two friction-rollers are used, the one above and the other below the track-plate, they will  
 55 clatter and make a noise, and it is necessary to use two friction-rollers or bearing-points

in constructions where the downward pressure of the body is directly or nearly over the axle, as have been heretofore used. In my invention I avoid the objectional features in  
 60 these former constructions in these respects and at the same time am enabled to turn my vehicle in a very much shorter space than can be done where the king-bolt is passed through or near the front axle, and at the  
 65 same time I provide by this construction for the rocking of the platform on a line drawn laterally through the lower bearing-surface of the roller R and the king-bolt between the two plates *e* and *e'*, but held in the same plane  
 70 with the bottom of the body along the line of the bar E by the roller R as it traverses the track-plate T.

Now what I claim as new, and for which I ask Letters Patent of the United States to be  
 75 granted to me, is—

1. In a short-turning vehicle, the combination, with the body of a vehicle, of a longitudinal bar pivoted in the rear of its front end to the under side of the vehicle-body, a  
 80 transverse spring connected at its center with the front end of said bar, two parallel side springs connected at their front ends to the ends of the transverse spring, a transverse  
 85 bar having its ends connected with the rear ends of said parallel side springs and supported by the longitudinal bar, a roller on the inner end of said longitudinal bar, a track secured to the under side of the vehicle, upon  
 90 which the roller rests, and the axle secured to the side springs in front of the pivotal point, substantially as shown and described.

2. In a short-turning vehicle, the combination, with the body, of an oscillating platform pivoted to the under side of its front end,  
 95 consisting of the rear cross-bar *d*, the front block B, the bars *b*, connecting the two, the bar E, connected to the bars *b* in the rear of the front end of the platform and through which the pivotal bolt passes, the springs S,  
 100 having their rear ends connected to the rear cross-bar, the spring A, connected at its center to the block B and at its ends to the front ends of the springs S, the longitudinal bar H, having a roller on its rear end, the suspended  
 105 supporting-track, and the axle secured to the springs S in front of the plate E, all combined to operate in the manner described.

DAVID M. PARRY.

Attest:

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