

C. M. MURCH.

Omnibuses.

No. 151,240.

Patented May 26, 1874.

FIG. 1.

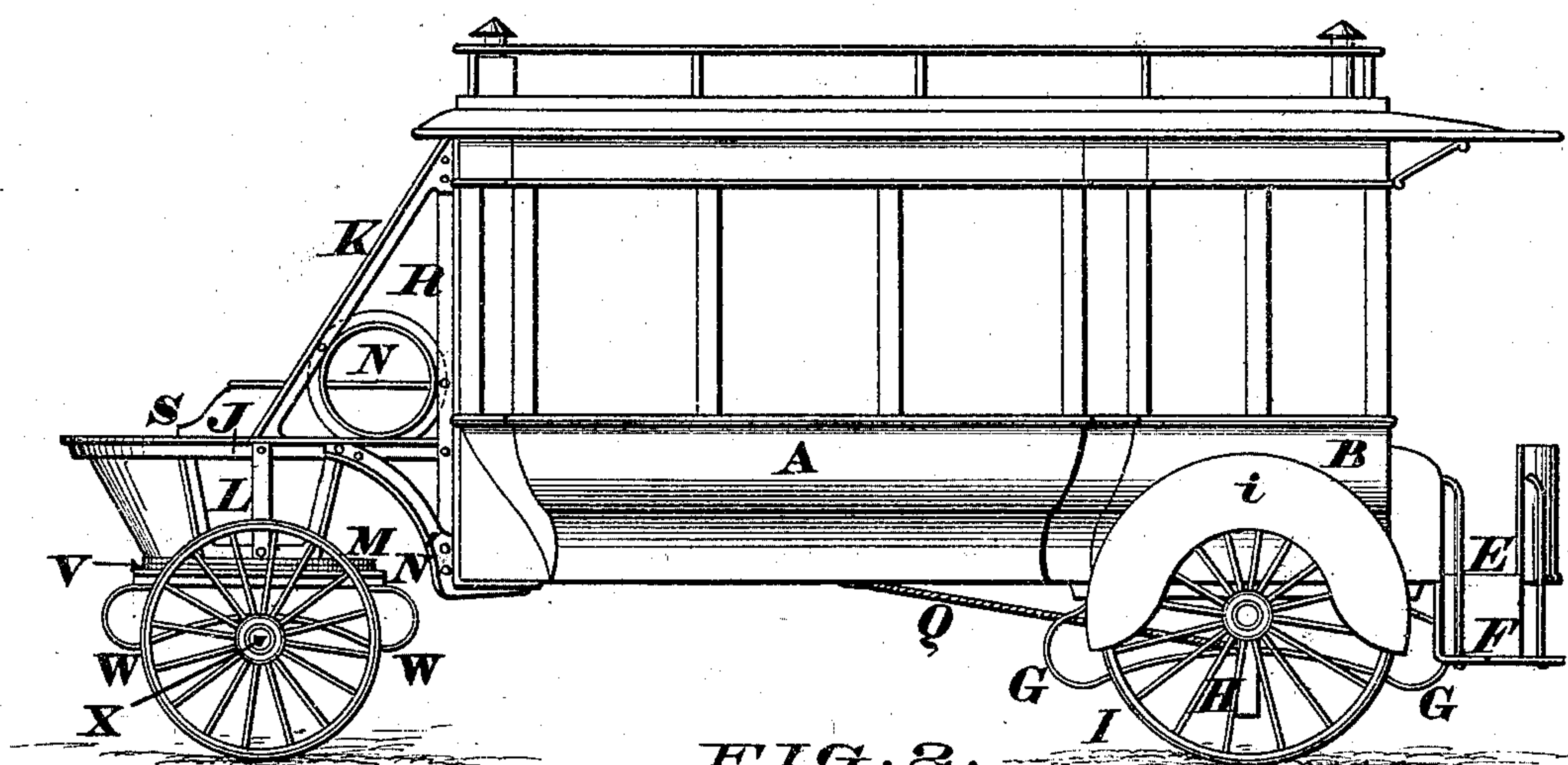


FIG. 2.

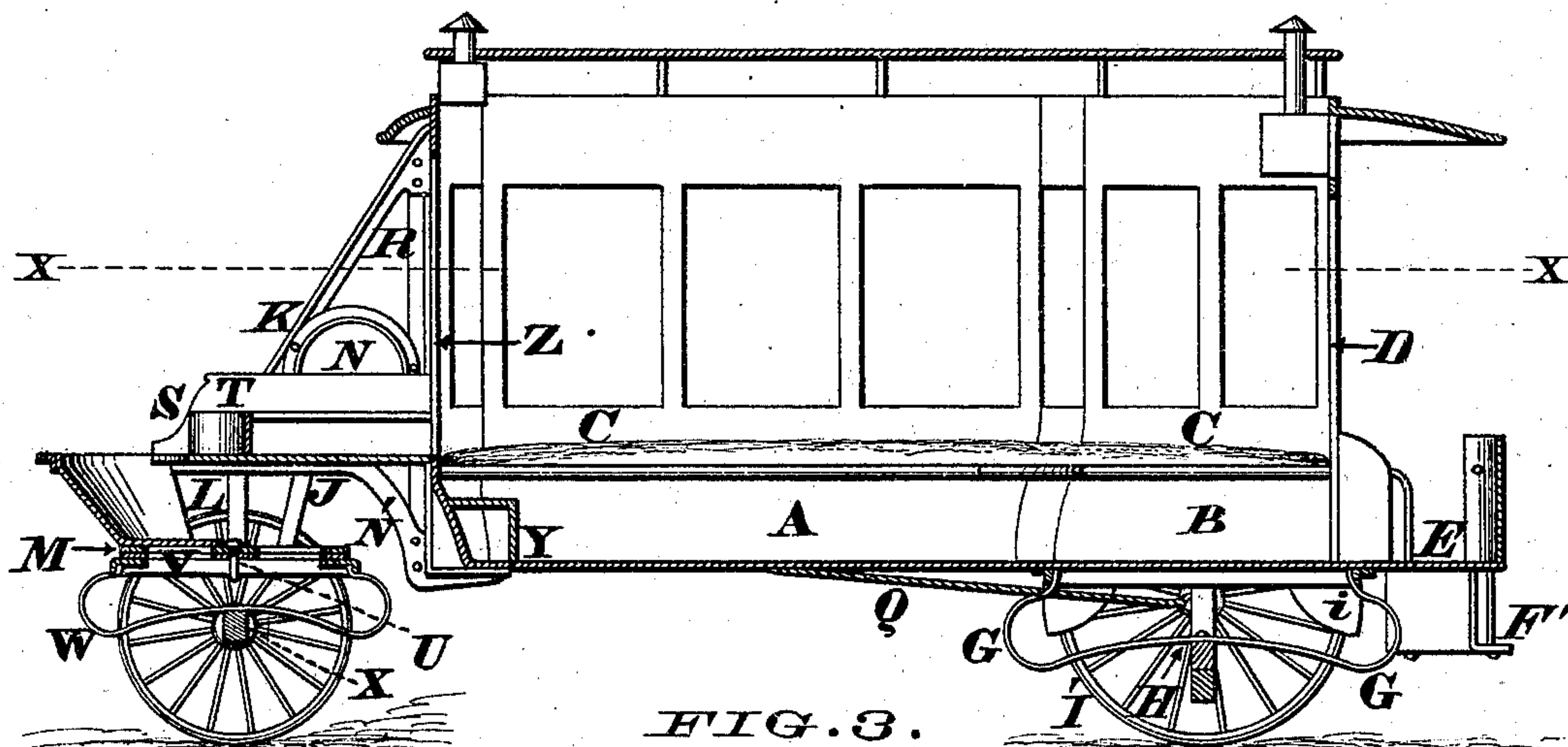
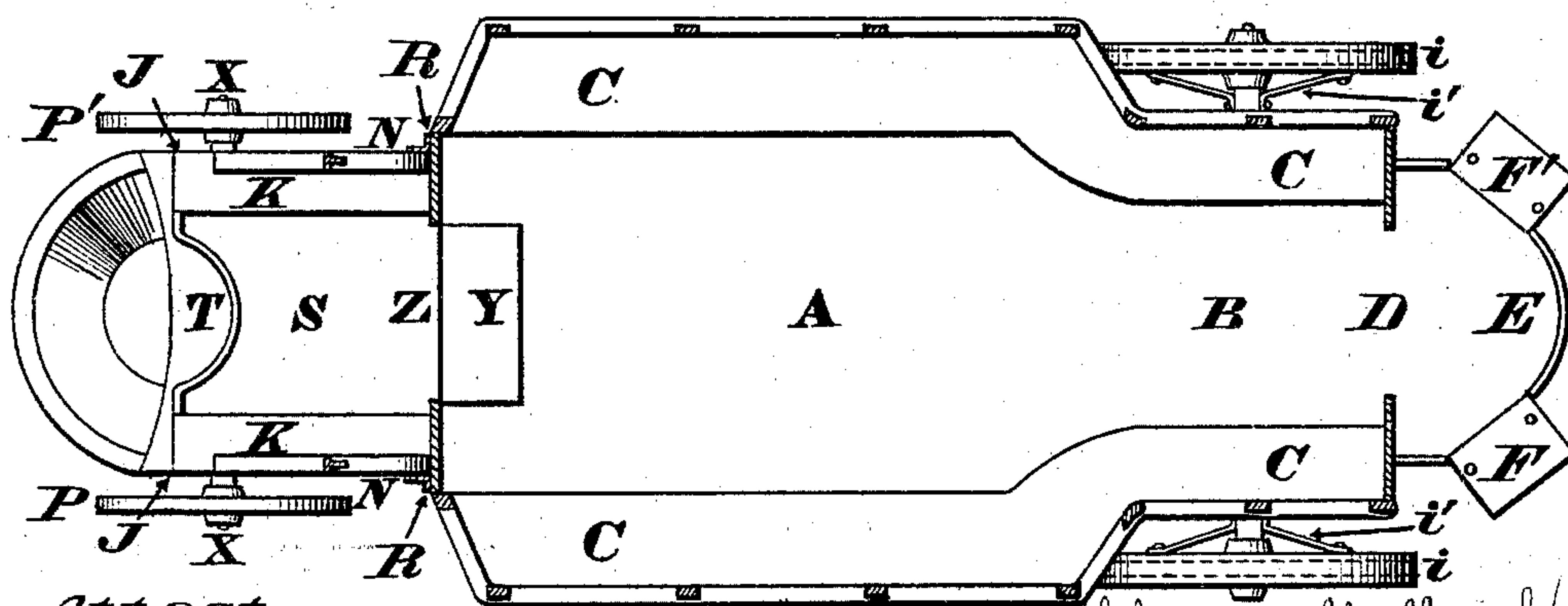


FIG. 3.



Attest.

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UNITED STATES PATENT OFFICE.

CHAUNCEY M. MURCH, OF CINCINNATI, OHIO.

IMPROVEMENT IN OMNIBUSES.

Specification forming part of Letters Patent No. 151,240, dated May 26, 1874; application filed April 9, 1874.

To all whom it may concern:

Be it known that I, CHAUNCEY M. MURCH, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Omnibus, of which the following is a specification:

The object of my improvements is the combination, in an omnibus, of the advantages of a low-down and roomy body, readily accessible for passengers approaching it either at the side or rear, and provided with an elevated front platform, which I have named "the balconade," readily reached from the main portion, said balconade, together with the driver's seat, foot-rest, and dash-board, being rigidly suspended from the main body by means of a projecting frame of peculiar construction, whose lower portion constitutes the upper member of the fifth-wheel. At the same time, the form, arrangement, and proportion of the several parts is such that, while affording unusual room for passengers, the vehicle does not occupy unusual room in the street, and is capable of passing wherever omnibuses of ordinary construction can, without obstructing the street or roadway.

In the accompanying drawings, Figures 1 and 2 are, respectively, a side elevation and a longitudinal section of an omnibus embodying my improvements. Fig. 3 is a section at the line X X.

My body proper is formed so as to present in its horizontal section an oblong octagonal space, A, (which may extend laterally about as far as the extreme outer ends of the hubs of the rear wheels,) and a rear prolongation, B, which is narrowed sufficiently to provide room for said wheels, and to, at the same time, afford an entrance-way or vestibule which may, as in the present illustration, be furnished, like the space A, with seats C. The space A communicates by doorway D with entrance platform E, to which access is had by means of steps or gangways F F', which have the oblique, rear, and side presentation, clearly shown in Fig. 3, so as to be conveniently and safely reached by persons approaching either from the rear or side of the car. My said body rests at its rear end by suitable springs G upon the depressed portion H of a bent axle-tree, an arrangement which permits the body-floor, when the vehicle is empty, to be at or

near the level of the centers of the hind wheels I I', and, when loaded, to descend considerably below that level. At the same time, the suspending-frame R J K L M N O, to which the front wheels P P' are coupled, is so formed as to permit said wheels to be of greater height than said unloaded floor, which wheels are, notwithstanding, capable of being turned to the right or to the left without ever coming in contact with said body.

In order to prevent the surging forward of the body, such as might occur by the sudden impact of the wheels against impediments, and which would be liable to break the rear springs and throw the body to the ground, I connect the rear axle to the body by flexible straps Q, preferably of wire-cable. The flexibility of these straps permits free vertical play to the body, while their tensional strength effectually holds the axle to its proper position under said body.

My suspending-frame, already alluded to, consists essentially of a number of bars or rods, preferably of T or other suitable section, and of which the vertical bars R are bolted or riveted directly to the front of the body. Extending horizontally from the bars R are horizontal bars or rails J, which support the balconade S and the driver's seat T. Descending from upper extremity of bars R to that point of the rails J which is in the vertical plane of the king-bolt U, are oblique braces K. Depending rigidly from rails J are bars L, to which is bolted the upper member M of the fifth-wheel. The triangular spaces formed by the bars R, rails J, and braces K are occupied by annular bars N, and the angles formed by the rails J and the lower portions of the bars R are subtended by curved braces N'. The lower member V of the fifth-wheel M V is an open square frame, which, like the upper member M, is crossed by a central plate, which receives the king-bolt U. To the lower member V are attached the springs W, which unite said member with the axle X of front wheels P P', which axle is preferably shorter than the rear axle, as shown, so as to be capable of turning in a short curve without necessitating a body of unwieldy length. A step, Y, and doorway, Z, enable easy passage to and from between the body proper and the balconade.

My supporting-springs G and P may be of the represented or of any other suitable form, and need no other description in this place, because it is my purpose to make such springs the subject of a separate patent.

The low-down position of the body has several manifest advantages over the common form of omnibus; for example, it brings the center of gravity nearer the base, and consequently increases the stability of the vehicle, and diminishes the danger of upset, and it lessens the labor of entering and alighting from the vehicle.

The form and construction of the suspending-frame is such as to adequately support the front part of the body, while permitting a free play to right and left of the front wheels in the act of turning a corner, while it also affords a convenient support for the driver's platform and the balconade.

The parts S and T, by accommodating a number of persons, secure the proper balance of the vehicle, and guard against a too preponderating load upon the hind gear.

If preferred, the upper portions of wheels I

I' may be housed within suitable fenders or guards *i* that can be secured to the rear axle H with braces *i'*, or otherwise, as more clearly shown in Fig. 3.

I claim herein as new and of my invention—

1. The body proper A B D E F F' Z, communicating at its forward end with the elevated balconade S, in the manner and for the purpose set forth.

2. The combination of the body A, having a narrow rear end, B, with the short front axle X and bent rear axle H, substantially as set forth.

3. The combination of fore-gear P X W V U, suspending-frame R J K L M N O, driver's seat T, and balconade S, as described.

4. The combination of the body A, bent axle H, springs G, and wire-brace cords Q, all as described.

In testimony of which invention I hereunto set my hand.

CHAUNCEY M. MURCH.

Attest:

GEO. H. KNIGHT,
OCTAVIUS KNIGHT.