

(No Model.)

2 Sheets—Sheet 1.

T. J. McMURRAY & W. B. FISHER.  
SULKY.

No. 443,401.

Patented Dec. 23, 1890.

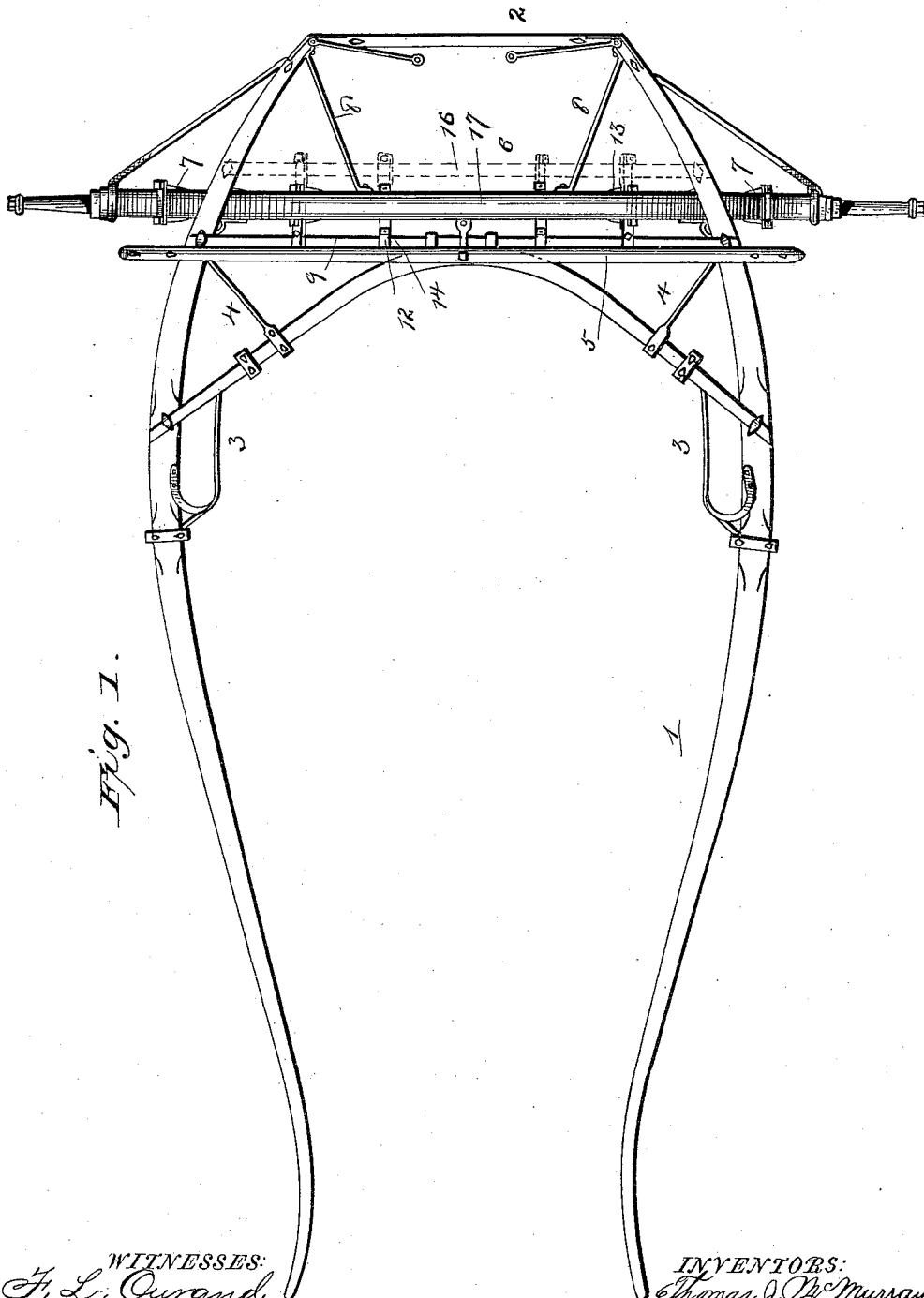


Fig. 1.

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*William B. Fisher*  
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*Attorneys.*

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2 Sheets—Sheet 2.

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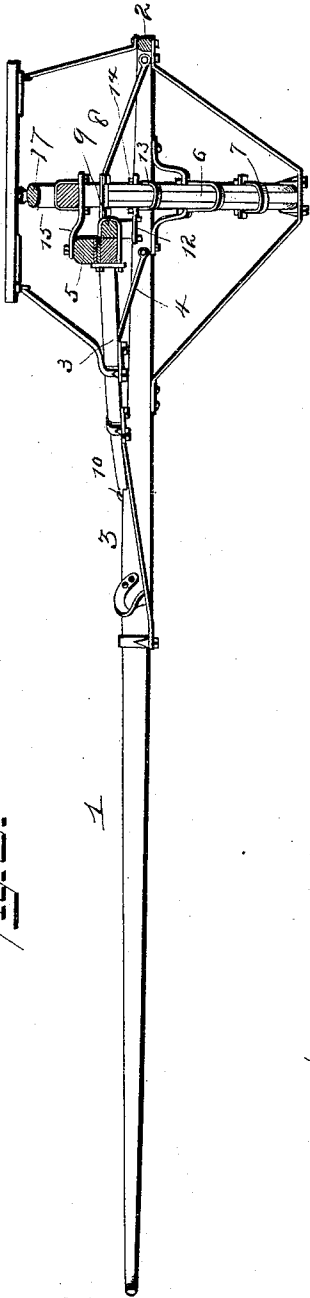


Fig. 2.

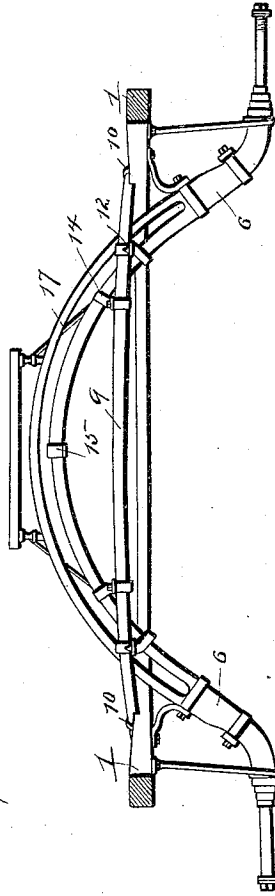


Fig. 3.

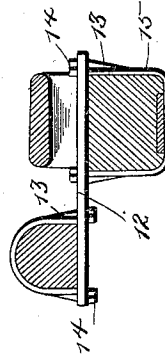


Fig. 4.

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Attorneys

# UNITED STATES PATENT OFFICE.

THOMAS J. McMURRAY AND WILLIAM B. FISHER, OF MARION, OHIO.

## SULKY.

SPECIFICATION forming part of Letters Patent No. 443,401, dated December 23, 1890.

Application filed September 8, 1890. Serial No. 364,328. (No model.)

*To all whom it may concern:*

Be it known that we, THOMAS J. McMURRAY and WILLIAM B. FISHER, both residents of Marion, in the county of Marion and State of Ohio, have invented certain new and useful Improvements in Sulkies; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

Our invention relates to improvements in that class of vehicles known as "trotting-sulkies."

The object of the invention is to provide a simple, economical, and efficient construction, whereby the axle is braced against lateral and vertical strain and the running-gear generally more rigid and stronger, whereby the motion of the vehicle has less tendency to injure said parts.

It is also our object to provide an improved spring-support for the seat.

The invention consists in the novel construction and combination of parts herein-after fully described, and specifically pointed out in the claim.

In the accompanying drawings, Figure 1 is a top view of a sulky constructed in accordance with our invention, the seat and wheels being removed and the rear tie-bar shown in dotted lines. Fig. 2 is a central longitudinal section of the same. Fig. 3 is a front end view, the whiffletree and circle-bar being removed. Fig. 4 is an enlarged detail sectional view illustrating the tie-bar secured to the axle.

In the said drawings, the reference-numeral 1 indicates the shafts connected at the rear by the transverse bar 2.

The numeral 3 designates the circle-bar secured at each end to the shafts and braced by means of the front and rear irons 3 4, the front irons also serving as foot-rests. The whiffletree 5 is secured to the circle-bar at the center thereof.

The axle is designated by the numeral 6, and consists of a curved bar with attached wheel-spindles, and is secured to the shafts by clips 7 and braced by bars 8.

The parts so far described are of any ordinary or suitable construction and form no part of the present invention.

Immediately in front of the axle is a transverse tie-bar 9, consisting of a straight piece of wood or other suitable material secured at each end to the shafts by means of rivets or otherwise. Intermediate of its ends this tie-bar is secured to the axle by means of clips 10, consisting of metal bars 12, having perforations in the ends through which pass the screw-threaded ends of the straps 13, which are secured by means of binding-nuts 14. These straps project in opposite directions, as seen more clearly in Fig. 4, one embracing the tie-bar while the other embraces the axle. The tie-bar is also secured to the circle-bar at the center by means of clips 15. If desired, an additional tie-bar 16 may be employed in rear of the axle, as shown by dotted lines in Fig. 1. This rear tie-bar is in all respects similar to tie-bar 9, and when employed the plate 12 should be extended so as to receive an additional strap 13.

Immediately above the axle and formed therewith or secured thereto is a spring-bar 17, conforming to the curvature of the axle and forming a support for the seat 18.

From the above it will be seen that the axle and shafts are braced against vertical and lateral strain by means of the tie-bars and the strength and rigidity of the running-gear increased.

Having thus described our invention, what we claim is—

In a sulky, the combination, with the shafts and curved axle, of a tie-bar riveted at each end to the shafts and connected with the axle by means of clips consisting of a longitudinal bar having apertures therein, oppositely-projecting straps embracing the tie-bar, an axle having screw-threaded ends and binding-nuts for securing the straps and bar, and a bar secured to or formed with the axle and conforming to the curvature thereof, forming a spring-support for the seat, substantially as described.

In testimony that we claim the foregoing as our own we have hereunto affixed our signatures in presence of two witnesses.

THOMAS J. McMURRAY.  
WILLIAM B. FISHER.

Witnesses:

CHARLES C. FISHER,  
GEO. H. VAN FLEET.