(No Model.)

G. W. SHAW.

RUNNING GEAR.

No. 314,348. Patented Mar. 24, 1885.

Fig. 1.

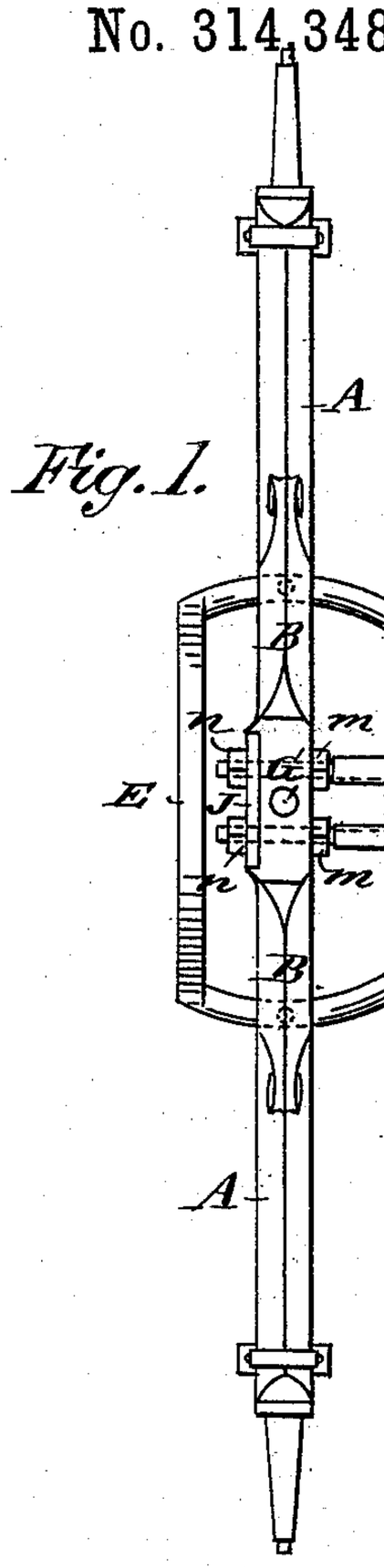


Fig. 4.

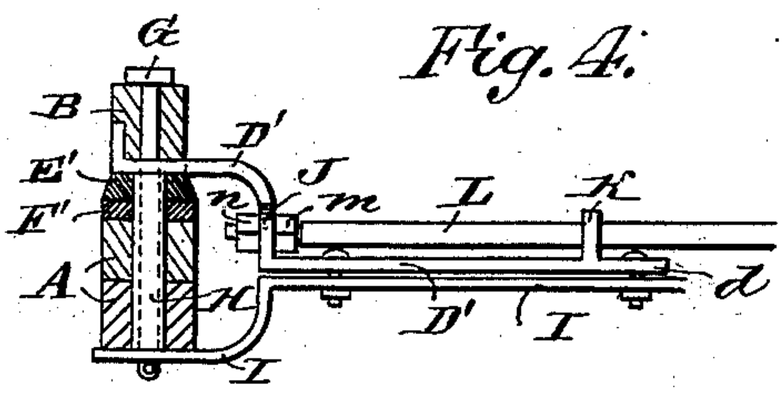


Fig. 3.

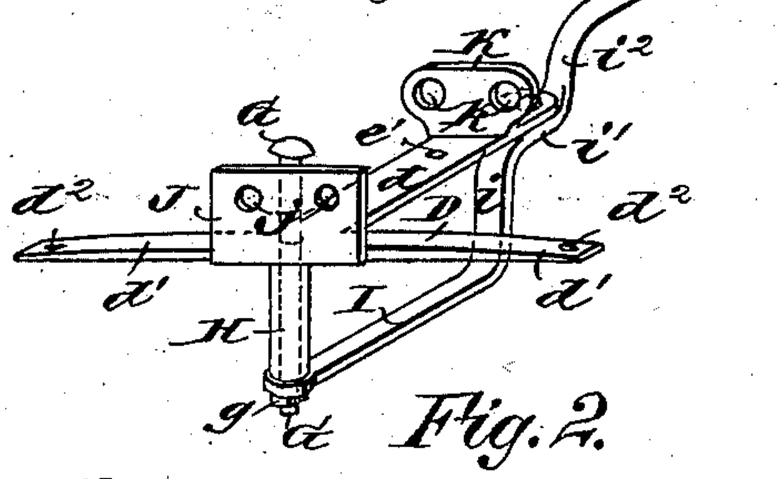


Fig. 2.

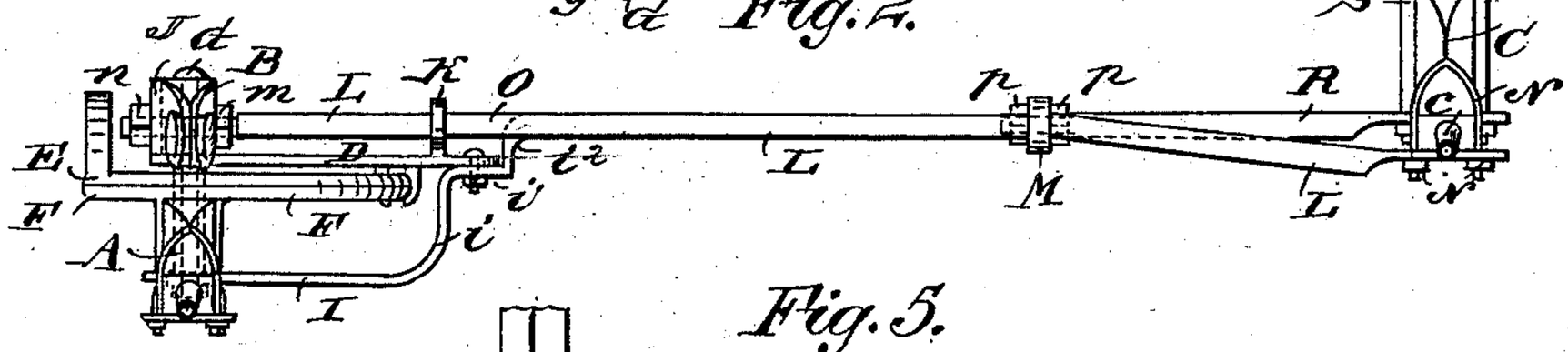
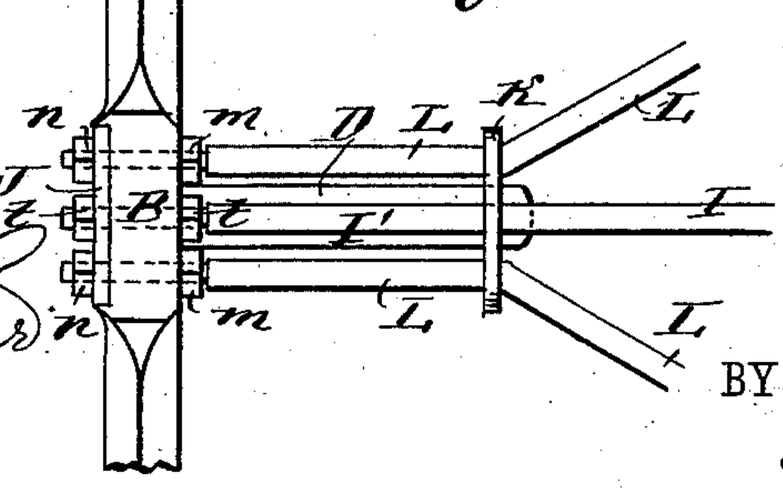


Fig. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE W. SHAW, OF TAYLORSVILLE, KENTUCKY, ASSIGNOR TO HIMSELF AND JAMES S. MARATTA, OF SAME PLACE.

RUNNING-GEAR.

SPECIFICATION forming part of Letters Patent No. 314,348, dated March 24, 1885.

Application filed December 12, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. SHAW, of Taylorsville, in the county of Spencer and State of Kentucky, have invented a new and Improved Running-Gear, of which the following is a full, clear, and exact description.

The object of my invention is to provide a simple, inexpensive, and efficient running-gear for vehicles, which shall insure a firm connection between the head-block and the hind axle and successfully resist lateral and racking strains.

The invention consists in a perch-plate attached to the head-block over the front axle, and having flanges, to which and the head-block are held a pair of brace-rods, which diverge to either side and pass through a transverse brace-bar, and thence to the opposite ends of the hind axle, together with a longitudinally-ranging perch-iron connected to the transverse brace-bar and to the forward perch-plate, and brace-rods extending from the transverse brace-bar to the central part of the hind axle.

The invention consists, also, in particular constructions and combinations of parts of the running-gear, all as hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improved running-gear for vehicles with the wheels removed from the axles. Fig. 2 is a side elevation thereof. Fig. 3 is a perspective view of the forward perch iron or plate with part of the central drop-perch bar or iron attached. Fig. 4 is a detail sectional elevation of a modification of the drop-perch adapted to straight-plate fifth-wheel irons, and Fig. 5 is a detail plan view illustrating a modification for a straight perch.

The letter A indicates the forward axle of a buggy or carriage running-gear. B is the head-block, and C is the hind axle.

The letter D indicates the forward perch-plate, which in this instance has a ⊢ form, as seen clearly in Fig. 3, the main part or stem *d* of the plate having side arms, *d' d'*, which are rigidly secured to the under side of the head-block B by bolts or screws passed through holes d^2 in the ends of the arms *d'*, said bolts serving also to secure the side parts of the upper section, E, of the fifth-wheel to the plate D and head-block B, the rear part of said fifth-wheel section being fastened to the perch-plate D by a screw or bolt, *e*, which enters a hole, *e'*, in the plate, the lower swinging or movable section, F, of the fifth-wheel being secured by suitable clips to the axle A, and turning with the axle on the king-bolt G, or a collar, H, placed thereon, between the perch-plate D and the drop-perch iron I.

At the front of the perch-plate D is formed, or to it is fixed, the upwardly-projecting flange J, which is let into a recess made in the front face of the head-block B, and near the back end of the plate D it has formed on or fixed to it in line with the flange J a rear flange, K. The flanges J K have respectively the holes *j j* and *k k*, through which and the head-block B the forward ends of the iron rod braces L L of the perch or reach pass; and the holes *j k* may either be smooth or be threaded to fit threads on the rods L, which may be screwed into the flanges J K, as will readily be understood.

I secure the forward ends of the two brace-rods L L of the perch by the double or jam nuts *m n* on the rods, which nuts stand, respectively, behind the head-block and at the front face of the flange J of the plate D, whereby the plate is firmly secured within the recess made for it in the head-block, and the perch-rods L are firmly held to the head-block.

Back of the flange K of the plate D the perch-rod braces L diverge to each side from the longitudinal center of the running-gear at angles of about fifteen degrees, more or less, and to a transversely ranging brace-bar, M, through eyes near the ends of which the rods L L pass, and from the ends of the brace-bar M the rods L L diverge at angles of about fifty degrees, and are bent downward slightly, and at the ends are bent inward about parallel with the faces of the wheels or transversely of the hind axle, C, and below the curving axle, to which the ends of the braces L L are connected by clips N N, the connection being near the ends of the axle, close to the axle-arms *c c*, on which the hind wheels revolve.

The drop-perch iron I before mentioned is

connected at its forward end by an eye on the iron encircling the king-bolt G and a nut, *g*, on the bolt below the eye, and back of the fifth-wheel the iron I is bent upward at *i*, then backward at *i'* to form a ledge, to which the back end of the perch-plate D is secured by a bolt, O, and then is bent upward at i^2, and then backward about in the same plane horizontally as the diverging braces L, and in the longitudinal center of the running-gear to the transverse brace-bar M, to which said perch-iron I is firmly secured by double or jam nuts *p p*, threaded on its end, and standing one at the front and the other at rear face of the brace-bar.

To the brace-bar M, between the perch-iron I and the side braces, L L, are fastened, by double or jam nuts *r r*, the forward ends of the brace-bars R R, which bars converge toward each other as they extend rearward, and are connected by clips S S to the center part of the hind axle, and said clips may serve also to secure the hind springs, T, to the axle, as indicated in Fig. 2.

The ends of the bars I R which enter the cross-brace M may be screwed into threaded holes of the brace, if desired.

It is evident that a reach or perch constructed as above described will be light and strongly braced, so as to successfully resist even extraordinary strains brought upon it.

In using straight fifth-wheel plates E' F' on the head-block B and axle A, respectively, as shown in detail in Fig. 4, I will drop the plate D'—which substantially is the equivalent of plate D in Figs. 1, 2, and 3—down a few inches back of the head-block, and thence carry the stem portion *d* of said plate D' back in line with the hind axle, the flange J then being placed at the second bend of the plate D', in line with the flange K behind it, so that the braces L L may pass through both flanges, and the perch-iron I will be connected to plate D', and will not be dropped so far down at the forward end, where it is bent downward opposite the upward bend of plate D'; so it may be connected with the king-bolt at the lower face of the axle A, which will be a desirable construction for some classes of vehicles. When a straight perch is required, the drop portion of the perch-iron I in front of the bend at i^2 will be dispensed with, and the perch-iron will be made with its front end I' in line with its rear portion, or straight, and in the same plane with the forward ends of the braces L L, so that the perch-iron may be passed through the flanges K J of the perch-plate D, and be secured by double or jam nuts *t t*, as clearly shown in Fig. 5; hence it is obvious that my improved perch-plate D and brace bars or rods L R may be used with either drop or straight perch-irons, adapting the running-gear for use with a large variety of vehicles.

I may or may not use the brace-rods R, but generally will prefer to use them as represented in the drawings and above described.

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

1. A running-gear for vehicles, constructed with the perch-plate D, having flanges J K, and secured to the head-block B, and the brace-rods L L, held to the flanges and head-block, and diverging backward to a transverse bar, M, through which the braces pass, and whence said rods are bent to the ends of the hind axle, to which they are connected, substantially as herein set forth.

2. A running-gear for vehicles, constructed with the perch-plate D, having flanges J K, and secured to the head-block B, the braces L L, held to the flanges and block B, and diverging backward therefrom to a transverse brace-bar, M, through which they pass, and whence said braces are bent to the ends of the hind axle, to which they are connected, and a perch-iron, I, connected to brace-bar M and perch-plate D, and arranged either for a drop or straight perch, substantially as herein set forth.

3. A running-gear for vehicles, constructed with the perch-plate D, having flanges J K, and secured to the head-block B, the diverging brace-rods L L, held to the flanges J K and to the head-block, and passing through a transverse brace-bar, M, and secured to the ends of the hind axle, and the braces R R, attached to bar M and the hind axle, substantially as herein set forth.

4. A running-gear for vehicles, constructed with the perch-plate D, having flanges J K, and secured to the head-block B, the diverging braces L L, held to flanges J K and the head-block and in the transverse brace-bar M, the perch-iron I, arranged either for a drop or straight reach, and the braces R R, held to bar M and to the hind axle, substantially as herein set forth.

5. A running-gear for vehicles, constructed with the perch-plate D, having flanges J K, the diverging braces L L, connected to the plate D and the head-block, and passing through the brace-bar M, and attached to the ends of the hind axle, and the perch-iron I, connected to bar M and at O to the plate D, and thence bending downward and forward to connect with the king-bolt G, and with or without the brace-bars R R, substantially as herein set forth.

6. As an improved article of manufacture, the perch-plate D, having the lateral arms *d' d'* formed at its forward end, and the upturned perforated flanges J K on its forward and rear ends, respectively, as shown and described.

GEORGE W. SHAW.

Witnesses:
E. D. BOURNE,
W. C. WALLACE.