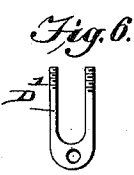
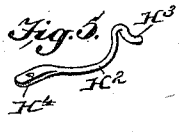
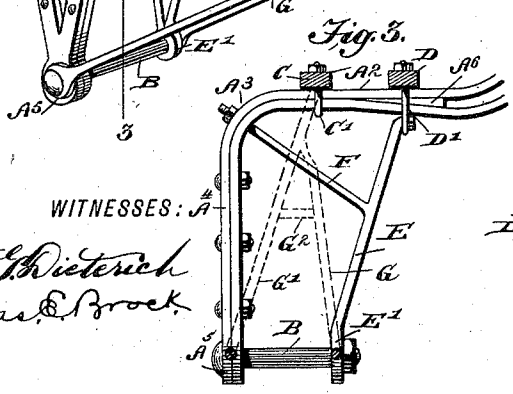
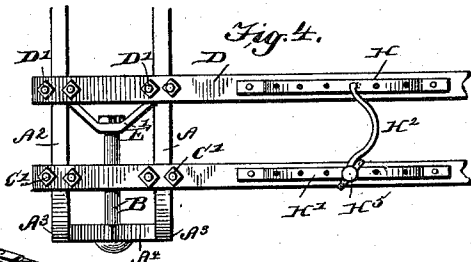
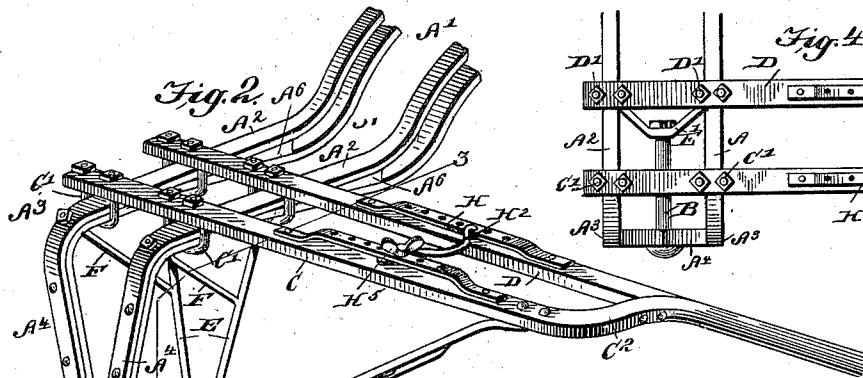
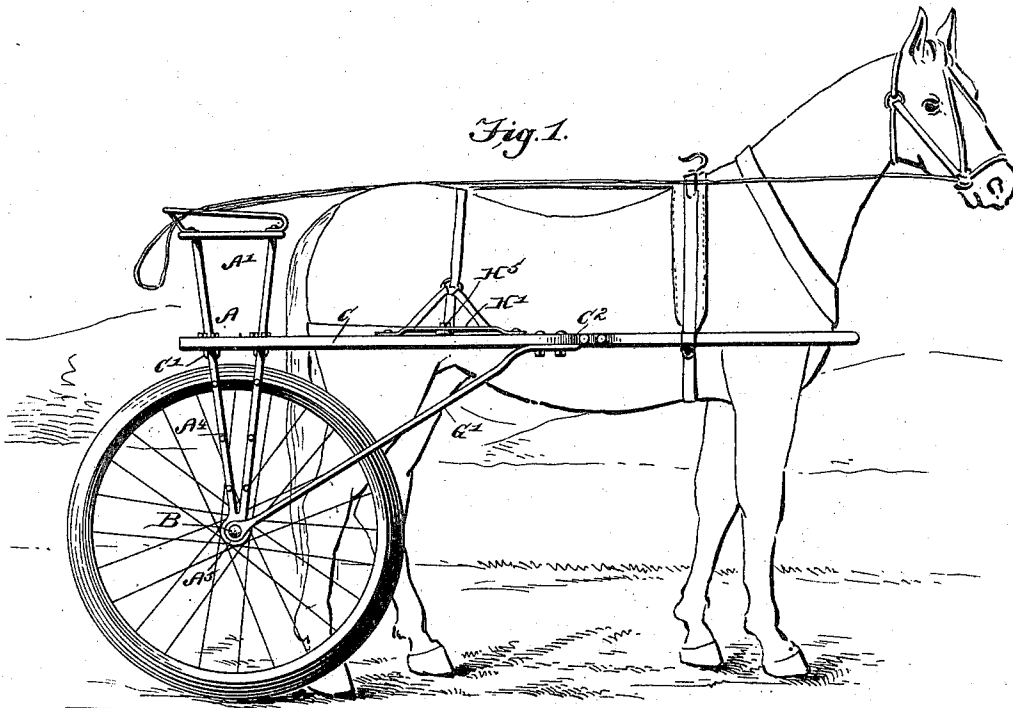


(No Model.)

J. J. HAYWOOD & H. MARQUEDANT.  
TROTTING SULKY.

No. 579,149.

Patented Mar. 23, 1897.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN J. HAYWOOD AND HENRY MARQUEDANT, OF RIVES JUNCTION,  
MICHIGAN.

## TROTTING-SULKY.

SPECIFICATION forming part of Letters Patent No. 579,149, dated March 23, 1897.

Application filed May 15, 1896. Serial No. 591,646. (No model.)

*To all whom it may concern:*

Be it known that we, JOHN J. HAYWOOD and HENRY MARQUEDANT, residing at Rives Junction, in the county of Jackson and State of Michigan, have invented a new and Improved Trotting-Sulky, of which the following is a specification.

This invention relates generally to trotting-sulkies, and more particularly to one having pneumatic-tire wheels, and the object of the invention is to provide a sulky-frame which shall be exceedingly cheap and durable, as well as light in construction.

Another object is to provide double axles, or axles at each side of the frame, thereby avoiding the use of an axle extending the entire width of the sulky.

Another object is to provide an adjustable foot-rest in connection with the peculiar construction of frame, whereby the driver can adjust said foot-rest as occasion may require.

Another object is to provide a spring-frame which shall be thoroughly trussed or braced throughout, thereby avoiding the danger of the said frame becoming sprung.

Another object is to so construct a sulky-frame that any of the parts may be quickly and easily removed, repaired, and replaced whenever desired.

With these various objects in view our invention consists in the peculiar construction of the various parts and in their novel combination or arrangement, all of which will be fully explained hereinafter and pointed out in the claims.

In the drawings forming a part of this specification, Figure 1 is a view showing the invention in use. Fig. 2 is a detail view of a portion of the frame. Fig. 3 is a section on the line 3 3 of Fig. 2. Figs. 4, 5, and 6 show details of construction.

In carrying out our invention we employ two main bars or beams A, which are slightly arched at the center A' and at each side of the central arch extend substantially horizontal, as shown at A<sup>2</sup>, as far as the point A<sup>3</sup>, where they are bent downward, providing side members A<sup>4</sup>, which converge and meet at A<sup>5</sup>, providing bearings for the axles B. These bars or beams A are substantially parallel between the points A<sup>3</sup>, but from A<sup>3</sup> down-

ward they converge, as most clearly shown. These bars or beams are preferably constructed of band-iron riveted together, and in the central arched portion A' the pieces comprising the bar are separated by means of a spacing-block A<sup>6</sup>, thereby trussing the said arch and making the frame lighter at this point and at the same time increasing its strength.

The rear portions of the thills C are secured to the horizontal portions A<sup>3</sup> near the ends A<sup>3</sup>, said thills being secured by means of clips C', and at C<sup>2</sup> said thills are given a curve inward.

The thill-braces D are attached to the thills from the inner side just in advance of the curve C<sup>2</sup>, the said braces being secured at their rear ends to the horizontal portions adjacent to the arched portion by means of clips D', said clips having the brace-rods E riveted thereto at their central portions, said brace-rods extending downward, as shown, and converging into the bearing E', in which is journaled the inner end of the axle B. These brace-rods are strengthened by means of the truss-rods F, which connect said brace-rods to the side members A<sup>4</sup> of the frame. The thills and frame are further braced by means of the forward brace-bar G, which extends from the bearing E' to the under side of the thill at a point adjacent to the curve C<sup>2</sup>, and a second brace-rod G' extends from the bearing A<sup>5</sup> to the same point, the said brace rods or bars G and G' being trussed by a transverse rod or bar G<sup>2</sup>.

It will thus be seen that the entire frame comprising the top and side portions is thoroughly braced or trussed, and, furthermore, the thills connected to the upper portion of said frame are also thoroughly trussed or braced, and it will be noted that by the construction herein described we are enabled to use the double axles or a short axle upon each side of the frame, thereby avoiding the use of a single axle which extends the entire width of the frame or sulky.

In order to provide for the adjustable foot-rest, we employ a plate H, which is secured to the upper face of the thill-brace D, and another perforated plate H' is secured to the upper face of the thill C to the rear of the curve

C<sup>2</sup>. A curved foot-rest H<sup>2</sup> has a hooked end H<sup>3</sup>, which engages one of the perforations in the plate H, the opposite end of said foot-rest being flattened and adapted to slide beneath the plate H', said flattened end having a threaded aperture H<sup>4</sup>, through which passes a thumb-screw H<sup>5</sup> to lock the end of the said foot-rest. By this means it will be seen that the foot-rest can be adjusted not only back and forth, but the inclination of said foot-rest can also be adjusted.

It will thus be seen that we provide an exceedingly cheap, simple, and durable construction of sulky-frame adapted for use in connection with pneumatic wheel-tires, and the many points of advantage will be at once apparent to every one skilled in the art to which our invention pertains.

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

1. The combination with the main bearings or beams A, arched at A', bent horizontally at A<sup>2</sup>, turned at A<sup>3</sup>, to provide the side members A<sup>4</sup>, said beams converging and meeting at a point A<sup>5</sup>, and provided with bearings for the axles B, of the thills C, secured to the

horizontal portions A<sup>2</sup>, the thill-braces D, attached to the thills from the inner side, the brace-rods E, converging as described, the truss-rods F, connecting the brace-rods with the side members, the forward brace-bar G, and the second brace-rod G', all arranged and adapted to operate, substantially as shown and described.

2. The combination with the thill C, of the thill-brace D, the perforated plate H, arranged upon the top of the brace D, and a similar plate H', arranged upon the top of the thill C, and a second foot-rest H<sup>2</sup>, having a hook H<sup>3</sup>, at the inner end adapted to engage the perforated plate H, the opposite end of said foot-rest being flattened and adapted to slide beneath the plate H', said flattened end having an aperture H<sup>4</sup>, a thumb-screw H<sup>5</sup>, adapted to pass through the perforated plate H', and engage the threaded aperture H<sup>4</sup>, substantially as and for the purpose described.

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Witnesses:

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