

(No Model.)

G. WHITE.
Spring Vehicle.

No. 232,794.

Patented Sept. 28, 1880.

Fig. 1.

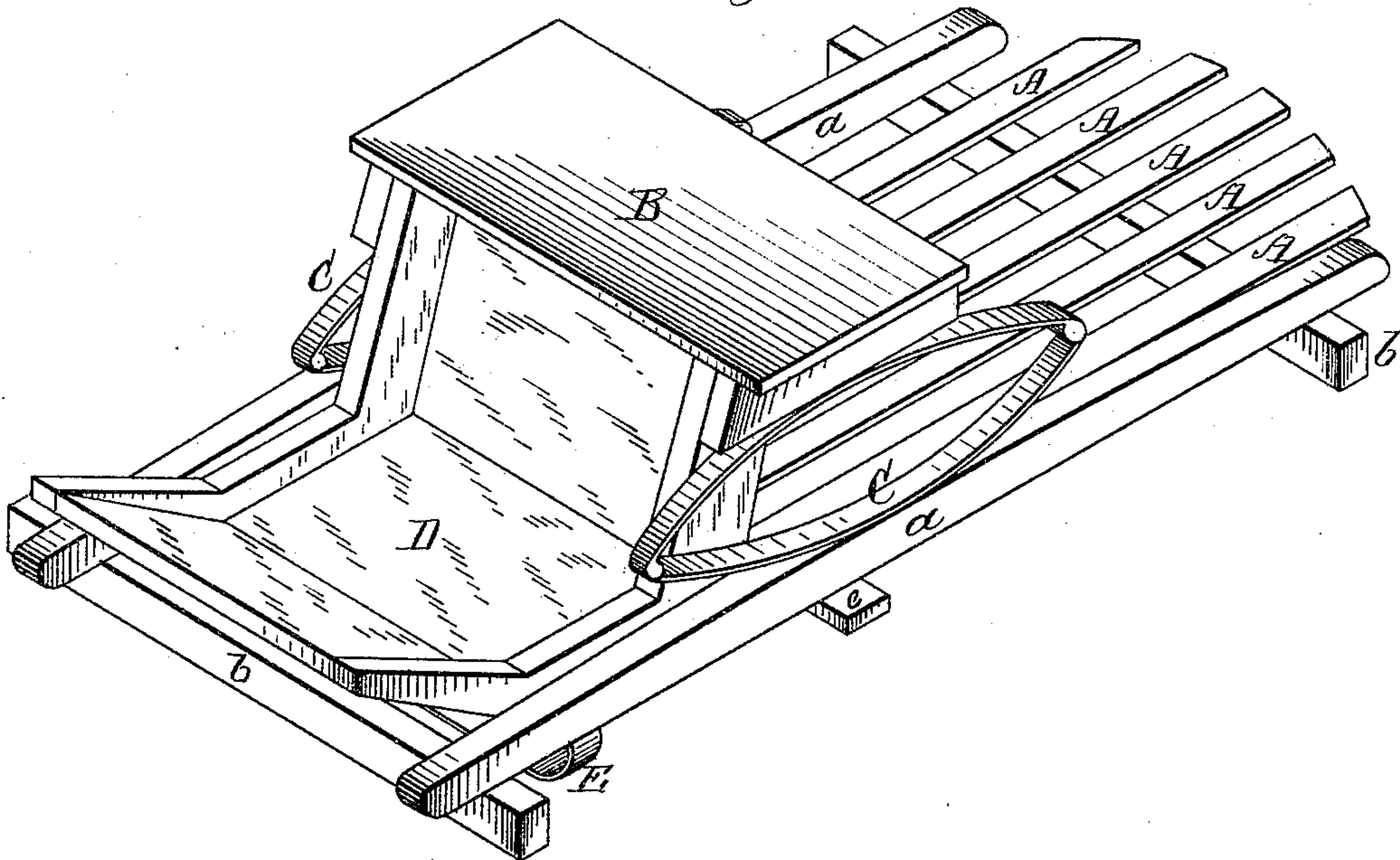


Fig. 2.

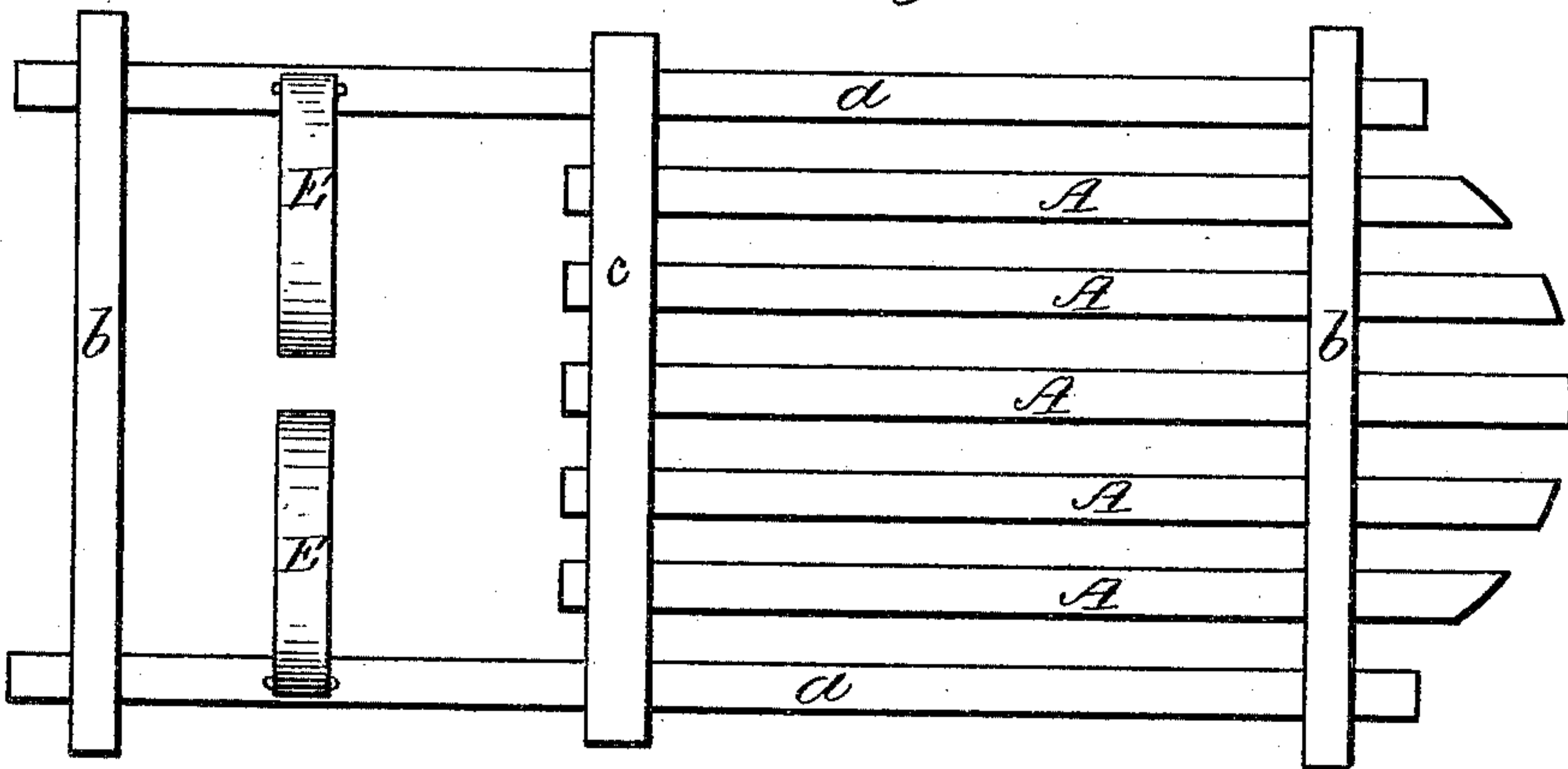
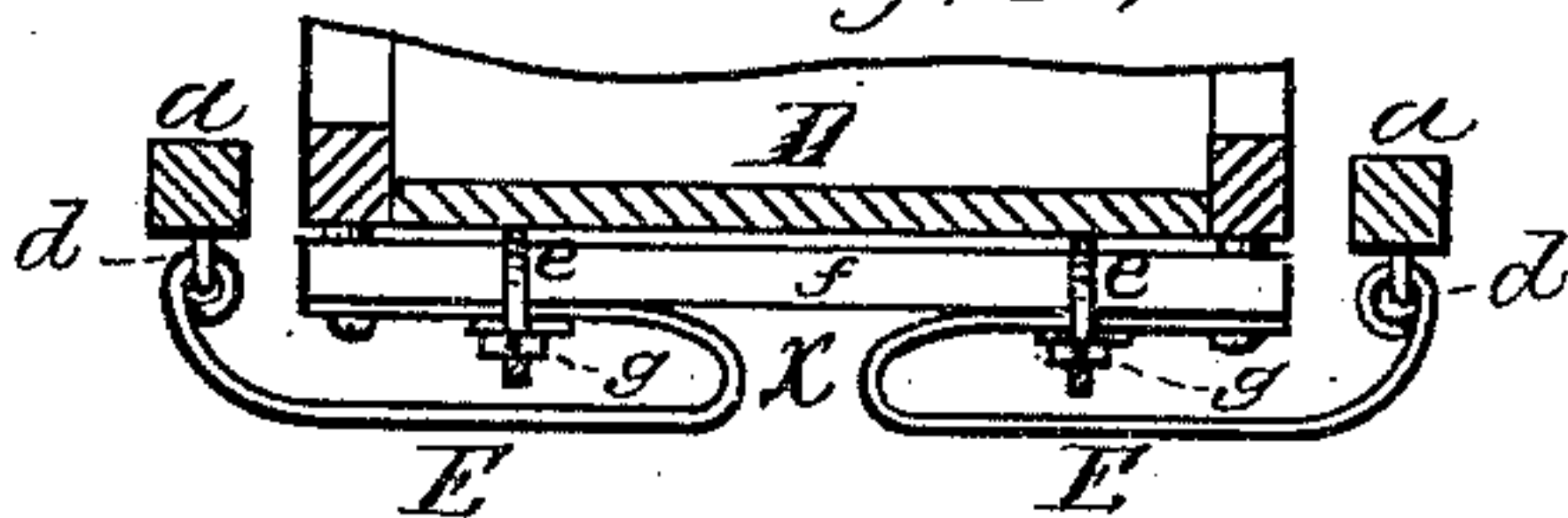


Fig. 3.



Witnesses:

Nat. E. Oliphant,
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George White,
per Cha. H. Fowler,
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UNITED STATES PATENT OFFICE.

GEORGE WHITE, OF GREENVILLE, PENNSYLVANIA.

SPRING-VEHICLE.

SPECIFICATION forming part of Letters Patent No. 232,794, dated September 28, 1880.

Application filed August 16, 1880. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WHITE, a citizen of the United States, residing at Greenville, in the county of Mercer and State of Pennsylvania, have invented certain new and useful Improvements in Spring-Vehicles; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a perspective view of my invention; Fig. 2, an under-plan view of the frame and cross-springs. Fig. 3 is a detail view of the cross-springs, showing them connected to the side bars and foot-board.

The present invention has relation to certain new and useful improvements in the manner of connecting the seat and foot-board or body to the frame of a wagon or other vehicle; and it consists in the special form of the springs and the manner of attaching them, as illustrated in the drawings, and hereinafter described, and pointed out in the claim.

In the accompanying drawings, A represents a series of slats placed lengthwise and a short distance apart, and connected to the rear end bar, *b*, and cross-bar *c*. These slats A and bars *b c*, together with the side bars, *a*, form the frame of the vehicle.

The seat B is supported by elliptic springs C, composed of one or more leaves, as found desirable, said springs being connected in any suitable manner to the under side of the seat and side bars.

The foot-board D is supported by adjustable cross-springs E, one end of each being connected to the under side of the foot-board, while the other ends are connected by shackles to the side bars, *a*.

The springs E being crosswise of the frame or at right angles to the springs C, they keep the latter from tipping backward and forward, and prevent rattling, which would be the result were the springs E lengthwise of the frame. As the weight comes on the springs the ends connected to the foot-board press or drop toward that part or end connected to

the side bars, which part, in turn, is pressed downward by the weight at a point near the center of the foot-board, or at the point marked X, making a very harmonious and easy motion. Were the springs lengthwise of the frame, as heretofore, the motion would be from the center downward.

The clips *e*, which secure the springs E to the under side of the foot-board or cross-piece *f*, are of U-shape, to embrace the springs and cross-piece, and are adjustable thereon by loosening the nuts *g*, thereby admitting of the clips sliding in either direction, so as to adapt the springs to different weights.

By moving the clips *e* in a direction toward the side bars, *a*, the springs E are made longer and more elastic; and by moving them in an opposite direction the springs are shortened and their elasticity diminished, in which position more weight may be added with the same motion as in the former position with less weight, the clips being held in place by the nuts *g*.

There are many advantages gained by locating the springs E crosswise of the frame in connection with the elliptic springs C, the seat and foot-board moving upward and downward evenly on both sides.

I am aware that single-leaf C-springs have been connected to the side bars for supporting the seat, in addition to the foot-board being supported by springs running in the same direction as the C-springs, and I do not, therefore, desire to be understood as claiming, broadly, this construction; but,

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

The combination of the seat B, connected to the side bars, *a*, by elliptic springs C, with the foot-board D, connected to the said side bars by adjustable cross-springs E, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

GEORGE WHITE.

Witnesses:

FRED. MATHEWS,
I. E. MILLHOUS.