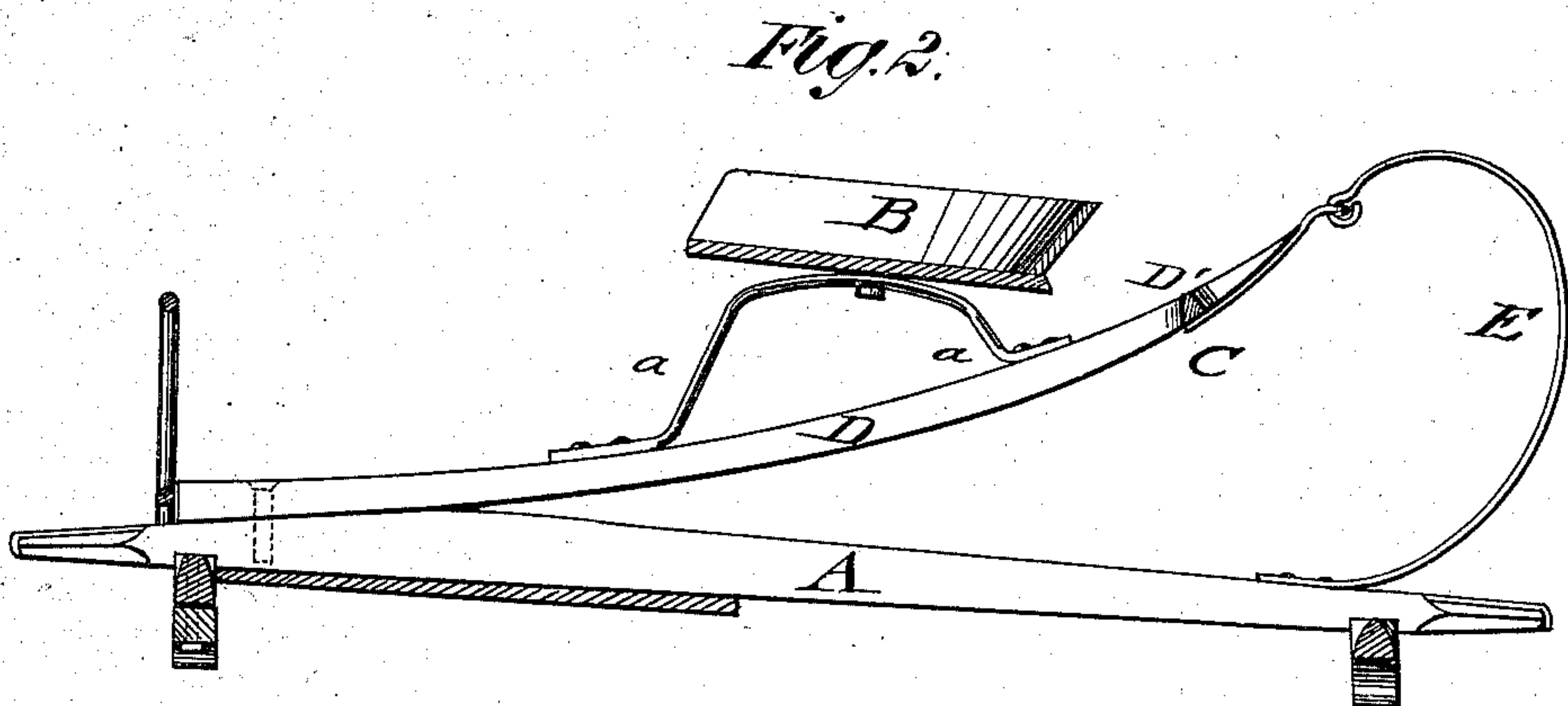
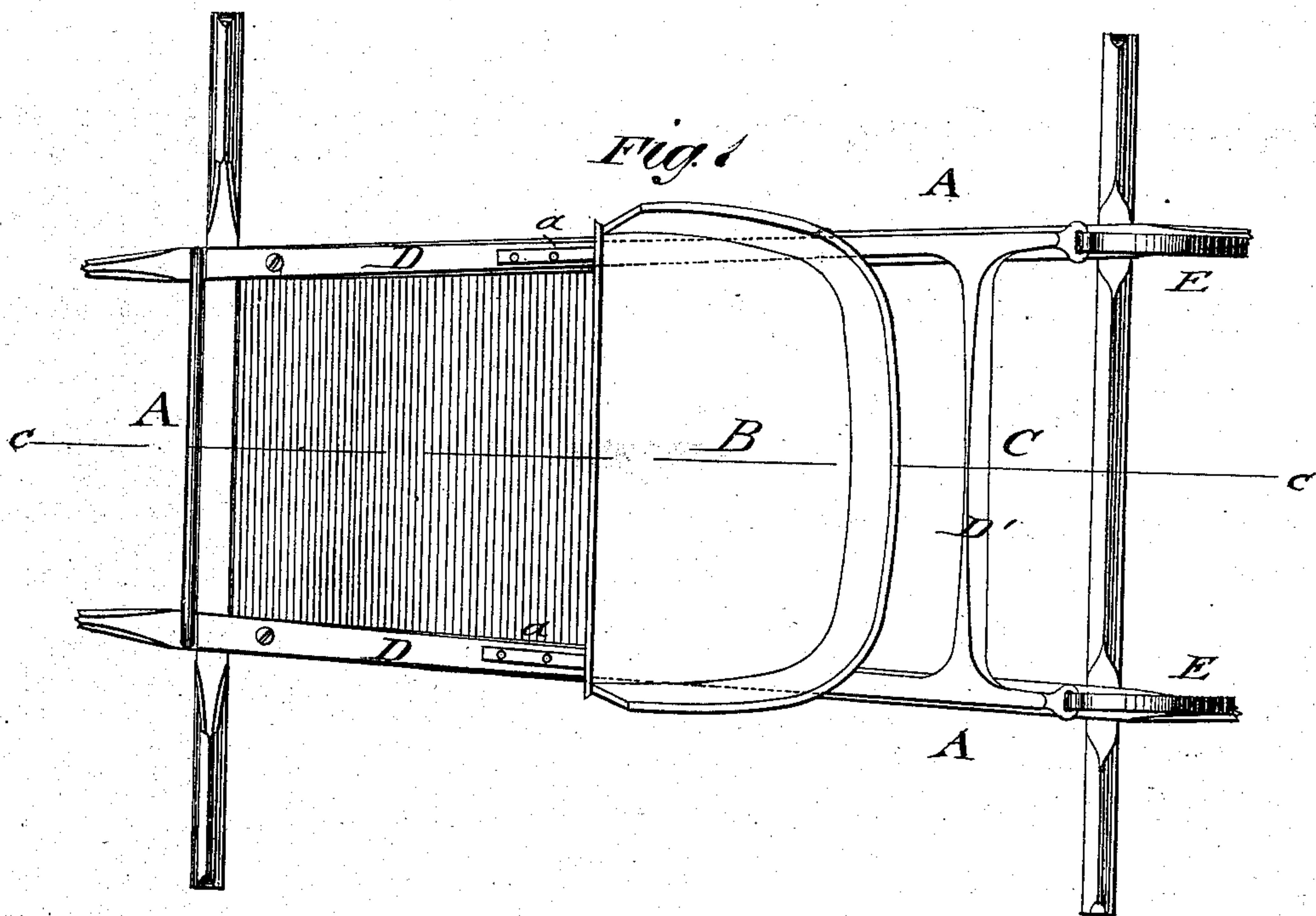


F. A. HAWLEY & A. PEARSALL.

Spring Seat Supports.

No. 158,707.

Patented Jan. 12, 1875.



WITNESSES:

Francis McArdle  
A. F. Terry

INVENTOR:

F. A. Hawley  
BY A. Pearsall  
Attorneys

# UNITED STATES PATENT OFFICE.

FRANK A. HAWLEY AND AMOS PEARSALL, OF MCGREGOR, IOWA.

## IMPROVEMENT IN SPRING-SEAT SUPPORTS.

Specification forming part of Letters Patent No. **158,707**, dated January 12, 1875; application filed November 21, 1874.

*To all whom it may concern:*

Be it known that we, FRANK A. HAWLEY and AMOS PEARSALL, of McGregor, in the county of Clayton and State of Iowa, have invented a new and Improved Spring-Wagon, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a top view, and Fig. 2 a vertical longitudinal section on the line *c c*, Fig. 1, of our improved spring-wagon.

Similar letters of reference indicate corresponding parts.

The invention will first be fully described, and then pointed out in the claim.

In the drawing, A represents the perch of our improved spring-wagon, which is simply constructed of longitudinal side pieces, secured to front bolster and rear axle. The seat B is supported, by means of brackets *a*, on a compound spring-frame, C, which is constructed partly of wood and partly of steel springs. The wooden spring part D is of slightly-curved shape, and applied under suitable upward inclination to the front part of perch A. The brackets *a* are firmly attached to the wooden spring part of frame C, which is laterally braced by a stiffening-piece, D', near the upper ends of spring-pieces D. The steel springs E are of inverted C shape, and applied with or without straps to the upper ends of wood

spring-pieces D; if connected with straps, the strap is clipped to end of steel spring at about a foot from its end, and to the wood spring by an eye or bolt; if connected without strap, the steel spring fastens directly into eye of wood spring. The connecting ends of both wood and steel springs are securely connected to perch by clips or bolts, and give thereby the necessary stability to the spring-frame.

The exceeding lightness and simplicity of the spring-frame produces a light and neat wagon, which is at the same time strong enough to resist the wear to which it is exposed.

We are aware that vehicle-springs have been heretofore provided with a stay or brace to compensate for the yielding movement of spring, and also that there have been heretofore bow-springs connected at their rear ends to the gearing, and hinged in front to the side bars of seat-supporting frame; but

What we claim is—

The combination of seat B, bracket *a*, spring C D, and C-spring E with the perch A, as and for the purpose specified.

FRANK A. HAWLEY.  
AMOS PEARSALL.

Witnesses:

L. BIGELOW,  
THOS. UPDEGRAFF.