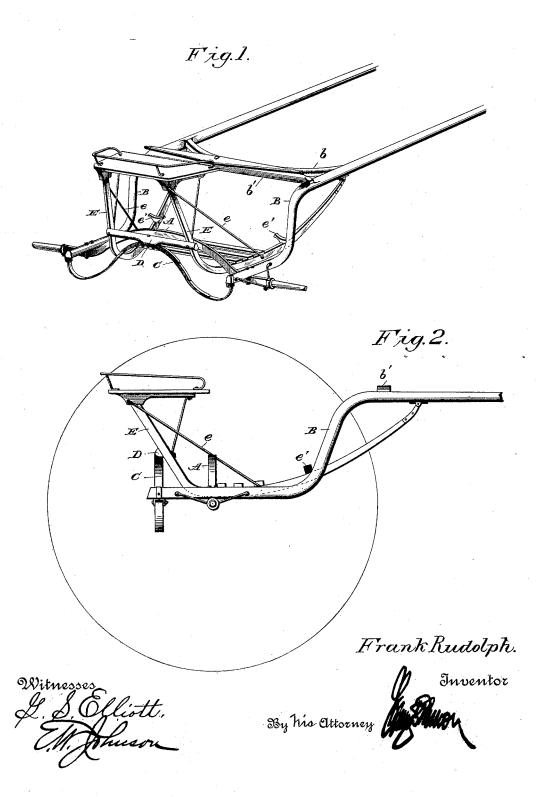
(No Model.)

## F. RUDOLPH. ROAD CART.

No. 421,316.

Patented Feb. 11, 1890.



## UNITED STATES PATENT OFFICE.

## FRANK RUDOLPH, OF BEASON, ILLINOIS.

## ROAD-CART.

SPECIFICATION forming part of Letters Patent No. 421,316, dated February 11, 1890.

Application filed November 30, 1889. Serial No. 332,093. (No model.)

To all whom it may concern:

Be it known that I, FRANK RUDOLPH, a citizen of the United States of America, residing at Beason, in the county of Logan and State 5 of Illinois, have invented certain new and useful Improvements in Road-Carts; 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 10 it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to certain new and 15 useful improvements in road-carts; and it consists in the construction and combination of the parts, as will be hereinafter fully set

forth, and particularly claimed.

The object of my invention is to provide 20 an easy-riding and cheaply-constructed sulky or road-cart, and which will also be light and durable.

In the accompanying drawings, Figure 1 is a perspective view, and Fig. 2 a side view.

A refers to the axle, which is arched centrally, and rigidly secured to said axle beyoud the arched portion are thills B, which are made of bent wood rigidly connected by a curved cross-bar b, rear of which a straight transverse brace b' is bolted. These thills are curved downwardly and then outwardly, the forward portion being re-enforced by braces, while diagonal braces extend from each side of the lower horizontal ends of the 35 thills and assist in rigidly securing said horizontal portions to the axles. To the rear of the horizontal ends of the thills is secured a single semi-elliptical spring C, which is provided with a cross-bar D, clipped centrally 40 thereto, and to the ends of this cross-bar are rigidly attached curved bars E, the rear ends of which converge, while the forward ends diverge, and are secured by a hinged coupling to the under side of the thills at a point be-45 neath where the front curved bar d is connected thereto. These curved bars E are provided with brace-bars e, and also with footrests e', as well as the usual transverse slats which make up the flooring. The rear upper ends of the bars E have secured thereto

the forward ends of these brackets being provided with downwardly and rearwardly in-

clined brace-rods, as shown.

It will be observed by the construction here- 55 inbefore described that the bars E depend from the thills, pass under the axle, and extend upwardly, so as to locate the seat on a vertical line with the semi-elliptical spring; also that the excessive upward movement of 60 the seat and seat-supporting bars is prevented by the bars contacting with the axle when no weight is upon the seat. By this construction I am enabled to use the ordinary light spring, which will be depressed be- 65 low the axle when the seat is occupied.

I am aware that prior to my invention sulkies have been constructed in which the thills have been bent downwardly and outwardly, so as to extend beyond the axle by 70 having spring-plates attached thereto; nei-ther do I wish to claim in this application what is shown in my patent dated February

26, 1889, and numbered 398,801; but

What I claim as new, and desire to secure 75

by Letters Patent, is—

1. In a sulky or road-cart, the combination of the thills having a downwardly-bent extended portion which projects rear of the axle, a semi-elliptical spring attached to the 80 rear ends of said thills and provided with a cross-bar D, to which the rearwardly converging bars E are secured, said bars being pivoted at their forward portions to the under side of the thills, an upwardly-curved 85 axle extending over said bars E, a seat-supporting bracket attached to the rear ends of the bars E, and brace-rods, as shown, substantially as shown, and for the purpose set forth.

2. In a road-cart or sulky, the combination of an upwardly-bowed axle, a semi-elliptical spring connected to the rearwardly-extending ends of the thills, said thills being rigidly clipped to the axle and provided with 95 brace-rods which extend from near the spindles on each side of the axle to the thills, said thills being bent horizontally and upwardly from the axle, as shown, a cross-bar D, attached centrally to the semi-elliptical spring, 100 the end of said bar being secured to diverbrackets, upon which the seat is attached, I ging bars E, pivoted to the under side of the

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thills beyond the draft-point or singletree, the rear ends of said diverging bars carrying presence of two witnesses. the seat, brace-bars for rendering rigid the rear portion of the bars E, and foot-rests e', 5 carried by said bars, the parts being organized substantially as shown, and for the purpose set forth.

In testimony whereof I affix my signature in

FRANK RUDOLPH.

Witnesses: JOHN J. ARMSTRONG, W. S. JONES.