3 Sheets—Sheet 1.

D. O. MACOMBER.

Carriage.

No. 15,769. Patented Sept. 23, 1856

Fig 1.

Witnesses:
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Inventor:
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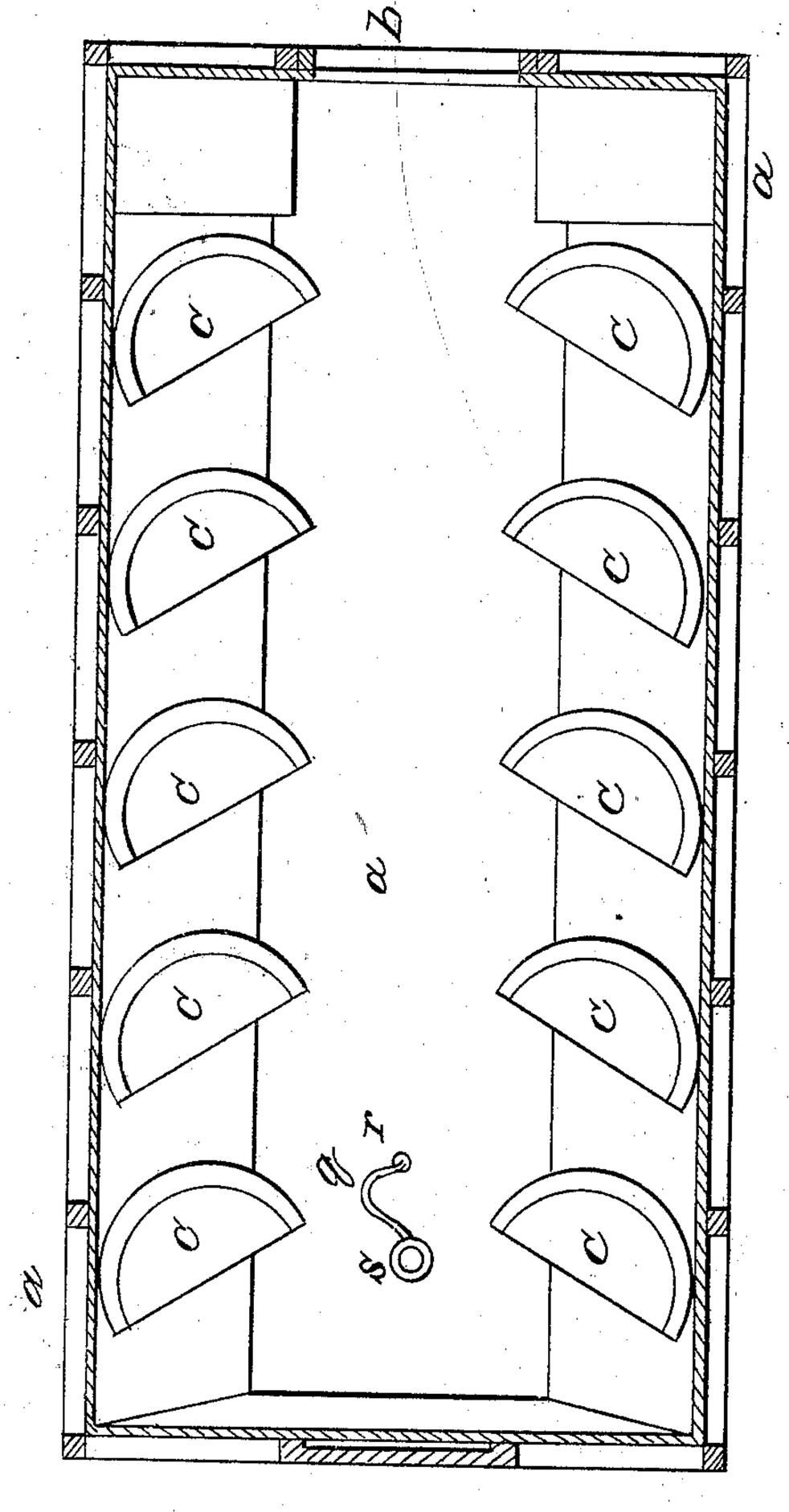

Fig. 2. A. a.

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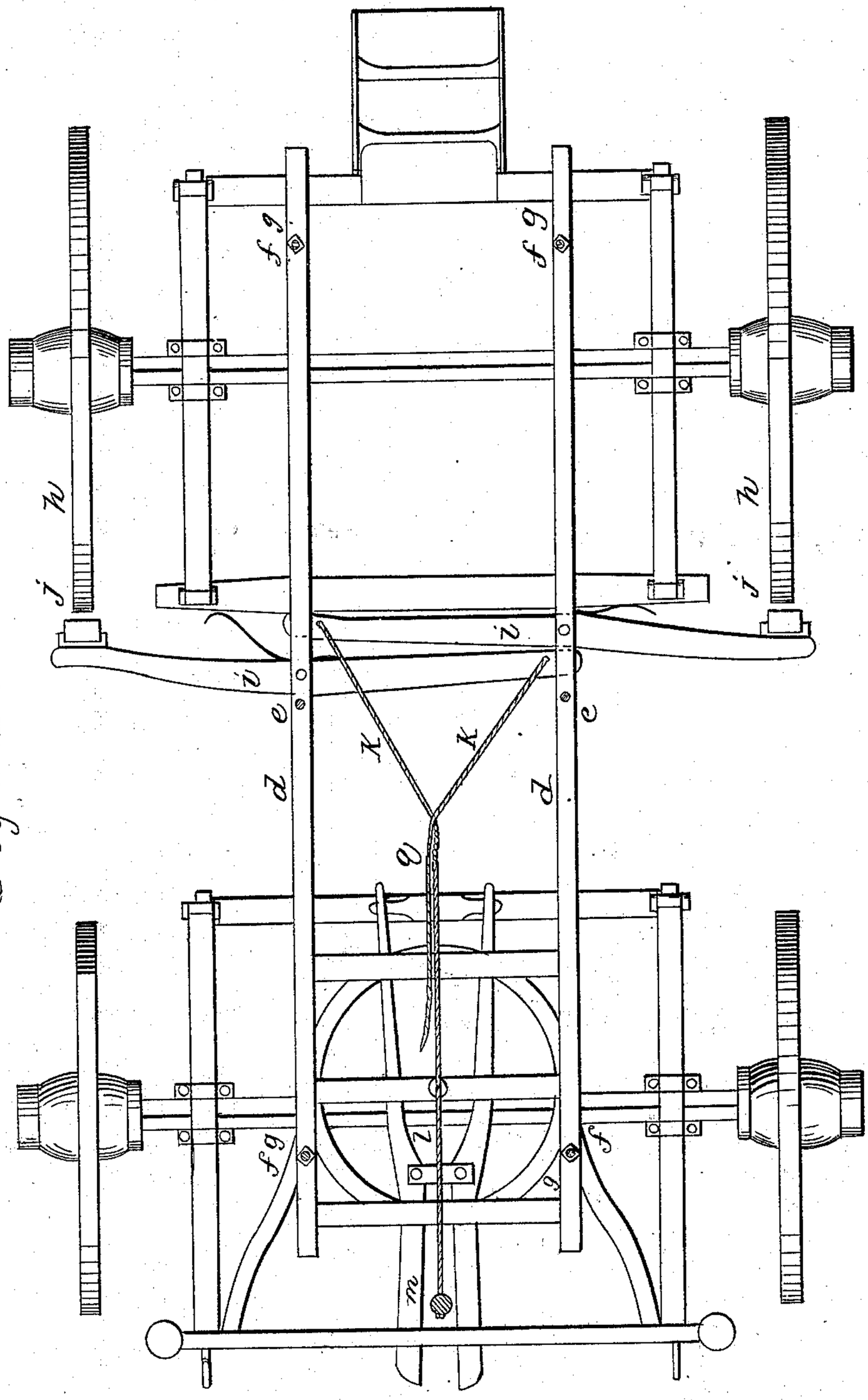
D. O. MACOMBER.

Carriage.

No. 15,769. Patented Sept. 23, 1856.

Fig. 3.



Witnesses:
Wm H Bishop
Chas. Allison

Inventor:
D O Macomber

UNITED STATES PATENT OFFICE.

D. O. MACOMBER, OF NEW YORK, N. Y.

OMNIBUS.

Specification of Letters Patent No. 15,769, dated September 23, 1856.

To all whom it may concern:

Be it known that I, D. O. MACOMBER, of the city, county, and State of New York, have invented new and useful Improvements in That Kind of Carriage Known Under the Appellation of "Omnibus," of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a longitudinal vertical section, and Figs. 2 and 3 horizontal sections taken at the lines A, *a* and B, *b* of Fig. 1.

The same letters indicate like parts in all the figures.

The first part of my invention relates to the construction and arrangement of seats inside the coach or omnibus to avoid the inconvenience of the construction and arrangement heretofore experienced. Ranges of seats extending across as heretofore practiced in stage coaches require the doors to be at the side, and getting in and out is attended with considerable difficulty. To avoid this a range of seats was placed on each side from end to end of the coach with a door in the middle of the back end, leaving a passage way in the middle, so that any passenger may get out without serious inconvenience to the other passengers. But this plan is objectionable particularly for traveling in picturesque countries. The passengers face each other with their backs to the side of the coach on which they are sitting, so that they lose the view on that side, and have it obstructed on the opposite side by the other passengers, and as the passengers sit face to face, unless the coach is very wide the passage way in the middle is much obstructed, and finally this old mode is objectionable for the reason that persons riding sidewise instead of face foremost have no lateral support for the body except such as they get from interference with their fellow passengers.

The object of the first part of my invention is to avoid the objections due to the old arrangements, and my said invention consists in the employment of a range of seats on each side of the coach with a passage way in the middle leading to the back door, when such independent seats are each in the form of a segment of a circle or other equivalent form arranged with the chord of the arc or front edge of the seat at an angle of about 70 degrees with the longitudinal vertical plane of the coach, the advantages of which arrangement are that each passenger sits independently with back and lateral support, with their faces toward the front of the coach, with unobstructed view on one side. The middle passageway is unobstructed, and from the angle which the front of each seat makes to the line of the passage way, the legs of the passengers in any one seat will clear the seat in front so that in a given length of coach about as many passengers can be seated as on the plans heretofore practiced.

The second part of my invention relates to a mode of construction by which the body of the coach can be set and maintained in a horizontal position while either ascending or descending an inclined plane, such as a road or the side of a mountain where the inclination of the grade for a great distance is uniform or nearly so. By this means the passengers are relieved from the serious inconvenience of sitting on seats which follow the inclinations of the road way; and the last part of my invention relates to an improvement in the arrangement of the brakes by means of which they can be operated conveniently either by the feet of the driver or by the passengers inside the coach.

In the accompanying drawings *a* represents the body of the carriage, which is of the form usually employed in the construction of omnibuses, with a door *b*, for passengers at the middle of the back end and with the seats *c*, *c* arranged on each side. The backs of these seats are in the form of a segment of a circle or of some equivalent curve best adapted to the form of the body. They are arranged on each side of the coach with the plane of the front edge at an angle of about 70 degrees with the central longitudinal line of the body, so that the legs of the persons sitting in one will clear the back of the next seat in front, the form and position of the seats both aiding to produce this result. On the running gear there is a longitudinal frame composed of two long timbers *d*, *d*, properly connected together and with the running gear. The upper surface of these timbers is highest in the middle and inclines to the ends either way from the middle. The body *a* of the carriage rests and rocks on the elevated middle part of the timbers *d*, *d*, and is connected therewith by hinged or eye staples *e*, *e*, attached to the body and turning on cross bolts in the tim-

bers, and at each end there are two vertical screw bolts *f*, *f* attached to the timbers *d*, *d* and extending into the body, and these bolts are furnished with nuts *g*, *g* on which the ends of the body rest, so that if the coach is intended to go up an inclined plane the screw nuts on the bolts at the front end are turned down, and those at the back end are turned up, thus depressing the front and elevating the rear end, so that when ascending the grade the body of the coach will be on a level, and when the coach is to descend a grade the position is reversed by shifting the nuts. In this way the body can be set to any desired inclination with the plane of the running gear that the body may be horizontal when either ascending or descending grades of any inclination.

Just in front of the rear wheel *h*, *h*, there are two brake levers *i*, *i* connected with the under side of the timbers *d*, *d* so that by drawing forward the inner ends of the said levers the brake shoes *j*, *j* will be forced against the back wheels to impede their turning. These two levers are connected by chains, cords or straps *k*, *k*, with a central strap or chain *l* which is attached in front to the lower end of a vertical windlass *m* the shaft of which passes up through and to a short distance above the driver's foot board *n*, and just above the foot board the shaft is provided with a ratchet or stop wheel *o* so arranged that the driver with one foot can apply the stop to the wheel to hold the brake on or remove it to liberate the brakes, and just above the stop wheel there are projecting arms *p* on the said shaft to enable the driver with his foot to turn the said shaft and apply or liberate the brakes.

To the strap or chain *l* is attached another strap *q* which passes through an eye at *r* in the body of the carriage, and the end of the said strap is provided with a hand ring or handle *s* inside the carriage by means of which the passengers can operate the brake as well as the driver.

What I claim as my invention and desire to secure by Letters Patent is—

1. The arrangement, substantially as specified, of two series of independent seats, on each side of the carriage body, but this I claim only when the backs of the seats are curved and the front edge placed obliquely, as set forth, and for the purpose specified.

2. I also claim connecting the body with the frame of the running gear so that it will rock thereon, substantially as described, in combination with the screw bolts and adjusting nuts at the ends, or equivalent therefor, for the purpose of setting the body at any desired inclination with the frame of the running gear.

3. And finally I claim connecting the brake levers with the shaft of the stop and foot wheel, substantially as specified, in combination with the strap which passes into the inside of the carriage body to be operated by the passengers if required, substantially as described.

D. O. MACOMBER.

Witnesses:
WM. H. BISHOP,
L. N. GLOVER.