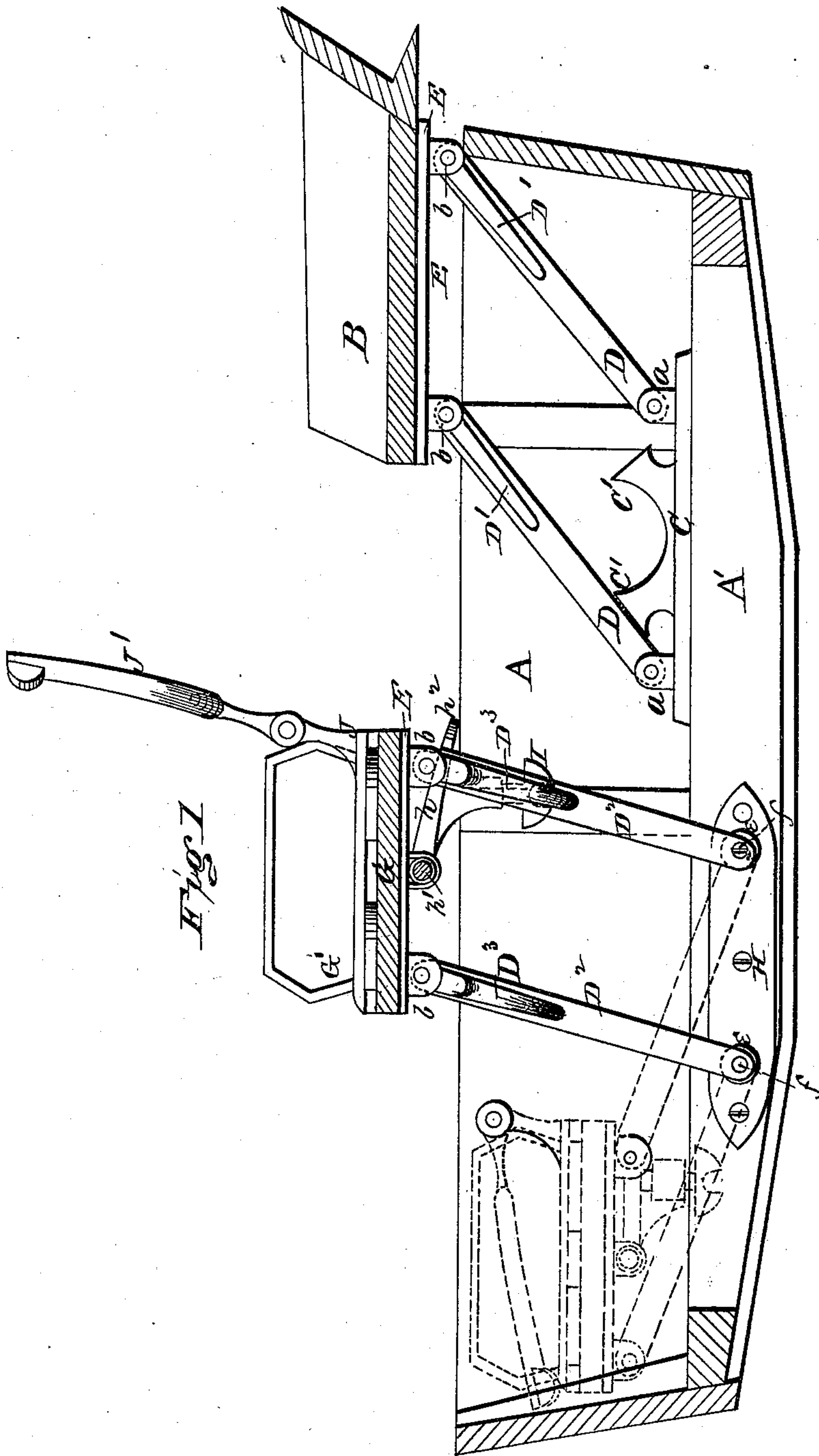


J. W. LAWRENCE.  
VEHICLE-SEAT.

No. 177,526.

Patented May 16, 1876.



WITNESSES  
Frank L. Curand  
C. L. Eust

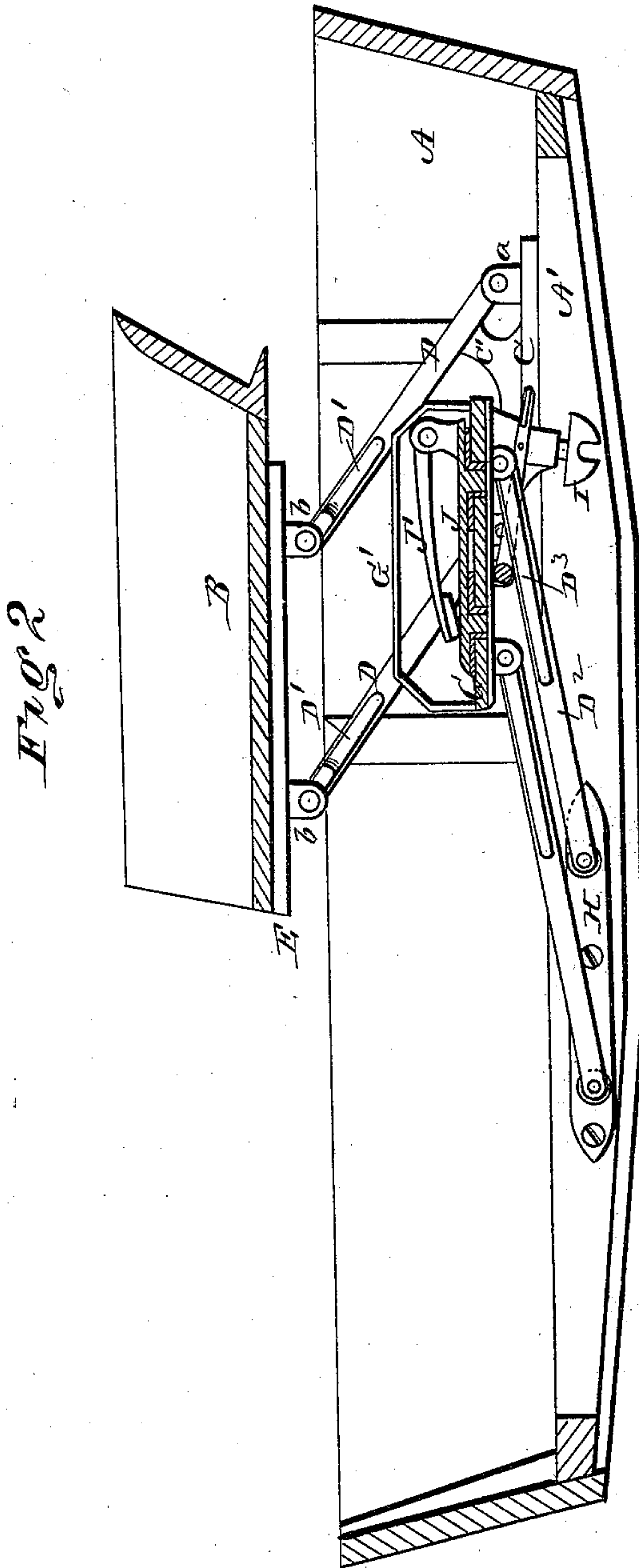
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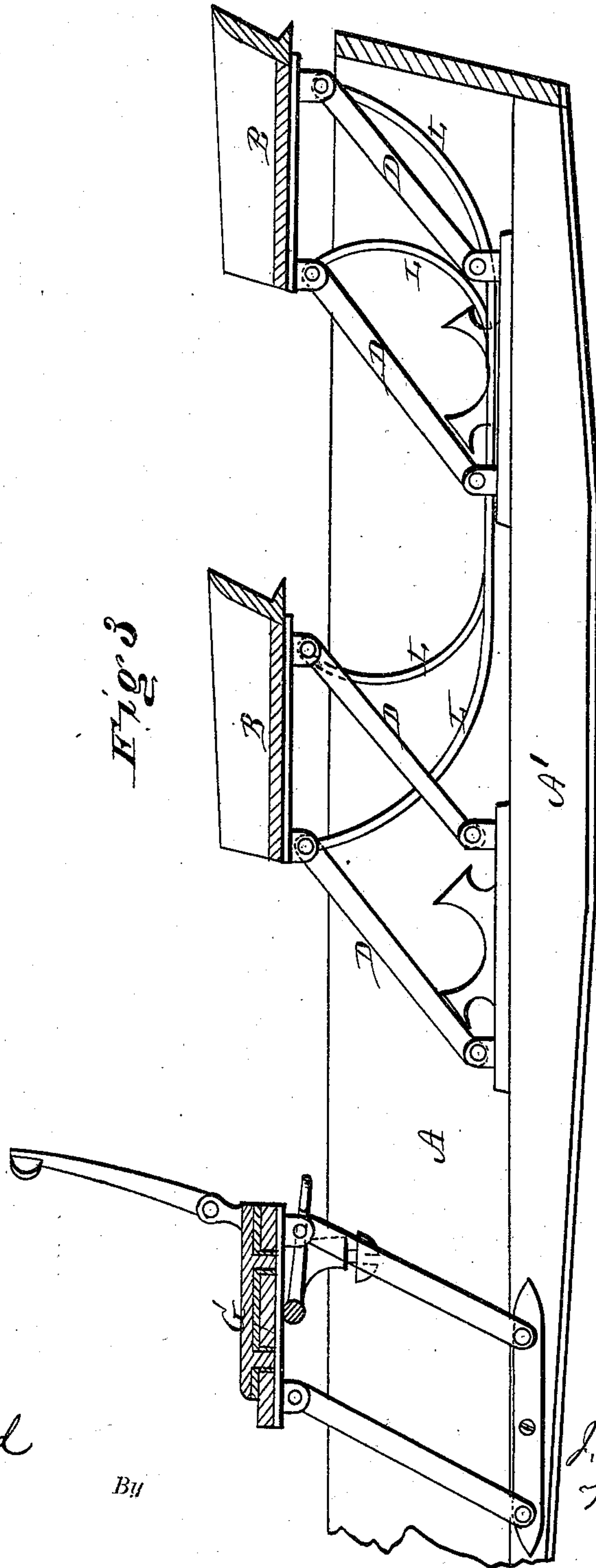
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WITNESSES  
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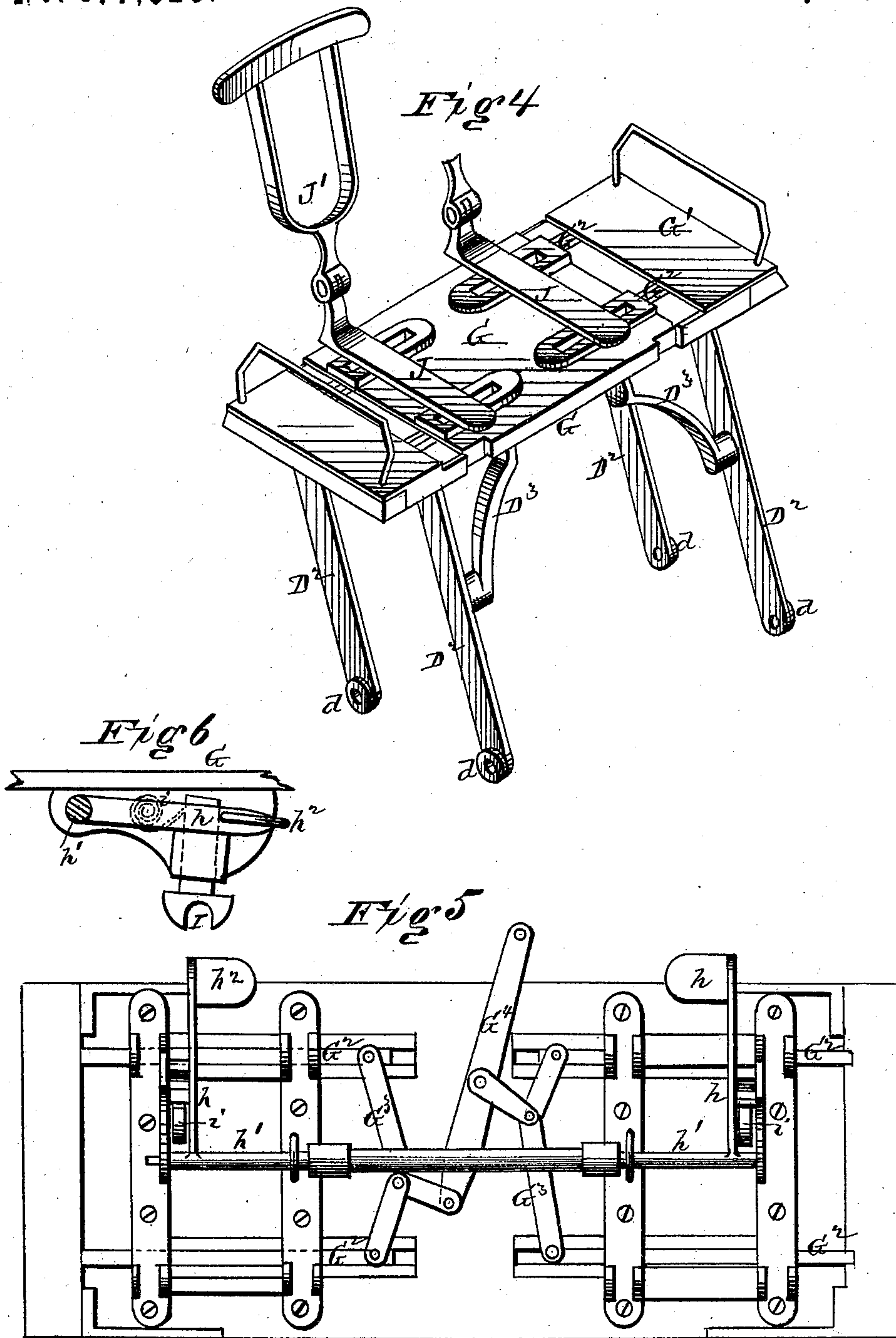
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# UNITED STATES PATENT OFFICE.

JOHN W. LAWRENCE, OF HARRISBURG, PENNSYLVANIA.

## IMPROVEMENT IN VEHICLE-SEATS.

Specification forming part of Letters Patent No. **177,526**, dated May 16, 1876; application filed March 11, 1876.

*To all whom it may concern:*

Be it known that I, JNO. W. LAWRENCE, of Harrisburg, in the county of Dauphin and State of Pennsylvania, have invented certain new and useful Improvements in Shifting Seats for Vehicles; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

The nature of my invention consists in the construction and arrangement of shifting seats for vehicles, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a longitudinal section, showing the two seats in position for use, and in dotted lines, the front seat thrown down forward. Fig. 2 is a similar section, showing the seats in position as a one-seated vehicle. Fig. 3 shows my invention applied to three-seated vehicles. Fig. 4 is a perspective view of the front seat. Fig. 5 is a bottom view of the same. Fig. 6 shows the locking device for the front seat.

A represents the box or body of a vehicle, and B is the back seat thereof. On top of each bottom side rail A' of the body A is secured a metal plate or casting, C, having near each end, on its upper side, two ears, *a a*, between which the seat leg or support D is pivoted. In the center of the plate or casting C are formed two inclined arms, C' C', as shown.

Each of the seat-supports D is formed on its inner side, near the upper end, with an arm, D<sup>1</sup>, which extends inward and upward, as shown.

On the under side of the seat B, near each end, is secured a rectangular metal frame, E, provided at or near each corner with two ears, *b b*, and to these ears are pivoted the upper ends of the supports D and their arms D<sup>1</sup>, so that the seat has four points of support at each end.

The seat B can be thrown backward to adapt the vehicle-body to two seats, or be

thrown forward to adapt the body to one seat. In either case the seat is not supported upon the sides of the body A, but one of the legs or supports D on each side rest against, and is supported by, one of the inclined arms C', as fully shown in the drawing, thereby taking off any undue weight from the sides of the body A.

G represents the front seat, provided on its under side, near each end, with the same metallic frame E as described for the seat B; and the legs or supports D<sup>2</sup> for said front seat are formed at their upper ends with arms D<sup>3</sup>, in the same manner, and all pivoted to the ears of the frames E. The lower ends of the supports D<sup>2</sup> are, however, on their inner sides, provided with hubs *d*, which are inserted in hollow bosses *e*, formed upon a plate or casting, H, secured on the inside of the side rail A', and held thereto by a bolt or rivet, *f*, said bolt or rivet being fastened before the casting H is secured to the side rail.

The seat G has three positions: It may be turned down on the bottom of the body A, backward, when the back seat is to be thrown forward over the same, and the vehicle used with one seat only; or it can be turned down forward, to be used as a child's seat, when the back seat may be thrown forward or backward, as desired; or the front seat G may be raised and used as an ordinary seat, when the seat B is to be thrown backward and the vehicle used for two seats, or for four persons. In this latter case the front seat G is locked in position at each end by means of a locking-bolt, I, notched in the center, and having an inclined face on each side of the notch. This bolt is pressed, by means of a coiled spring, *i*, over the inner or lower end of the arm D<sup>3</sup> at its junction with the leg or support D<sup>2</sup>.

It will readily be seen that on account of the inclined faces of the bolt it is self-locking; no matter which way the seat is turning, either forward or backward, when it arrives to the proper elevated position it locks itself.

The bolts I are pivoted to arms *h h*, projecting from a rocking shaft, *h*<sup>1</sup>, under the seat; and it is upon these arms that the coil-springs *i* act to press the bolts downward. The arms *h* are, at their rear ends, provided with thumb-pieces *h*<sup>2</sup>, by pressing upward upon which the



bolts may be released from either end of the seat, for the purpose of turning the same either forward or backward.

The seat G is provided with movable end pieces G<sup>1</sup>, attached to sliding bars G<sup>2</sup> G<sup>2</sup> in the seat, and these bars are, by links or bars G<sup>3</sup>, connected with a lever, G<sup>4</sup>, on the "lazy-tongs" principle, said lever being pivoted to the under side of the seat. By turning this lever the end pieces G<sup>1</sup> are moved out or in, thus expanding or contracting the seat, according as it is to be elevated for use or turned down in the bottom of the vehicle.

To the bars G<sup>2</sup> at each end, and on top of the seat, is attached an L-shaped casting, J, to the upper end of which is hinged the back J', said casting and back thus moving with the end pieces G<sup>1</sup> when the same are moved, as above described.

The same invention may be applied to a three or four seat vehicle. In Fig. 3 I have shown it applied to a vehicle having three seats. In this case the front seat is precisely the same as the front seat above described, and the middle and rear seats are both like the back seat above described; but these two latter seats are connected by bars L L, as shown, so as to be moved together when

changing from a six to a four passenger vehicle, and vice versa.

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

1. The locking-bolts I, provided with notches and inclines, as described, in combination with the supports D<sup>2</sup>, with their arms D<sup>3</sup>, substantially as and for the purposes herein set forth.

2. The combination of the bolts I, arms h, coil-springs i, rocking shaft h<sup>1</sup>, and thumb-pieces h<sup>2</sup>, substantially as and for the purposes herein set forth.

3. In combination with the shifting seat G, the movable end pieces G<sup>1</sup>, sliding bars G<sup>2</sup>, connecting-bars G<sup>3</sup>, and lever G<sup>4</sup>, substantially as and for the purposes herein set forth.

4. The castings J and hinged backs J', in combination with the sliding bars G<sup>2</sup> and movable end pieces G<sup>1</sup>, substantially as herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOHN W. LAWRENCE.

Witnesses:

J. B. SPIESE,

J. F. WILLIAMS.