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S. E. JERALD.

PNEUMATIC SULKY.

APPLICATION FILED APR. 26, 1905.

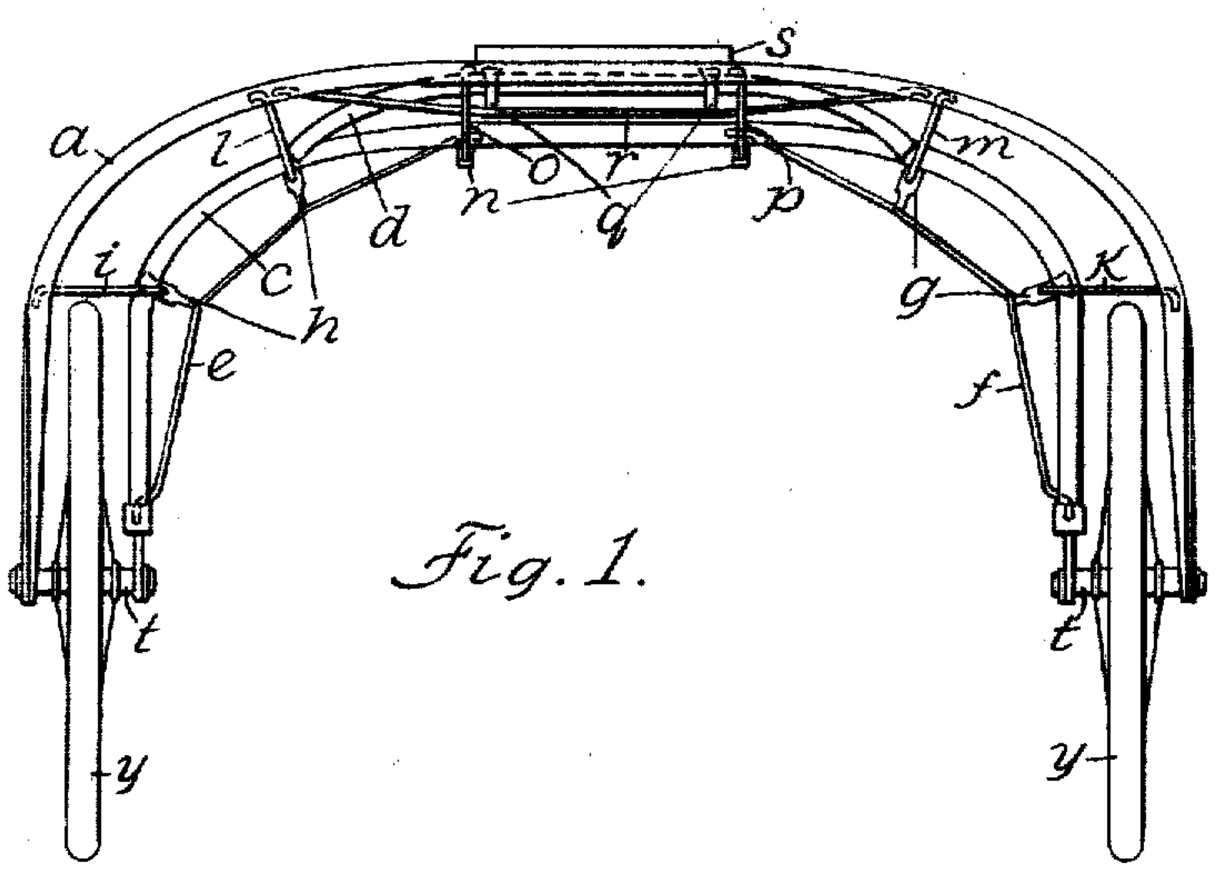

Fig. 1.

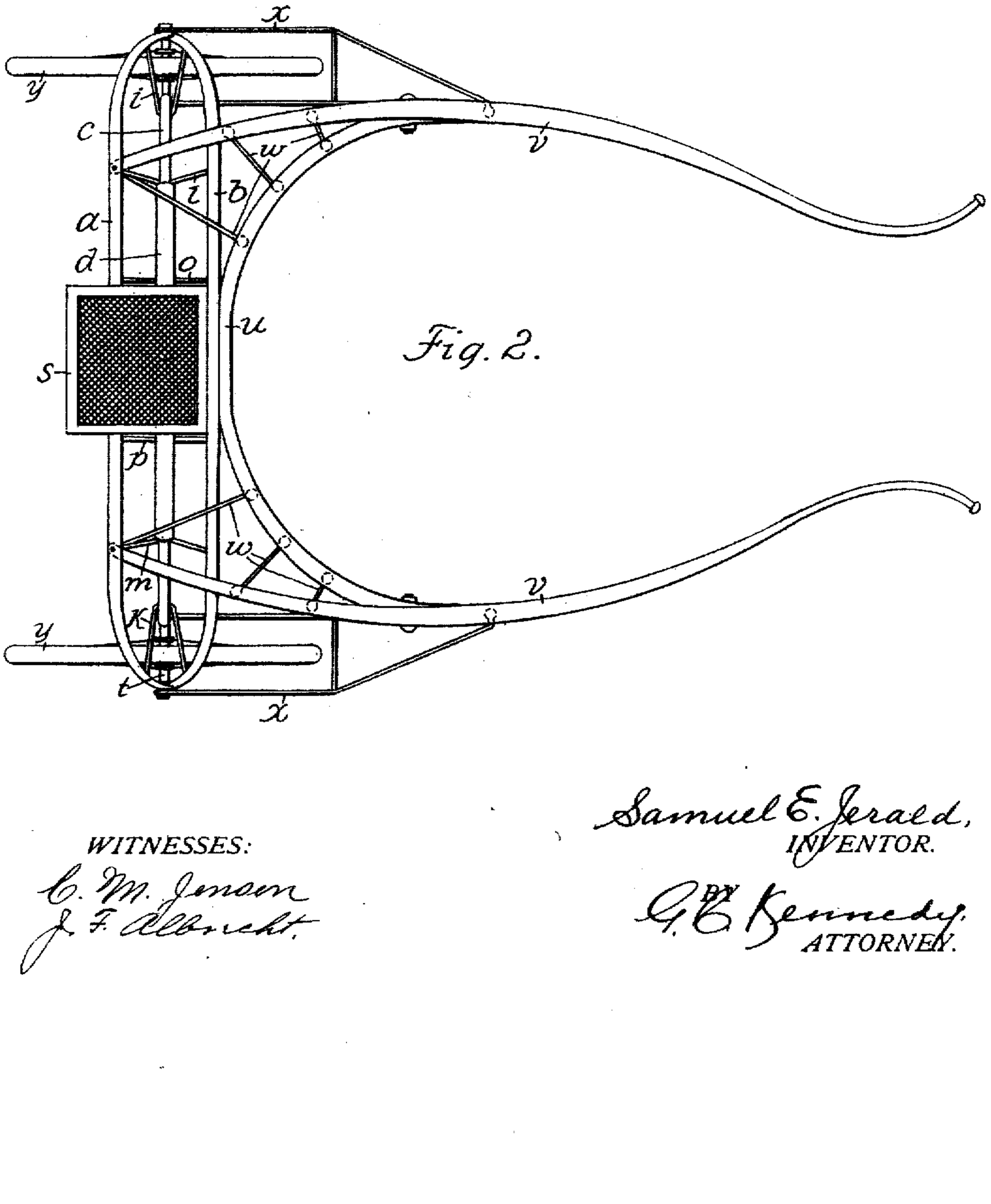

Fig. 2.

WITNESSES:

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PNEUMATIC SULKY.

No. 811,723. Specification of Letters Patent. Patented Feb. 6, 1906.

Application filed April 26, 1905. Serial No. 257,427.

To all whom it may concern:

Be it known that I, SAMUEL E. JERALD, a citizen of the United States of America, and a resident of Waterloo, Blackhawk county, Iowa, have invented certain new and useful Improvements in Pneumatic Sulkies, of which the following is a specification.

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 rear elevation of the arch or framework of my improved sulky. Fig. 2 is a plan view.

y y represent the wheels; *v v*, the thills; *s*, the seat, and *a*, *b*, and *c* the triple arch, U-shaped in section, which constitutes the framework 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 *t t*.

The framework consists of the three arches *a*, *b*, and *c*, U-shaped in section, connected together by suitable bracing, the whole structure being secured together by brazing or other suitable means. The two upper and outer arches *a* and *b* are inclined toward each other at the sides, so that their lower ends meet together and are perforated or slotted to receive the wheel-spindles. The inner arch *c* is located between the outer arches, its lower ends receiving the inner ends of the wheel-spindles. The ends of the U-shaped bars forming the arches are in the outer arches placed in contact with each other and may be secured together in any suitable way. The outer arches are connected to each other and to the inner arch by means of suitable bracing, (represented at *i*, *l*, *o*, *p*, *m*, and *k*,) the outer ends of said braces being brazed to the inner concave surfaces of the outer arches *a* and *b*, the inner ends of said braces being affixed to the uprights *h*, *n*, and *g*, the latter being brazed within the concavity of the inner arch *c*. The top of the inner arch is situated but a short distance below the top of the outer arch, which tends to strengthen the frame on account of the shortening of the braces. The inner arch, which sustains a large amount of the transverse strain, is doubly strengthened in the following manner: Each inner angle of said inner arch is braced by a truss-rod medially supported by uprights brazed to said arch, the truss-rods *e* and *f* being thus shown as secured to the uprights *h* and *g*, respectively, while the ends of said truss-rods are brazed within the concavity of said arch. I have greatly strengthened the middle section of the inner arch by means of a superposed arched bar *d*, whose ends are brazed about the convexed outer surface of said inner arch. I have further strengthened each of the middle sections of the outer arches *a* and *b* by means of truss-rods *r*, supported on uprights *q*, the uprights, also the ends of said truss-rods, being brazed within the concave surfaces of said arches. The seat *s* is supported by the outer arches, as well as by the superposed reinforcing-arch *d*. The thills *v* are attached to the rear outer arch *a* by bolts or any other suitable means and to the front outer arch *b* by means of a semicircular brace *u*, which is fastened to said arch by any suitable means and connected to said thills by the braces *w*. The braces *x* are fastened at their front ends to the thills and pivoted at their rear ends to the ends of the spindles *t*.

I am aware that the use of the triple arch in the frame of the pneumatic sulky is not new; but the system of bracing and reinforcing the arches and the bringing of said arches at their middle sections into close proximity renders the frame very stiff and strong and resistant to shocks, while being of a minimum weight.

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

The combination, with the wheels, seat and thills of a pneumatic sulky, of an arch consisting of three curved members, the upper members arranged at angles one in front of and the other behind the lower member, and each approximately parallel to the lower

member, and with their ends meeting to support the outer ends of the wheel-spindles, bracing connecting the inner member to the outer members, a reinforcing-arch superposed upon said inner member, and suitable trusses for supporting the middle sections of said outer arches.

Signed at Waterloo, Iowa, this 18th day of March, 1905.

SAMUEL E. JERALD.

Witnesses:
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GEO. C. KENNEDY.