(No Model.)

M. BARRY.

RUNNING GEAR FOR VEHICLES.

No. 260,151. Patented June 27, 1882.

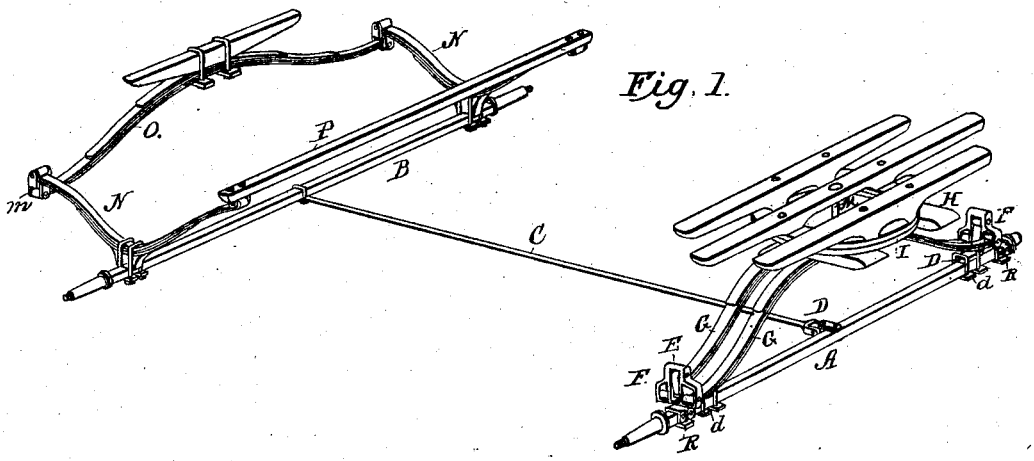


Fig. 1.

Fig. 4.

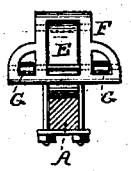


Fig. 2

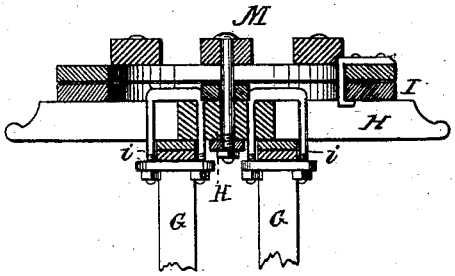
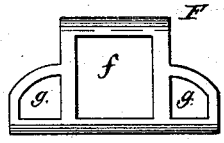


Fig. 3.



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UNITED STATES PATENT OFFICE.

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RUNNING-GEAR FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 260,151, dated June 27, 1882.

Application filed April 10, 1882. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL BARRY, a citizen of the United States, residing at Valparaiso, in the county of Porter and State of Indiana, have invented certain new and useful Improvements in Running-Gear for Vehicles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

The present invention relates to improvements in the construction of running-gears for wheeled vehicles, whereby great flexibility is obtained, and a free and easy movement of the various parts is insured, also simplicity in construction.

To these ends the invention consists in the construction and combination of devices which hereinafter will be more fully described, and then set forth in the claims.

In the accompanying drawings, Figure 1 is a perspective view of the running-gear embodying my improvements. Fig. 2 is a longitudinal vertical section taken through the front part of the gearing. Fig. 3 is a detached view of one of the pivoted hangers for the front springs. Fig. 4 is a front view of the double hanger, showing its connection with the axle-bracket and the manner of fitting the two springs therein.

The letters A B designate the front and rear axles, respectively, of a vehicle. These axles are connected by a reach, C, which is rigidly secured to the rear axle by a suitable clip and to the center of the front axle by a universal joint or swivel coupling, D. By this construction the front axle is permitted to turn and rock in the proper manner.

To the top of the front axle are secured, near the spindle terminations thereof, brackets E, the upper curved ends of which are provided with an eye or opening. The lower horizontal portion of each bracket rests upon the axle and is secured thereto by encircling clips *d*.

A hanger or yoke, F, is suspended from each bracket by fitting the end of the latter into an opening, *f*, in said hanger and passing a pin or bolt through both. On each side of the central or main opening of the hanger is a smaller opening, *g*. These openings receive the lower ends of a pair of semi-elliptical springs, G, and a pin or bolt passed through the hanger and the eyes of the springs fitted therein serves to connect the springs with the latter.

A frame, H, consisting of longitudinal and transverse bars, is secured to the lower fifth-wheel or circle-plate, I, and is itself secured to the highest portion of the springs G by means clips or U-shaped bolts *i*. The upper plate of the fifth-wheel is bolted to several transverse bars, which serve to support the front portion of the wagon-body, and the customary king-bolt M rises from a central bearing-plate of the frame H, and is fitted into one of the transverse bars, so as to permit the front gearing to turn properly.

To the rear axle are secured, near the spindle ends thereof, a pair of curved longitudinal springs, N, and a curved transverse spring, O, is connected with the side springs by suspension knuckle-joints *m*. A transverse body-supporting bar, P, is connected with the front ends of the springs N, as is fully shown in Fig. 1.

The arrangement of the pair of transverse front springs with the pair of longitudinal rear springs and transverse spring connecting the latter will give the greatest degree of elasticity and uniformly support the wagon-body resting thereon. The draft is applied to the front axle-tree on a line with the reach.

The connection of the thills with the axle is effected by the shackles or clips R, located at the butt-ends of the axle-spindles. The hangers for the front springs, when in a normal position, are perpendicular; but any lateral strain upon the springs will cause said hangers to turn or vibrate, so as to prevent the breakage of the springs. These hangers are made of one piece of metal—either malleable iron or crucible cast-steel.

I am aware that two springs arranged on either side of a bolster have been suspended from brackets on said bolster by means of pivoted links constructed in the ordinary manner of vertical arms and transverse top and bottom bolts. I am also aware that two springs arranged on either side of a wagon-axle and suspended therefrom in various ways are also

not new; neither is it novel to support the rear of a wagon-body upon two longitudinal springs connected by a transverse spring, as herein represented.

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 of the swinging hangers F, provided with large central opening, *f*, and smaller side openings, *g*, and constructed of one piece of metal, with the axle A, the brackets E, the springs G, and the transverse bolts or pins for connecting the brackets and springs with the hangers, as and for the purpose set forth.

2. The combination of the front supporting-frame, H, consisting of intersecting transverse and longitudinal bars, with the fifth-wheel plates I, king-bolt M, the clips *i*, and springs G, all constructed and relatively arranged as herein set forth, for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

MICHAEL BARRY.

Witnesses:
DAVID REESE,
CHAS. W. STEEN.