

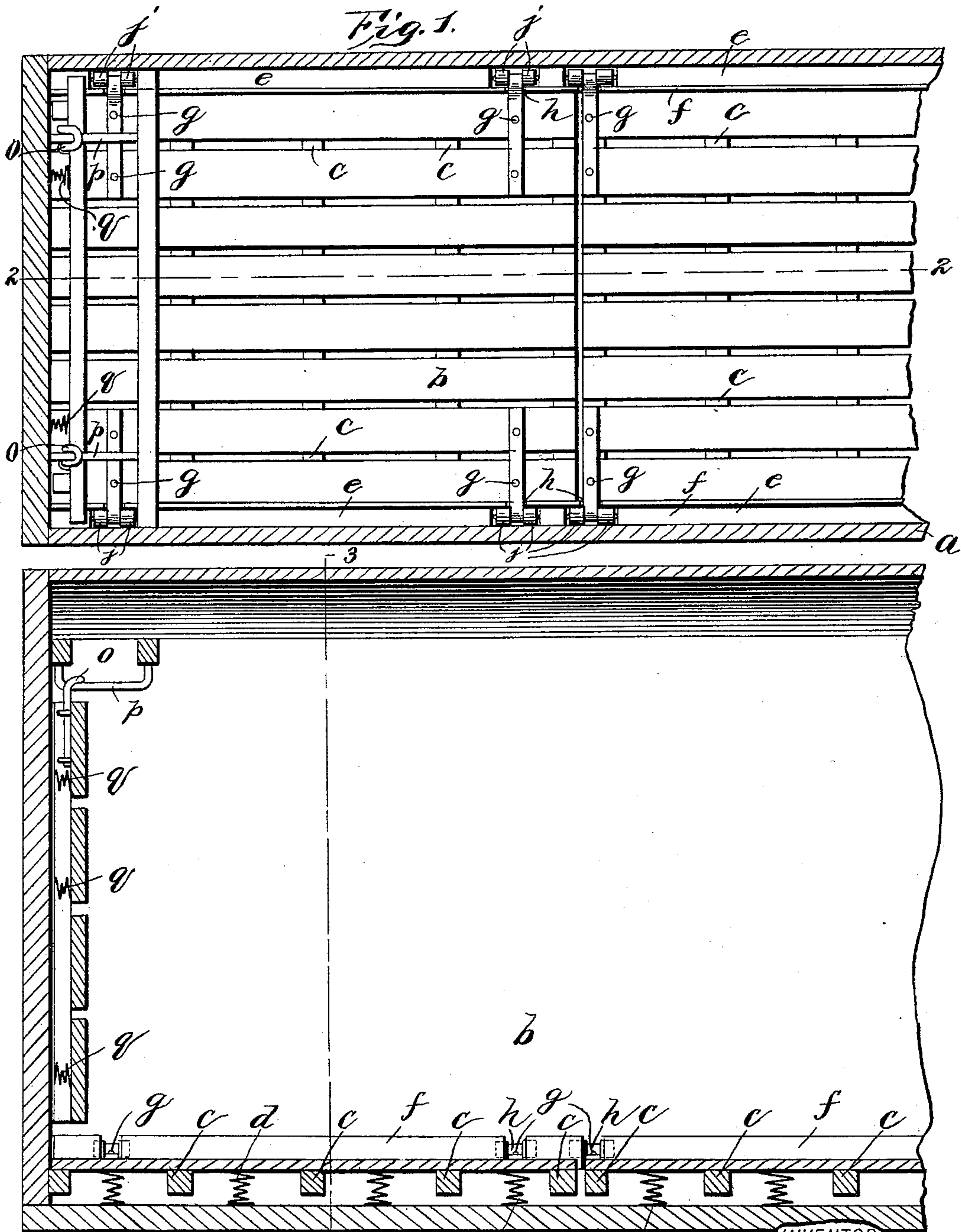
(No Model.)

2 Sheets—Sheet 1.

A. J. ADAMSON.
FREIGHT CAR.

No. 538,439.

Patented Apr. 30, 1895.



WITNESSES

Ed. Duffy

Hubert E. Peck

Fig. 2.

INVENTOR

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ATTORNEY.

(No Model.)

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Fig. 3.

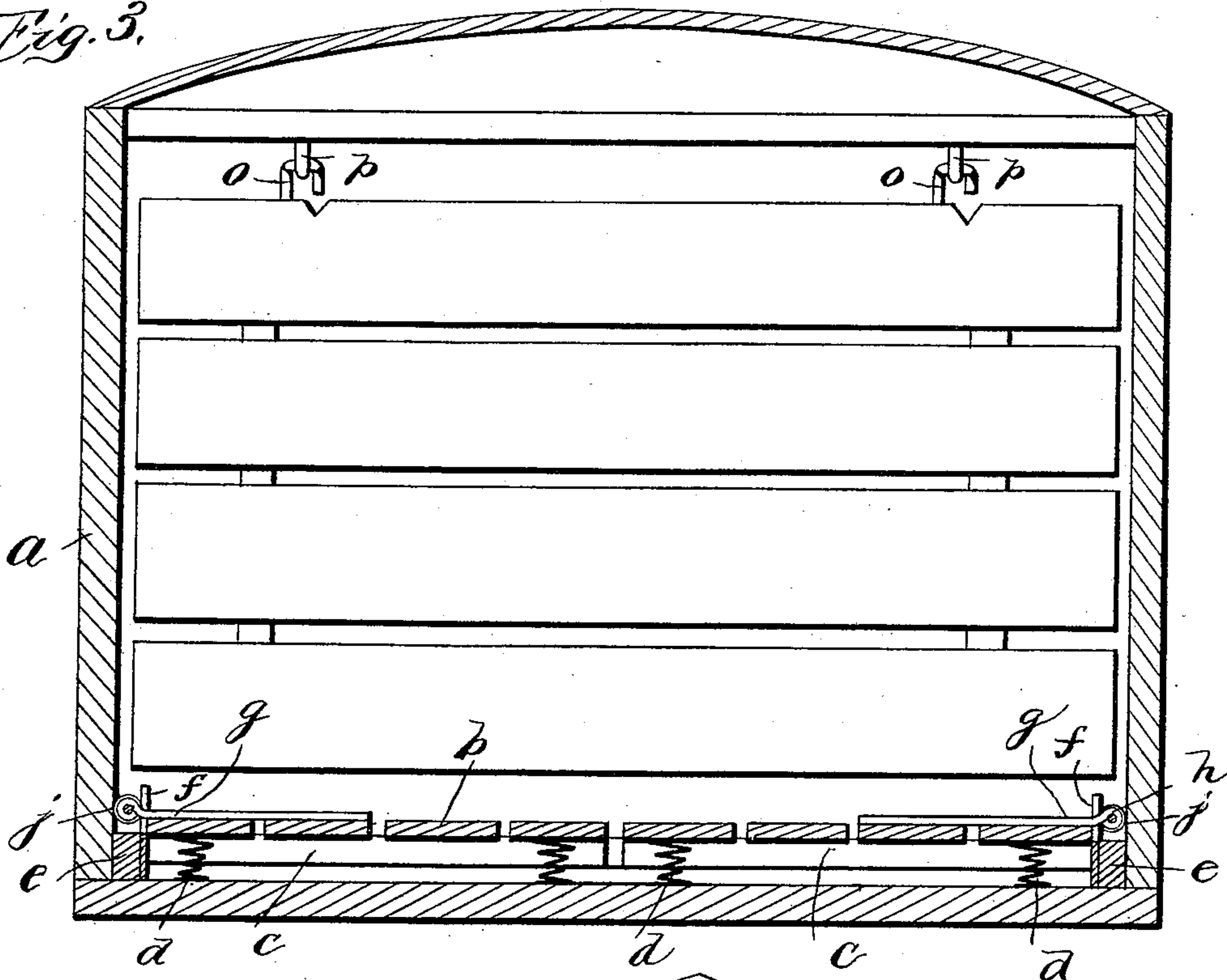


Fig. 4.

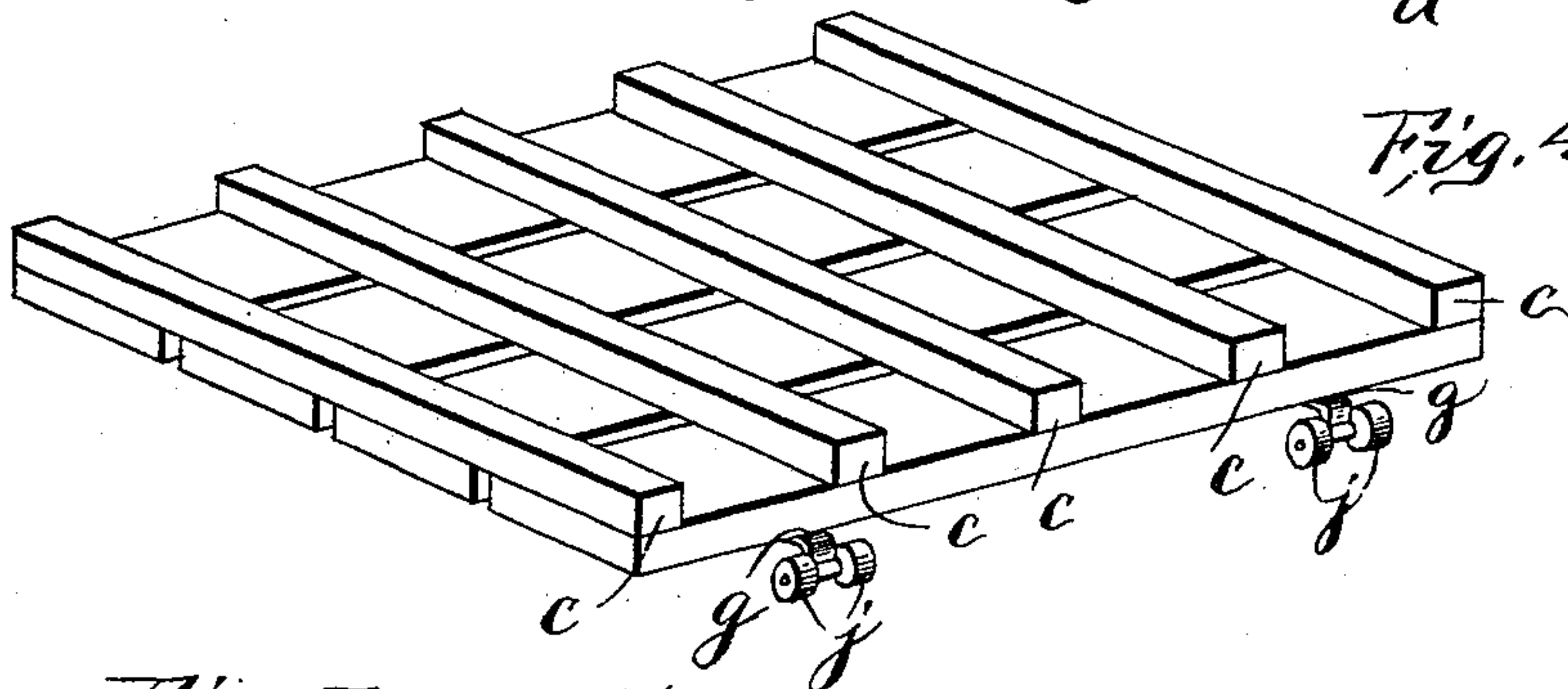
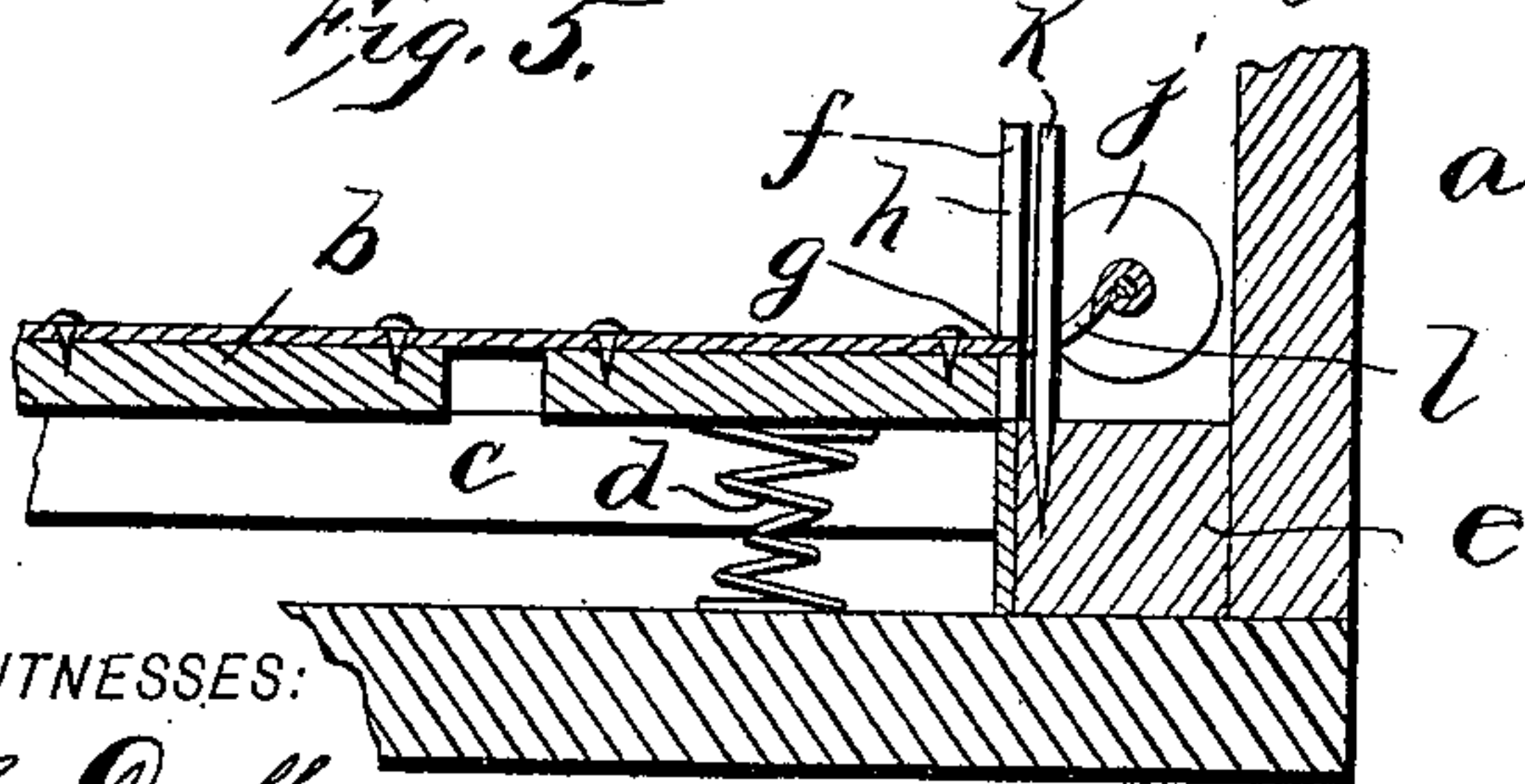


Fig. 5.



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UNITED STATES PATENT OFFICE

ANDREW J. ADAMSON, OF SABETHA, KANSAS.

FREIGHT-CAR.

SPECIFICATION forming part of Letters Patent No. 538,439, dated April 30, 1895.

Application filed March 16, 1894. Serial No. 503,896. (No model.)

To all whom it may concern:

Be it known that I, ANDREW J. ADAMSON, of Sabetha, in the county of Nemaha and State of Kansas, have invented certain new and useful
5 Improvements in Freight-Cars; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings,
10 and to the letters of reference marked thereon, which form part of this specification.

This invention relates to certain improvements in cars, and more particularly to im-
15 provements in freight cars.

The object of the invention is to provide an improved yielding or spring floor for cars exceedingly simple and durable in construction and which can be easily placed in or removed
20 from the car.

A further object of the invention is to provide a car with an improved yielding or spring supplemental floor constructed in sections so that the floor can be easily handled or trans-
25 ported.

A further object of the invention is to provide a car with a supplemental or spring bottom wherein the floor can be forced down to its rigid seat without injuring or completely
30 compressing the springs.

A further object of the invention is to provide a car with a yielding or spring supplemental floor and with yielding end walls or partitions.

35 The invention consists in certain novel features of construction and in combinations of parts more fully and particularly described and pointed out hereinafter.

Referring to the accompanying drawings,
40 Figure 1 is a horizontal section through a portion of a car. Fig. 2 is a longitudinal section on line 2 2. Fig. 3 is a cross-section on the line 3 3, Fig. 2. Fig. 4 is a detail perspective of one of the supplemental-floor sections reversed, the springs not being shown. Fig. 5
45 is a detail sectional view through a portion of the supplemental floor and side of the car.

In the drawings, the reference letter *a*, is an ordinary car, such as a freight car, having the
50 ordinary rigid floor, and end and side walls.

b, is a supplemental removable spring floor

supported by the floor proper. This supplemental floor is preferably built up of a series of sections, the floor being usually divided longitudinally and transversely to form rectangular similar sections of such dimensions
55 that they can be easily handled and transported and placed in or removed from the cars. Each section consists of floor boards or planks on which the boxes or material loaded
60 in the car, directly rest; and suitable cross beams *c*, or other supports at the lower side of the floor and on which the floor planking is secured. These cross beams *c*, constitute rigid rests or supports arranged to rest on the
65 ordinary floor of the car when the supplemental floor is forced or loaded down to its limit of downward movement.

d, are the coiled springs yieldingly upholding the supplemental floor. These springs
70 are preferably secured at their upper ends to the supplemental floor between the rests or supports thereof so that their lower ends rest on the floor proper of the car. The springs are thus arranged so that the supplemental
75 floor can be forced down to its rigid seat or base without completely compressing the springs, thereby preventing injury to the springs. This is accomplished by securing
80 the springs so that their upper ends are arranged in planes above the lower ends of the rigid rests of the supplemental floor which rest on the floor proper. Thus the cross beams
85 of the supplemental floor rest on the car floor proper, while the springs are arranged between said beams extending up to the supplemental floor planking or boards. Suitable
springs can be employed although I here show
volute coiled springs.

The supplemental floor can be suitably
90 guided in its vertical movements by any suitable means. In the present instance the longitudinal sills or beams *e*, are secured on opposite sides of the floor proper of the car at the lower edges of the car sides with suitable
95 rigid plates or metal strips *f*, secured thereto projecting upwardly beyond their inner edges.

The supplemental floor has lateral arms *g*, rigidly secured thereto and projecting from
100 the outer edges thereof through vertical elongated guide slots *h*, in said strips or plates *f*.

The ends of these arms within the said strips and over the sills *e*, can be provided with the anti-friction rollers *j*.

If desired vertical pins *k*, can be provided 5 passing through slots *l* in the arms *g*, to guide the same. The rollers *j*, work vertically between the inner surfaces of the car side walls and the plates *f*, so as to hold the supplemental floor against lateral rocking and yet 10 permit free vertical play thereof. If desired the anti-friction rollers can be dispensed with and the vertical pins *k*, and slots *l*, used instead. It will be observed that these guiding means for the supplemental floor permit the 15 sections thereof to be easily removed vertically.

When the supplemental floor sections have been properly arranged they are usually secured or locked together in any suitable manner 20 so that they all move together as one integral floor.

Great advantages are attained by providing a supplemental floor in sections, as the sections can be readily removed from the car 25 to permit cleaning or for other purposes, and ordinary freight cars can be quickly and easily provided with such floors, and the floors can be easily transported.

The ends of the car can be provided with 30 yielding ends or partitions *n*, so as to take up the endwise or longitudinal jar imparted to the packages or load of the car during stopping, starting, &c., of the train. The load resting against the said yielding ends is thus 35 prevented from being injured by being suddenly forced against the rigid car ends. These partitions can be hung by means of hooks *o*, or other devices from the rods *p*, arranged longitudinally in the upper portion of the car 40 and supported by suitable cross bars. The partition hangers are arranged to slide on said rods so that the partitions can freely yield longitudinally of the car.

The hangers are preferably in the form of 45 hooks so that the partitions can be easily removed.

q, are the coiled springs secured to the partitions and interposed between the car ends and said partitions. These partitions have 50 the cross beams on their rear sides to prevent the springs being injured.

The great advantages and utility of this invention are obvious, as the cars can carry loads of eggs, fruit, stock, &c., without in- 55 juring the same by jars and shocks usually incident to railway transportation.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

60 1. A car having a supplemental spring floor arranged on the car floor proper, said

supplemental floor provided with depending rigid rests and with coiled supporting springs secured to said floor between the rests, and 65 removably resting on the car floor proper so that the supplemental floor can be placed in or removed from the car with the springs and rests, substantially as set forth.

2. A car provided with the removable suspended end partitions, movable longitudinally of the car, and having springs interposed at their rear faces, and movable hangers supporting such partitions. 70

3. The car having the vertical guides at its side walls, and the supplemental floor provided with sustaining springs resting on the 75 car floor proper, said guides extending above the horizontal plane of the supplemental floor and the lateral arms from the edges of the supplemental floor passing between said 80 guides and having the projections behind the same.

4. A supplemental car floor comprising the cross beams and the boards thereon and the coiled springs between the cross beams and 85 secured to the boards so that the supplemental floor can be inserted or removed complete from the car.

5. The herein described supplemental removable car floor constituting a complete 90 floor to sustain the load and formed in removable sections fitting together and having the springs secured to the under side thereof and provided with vertical guides to prevent lateral play, substantially as described. 95

6. The supplemental car floor composed of the removable sections fitting together to form a complete floor, each section having coiled springs secured to its under side to rest on the car floor proper so that the sections can be readily applied to or removed 100 from a car, substantially as described.

7. A supplemental car floor for cars composed of separate removable sections sustained by springs and fitted together to form 105 the complete floor, substantially as described.

8. A supplemental spring floor formed to be placed on an ordinary car floor and composed of sections fitting together, each section complete in itself with coiled springs 110 secured to its under side to rest on the car floor and rigid rests to engage the car floor if the supplemental floor is overloaded, substantially as set forth.

In testimony that I claim the foregoing as 115 my own I affix my signature in presence of two witnesses.

ANDREW J. ADAMSON.

Witnesses:

HUBERT E. PECK,
C. M. WERLÉ.