(No Model.)

J. M. DAVIS.

RAILWAY CAR.

No. 405,696. Patented June 25, 1889.

Fig. 1.

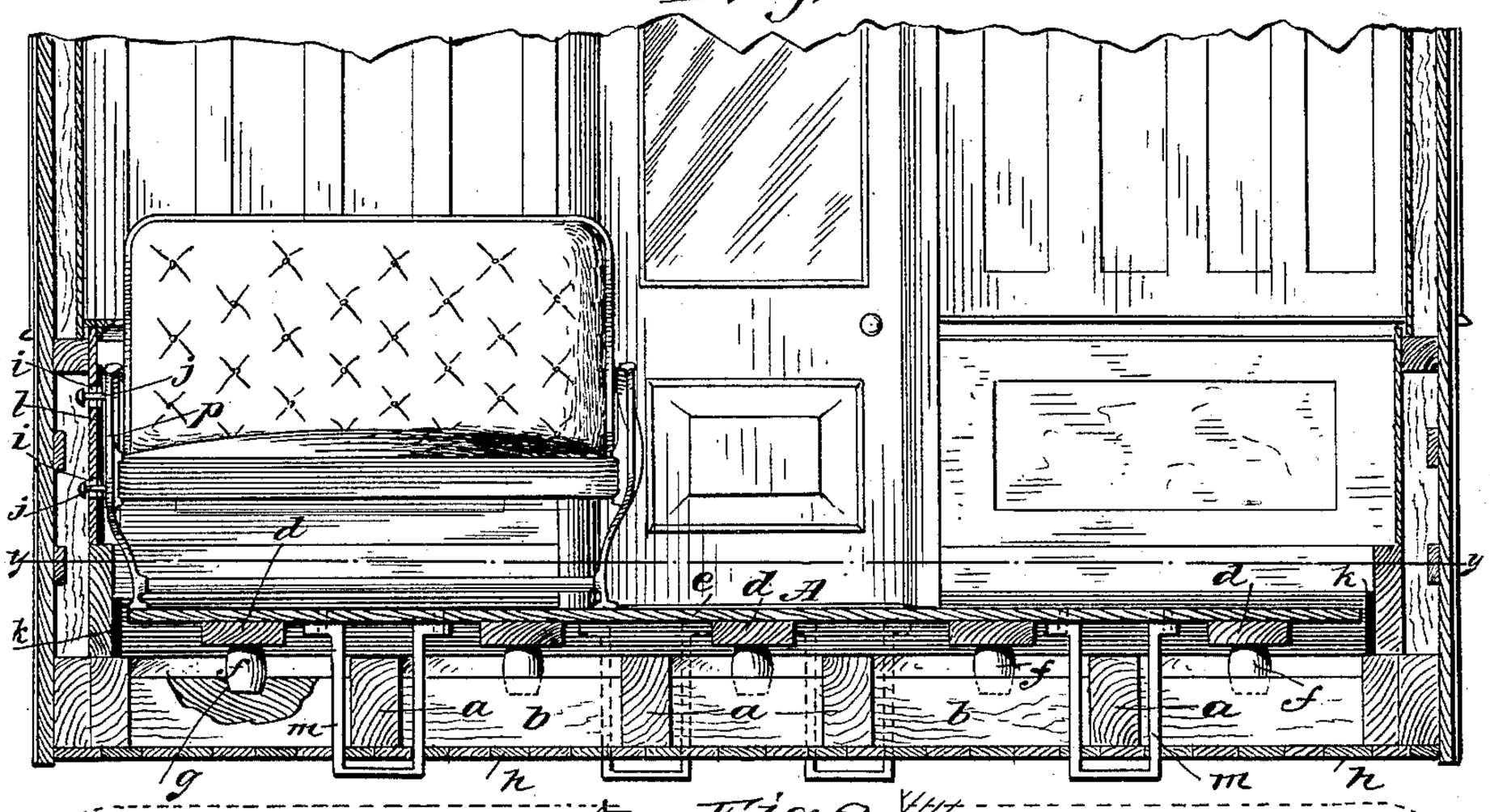


Fig. 2.

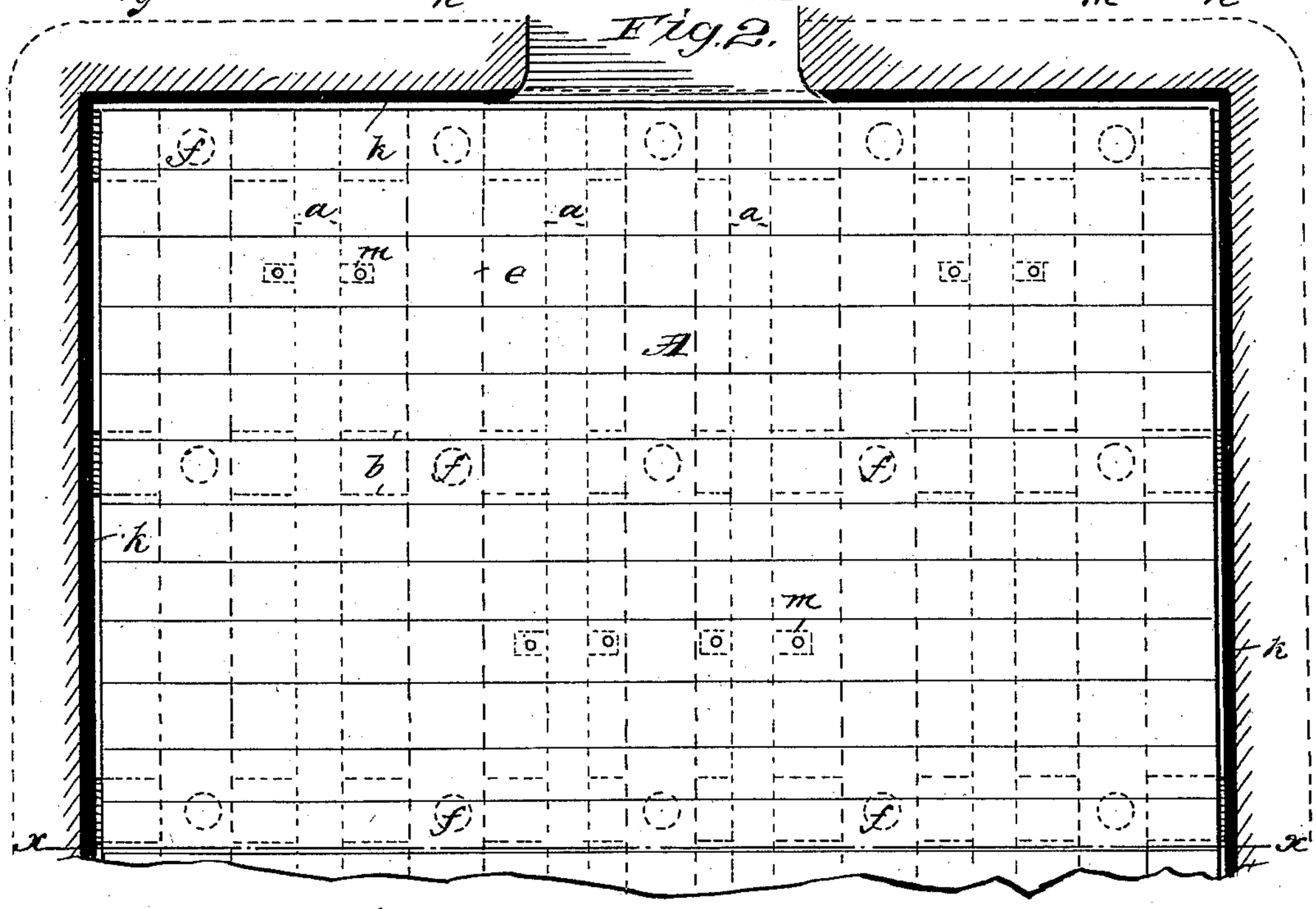


Fig. 3.

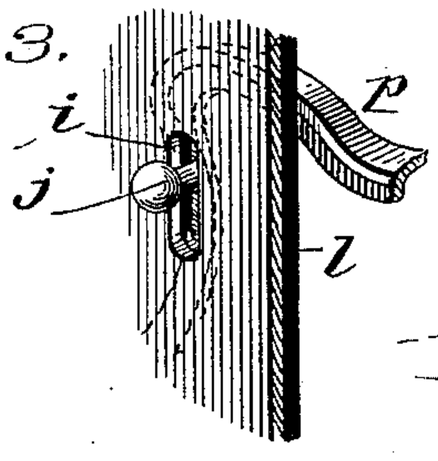
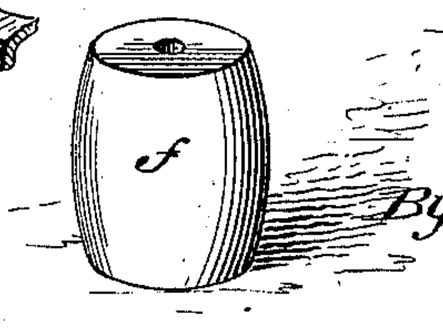


Fig. 4.



Witnesses:
J. D. Garfield
Wm. C. Bellamy

Inventor:
Jehiel M. Davis,
By Coburn & Co
Atty's

UNITED STATES PATENT OFFICE.

JEHIEL M. DAVIS, OF NORTHAMPTON, MASSACHUSETTS.

RAILWAY-CAR.

SPECIFICATION forming part of Letters Patent No. 405,696, dated June 25, 1889.

Application filed January 21, 1889. Serial No. 296,999. (No model.)

To all whom it may concern:

Be it known that I, JEHIEL M. DAVIS, a citizen of the United States, residing at Northampton, in the county of Hampshire and State of Massachusetts, have invented new and useful Improvements in Railway-Cars, of which the following is a specification.

This invention relates to improvements in railway and other cars, pertaining particularly to the floor thereof, which is spring-supported from and vertically movable with relation to the body or frame of the car; and to this end the invention consists in the construction and combination of parts, substantially as hereinafter described, and set forth in the claims.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the views.

Figure 1 is a cross-sectional view of the lower part of a railway-car body, a car-seat being shown in front elevation at one side thereof. Fig. 2 is a plan view of the floor as seen below the line *y y*, Fig. 1. Line *x x*, Fig. 2, indicates on what plane the section Fig. 1 is taken. Figs. 3 and 4 are perspective views illustrative of details hereinafter referred to.

The lower framing of the car is to be of any usual or approved construction, comprising longitudinal girders *a* and cross-beams *b*, above which the flooring A is supported upon springs *f*, and which rest upon the said lower frame. As shown, said springs consist of rubber blocks of a general cylindrical form, seated in sockets *g* of the beams, and the flooring, consisting of the string-pieces *d* and planking *e*, rests by the string-pieces on the said rubber blocks.

The body of the car below the lower frame is shown as inclosed by sheathing *h*, and the side walls of the car around the said floor are provided with cushions *k* of compressible or spring material, as rubber, which may be applied in the form of banding of considerable thickness, as shown in the drawings, or may be applied at intervals in the length and width of the car, and as the said floor A fits loosely in the car-body, whereby no material bind at its edges is occasioned by contact with the sides of said body, any shock incidental to endwise chucking of the said floor will, by said cushions, be obviated. The car-seat frames *p*, resting on said spring-supported floor and movable therewith, have rigid-headed studs *j* at their ends, which project through vertical slots *i* in the side walls of the car, steadying said seats and yet permitting the slight vertical movement thereof.

The sides of the car adjacent to the end of the car-seat frames are provided with cushions *l* of compressible material for deadening shock occasioned by any lateral throw thereof.

Yokes *m* are fastened to the flooring A and project downwardly below the frame, embracing the beams or girders, having a freedom of vertical play, so as in no way to obstruct the springing movements of the floor and yet, in case of accident, to preserve a certain degree of integrity between the framing and flooring.

Yokes embracing the beams, substantially as shown, are preferred over headed bolts, which might be employed to have a limited vertical play through the beams or girders, as by the use of the first-named devices the strength of the frame is not impaired.

Mounting the floor of the car on springs, the same being independently movable with respect to the frame, as described, obviously renders the conveyance an easy-riding one as regards the comfort of passengers, it of course being understood that the car-body is to be spring-mounted as a whole upon the trucks, as usual.

What I claim as my invention is—

1. In a car, the combination, with the body having the lower frame rigidly constructed thereon, of a floor spring-supported therefrom and vertically movable, and cushions between the edges of said floor and the side walls of the car-body, substantially as and for the purpose described.

2. In a car, the combination, with the body having the lower frame rigidly constructed thereon, of a floor spring-supported therefrom and vertically movable, and devices, substantially as described, to limit the upward movement of said floor, substantially as and for the purpose set forth.

3. In a car, the combination, with the body having the lower frame rigidly constructed thereon and provided in its side walls with vertical slots, of a floor spring-supported from

said lower frame and vertically movable thereon, and the car-seats resting on said floor having studs at their ends playing in said slots, substantially as set forth.

4. In a car, the combination, with the body having the lower frame rigidly constructed thereon and provided in its side walls with vertical slots, of a floor spring-supported from said lower frame and vertically movable thereon, the car-seats resting on said floor having studs at their ends playing in said slots, and cushions between the ends of the seat-frames and the side walls of the car, substantially as and for the purpose described.

JEHIEL M. DAVIS.

Witnesses:
WM. S. BELLOWS,
G. M. CHAMBERLAIN.