

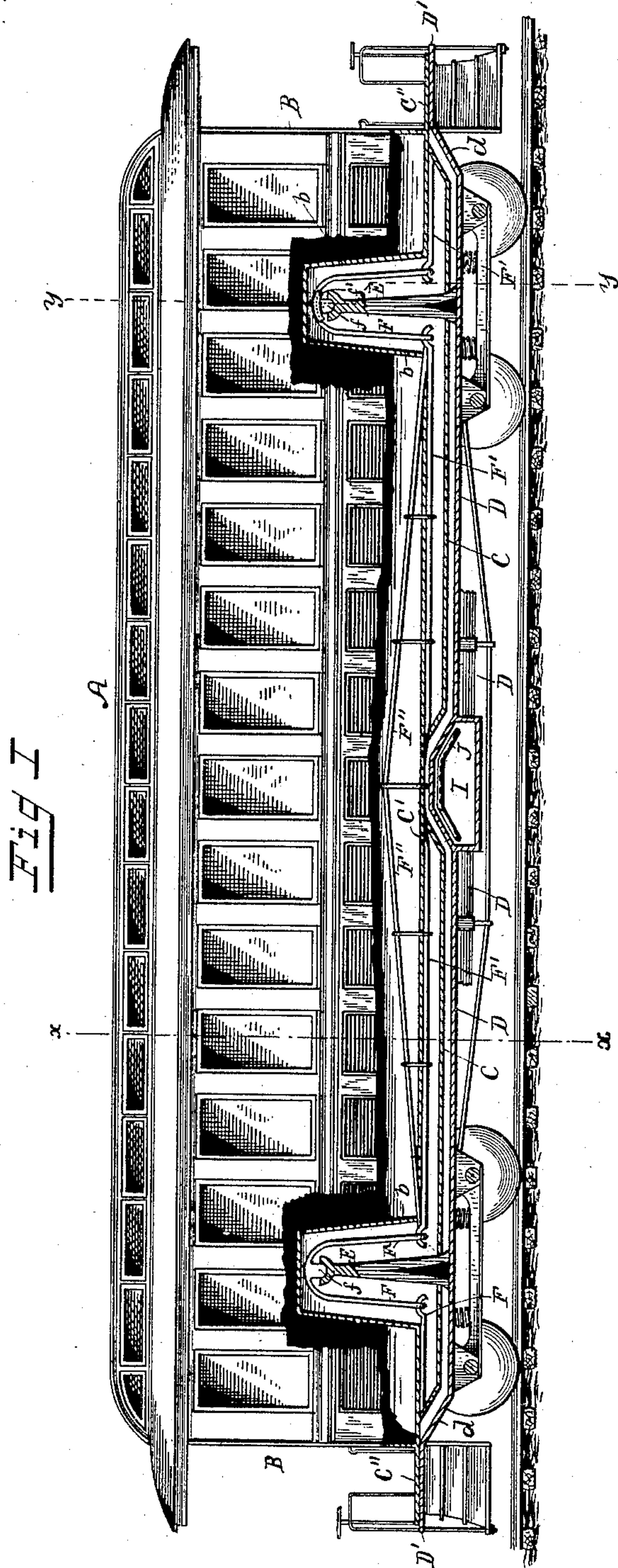
(No Model.)

2 Sheets—Sheet 1.

W. W. MUNSELL.
RAILWAY COACH.

No. 467,514.

Patented Jan. 26, 1892.



Witnesses

R. A. Balderson
W. E. Shaw

Inventor:

Wm W Munsell.

By: Lathy & Balderson
His Attorneys.

(No Model.)

2 Sheets—Sheet 2.

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Fig. II.

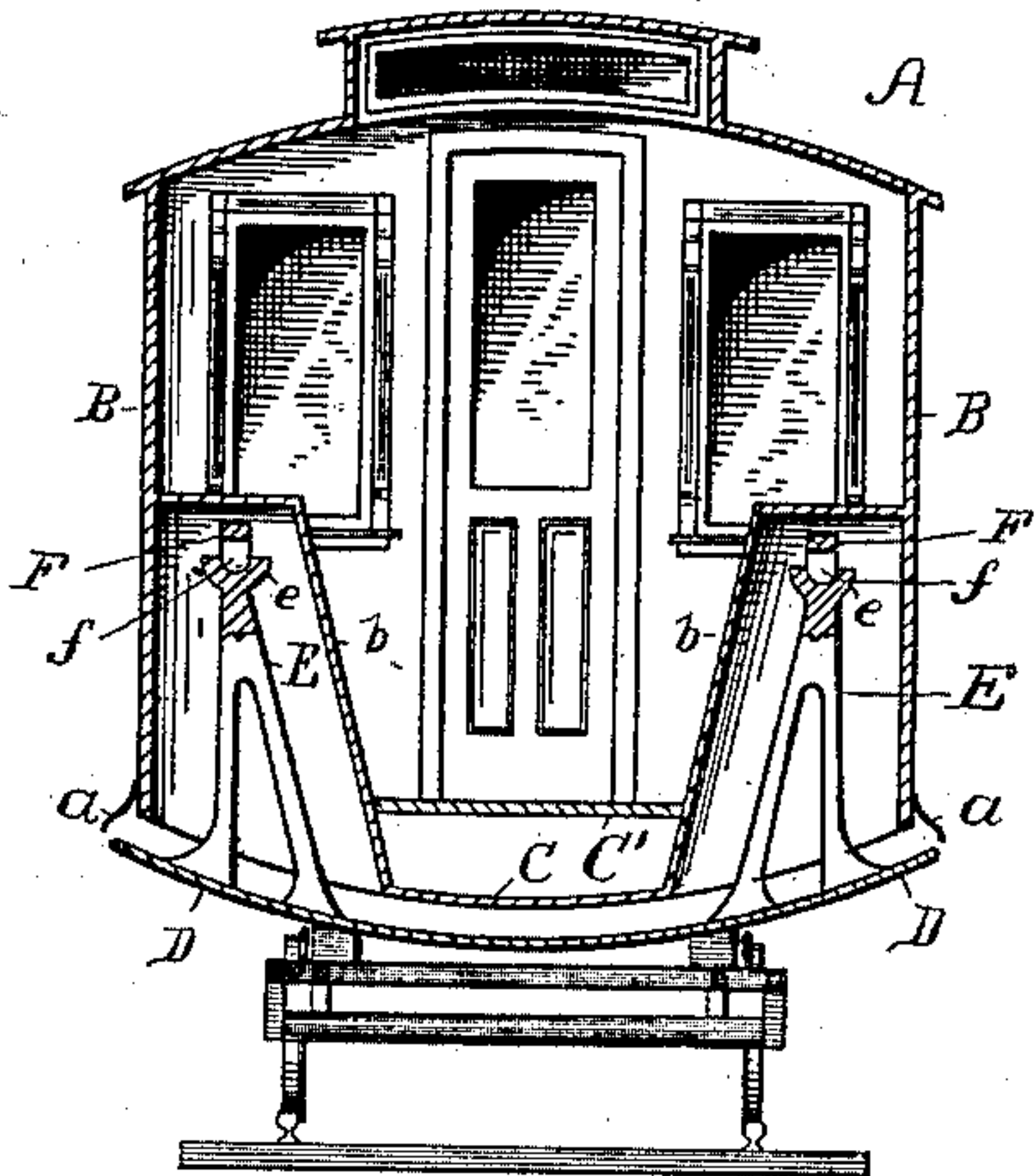


Fig. III.

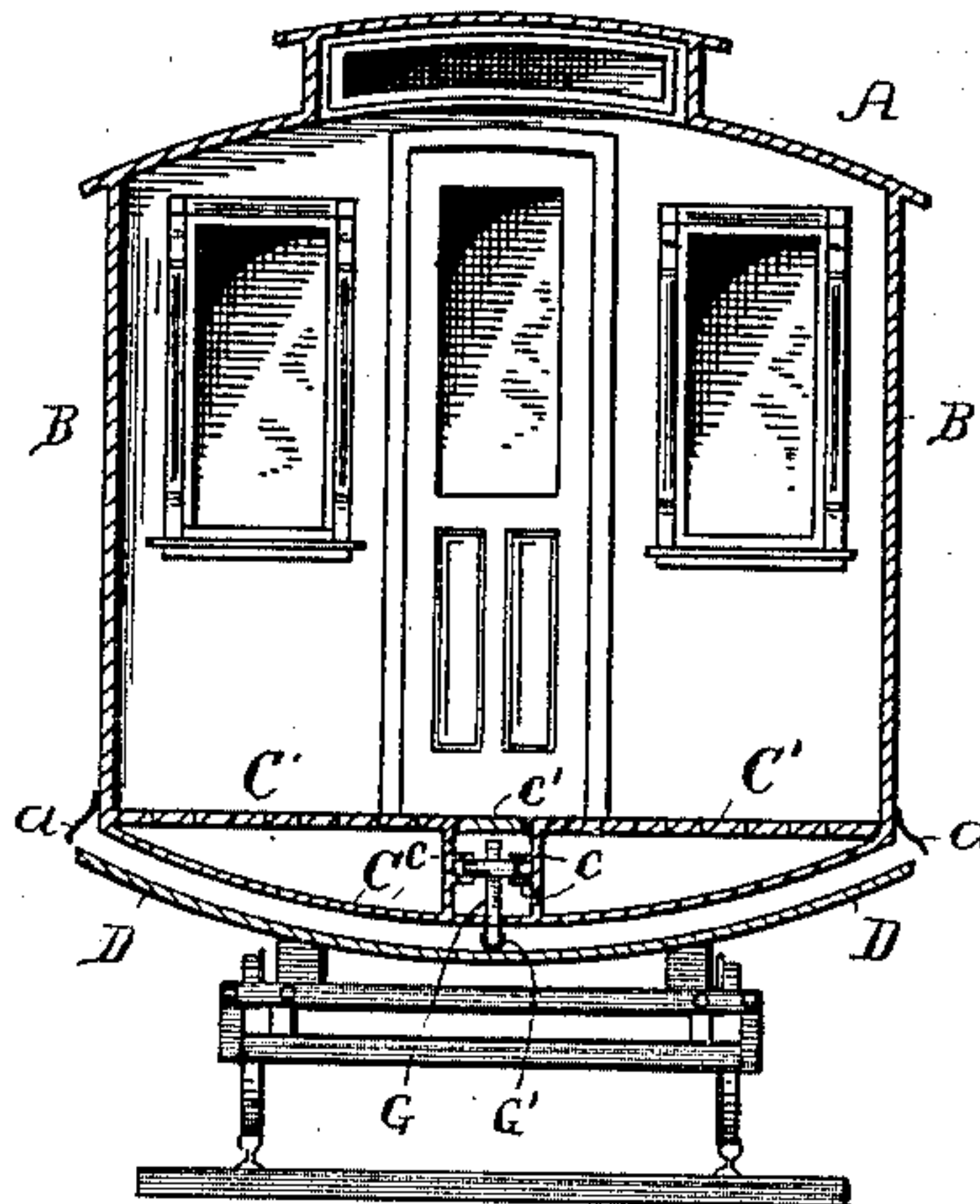


Fig. IV.

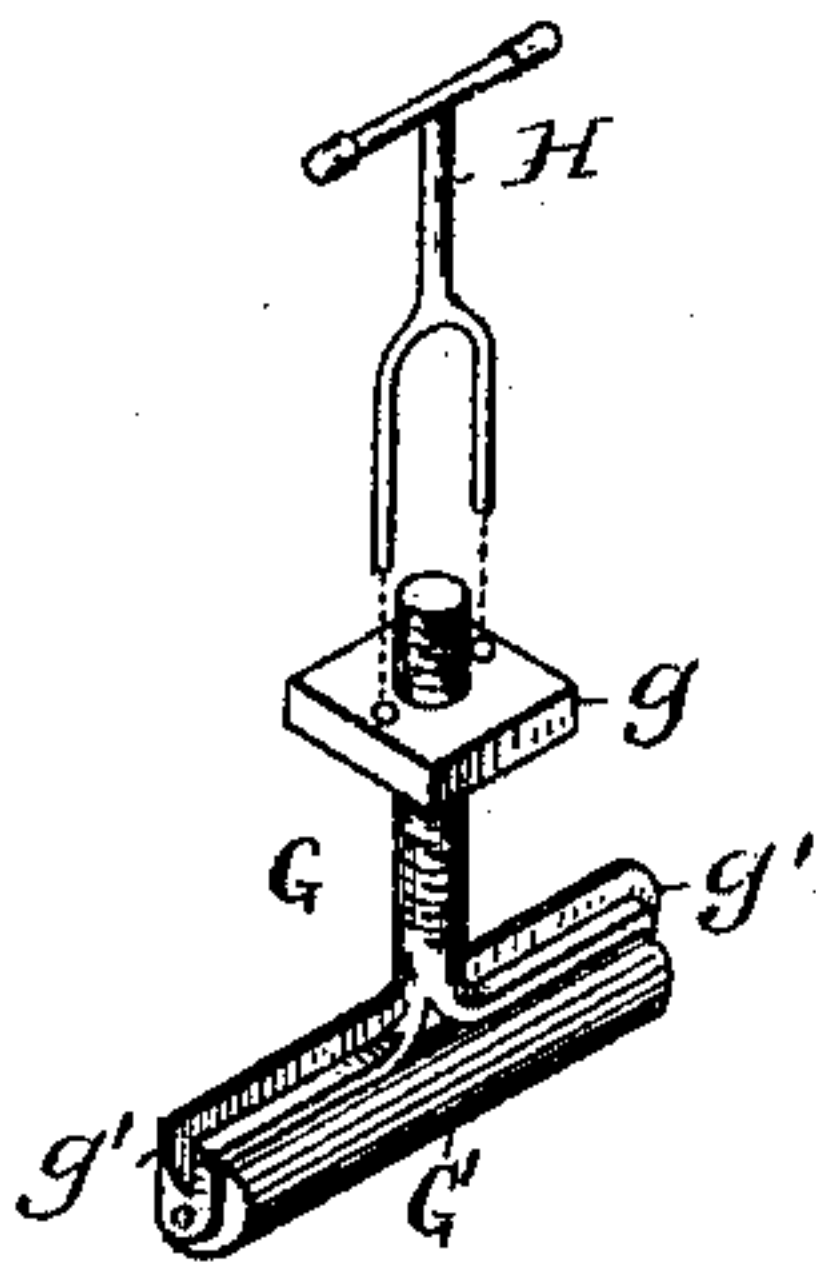
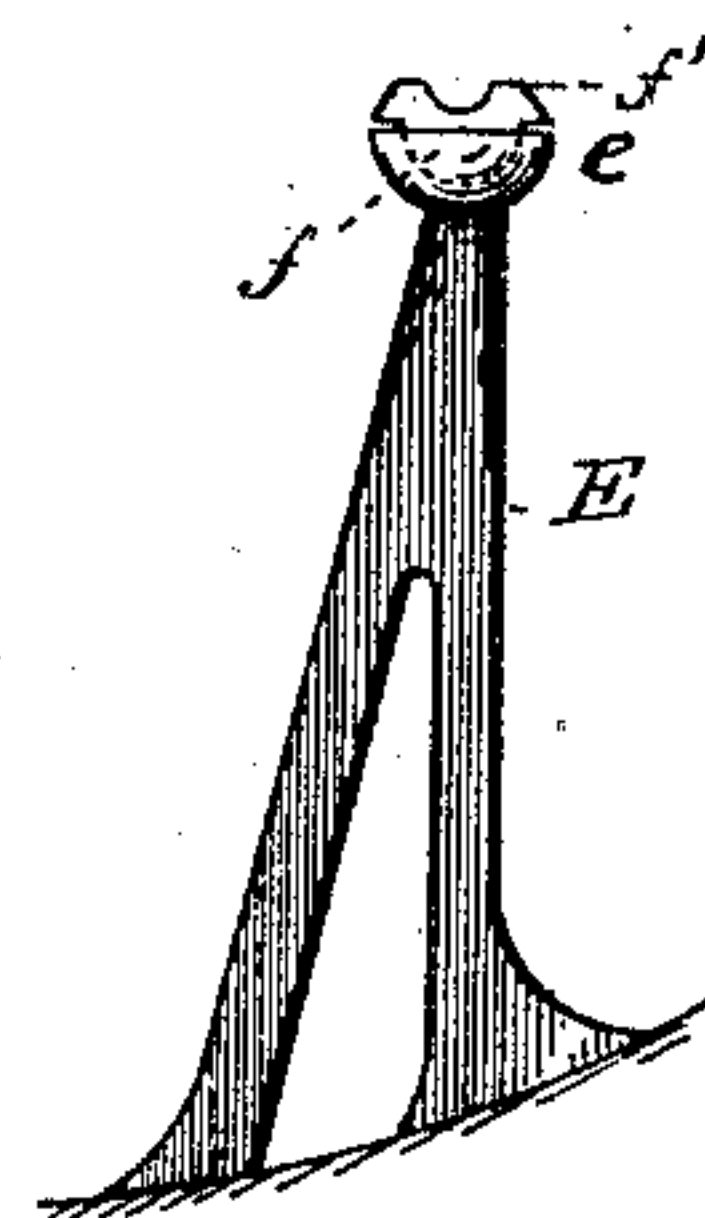


Fig. V.



Witnesses:-

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UNITED STATES PATENT OFFICE.

WILLIAM W. MUNSELL, OF DODGE CITY, KANSAS.

RAILWAY-COACH.

SPECIFICATION forming part of Letters Patent No. 467,514, dated January 26, 1892.

Application filed July 18, 1891. Serial No. 399,962. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. MUNSELL, a citizen of the United States, residing at Dodge City, in the county of Ford, State of Kansas, have invented certain new and useful Improvements in Railway-Coaches, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in railway-coaches; and it consists in the novel construction and arrangement of the same hereinafter fully set forth and described.

The objects of my invention are, first, to obviate the jerking, rasping motion caused by sudden starting or stopping, uneven tracks, rounding curves, &c., by constructing a railway-coach in two sections and suspending the upper section on columns which are secured to the lower or truck section; second, to provide a railway-coach, which may be suspended on the trucks in such a manner as to give an easy swinging motion, constantly maintaining a perpendicular position, and in case of said coach leaving the track or being ditched the upper section will swing free from the lower section, as attached to the truck and rolling-gear, and rest in an upright position on the ground; third, to attain these ends with simplicity and economy, which I do by constructing the coach and equipments illustrated in the accompanying drawings, in which—

Figure I is a side elevation of my improved railway-coach, having the side wall partly broken away, showing in section the floors of the coach and truck, respectively, and the manner in which the coach is suspended from columns. Fig. II is a cross-sectional view of the coach, taken on line *y y* of Fig. I, showing more clearly the segmental casings or floors, together with the columns and ball-and-socket bearings, by means of which said coach is suspended. Fig. III is a cross-sectional view of same, taken on line *x x* of Fig. I, showing more clearly the space between the main floor and the segmental casing, together with the brake G, and the manner of securing it in position. Fig. IV is a detail in perspective of the roller-brake, and the wrench used in setting and releasing same; and Fig. V is a detail view of one of the supporting-col-

umns, and the ball-and-socket bearing in upper end of same.

Referring to the drawings by letter, A represents a railway-coach constructed substantially as shown, having its upper section B (the coach proper) provided with a segmental casing C and a suitable floor C'. (See Figs. II and III.)

D is a floor for the trucks, the contour of which corresponds with the casing C. This floor is rigidly secured to the trucks and rolling-gear and extends through the entire length of the coach, its ends terminating with the platforms D', to which the steps, guards, &c., are secured. Resting on these platforms are similar platforms C'', which are a continuation of the floor C'. These platforms may be constructed of some flexible material and are smaller than the lower ones, so that in case of the coach being thrown from the trucks said platform will escape from the guards, &c., without interfering.

d represents the inclines or bevels formed in the truck-floor D at the points where it terminates into the platforms D'.

E are upright standards or columns rigidly secured to the truck-floor D, the upper ends of which are provided with cups or sockets *e*, in which operate ball-bearings *f*. Said bearings *f* are provided with a grooved saddle *f'*, across which rests the supporting solid steel cables F. These steel cables may operate in the groove of the saddle or they may be rigidly secured to the ball-bearings, if found desirable. In the lower ends of these steel cables F are secured the rods F', which are secured immediately beneath the floor C, (see Fig. I,) and in such a manner that the entire coach B is suspended by cables F over the columns E independent of the rolling-gear and trucks.

F'' are brace-rods, with which the coach may be provided, which run parallel with said coach and with the rods F'. These are to prevent said coach from sagging at its center and also form a support for the rods F', being secured to same by a series of braces or bolts.

G and G' represent the brake, which may be provided for the coach, and is designed to operate between the casing C and the truck-floor D. This brake consists of a roller G',

composed of rubber or other suitable material secured in the arms g' , said arms being secured to main stem G , which is threaded and provided with a nut g , so that said brake
 5 may be set or released at will. The nut g may be operated by the pronged wrench H , (shown in Fig. IV,) and operates in a pocket c , formed between the floor C' and the segmental casing C . (See Fig. III.) The object
 10 of this brake is to provide a means of checking any oscillating motion of the coach when running on an uneven track. The space between the segmental casing C and the corresponding truck-floor D is nominal, two or
 15 three inches being sufficient. The reservoir between the segmental casing C and the car-floor C'' is also nominal as to its depth, as it may be constructed anywhere from eight to fifteen inches at center, as found practicable.
 20 The casing b on the sides of the standards of columns E , inside and out, are to be constructed of some light material, so that in the case of a wreck or other accident, where the coach would leave the track, said casing
 25 would break or become easily displaced without offering too great a resistance, thereby leaving said coach free to swing from the truck. The front and rear of said casings, are to be strongly built, so as to offer sufficient
 30 resistance to any extraordinary longitudinal motion that may occur from collision or otherwise.

The casing C , truck-floor D , and all other parts and materials around the fire-box are
 35 to be constructed of fire-proof material, and said fire-box is secured to truck, so that in case of a wreck or any accident the coach proper is completely separated from said fire-box, thus to a very great extent lessening the
 40 possibility of a conflagration.

The standards E are so constructed that should the longitudinal swinging motion be great at times of sudden starting or stopping
 45 of the car, the supporting-rods F' will not strike against same, but will swing in the space between the sections of said columns. The upper section of car B may be supported by a single support at each end of said car.

Roller-brakes, similar to that shown in Fig.

IV, may be adjusted to lessen and regulate 50 the longitudinal motion of the coach, if required.

As heretofore stated, the principal objects of my invention are to dispense with jars and abruptness of motion imparted to a car hav- 55 ing more direct connection with trucks and rails, allowing an elasticity of motion in all directions.

Having thus fully described my invention, what I claim, and desire to secure by Letters 60 Patent, is—

1. A railway-coach constructed substantially as shown, consisting of the coach B , having the segmental bottom or casing C , the corresponding segmental truck-floor D , termi- 65 nating with platforms, supporting-columns E , and the solid cables F , together with the rods and braces by which the car B is suspended, substantially as specified.

2. A railway-coach, the car proper sus- 70 pended from columns by suitable steel cables, the columns and cables for supporting the same, and the roller-brakes for preventing any swaying motion, substantially as specified.

3. In a suspended railway-coach, the sus- 75 pended car B , constructed independent of the truck, the supporting columns and cables resting on ball-and-socket bearings, the roller-brakes operated as shown, the flexible platform C'' , and the method of suspending the 80 coach separately from the rolling-gear and truck, in combination, all substantially as set forth and described.

4. In a suspended railway-coach, the sus- 85 pended car B , constructed independent of the truck, the supporting columns and cables resting on ball-and-socket bearings, the roller-brakes, as shown, the platform C'' , and the method of suspending the coach separately 90 from the rolling-gear and truck, in combination, all substantially as set forth and described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM W. MUNSELL.

Witnesses:

W. E. TEARE,

W. T. COOLIDGE,