

G. W. GILMORE.
RUNNING-GEAR.

No. 172,992.

Patented Feb. 1, 1876.

Fig: 1.

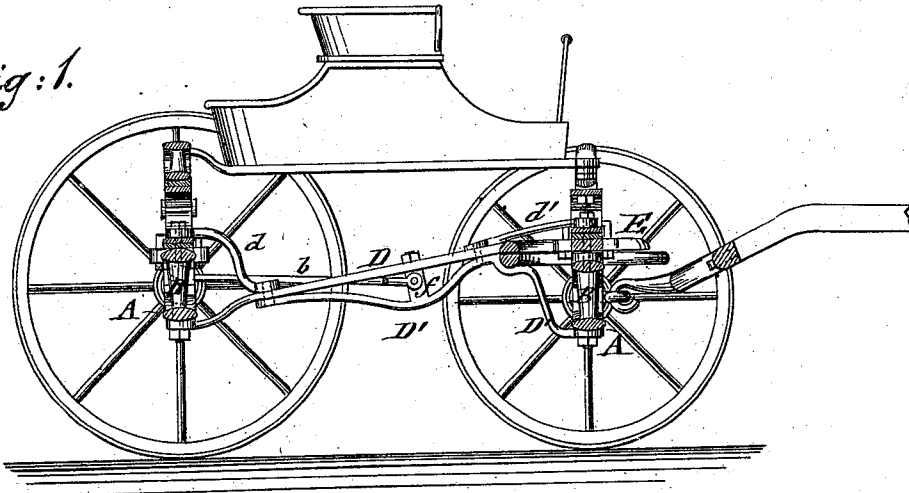


Fig: 2.

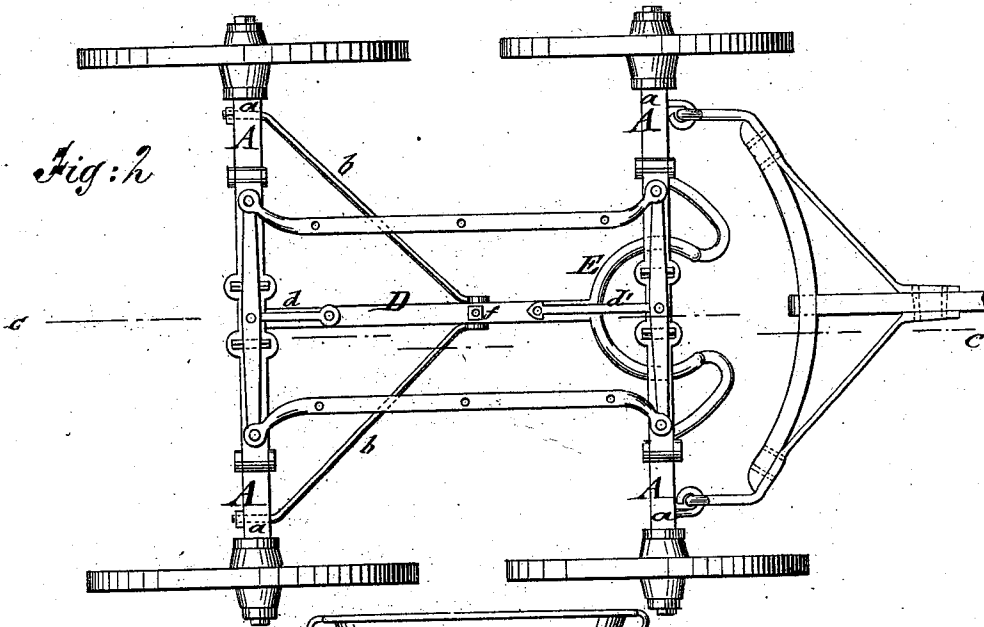
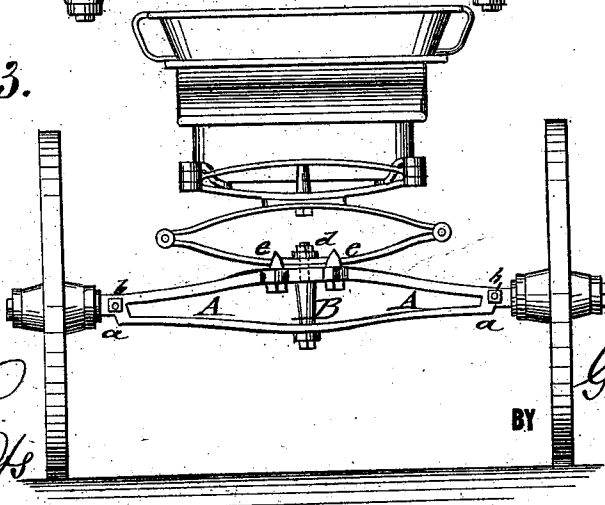


Fig: 3.



WITNESSES:

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INVENTOR:

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BY

ATTORNEYS.

UNITED STATES PATENT OFFICE.

GEORGE W. GILMORE, OF WEATHERFORD, TEXAS, ASSIGNOR TO HIMSELF
AND F. M. DAVIS, OF SAME PLACE.

IMPROVEMENT IN RUNNING-GEARS.

Specification forming part of Letters Patent No. 172,992, dated February 1, 1876; application filed
October 8, 1875.

To all whom it may concern:

Be it known that I, GEORGE W. GILMORE, of Weatherford, in the county of Parker and State of Texas, have invented a new and Improved Vehicle, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a vertical longitudinal section of my improved vehicle on the line *c c*, Fig. 2; Fig. 2, a top view, with body detached to show suspension-frame, and Fig. 3 a rear elevation of the same.

Similar letters of reference indicate corresponding parts.

The invention relates to an improvement in suspension-vehicles, and upon the patent granted to James Patterson, April 16, 1850.

The invention consists mainly in improvements in the connections of the axles with the springs, perch, and other parts, as will be fully described and pointed out by the claims.

In the drawing, *A A* represent the front and hind axles of my vehicle suspension frame, which are made of oval-shaped iron, as this shape gives it greater strength, and is less liable to spring without any increase of weight over the old round irons. The axles are made of upper and lower bars, which are braced in suitable manner and joined near the outer axle ends by square or angular connecting-pieces *a*, which form shoulders, to which the side stays *b* of the perch may be bolted without weakening any parts, dispensing with the collar or other attachments to the axle ends, that are soon worn out thereby.

The angular shoulders of the front axle have to be made stronger and heavier than those of the hind axles, as the front axle has no connecting-stays, and is more exposed to spring forward and back.

The axles *A* are stiffened by center-posts *B*, which pass up through the main springs *C*, and serve to fasten and hold them in their proper position, without in the least interrupting their action.

The extension of the center-posts *B* serve also to hold the top stays *d* of the perch *D*, while the lower ends are coupled to the main perch, forming thus a double stay to the axle and spring. The springs *C* are furthermore

attached to the axles by means of clips *e*, that are passed through eyes of the upper axle-bar and secured by screw-nuts thereto. This requires no weakening of the springs, as it secures the same without bolt-holes, that detract from their strength.

The side stays *b* extend from the shoulder of the axle to the middle of the perch *D*, but are not attached directly to the same, but to a stay-post or upright; *f*, bolted to the main perch, and a strengthening-brace, *D'*, that imparts to all the parts additional strength. The perch *D* and suspension-brace *D'* are made of oval steel bars, the latter being curved as required, and bolted, together with the upper stay *d* of the rear axle, to the rear part of the main perch.

The front part of brace *D'* is bent up toward the perch and the fifth-wheel *E*, forming a bearing for the same, and curving them down to the lower axle part to be bolted to the center-post of the same. The front of brace *d* of the perch passes over the top of the fifth-wheel to the top of the king-bolt, forming a washer for the fifth-wheel and establishing a corresponding strengthening-connection to that at the rear end of the perch.

The fifth-wheel *E* extends in front of the axle, the lower bearing being curved back to the sides of the same, to form additional stays to the projecting front ends of the fifth-wheel. The connection of the supporting-springs with the axles, and the rigid connection of both front and hind axles by the brace, produce an iron suspension-frame of great strength and durability, applicable to all kinds of vehicles, and of special advantage in the southern sections of the country, in which the use of wood to wagons, &c., is to be avoided.

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

1. A rear axle, consisting of two opposite arch bars connected at each end by angular pieces *a*, as and for the purpose described.

2. The combination, with rear axle and reaches, of a middle post, *B*, that braces axle and secures the reaches to it, as shown and described.

3. A rear axle, provided with eyelets, clips,

and middle post, to secure the spring, as specified.

4. A front axle, provided with a fifth-wheel, in one piece therewith, and projecting in front, as and for the purpose described.

5. A reach consisting of two bars, provided with intermediate post and with stays reaching from rear axle to said post, as set forth, so that the strain on each reach-bar may be equalized.

6. A reach provided with upper part of fifth-wheel, in one piece therewith, fastened at top of front axle, and connected by king-bolt and brace with front spring, as described.

G. W. GILMORE.

Witnesses:

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P. M. BOUYER.