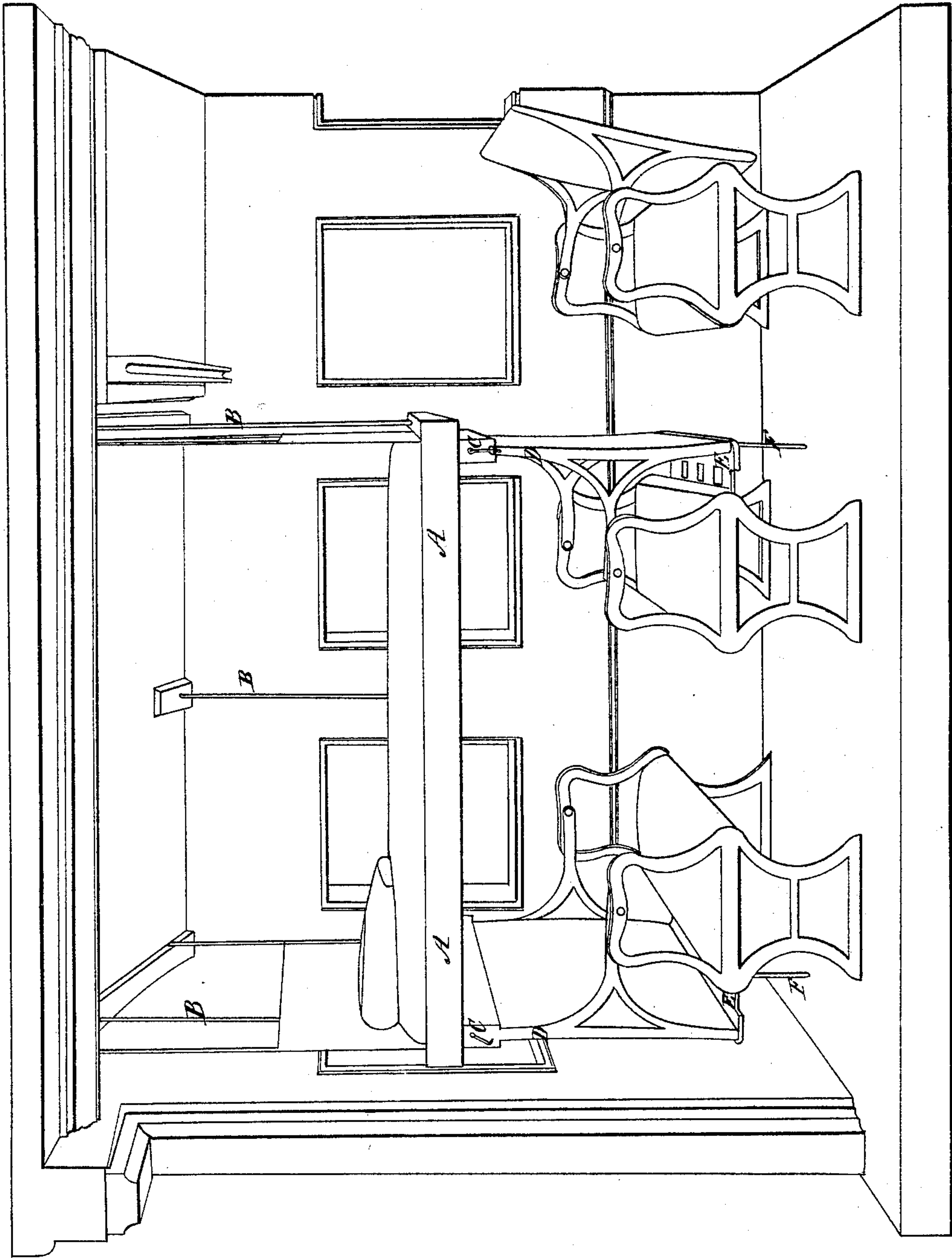


E. C. KNIGHT.  
Car Seat and Couch.

No. 24,563.

Patented June 28, 1859.

*Fig. 1.*



**Witnesses:**

*Chs. Antenuello*  
*Alfred T. Bink*

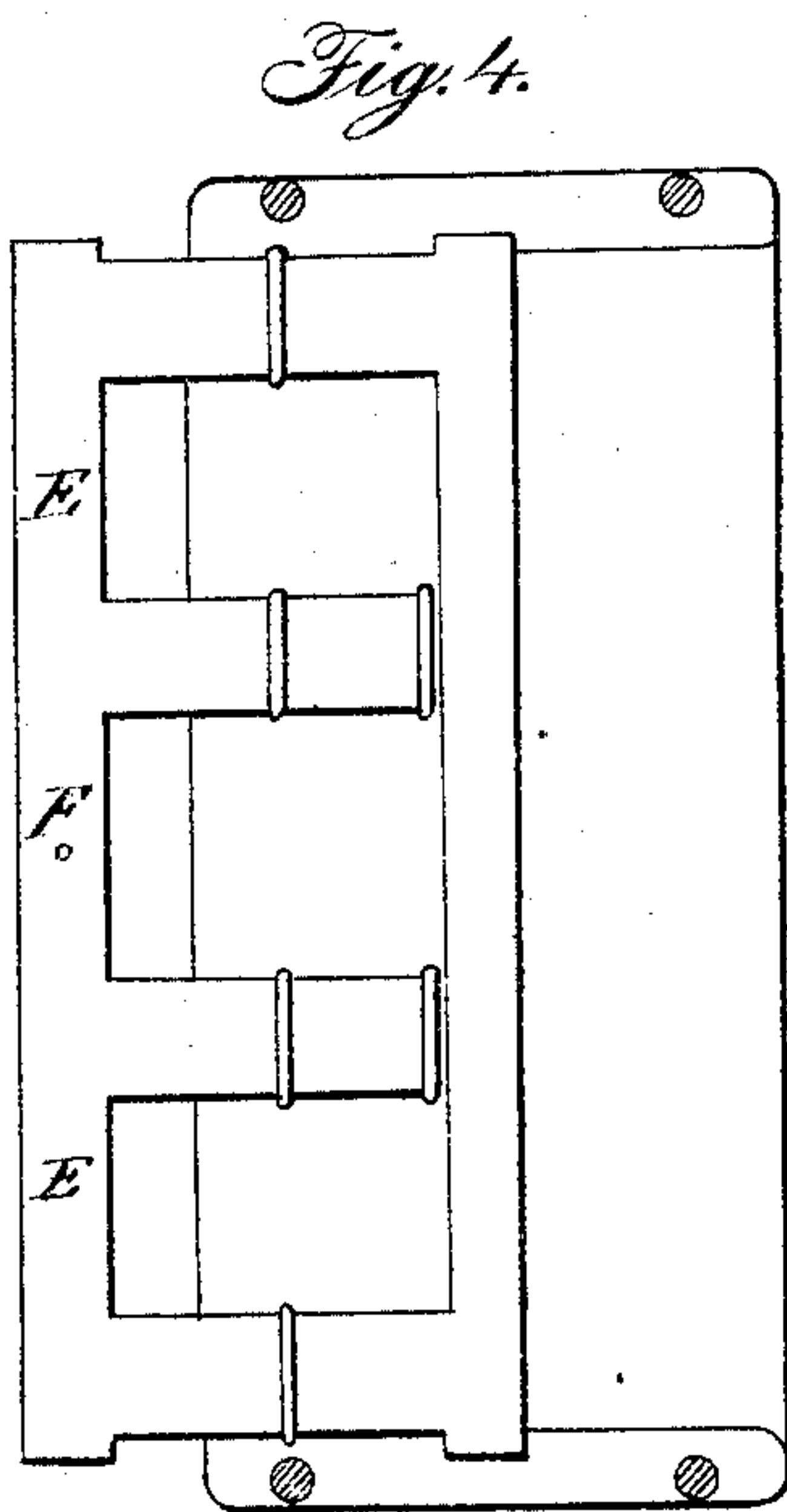
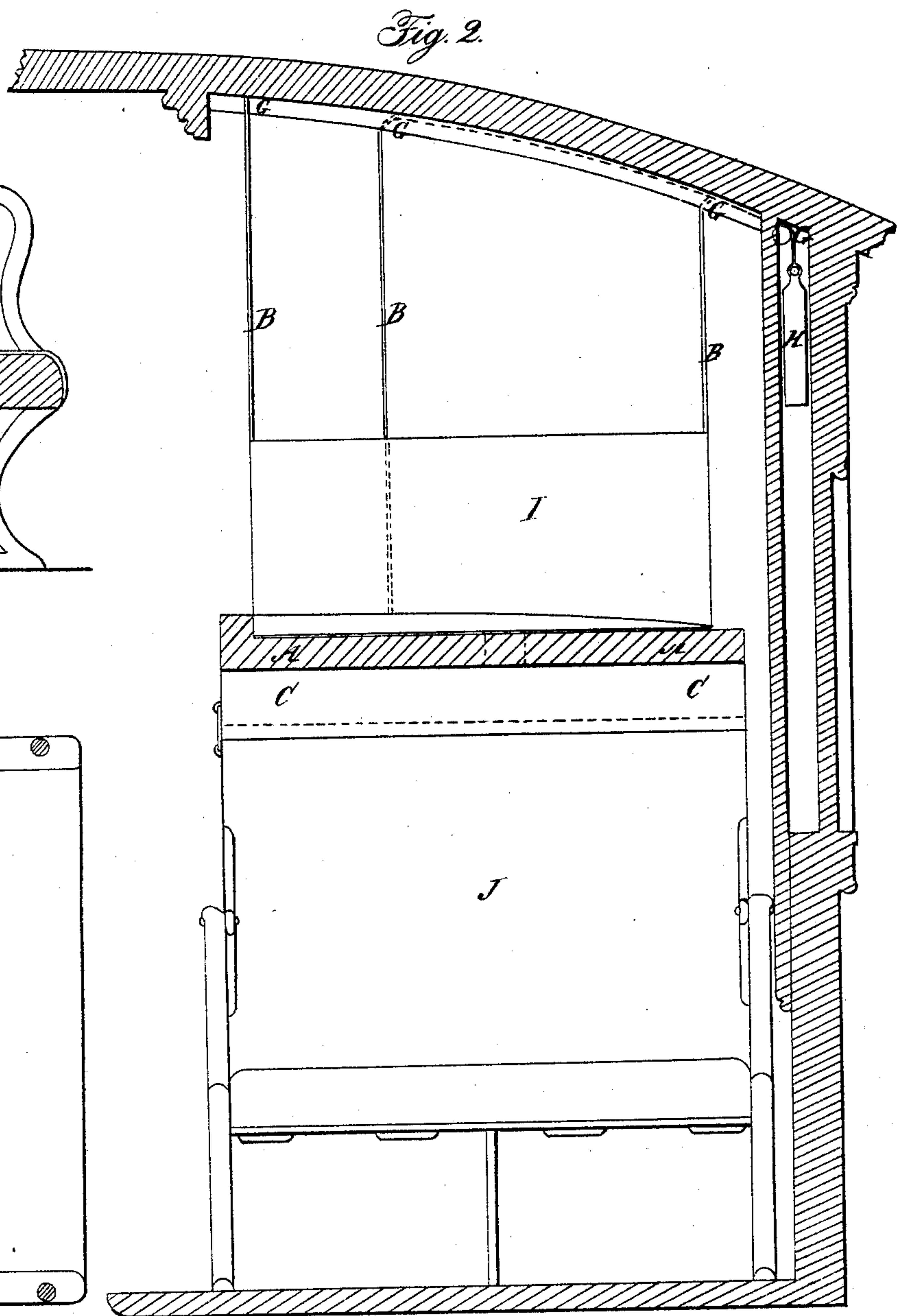
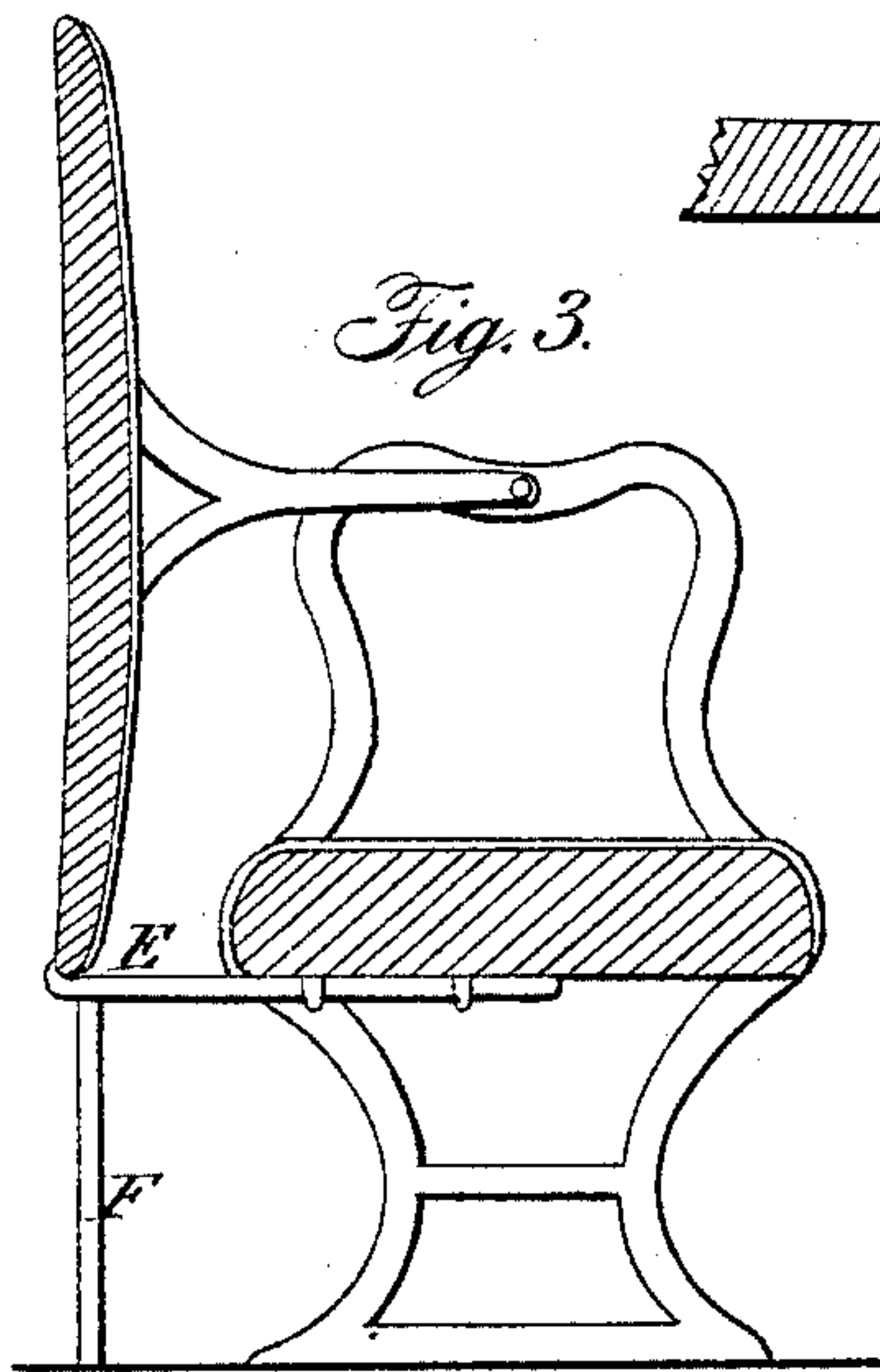
**Inventor:**

*Edward C. Knight.*

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Witnesses:

*Chas. Autenrieth*  
*Adolph Bruck*

Inventor:

*Edward C. Knight*



# UNITED STATES PATENT OFFICE.

EDWARD C. KNIGHT, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN ARRANGING COUCHES IN RAILROAD-CARS.

Specification forming part of Letters Patent No. **24,563**, dated June 28, 1859.

*To all whom it may concern:*

Be it known that I, EDWARD C. KNIGHT, of Philadelphia, in the county of Philadelphia, in the State of Pennsylvania, have invented a new Method of Arranging Berths in Railroad-Cars; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in the arrangement of self-adjusting berths or couches horizontally over the top of the backs of ordinary seats in railroad-cars, for the purpose of affording repose to passengers. These berths are constructed of light material, either of wood, canvas, or woven-wire work, and of a depth to admit a mattress or bed, and in length and width to accommodate comfortably two persons, and governed and regulated by the means of cords, pulleys, and weights, the cords being attached to each end and back side of the berths and carried over pulleys at the top or ceiling of the car down to the side of the car, between the partitions, and then attached to counter-weights, so as to assist the berths to rise and lower, thereby keeping it in its desired position, so that the whole can be arranged and adjusted without the least trouble whatsoever, as shall be hereinafter more fully described.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation, reference being had by letters to the drawings, forming part of this specification.

Figure 1 shows in perspective the berths as arranged over the backs of the seats. Fig. 2 is a sectional view of the car, showing the end of the berth and the manner the cords pass over the pulleys G and are secured to the weights H. Fig. 3 is a transverse section of the seat, showing the manner the slides E are supported by the iron rods F. Fig. 4 is a ground plan view of the bottom of seat, showing the manner the slides are fastened to same.

In several views similar letters represent like parts.

The following is the manner in which these

berths are arranged and adjusted, first supposing that the berth A having been drawn up to its position on the ceiling of the car and then attached and forming part of the ceiling of said car, and so continuing in that position by the cords B and weights H during the time the said berths are unoccupied. Now, when the berths are needed for use, two of the seats of the car are placed vis-a-vis in a vertical position, and resting on iron slides E drawn from the backs at bottom of seats, which are supported by the means of iron rods F, resting on the floor of the car. By this slide and iron rod the backs receive a substantial support for the weight which may at any time be upon the same. The berth A is then drawn down by the hand onto the top of the backs D D, and by the means of the weights H and pulleys C'' it instantly adjusts itself on top of said backs into a batten-groove, C, at the end or bottom of A''. It is then kept stationary by the hand or gum-elastic cord, so that but little trouble is incurred in ascending to the berths. When the weight of the person is entirely removed from the berth it immediately ascends to its place in the ceiling of the car and there attaches and forms a counter or false ceiling, the weights of course keeping it in that position. After it is so adjusted the backs D D' are turned to their original positions, and the slides E, at bottom of seats, are forced under by the hand, so that it gives no evidence of the seats having been interfered with for the purpose herein stated.

By this invention of the berths, arranged as above described, I do not in any way obstruct or interfere with the room of the car by the manner in which the seats are placed for the support of the berths, as above described. The batten-groove, C'', can be of a depth to raise the berth sufficiently high above the backs D D of the seats to allow four persons to sit upright beneath the berth A when same is so arranged over the backs of said seats without in any way being disturbed, the whole showing my invention to be superior, both in cheapness and comfort, to the present mode of arranging berths or couches in railroad-cars.

I disclaim the counter-weights as described,

for I am aware they are used in the patent of Chester M. Mann, as patented by him August, 1858; but

What I claim, and desire to secure by Letters Patent, is—

1. The mode of arranging berths or couches over backs of railroad-car seats, substantially as set forth.

2. The manner of supporting the backs of

the seats by slides E' and rod F, for the purpose herein shown and described.

In testimony whereof I have hereunto set my hand and seal this the 11th day of June, A. D. 1859.

EDWARD C. KNIGHT. [L. S.]

Witnesses:

CHARLES D. FREEMAN,  
ALFRED D. BRICK.