

(No Model.)

I. BARBER & J. F. CROFT.

TWO WHEELED VEHICLE.

No. 342,993.

Patented June 1, 1886.

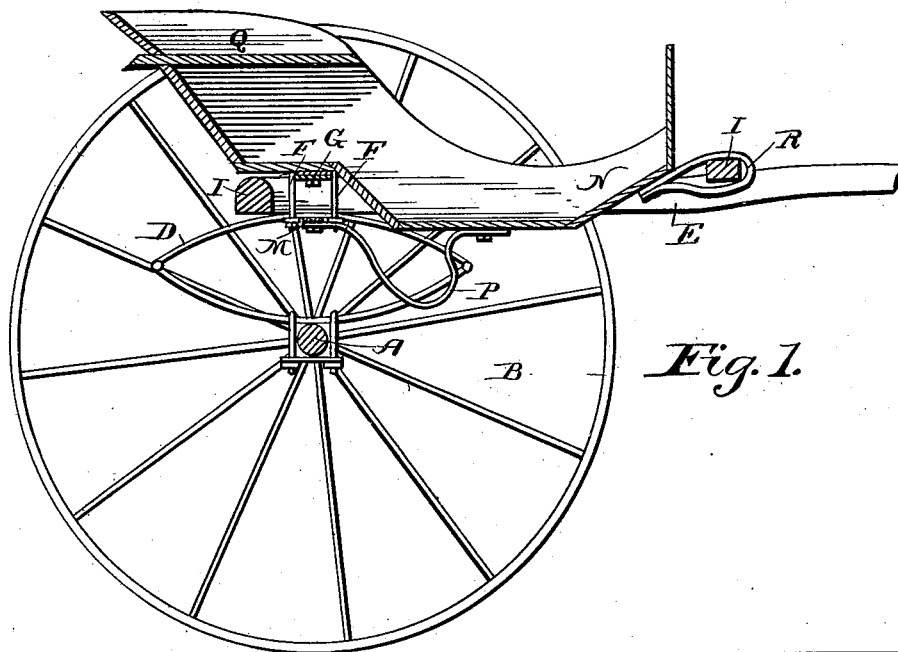


Fig. 1.

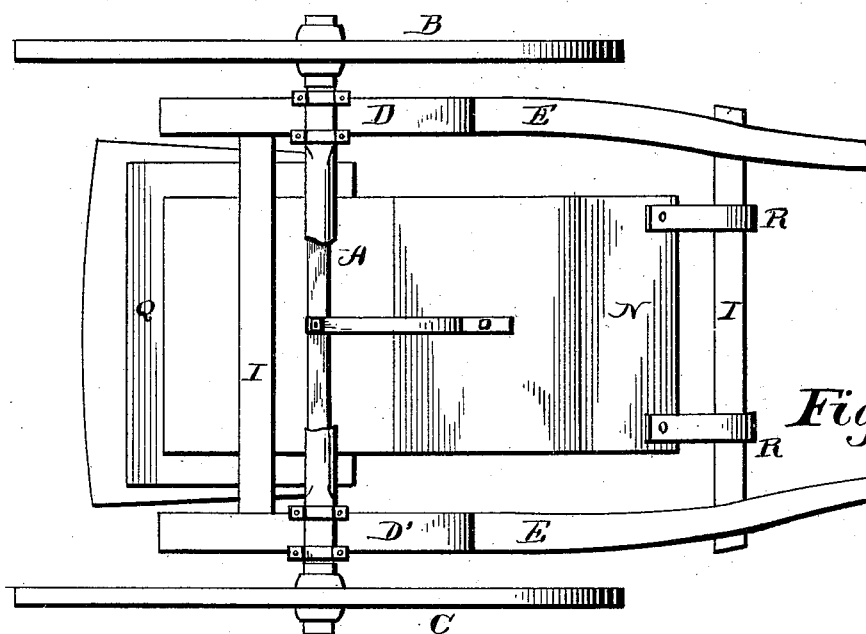


Fig. 2.

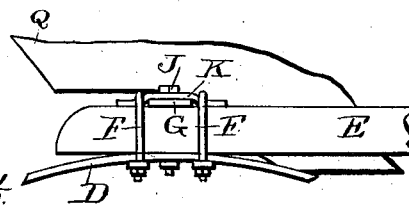


Fig. 3.

WITNESSES

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UNITED STATES PATENT OFFICE.

IRA BARBER AND JOHN F. CROFT, OF LA PORTE, INDIANA.

TWO-WHEELED VEHICLE.

SPECIFICATION forming part of Letters Patent No. 342,993, dated June 1, 1886.

Application filed October 24, 1885. Serial No. 180,850. (No model.)

To all whom it may concern:

Be it known that we, IRA BARBER and JOHN F. CROFT, citizens of the United States, residing at La Porte, in the county of La Porte and State of Indiana, have invented certain new and useful Improvements in Two - Wheeled Vehicles; and we do 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.

Figure 1 of the drawings is a vertical longitudinal section. Fig. 2 is a bottom view. Fig. 3 is a detail view.

Our invention relates to vehicle-springs; and it consists in the construction and novel combination of parts, as will be hereinafter fully described, and pointed out in the claims.

Referring by letter to the accompanying drawings, A designates the axle of the vehicle, and B and C the wheels.

D and D' designate the elliptical springs, which are secured to the axle in any well-known manner.

E E designate the thills, which are secured or clipped to the elliptical springs by clips F F, the rear cross-bar I being parallel with but slightly in rear of the axle A. A spring, G, is secured to the upper faces of the thills just in front of the rear cross-bar I, and is held in place by bolts J J, passed down through the ends of the spring G, through the thills, and through the upper portions of the springs D and D', and also through short plates K K', resting upon the springs G. The short plates K K' are employed in order to prevent the clips F F from wearing into the wood of the thills. A lateral spring, M, is secured to the under faces of the upper portions of the elliptical springs D D', and this transverse lateral spring M is connected by a nearly U-shaped spring, P, which extends forward from the lateral spring M, and is connected to the body some distance in front of the seat Q.

The forward part of the body N is connected

to the front cross-bar I by two loop-straps, R R, which prevent the body from tilting or being depressed to any considerable degree.

The side springs may be other than elliptical springs, and we do not confine ourselves to the use of elliptical springs, but may and do use other than elliptical springs, and have shown these only to illustrate one method of practicing the invention.

The single-tree will be secured to the under side of the front cross-bar.

It is evident that a cart for hauling purposes may be constructed in the manner hereinbefore described, and we do so construct them.

The single-tree may be either on top or beneath the cross-bar of the thills. In some instances the single-tree may be in front of the cross-bar of the thills.

Having described this invention, what we claim, and desire to secure by Letters Patent, is—

1. The combination, with the axle, wheels, and side springs, of the thills provided with the rear cross-bar and the front cross-bar, the transverse spring G and the transverse spring M, secured to the side springs and thills, and the body secured to the said transverse spring M and to the front cross-bar by flexible loops, substantially as specified.

2. The combination, with wheels, axle, thills, and body, of the transverse springs connected to the side springs, and the U-shaped spring connecting the lower transverse spring to the bottom of the body in front of the axle, as set forth.

3. The combination, with the lower transverse spring and the side springs, of the U-shaped spring and the body, substantially as specified.

In testimony whereof we affix our signatures in presence of two witnesses.

IRA BARBER.
JOHN F. CROFT.

Witnesses:

GEO. C. DORLAND,
E. O. BARTLETT.