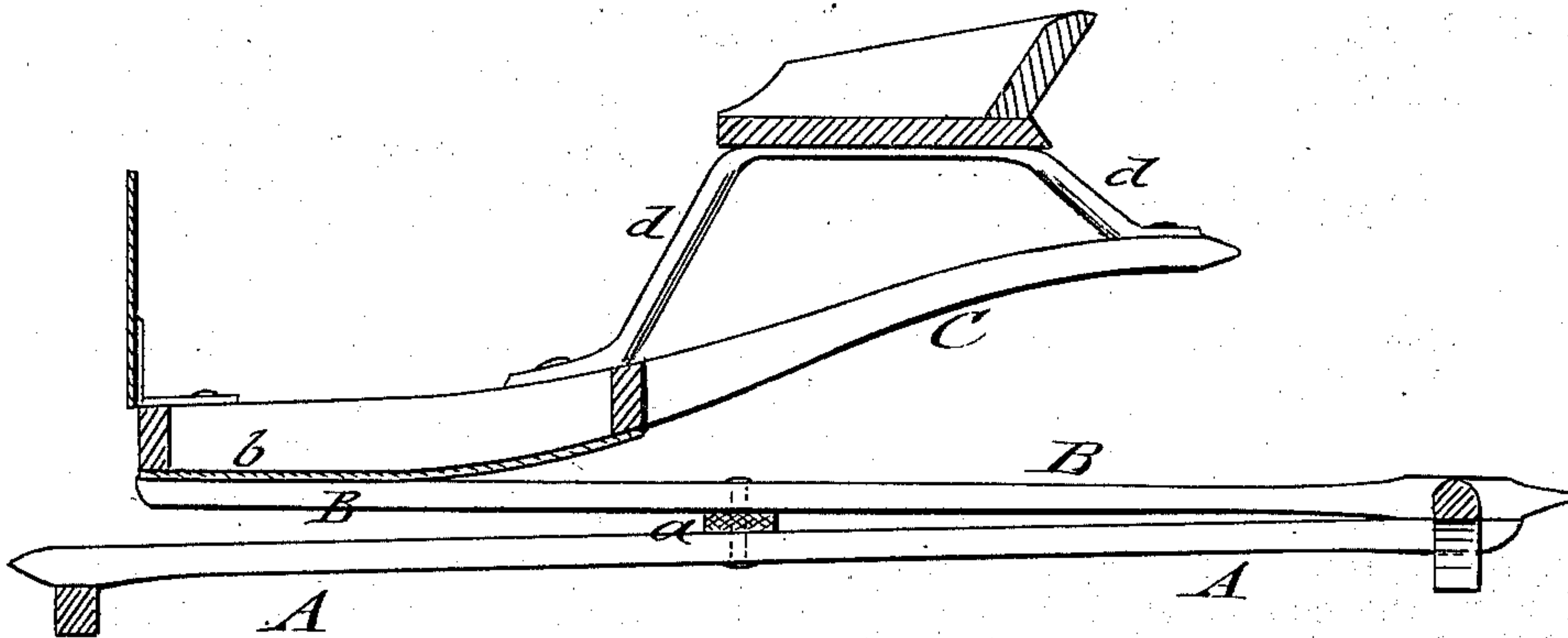


H. S. MARVIN.  
Side-Spring Wagon.

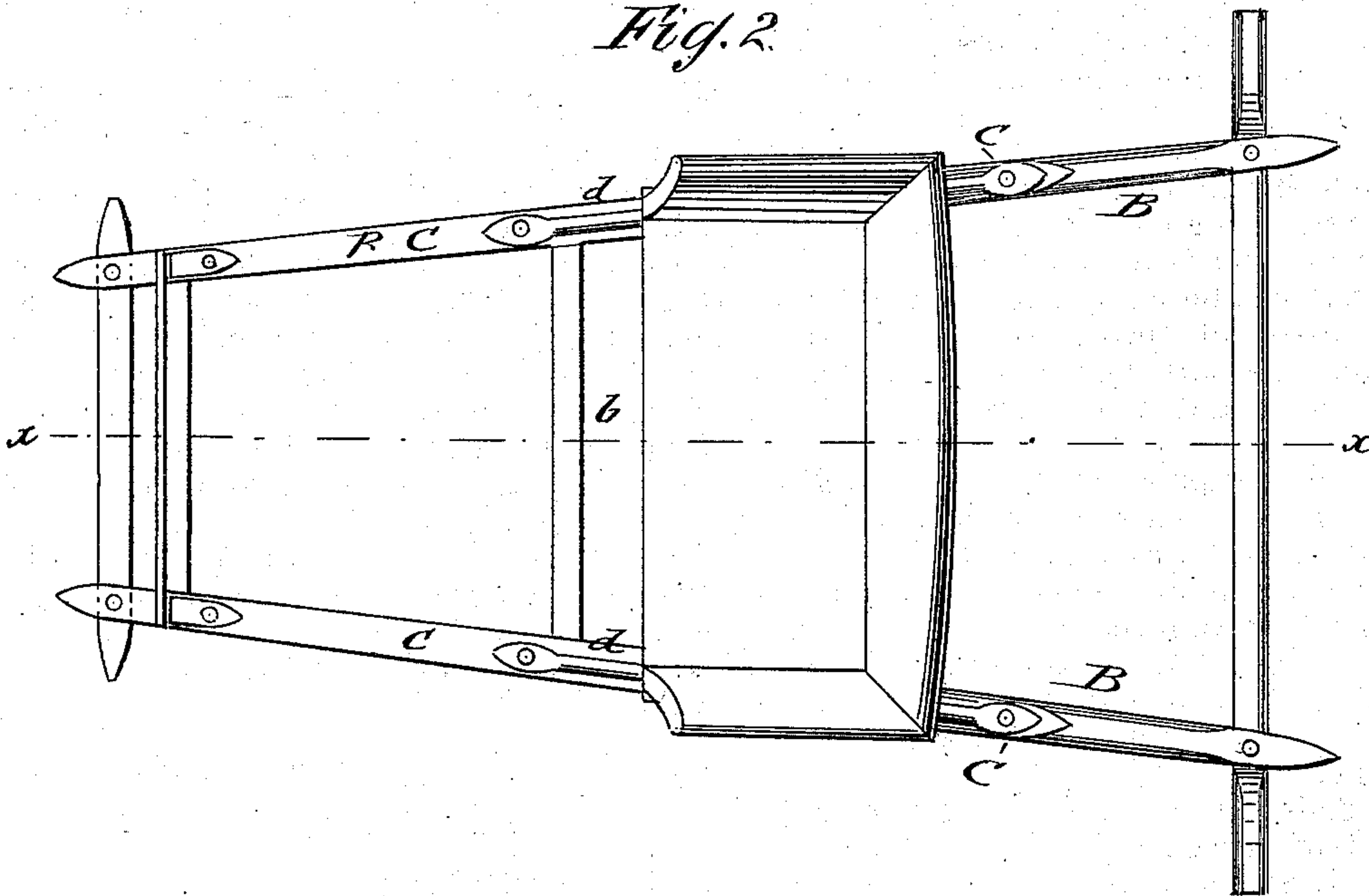
No. 198,130.

Patented Dec. 11, 1877.

*Fig. 1.*



*Fig. 2.*



WITNESSES:

*E. Wolff.*  
*J. H. Scarborough.*

INVENTOR:

*H. S. Marvin.*

BY

*Mumford.*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

HERVEY S. MARVIN, OF NUNDA STATION, NEW YORK, ASSIGNOR TO  
HIMSELF AND FRANK E. WAKEMAN, OF SAME PLACE.

## IMPROVEMENT IN SIDE-SPRING WAGONS.

Specification forming part of Letters Patent No. **198,130**, dated December 11, 1877; application filed  
October 13, 1877.

*To all whom it may concern:*

Be it known that I, HERVEY S. MARVIN, of Nunda Station, in the county of Livingston and State of New York, have invented a new and Improved Side-Spring Wagon, of which the following is a specification:

In the accompanying drawings, Figure 1 represents a vertical longitudinal section of my improved side-spring wagon on line *x x*, Fig. 2; and Fig. 2, a top view of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to provide an improved side-spring skeleton wagon of simple, cheap, and strong construction, by which an easy riding motion is obtained, and the level of the seat retained on uneven roads; and the invention consists of spring-bars which are supported on side bars connecting front bolster and rear axle, and on intermediate cushioned points.

The spring-bars support at their front ends a second set of spring-bars, to which the seat-carrying brackets or arms are attached.

By reference to the drawings, A represents the side bars that connect the front bolster and rear axle, and B the spring-bars, which are attached to the rear ends of side bars A, and supported on intermediate rubber-cushioned points *a*.

The front ends of the spring-bars B support a second set of curved and laterally-braced spring-bars, C, that are firmly screwed to the spring-bars B, and extended backward and upward.

To the upper spring-bars C is attached the foot-board *b* at their front ends, and the bent seat-supporting arms *d* at the rear ends.

The motion of the team and running-gear is, by means of the two sets of spring-bars, not transmitted directly to the occupant of the wagon, but taken up by the lower spring-bars, and then neutralized to some extent by the upper spring-bars, so as to give an easy riding motion in passing over obstructions. The wagon adjusts itself readily to uneven roads by the twisting of the long side bars, without changing the level of the seat.

The lower spring-bars may be spread on the rear axle or crossed on the middle, and the upper spring-bars placed inside of the lower spring-bars, which, however, are mere modifications of the same construction—namely, of lower cushioned spring-bars and upper seat-supporting spring-bars.

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

The springs B, supported near the middle by cushions *a* upon the side bars A, fastened at one end to rear axle, and connected in front with spring seat-bars C, as shown and described.

HERVEY SUMMERFIELD MARVIN.

Witnesses:

MILES H. WAKEMAN,  
E. M. HAMILTON.