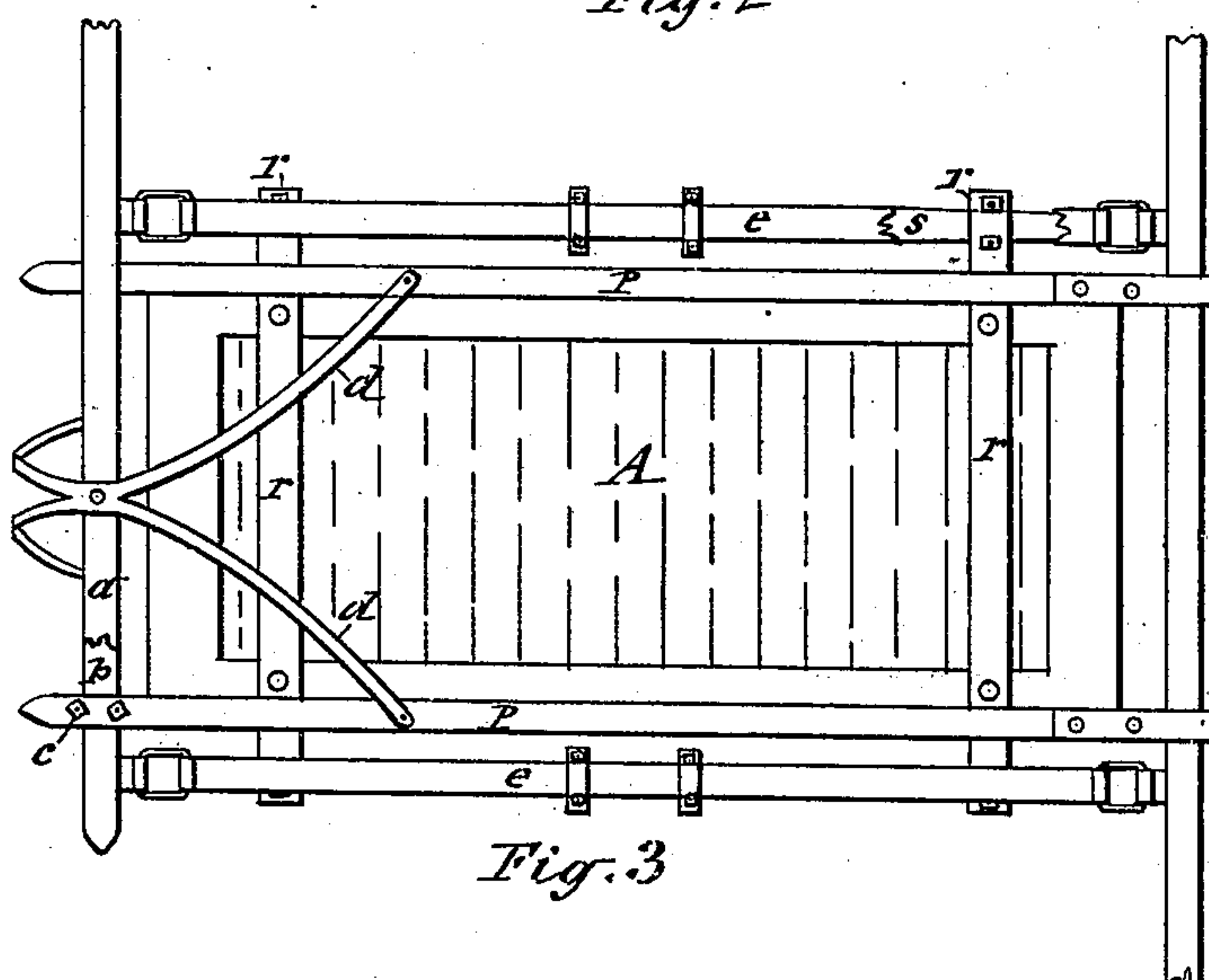
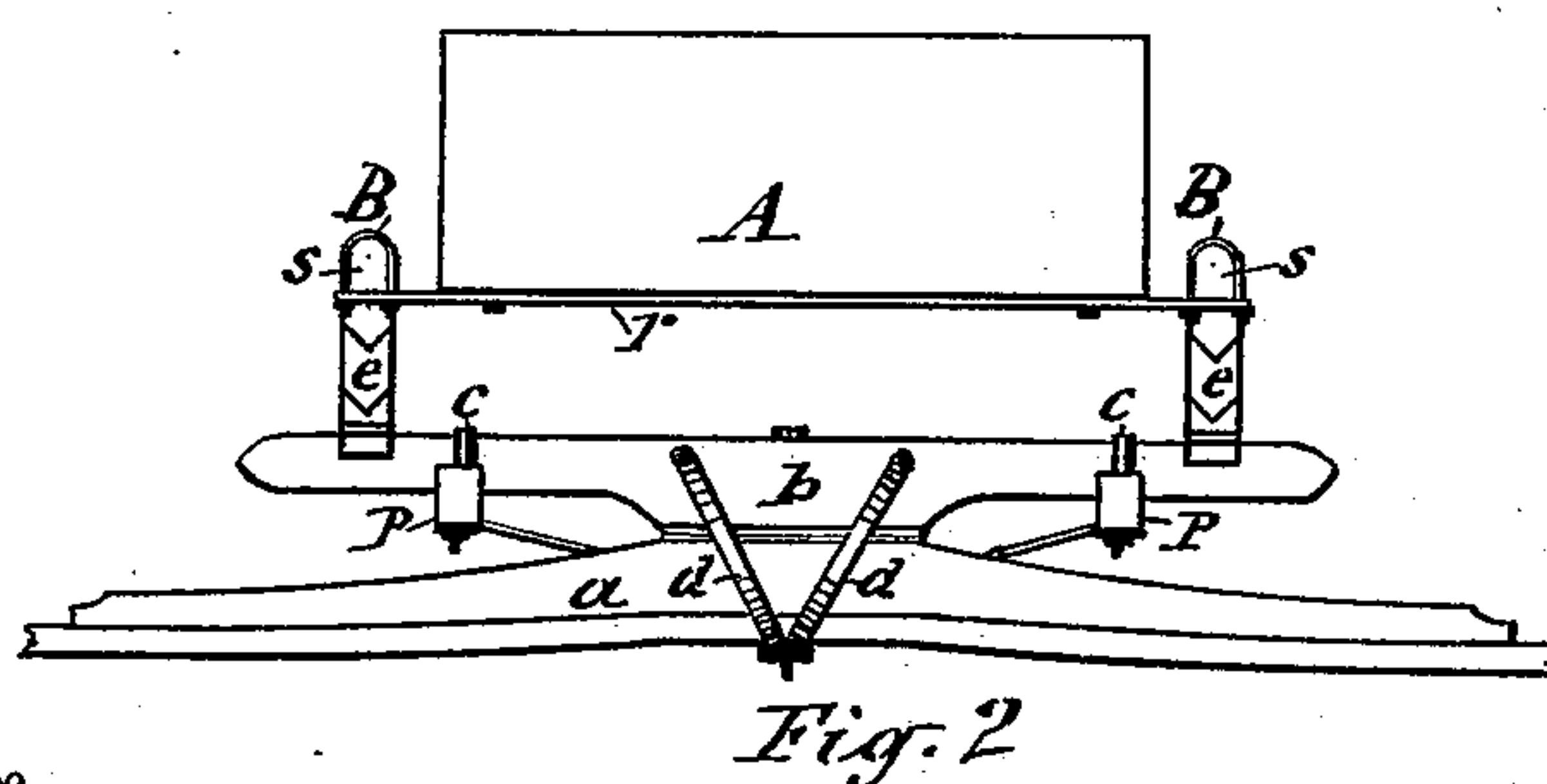
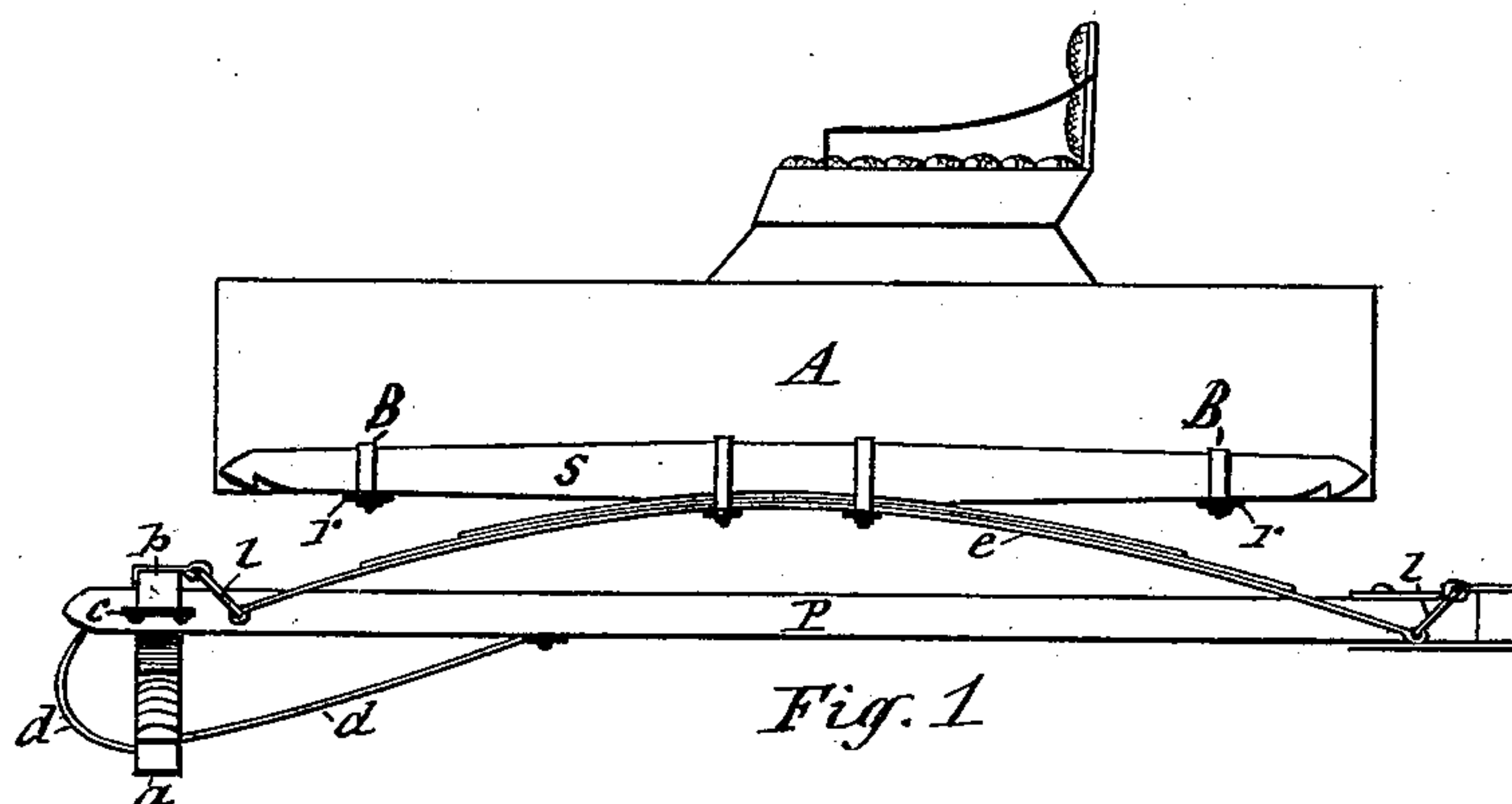


(No Model.)

H. A. MOYER.  
SIDE SPRING VEHICLE.

No. 250,832.

Patented Dec. 13, 1881.



WITNESSES:  
Wm. L. Raymond  
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Attorneys

# UNITED STATES PATENT OFFICE.

HARVEY A. MOYER, OF CICERO, NEW YORK.

## SIDE-SPRING VEHICLE.

SPECIFICATION forming part of Letters Patent No. 250,832, dated December 13, 1881.

Application filed March 29, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, HARVEY A. MOYER, of Cicero, in the county of Onondaga, in the State of New York, have invented certain new and  
5 useful Improvements in Side-Spring Vehicles; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being made to the accompanying drawings, forming a part of this specification,  
10 and in which—

Figure 1 represents a side elevation; Fig. 2, an end elevation; Fig. 3, an inverted or bottom plan.

The object of my invention is to provide a  
15 side-spring vehicle in which strength, durability, and safety shall be combined with cheapness and simplicity of construction; and to this end the invention consists in novel features of construction and combination and arrangement of parts, all as will be hereinafter  
20 fully described, and specifically designated in the claim.

In the drawings, A represents the body of the vehicle placed between the usual side bars,  
25 s, and resting upon the cross-bars r, which are secured to the side bars by clips B, which embrace said bars near their ends. These side bars are tapered toward their ends, so as to permit of considerable more spring than could  
30 be allowed in this class of side bars where bolts are used to fasten the body-loops to the ends of the bars. The side bars, s, rest upon the central portion of the side springs e, and are secured thereto by clips in the usual man-  
35 ner; and said springs are hung at their respective extremities to the head-block b and the hind axle by means of link-connections l, which allow the ends of the springs to play below the head-block and hind axle, and thereby per-  
40 mit the body of the vehicle when loaded to be brought into a lower position, and thus to a great extent relieving the usual side rocking or lateral swaying of the same.

The usual running-gear of the vehicle is con-  
45 nected by the perches P P, which are attached

at their rear ends to the hind axle and at their opposite ends to the under side of the head-block b by clips c, thereby obviating the usual mortising of the head-block, and the consequent weakening of the same. The forward  
50 stay-braces d d are connected at one end to the perches P P, and united underneath the center of the forward axle a, and thence extend divergent to and connected with the front of  
55 head-block b. The king-bolt passes through the joined part of the said braces, and thus secures them in position under the forward axle.

The above-described arrangement of the stay-braces, while bracing the perches, also forms  
60 by their forward extensions additional connections of the forward and rear running-gears, and in case of accidental breaking of the king-bolt will arrest the separation of the running-  
65 gears.

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

In a side-spring vehicle, the combination of the tapering side bars, s s, and cross-bars r r,  
70 connected together by the embracing-clips B, side springs, e e, connected to the head-block b and hind axle by link-connections l, longitudinal perches P P, connected to the hind axle and to the head-block by clips c c, and the di-  
75 vergent braces d, connected to said perches, the forward axle, and head-block, the several parts constructed and arranged relatively to each other in the manner herein shown and  
80 described.

In testimony whereof I have hereunto signed my name and affixed my seal, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga and State of New York, this 17th day of March, 1880.

HARVEY A. MOYER. [L. S.]

Witnesses:

E. LAASS,

WM. C. RAYMOND.