

L. WOOD.
STREET-CARS.

No. 177,672.

Patented May 23, 1876.

FIG. 1.

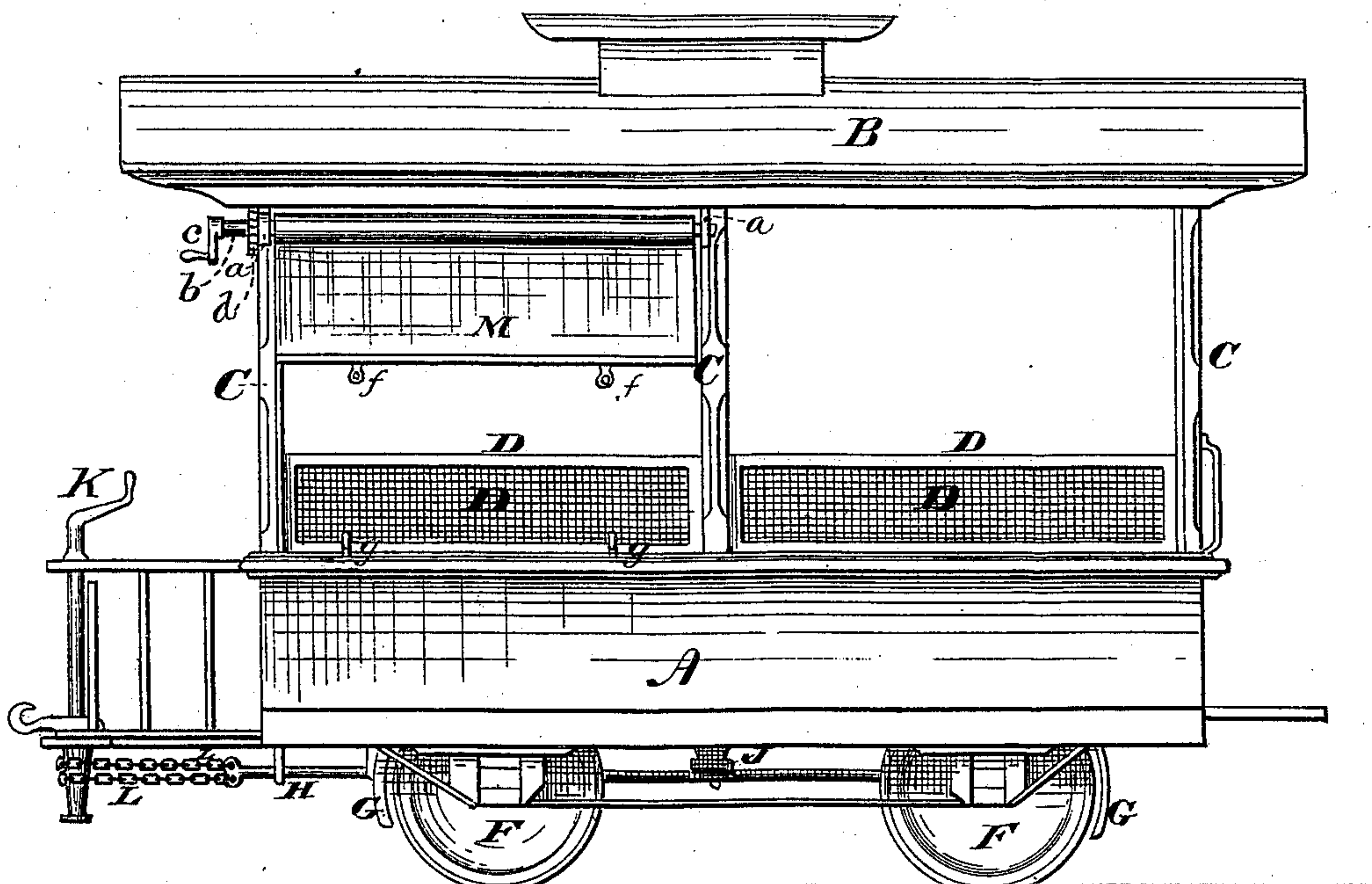
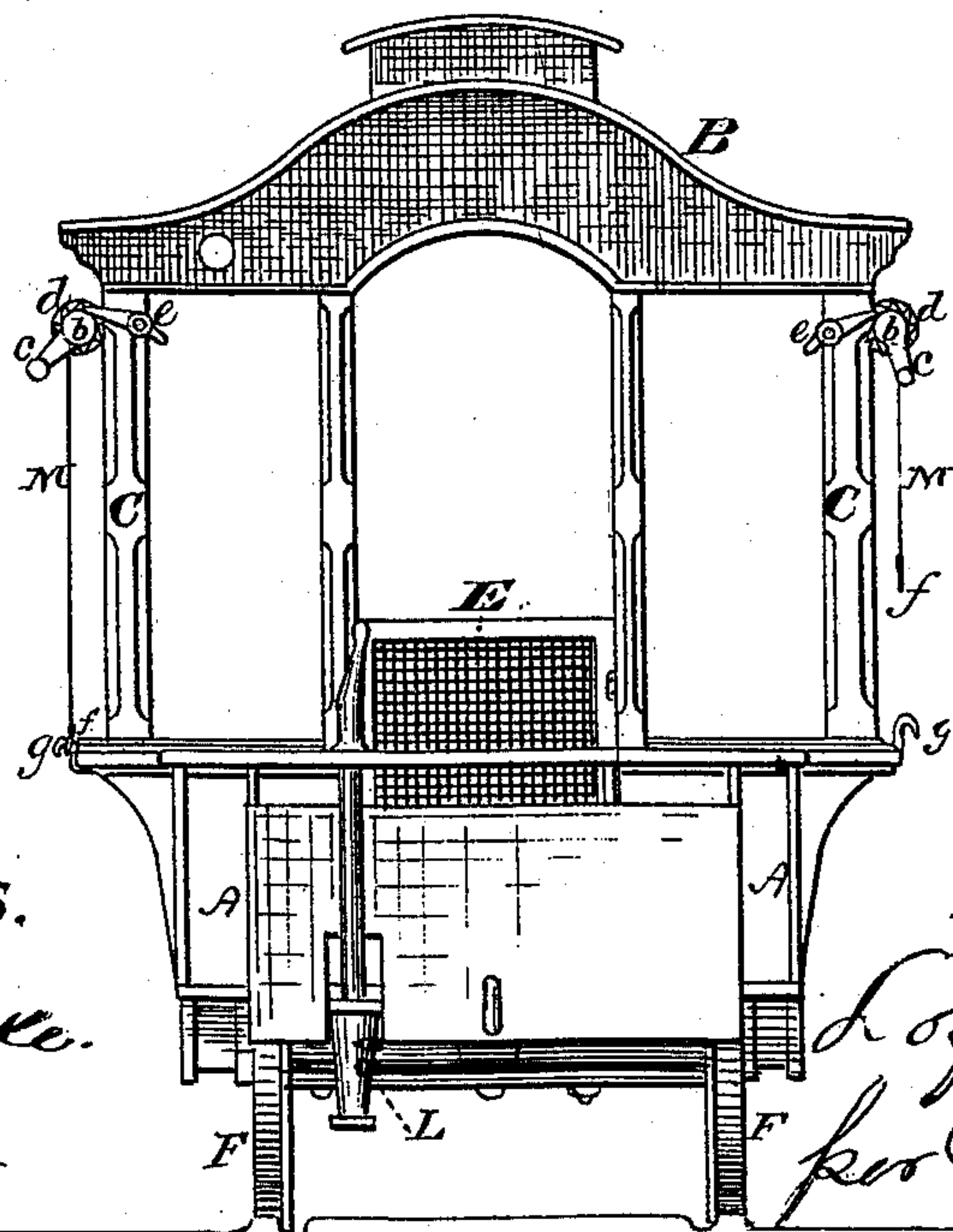


FIG. 2.



WITNESSES.

Geo. H. Clarke.

H. S. Brice

INVENTOR.

L. Wood,
per E. H. Johnson.
Atty.

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Fig. 3.

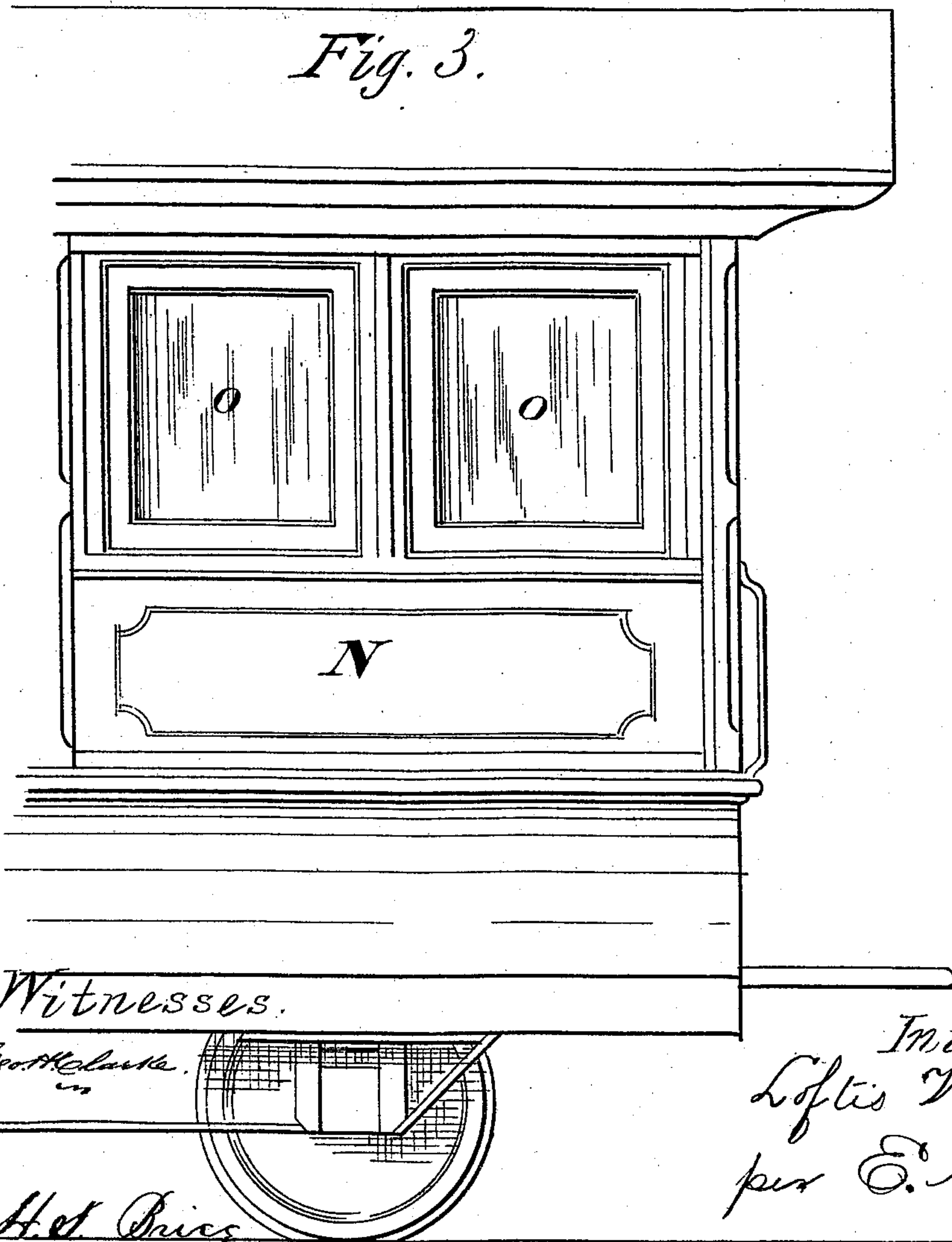
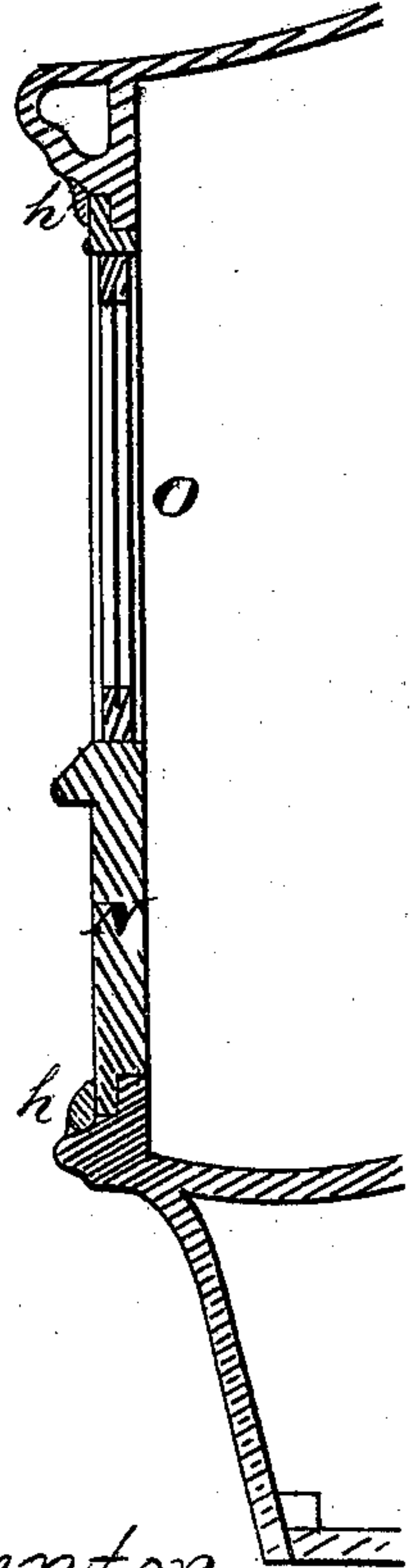


Fig. 4.



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UNITED STATES PATENT OFFICE.

LOFTIS WOOD, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN STREET-CARS.

Specification forming part of Letters Patent No. **177,672**, dated May 23, 1876; application filed December 14, 1875.

To all whom it may concern:

Be it known that I, LOFTIS WOOD, of Brooklyn, Kings county, State of New York, have invented certain Improvements in Street-Cars, of which the following is a specification:

My invention relates to cars used on street-railroads; and consists in a novel construction, combination, and arrangement of parts, which have for their object to render the car convertible into a close or an open car, as desired, and more comfortable and safe for passengers traveling therein, as will be fully hereafter set forth.

Figure 1 is a side elevation. Fig. 2 is a front elevation. Fig. 3 is a side elevation of a portion of the car, showing the means for converting it into a close or open car. Fig. 4 is a vertical section of Fig. 3.

A is the body of the car, with a seat running along each side, parallel with the length of the car, as usual. B is the roof, supported on the posts C. D are frames, of open wire-work, which are secured, either permanently or so as to be removable, between the posts C. These frames form the back, or a portion of the back, of the seats, and may be of any desired and suitable dimensions. The wire-work may be plain or ornamental; or, instead of it, small rods or bars may be used. In the front of the car is a door or gate, E, constructed similarly to the frames D. M M are side curtains, which wind upon rollers having their bearings at *a a*. *b* is a shaft or spindle extending from the roller, and provided at its extremity with a crank, *c*, for winding the curtain up. The curtain is held at any desired height by the ratchet and pawl *d e*, and it is provided at its bottom with eyes *f*, while on the ledge of the car are hooks *g*, on which, when the curtain is down, the eyes *f* may be hooked, and the curtain then stretched by means of the crank and ratchet and pawl, before mentioned. N N are panels, which, when it is desired to convert the car into a close vehicle, are inserted between the posts, as shown at Figs. 3 and 4. These panels are furnished with windows or lights O O, and are so constructed as to be readily put in place or removed. They may be secured in position by the cleats *h h* or by screws, or any suitable fastening; and, if necessary, they may be made

in sections, and placed over the frames D, or the latter may be removed.

I thus obviate the necessity of keeping on hand two kinds of cars, open and closed, the former of which can be used but three or four months of the year, and lie utterly useless the remaining eight or nine months.

It will be seen that the advantages of the open-work frames D are very great, as, while they serve all the purposes of a close solid back to the seats, they do not obstruct currents of air. They effectually prevent accidents from persons falling out the car, or from parts of the dress getting outside, while they enhance the comfort and pleasure of passengers.

The management of curtains of open street-cars was, prior to my invention, a matter of great difficulty, and accompanied with great annoyance to passengers. With my improvement they are under the direct control of the driver from his platform, and may be manipulated by him through the crank *c* with great ease and celerity, while, when in use, they may be tightened, so as to obviate their flapping and annoying passengers.

I claim—

1. A street-car so constructed with removable panels as to be convertible from an open into a close car, and vice versa, substantially in the manner described and specified.

2. An open street-car provided with wire-work or other open-work screens or frames, arranged to form the back, or a portion of the back, of the seats, substantially in the manner described and specified.

3. The combination of the curtain M and its roller, shaft *b*, provided with crank *c*, ratchet *d*, and pawl *e*, constructed and operating substantially in the manner described and specified.

4. The combination of the curtain M, provided with eyes *f*, shaft *b*, provided with crank *c*, ratchet *d*, pawl *e*, and hooks *g*, constructed and operating substantially in the manner described and specified.

LOFTIS WOOD.

Witnesses:

SAMUEL PARKHILL,
LOFTIS W. O'BERRY.