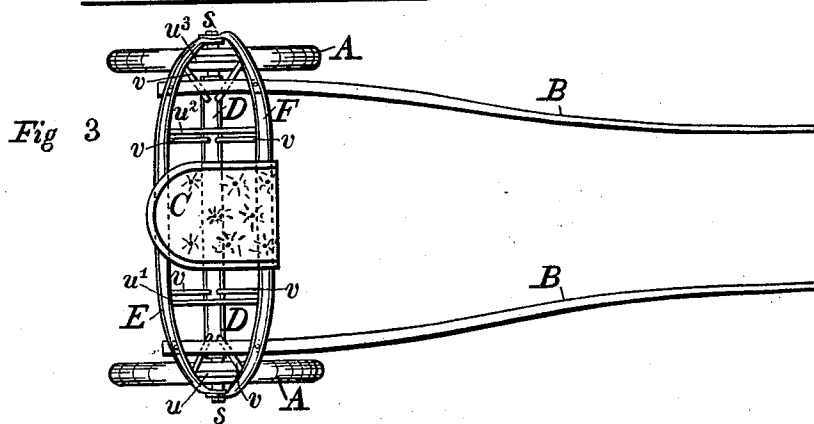
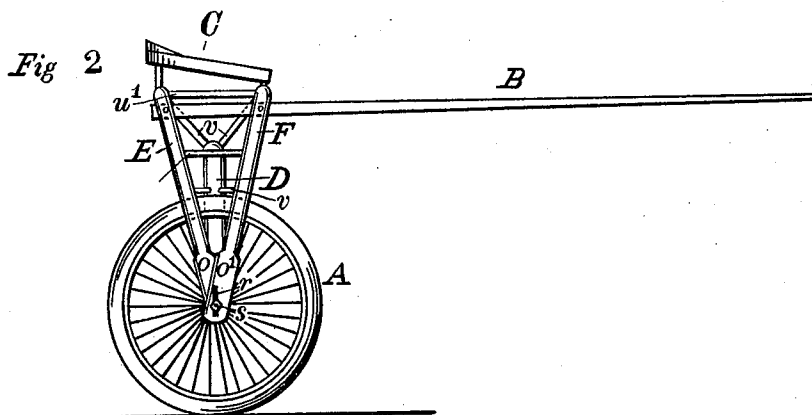
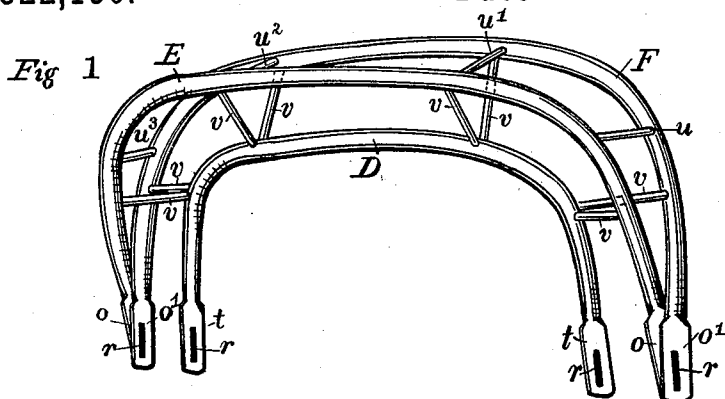


(No Model.)

G. W. CLARKE.
PNEUMATIC SULKY.

No. 522,150.

Patented June 26, 1894.



Witnesses:

O. E. Eaton
C. G. Crannell

Inventor:

George W. Clarke,
By Geo. B. Selden,
att_y-

UNITED STATES PATENT OFFICE.

GEORGE W. CLARKE, OF ROCHESTER, NEW YORK, ASSIGNOR OF ONE-HALF
TO EDWARD APPEL, OF SAME PLACE.

PNEUMATIC SULKY.

SPECIFICATION forming part of Letters Patent No. 522,150, dated June 26, 1894.

Application filed December 18, 1893. Serial No. 493,979. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. CLARKE, a citizen of the United States, residing at Rochester, in the county of Monroe, in the State of New York, have invented certain Improvements in Pneumatic Sulkies, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to certain improvements in the construction of pneumatic sulkies, which improvements are fully described and illustrated in the following specification and the accompanying drawings,—the novel features thereof being specified in the claim annexed to the said specification.

My improvements in pneumatic sulkies are represented in the accompanying drawings, in which—

Figure 1 is a perspective view of the arch or framework of my improved sulky. Fig. 2 is a side-elevation. Fig. 3 is a plan view.

A A represent the wheels, B B, the thills, C, the seat, and D E F the triple tubular arch which constitutes the frame-work of my improved sulky. The wheels are of any suitable dimensions and of any ordinary or preferred type, provided with pneumatic tires of any suitable kind. The spindles on which the wheels run are represented at s s.

The framework consists of the three tubular arches, D E and F, connected together by suitable bracing,—the whole structure being secured together by brazing or other suitable means. The two upper and outer arches E and F are inclined toward each other at the sides, so that their lower ends o o' meet together and are perforated or slotted to receive the wheel spindles. The inner arch D is located between the outer arches,—its lower ends t, receiving the inner ends of the wheel spindles. The two outer arches are attached together by suitable bracing, such for instance as that represented at u, u', u² u³. The ends of the tubes forming the arches are flattened, and those of the outer arches are placed in contact with each other, and they may be secured together in any suitable way. The upper and lower arches are connected together by any suitable bracing, such as that represented at v. The number and location of the braces between the different

members of the triple arch may be varied,—but in all cases I prefer to secure them to the arches by bracing and to form them of tubes. The thills are attached to the upper arches by bolts or any suitable form of clip, or other device, and they may be secured either above or below, but I prefer to secure them to the under side of the upper arches, as shown. The seat is supported by the upper arches, being applied directly thereon, or supported at any suitable distance above the same, by suitable bracing. The whiffletree is attached to the lower arch. The wheel spindles are secured in the flattened ends of the arches by nuts, and the ends, o o', t, of the arches may be slotted, as indicated at r,—the ends of shoulders on the spindles in this case being preferably notched, and arranged to bear against serrated surfaces on the arches. The angle between the outer arches may be varied, according to the judgment of the constructor, or as he may desire to give the thills more or less bearing on the arch. But as my improved triple arch sulky requires no other bracing than that between the arches, I am enabled to secure sufficient rigidity with a considerable decrease in weight.

Another advantage possessed by my improved construction consists in the fact that the wheels always remain parallel with each other, and are not swung out of line by the bending of the thills inward which occurs in harnessing the horse.

It is obvious that various modifications may be made in the construction or arrangement of my improved triple arch, without departure from the spirit of my invention, such for instance as brazing suitable arms or plates into the ends of the tubes instead of flattening them, arranging the two members below and the single member above, and in various other changes which will readily occur to the skilled constructor. It will also be observed that my improved triple arch may be used on other types of vehicles using pneumatic wheels.

I am aware that an arch composed of three angularly disposed curved members united at their ends and supported upon one end of each of the wheel spindles is not new, and also that two curved members have been sup-

ported one upon each end of such spindles and that tubular members have been used.

It is characteristic of my improvement that the curved member supported on the inner
5 ends of the spindles is joined by braces both at the top and at the sides at the level of the wheel with a member behind and with another in front of the vertical plane, the vertical planes of the upper members being near
10 the front and rear edges respectively of the seat supported thereon and the similar plane of the lower member being midway and the latter member being parallel to each of the upper members throughout the whole extent
15 of each. This enables me to support the seat upon the upper member directly, no braces connecting it with the lower member other than the arch braces being required, and it secures bracing of the arch in two directions
20 both at its top and sides and divides the

weight of the driver between the two ends of each spindle.

I claim—

The combination, with the wheels, seat and thills of a pneumatic sulky, of an arch consisting of three curved tubular members, the
25 upper members arranged at angles one in front of and the other behind the lower member, and each parallel to the lower member, and with their ends meeting to support the
30 outer ends of the wheel-spindles, and the lower member supporting the inner ends of the wheel-spindles, and suitable bracing between the upper members and the lower member at their upper part, substantially as set
35 forth.

GEORGE W. CLARKE.

Witnesses:

GEO. B. SELDEN,
C. G. CRANNELL.