(No Model.)

# H. S. FAIRBANKS.

## VEHICLE.

No. 439,936. Patented Nov. 4, 1890.

Fig. 2.

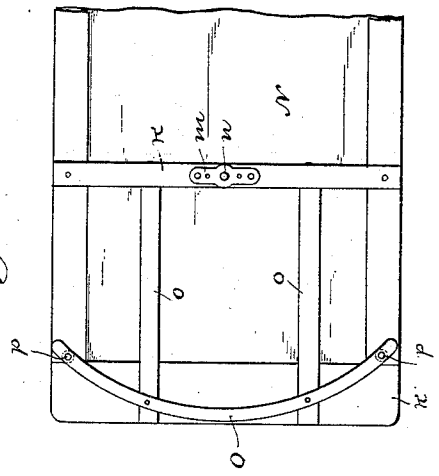


Fig. 4.

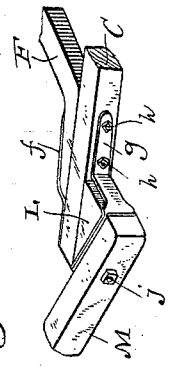


Fig. 1.

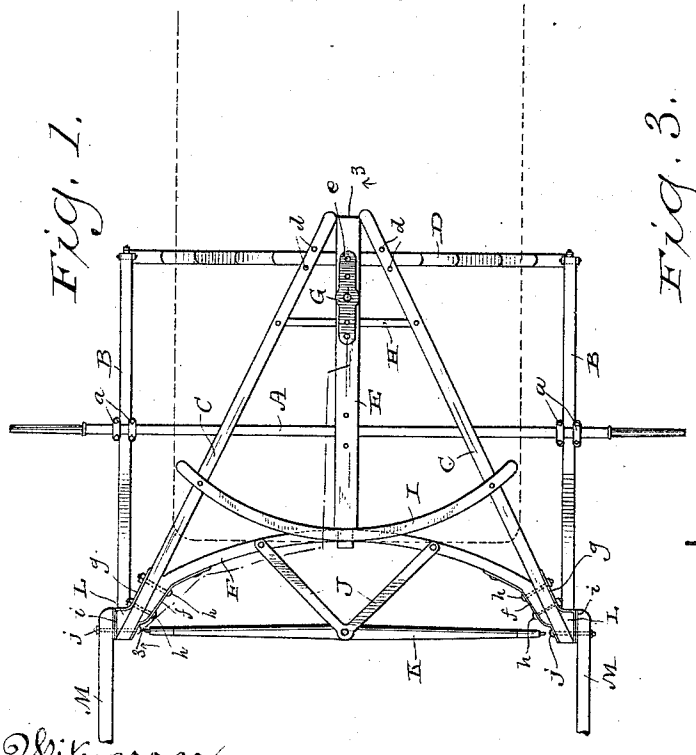
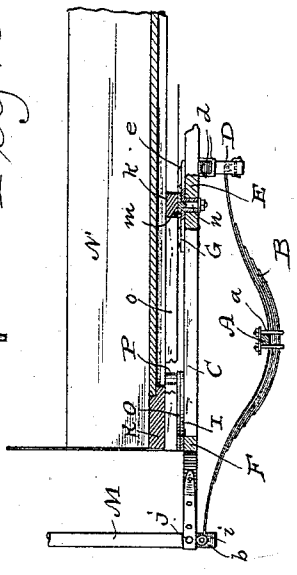


Fig. 3.



Witnesses
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# UNITED STATES PATENT OFFICE.

HORACE S. FAIRBANKS, OF RACINE, WISCONSIN.

## VEHICLE.

SPECIFICATION forming part of Letters Patent No. 439,936, dated November 4, 1890.

Application filed December 9, 1889. Serial No. 333,082. (No model.)

*To all whom it may concern:*

Be it known that I, HORACE S. FAIRBANKS, of Racine, in the county of Racine, and in the State of Wisconsin, have invented certain new and useful Improvements in Vehicles; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to vehicles; and it consists in certain peculiarities of construction, as will be fully set forth hereinafter, and subsequently claimed.

In the drawings, Figure 1 is a plan view of the front gear of my improved vehicle, showing the shafts but without the wheels. Fig. 2 is an under side plan view of the front part of the vehicle-body and attachments. Fig. 3 is a section on the line 3 3 of Fig. 1, and showing also the vehicle-body in place, and Fig. 4 is a detail view of the shaft attachment.

A is the front axle, clipped, as shown at *a a*, to the lowest central portions of the semi-elliptic front side springs B B. Said springs B are higher at their front ends than at their rear ends, and are connected in front to projections *b*, depending from the under side of the front ends of the converging frame-timbers C C, and the rear ends of these springs B B are shackled to the ends of a transverse semi-elliptic spring D, which is turned just the reverse of the other springs—that is, with its central part uppermost or above the plane of its ends—the rear ends of the converging timbers C C resting on and passing beyond this highest part of the spring D, and being clipped to it, as shown at *d d*, there being a straight timber E, whose rear end also rests on said spring D between the ends of the timbers C C, being bolted to the spring D, as shown at *e*, the front end of the timber E being preferably tenoned and secured in a mortise in the semicircular front timber F, which connects the front ends of the timbers C C, there being metal straps *f g* on the front ends of the timbers C F, and fastening-bolts *h h* passing therethrough to unite the parts firmly together.

G is a socket and wear plate secured near the rear end of the timber E to said timber and by the said bolt *e* to the spring D.

H is a brace connecting the rear part of the timbers C F C together, and I is a fifth-wheel track-plate bolted to the timbers C C and at its central part resting on the timber F above its union with the front end of timber E.

J J are converging arms secured to the semicircular timber F and projecting forward and united at the forward end, from which point is suspended a whiffletree K. At the outer side of the front ends of the timbers C C are triangular blocks L L, around which the metal straps *g g* extend, forming wear-plates.

M M are the shafts, each being an independent pole having its inner end squared and provided with a wear-plate *i*, and with a transverse perforation through said wear-plate shaft end, the wear-plate extension of strap *g*, the triangular block L, and the forward ends of the timber C and strap *f*, and through this perforation is passed a bolt *j*, secured by a nut, whereby each shaft is secured to the frame-timbers of the front gear and capable of independent motion, as each shaft can be turned up, as shown in Fig. 3, or even back against the vehicle-body N.

The vehicle-body N has end and side pieces on the under side, with a cross-cleat *k* near its front end, carrying a wear-plate *m*, with downward-projecting king-bolt *n*, which latter passes through the socket *c* in the wear-plate G, and secured by a nut, as shown, said king-bolt being from eight to twelve inches back of the axle. Other cleats *o o* extend forward from the cleat *k* to the front of the vehicle-body bottom, and to these is bolted a fifth-wheel track-plate O, whose ends are secured by bolts *p*, passing through sleeves P to the side pieces of the vehicle-body bottom.

Among the advantages of my described construction is the fact that, there being no cross-bar to the shafts, the horse can be attached near the body. The arms J J, that support the whiffletree, may be of any length preferred, even much shorter than represented in the drawings, so as to lessen the distance between the horse and vehicle-body to any point required. Besides this there is much less weight suspended from the horse's back than with the old-style shafts and cross-bar, and as each shaft is independent of the other there is less liability of the horse's back becoming sore, and as one shaft can be raised while the horse is being led into place there is less danger of breaking the shafts, and by turning both shafts

back, when not in use, the vehicle will occupy less space in storage. Further, by reason of placing the king-bolt so far back of the front axle, the wagon will turn very short, notwithstanding high wheels are used.

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

1. In a vehicle, the semi-elliptical side springs and the inverted semi-elliptical rear spring connected at its ends to the rear ends of the side springs, and the axle clipped to said side springs, in combination with the rearwardly-converging side beams, the center beam, the semicircular front timber connecting the side timbers with the center timber, the forwardly-curved track-plate connected to the front end of the center timber and to the side timbers, and the converging arms attached to the front timber and carrying the singletree, substantially as described.

2. The semi-elliptical side springs, the inverted semi-elliptical rear spring connected at its ends to the rear ends of the side springs, the axle clipped to said side springs, the rearwardly-converging side beams, the center beam, the brace H, connecting the side and center beams, the semicircular front timber connecting the front ends of the side and center timbers, the forwardly-curved track-plate connected to the front end of the center timber and to the side timbers, the converging arms attached to the front timber and carrying the singletree, and the bearing-plate attached to the rear portion of the center timber, in combination with the bearing-plate attached beneath the vehicle-body and having the pendent king-bolt, and the track-plate also attached beneath the vehicle-body forward of the said bearing-plate, substantially as and for the purpose described.

In testimony that I claim the foregoing I have hereunto set my hand, at Racine, in the county of Racine and State of Wisconsin, in the presence of two witnesses.

HORACE S. FAIRBANKS.

Witnesses:
JOHN DICKSON,
WILL MCCULLOUGH.