

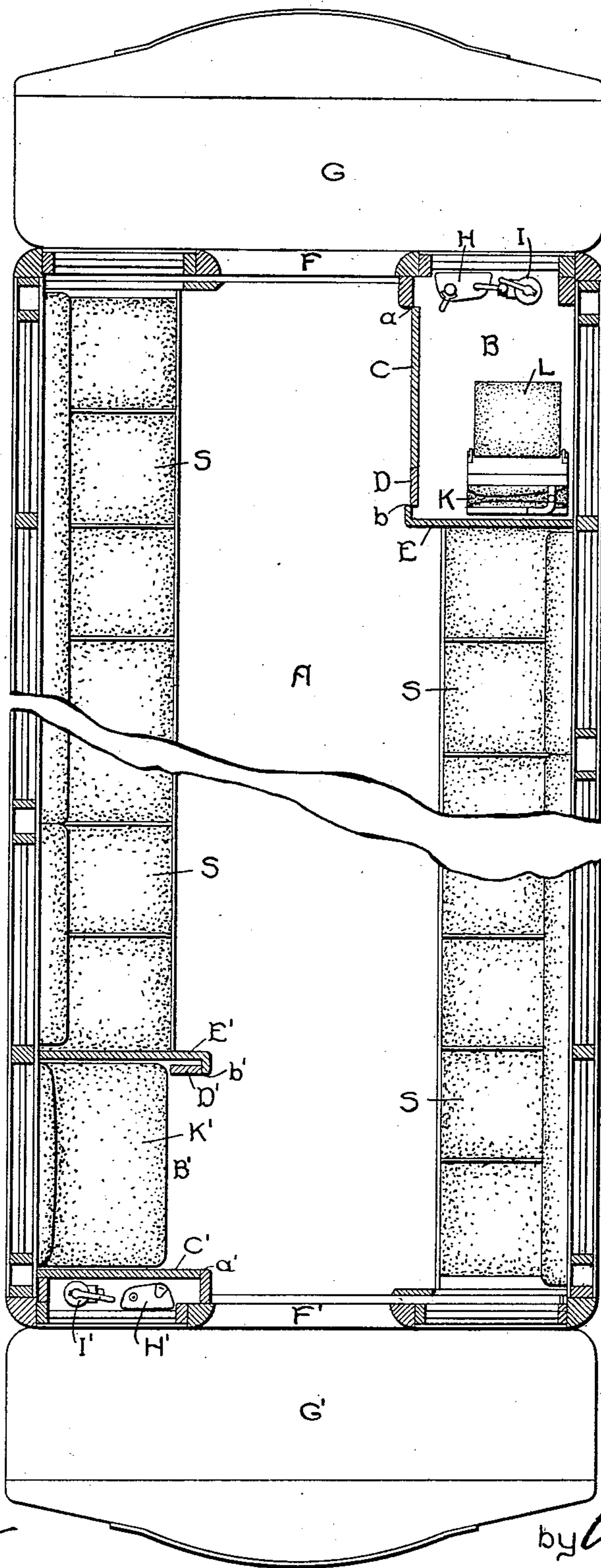
J. S. DOYLE.
 CONVERTIBLE CAB FOR RAILWAY CARS.

APPLICATION FILED SEPT. 24, 1902.

NO MODEL.

7 SHEETS—SHEET 1.

Fig. 1.



Witnesses.

Ewing K. Kurney
Green C. Ford

Inventor.

James S. Doyle.

by *Alfred H. Davis*
 Atty.

No. 750,951.

PATENTED FEB. 2, 1904.

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NO MODEL.

7 SHEETS—SHEET 2.

Fig. 2.



Witnesses.

Ewing R. Kurney.
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PATENTED FEB. 2, 1904.

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NO MODEL.

7 SHEETS—SHEET 3.

Fig. 3.



Witnesses.

Eugene R. Quinry
Helen O'ford

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PATENTED FEB. 2, 1904.

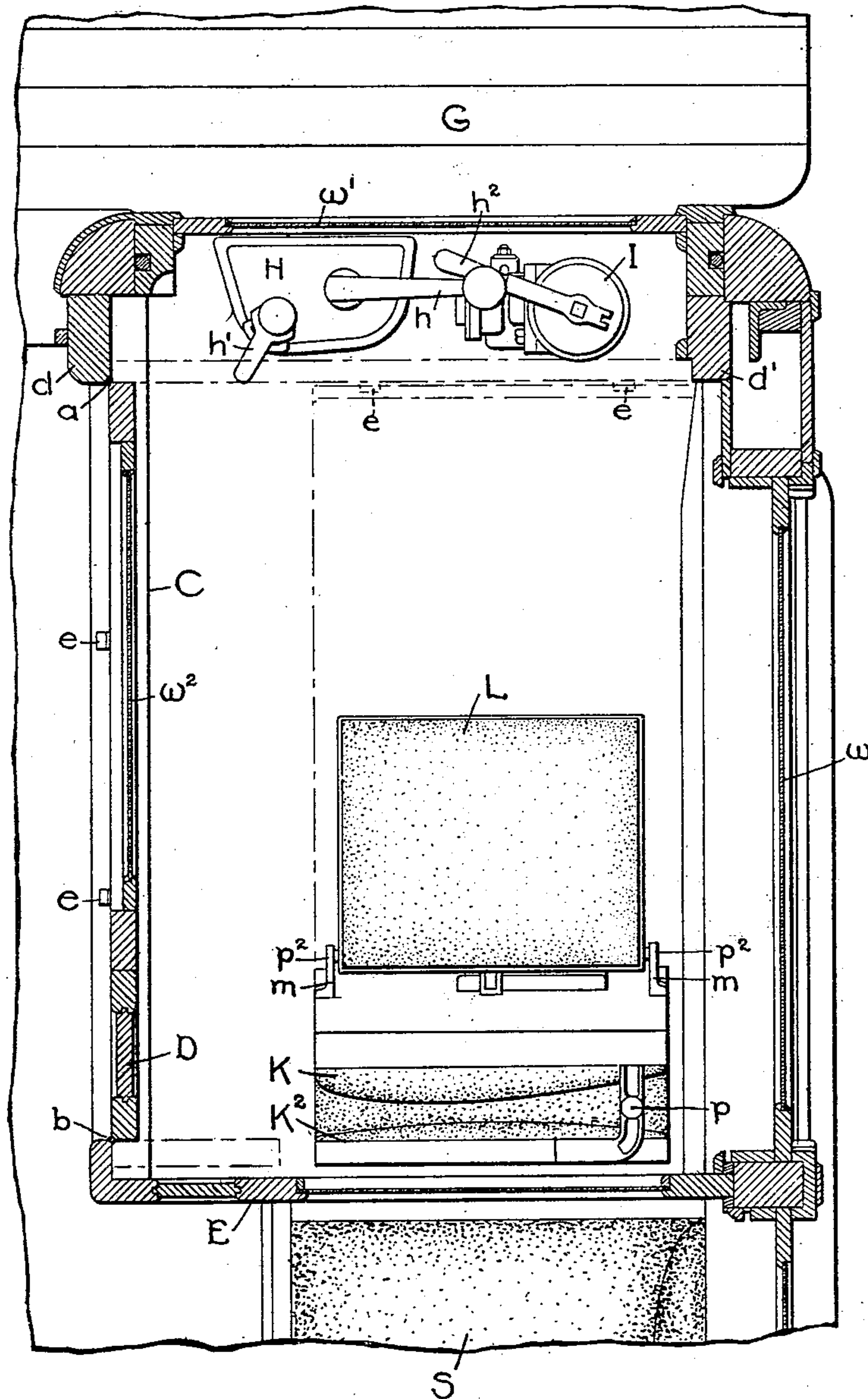
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7 SHEETS—SHEET 4.

Fig. 4..



Witnesses.

Ernie R. Kurney.
Helen Erford

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James S. Doyle,
by *Albert H. Davis*
Atty.

No. 750,951.

PATENTED FEB. 2, 1904.

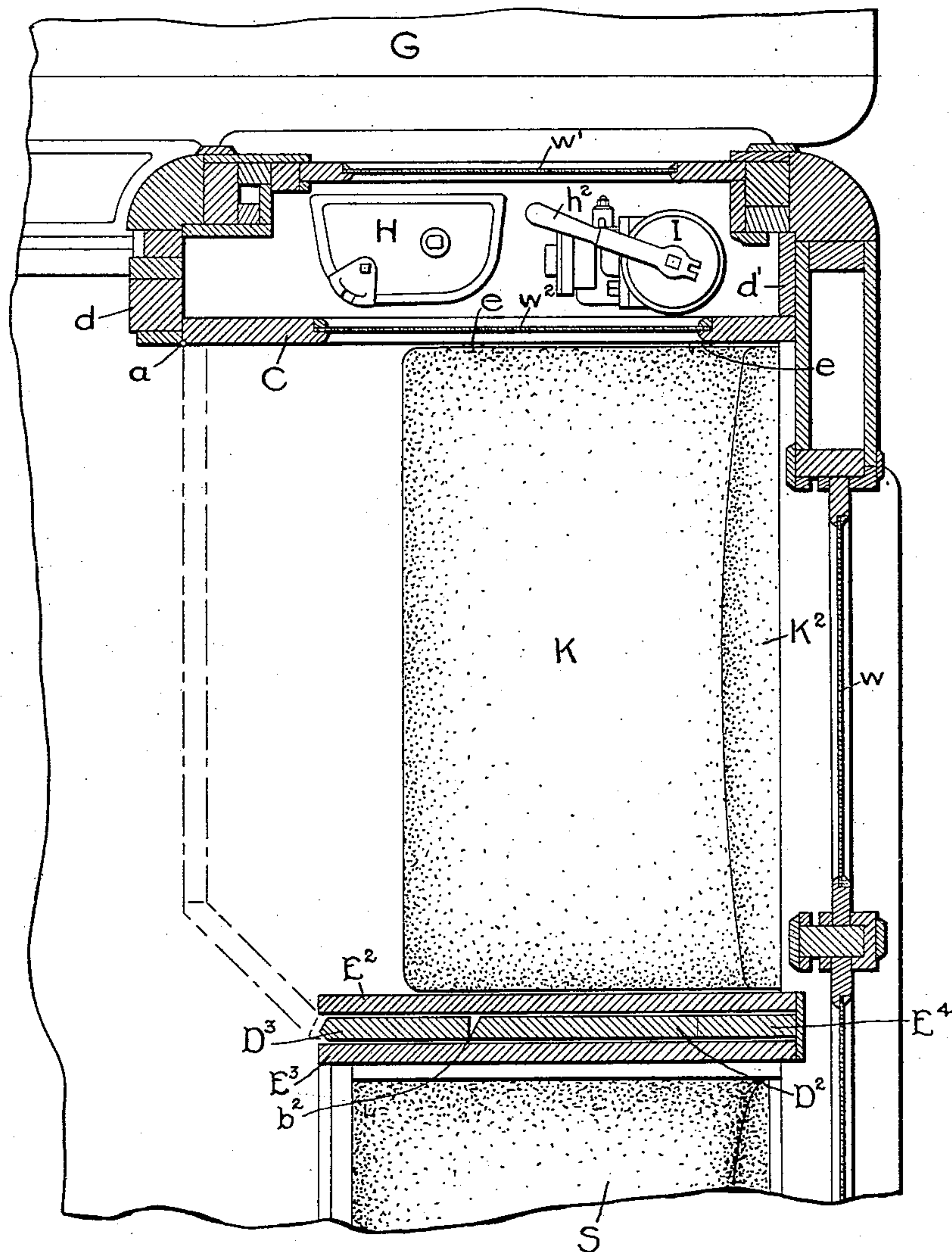
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NO MODEL.

7 SHEETS—SHEET 5.

Fig. 5.



Witnesses.

Ewing R. Runney.
Henry W. Ford

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7 SHEETS—SHEET 6.

Fig. 6.

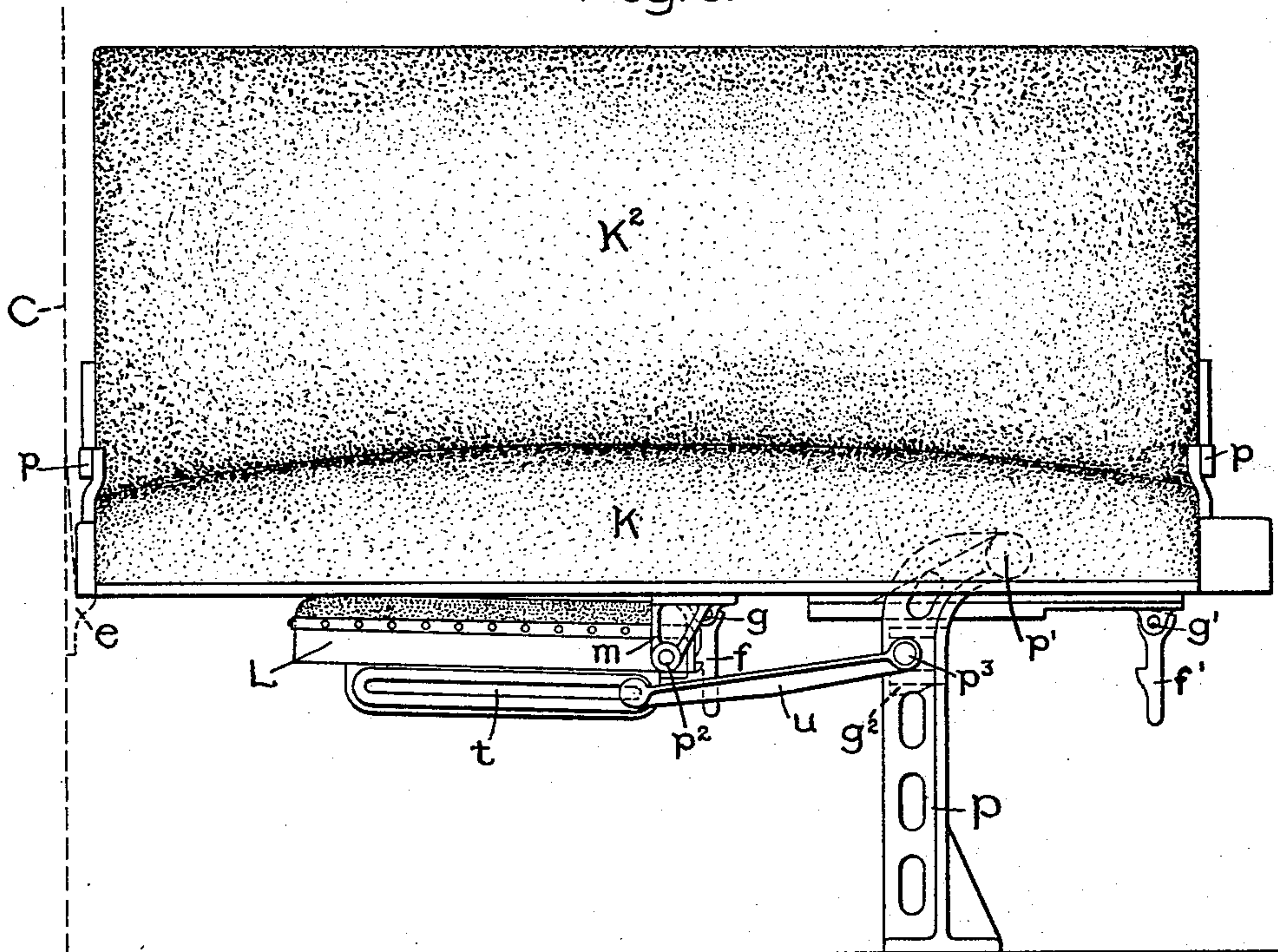
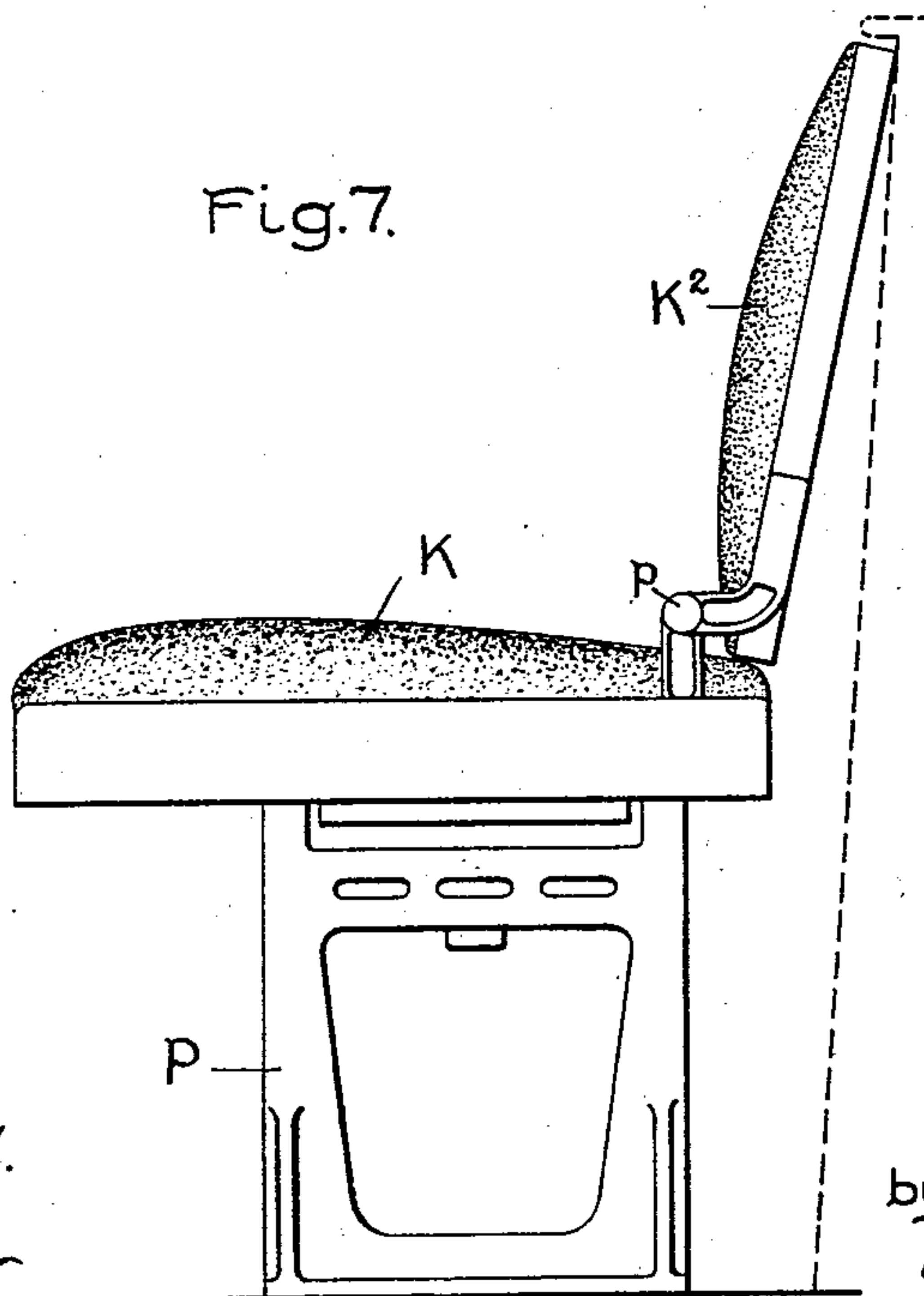


Fig. 7.



Witnesses.

Ewing R. Sumner.
Henry A. Ford

Inventor.

James S. Doyle.

by

Albert H. Davis

Atty.

No. 750,951.

PATENTED FEB. 2, 1904.

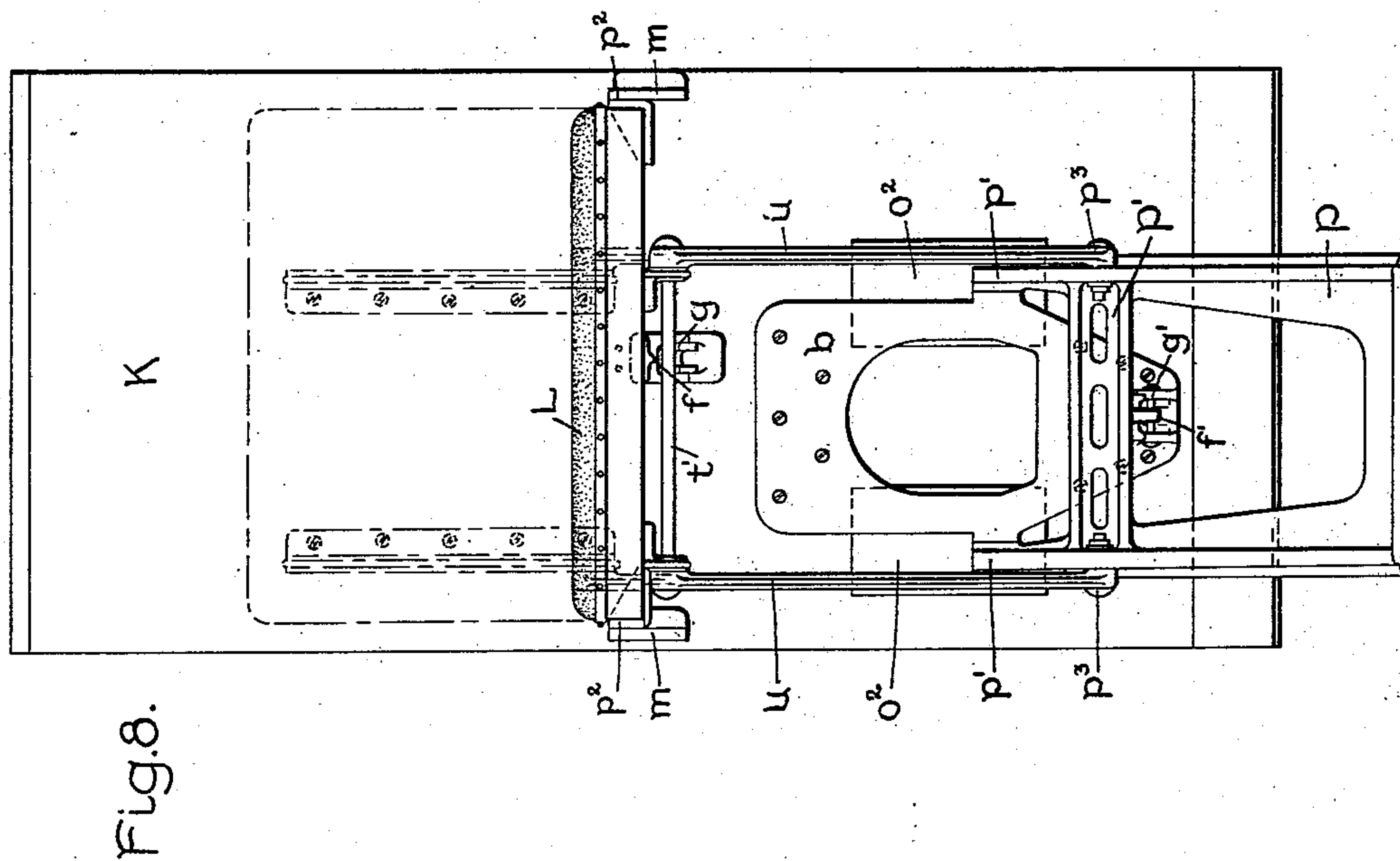
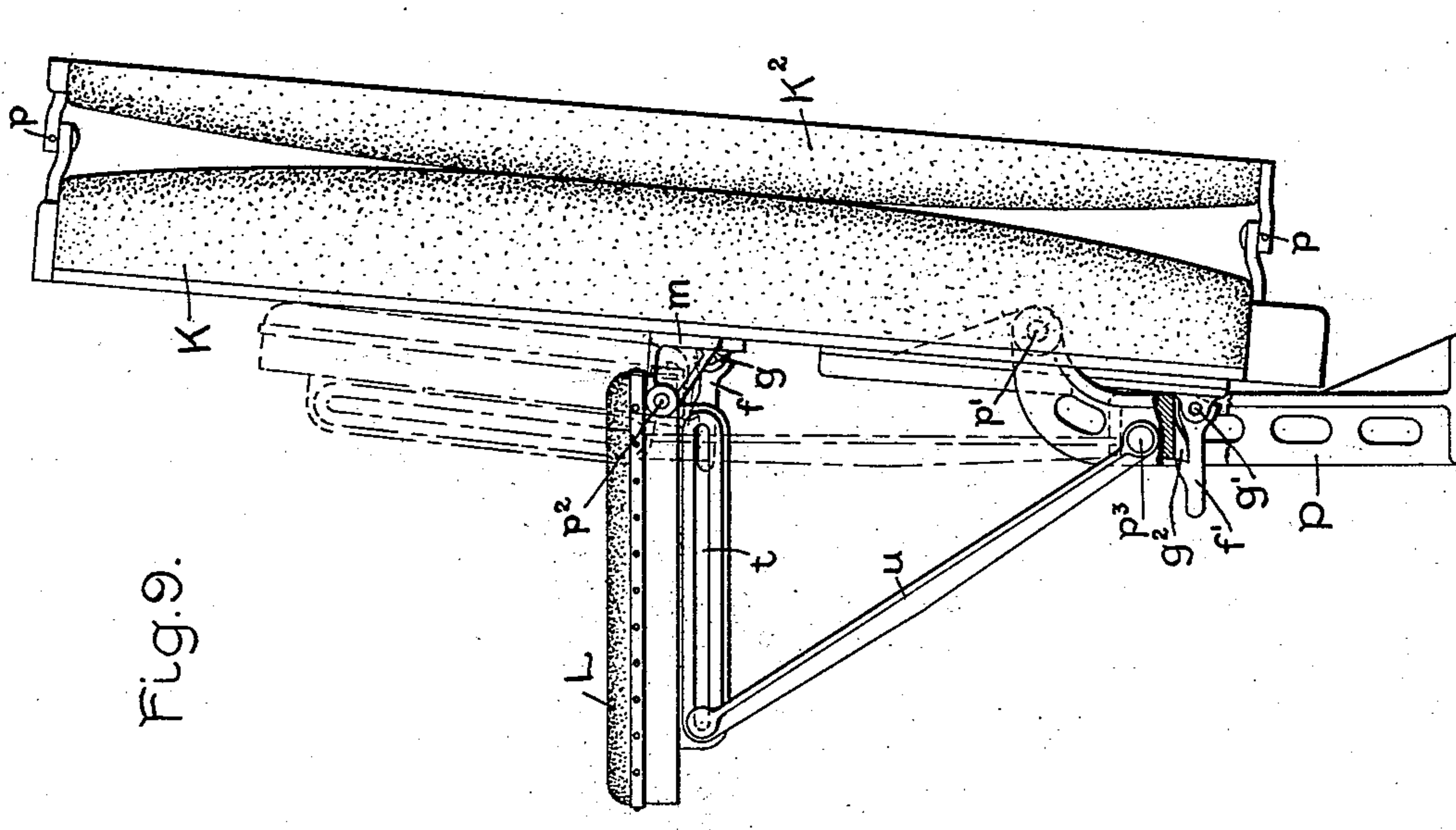
J. S. DOYLE.

CONVERTIBLE CAB FOR RAILWAY CARS.

APPLIOATION FILED SEPT. 24, 1902.

NO MODEL.

7 SHEETS—SHEET 7.



Witnesses.

Ewing R. Surrency.
Helen Oxford

Inventor.
James S. Doyle,
by *Albert H. Davis*
Atty.

UNITED STATES PATENT OFFICE.

JAMES S. DOYLE, OF NEW YORK, N. Y.

CONVERTIBLE CAB FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 750,951, dated February 2, 1904.

Application filed September 24, 1902. Serial No. 124,621. (No model.)

To all whom it may concern:

Be it known that I, JAMES S. DOYLE, a citizen of the United States, residing at New York, county of New York, State of New York, have
5 invented certain new and useful Improvements in Convertible Cabs for Railway-Cars, of which the following is a specification.

My invention relates to improvements in the construction of railway-cars, and more particularly to motor-cars, such as are used on
10 electric, cable, or other similar roads.

The main object of my invention is to so construct the car that the part of the car occupied by the motorman or operator, and in
15 which part of the car the controlling devices for the motors, brakes, cable-grips, &c., (depending upon the type of road on which the said motor-car is run) are located, may be converted into a cab or compartment which will
20 separate the motorman or operator and the controlling devices from the passengers and at the same time allow an uninterrupted passage-way for the passengers through the points of ingress and egress of the car.

A further object of my invention is to allow the use by the passengers at the time the motorman is operating the car or train from the opposite end of said car or from some other
25 car of the train of the space previously occupied by said cab.

A further object is to provide means whereby the controlling devices when not in use are inclosed in a comparatively small space and
30 securely protected from accidental or intentional damage.

My invention consists of a railway-car provided with a convertible cab having a movable partition which is constructed to cooperate with preferably fixed partitions or walls to
40 form a compartment for use by the motorman when operating the car and when the controlling apparatus is not in use to allow the space previously occupied by the motorman to be used for containing a seat or seats for passengers. The movable partition is so constructed
45 and arranged as to inclose the controlling apparatus within a small compartment and protect the same from injury whenever the said apparatus is not in use by the motorman.

50 My invention further consists of the combination, with a railway-car provided with controlling apparatus located against the end wall thereof, of a convertible cab having a fixed partition and a movable partition adapted when in one position to form with the walls
55 of the car a small compartment inclosing only the controlling apparatus, and a convertible seat arranged to fill the space between the fixed partition and the movable partition when the latter is in position to inclose only the controlling apparatus.

60

The specific form of convertible seat herein shown and described is not claimed in this application, since it forms the subject-matter of a divisional application, Serial No. 141,223,
65 filed January 31, 1903.

My invention comprises also other features of invention, as will appear from the following description, taken in connection with the accompanying drawings, in which—
70

Figure 1 is a sectional plan view of the interior of a car which is equipped with my invention, the sides of said car being shown in section and the central portion of the car broken away. Fig. 2 is a perspective view of
75 the preferred form of my convertible cab ready for use by the motorman. Fig. 3 is a similar perspective view of the same, showing the removable partition folded back to inclose the controlling apparatus and the convertible seat
80 in position for use by passengers. Fig. 4 is a sectional plan view similar to Fig. 1 of one corner of the said car, showing the preferred form of convertible cab on a larger scale. In this figure the cab is shown closed and the
85 motorman's seat is shown in position for use by the motorman. Fig. 5 is a similar view of a modified form of a convertible cab. In this figure the cab is shown open and the passengers' seat is shown in its position for use by
90 the passengers. Figs. 6 and 7 are front and end elevations, respectively, of the combined passenger and motorman's seat, showing the seat in its position for use by passengers; and Figs. 8 and 9 are front and end elevations of
95 the combination-seat, showing the passengers' seat in its inoperative position and the motorman's seat in position for use by the motorman.

Referring now to Fig. 1, A represents the
100

car as a whole, and B and B' represent convertible cabs of the preferred construction located at diagonally opposite corners of said car. The cab B is shown closed and with the
 5 controlling apparatus and motorman's seat in position for use by the motorman. H represents the motor-controller, and I represents the air-brake-controlling valve. The motorman's seat L, which is supported from the
 10 under side of the passenger-seat K in a manner to be hereinafter described, is shown in its operative position within the cab B. G G' represent the platforms, and F F' represent entrances for passengers at the opposite ends
 15 of the car. S represents passengers' seats, which are located on either side of the car. The movable partition C, which is pivoted to a projection from the end wall of the car A at *a*, is adapted to cooperate with the fixed
 20 partition E, located adjacent to the end of the car, so as to form a cab for use by the motorman or operator when said movable partition is in the position shown in Fig. 1. To allow the use of a larger cab than would be possible
 25 if the movable partition C cooperated directly with the fixed partition E, a smaller movable partition D, which is pivoted to the fixed partition E at *b*, is provided. The cab B' corresponds in every respect to the cab B, though
 30 in Fig. 1 the movable partition C', which is pivoted to a projection from the end of the car at *a*, and the movable partition D', which is pivoted to the fixed partition E' at *b*, are shown thrown back, so as to allow the space
 35 which was previously occupied by the motorman when operating the controlling apparatus H' and I' to be used for receiving the seat K' for use by passengers.

My preferred form of cab is shown in perspective in Figs. 2 and 3. The movable partition or door C is shown partly opened outward in Fig. 2 in order to show more clearly the relative position of the controller H, air-brake-controlling apparatus I, and motorman's
 45 seat L in position for use by the motorman. When the controlling apparatus at the end of the car is not in use or is not to be used immediately by the motorman, the partition C is swung back on the pivot *a* into the position
 50 shown in Fig. 3, the partition D is swung back into a position parallel to the fixed partition E, and the motorman's seat L is folded up under the passengers' seat K, which is in turn lowered into the position shown in Fig.
 55 3. The said Fig. 3 clearly shows the small amount of space within the car which is not adapted for use by the passengers when the cab is not in use by the motorman.

In Fig. 4 I have shown on a larger scale than Fig. 1 my preferred form of convertible cab, showing in full section the position occupied by the movable partitions and in plan the position of the combined passengers' and
 60 motorman's seat when the controlling appa-

ratus is being operated by the motorman and
 65 in dotted lines the position of the said movable partitions and the said seat when the controlling apparatus is not in use. The motor-controller H, provided with the operating-
 70 handles *h* and *h'*, and the air-brake-controlling valve I, having operating-handle *h''*, are adapted to be inclosed when not in use by the movable partition C, which is pivoted to the
 75 projection *d* at *a*, the other end of said movable partition resting against the projection *d'*. The side of the car which forms one wall of the convertible cab is provided with a large
 80 window *w* to allow the motorman a clear view of the station-platforms as the car is brought to a stop at or started from the stations. The movable partition D, which is pivoted to the
 85 fixed partition E at *b*, is thrown back into the dotted-line position when it is desired to use the cab-space for passengers' seats. The lugs *e*, fastened on the outer side of the movable
 90 partition C, act as supports for one end of the pivoted convertible seat when the said movable partition C is moved into the position shown in dotted lines and the seat for passengers is moved into its operative position.
 95 The end wall of the car is provided with a window *w'*, which gives the motorman a clear view of the track ahead, the platform G being uninterrupted by a dashboard, fender, or the like. The movable partition C is also
 100 provided with a window *w''*, which is of the same size and shape as the window *w'* and is superposed on said window *w'* when the partition C is moved into its dotted-line position. The lower sashes of said windows could be
 105 made so as to project above the tops of the controllers, so that the controlling devices for the motors and air-brakes would be completely hidden from view when the partition C is turned into its dotted-line position. It
 110 will be understood that the reversing-handle *h'* of the motor-controller H will be removed from said controller when the controlling apparatus is not in use and will not interfere with the movement of the partition C.

In Fig. 5 I have shown a modified form of my convertible cab with movable partitions in full section in the positions they occupy when said controlling apparatus is not in use. The space previously occupied by the motorman is here shown as used for the reception
 115 of a passengers' seat K, having a back K'. The removable partition C is constructed as in the modification shown in Fig. 4, being pivoted to the projection *d* at *a* and the other
 120 end of said movable partition resting against the projection *d'* when the controlling apparatus is not in use. The lugs *e* are carried by the movable partition C, as before, for the purpose of supporting one end of the pivoted
 125 convertible seat K when in the position shown in Fig. 5. The main difference between the modification shown in Fig. 5 and

that shown in Fig. 4 is in the manner of supporting the movable partition D^3 , which corresponds to the partition D of Fig. 4. The fixed partitions E^2 and E^3 are so constructed as to form a housing or recess for the movable partition $D^2 D^3$. The movable partition is slidably mounted in said housing and is adapted to be forced back against the stop E^4 when not in use and to be moved outwardly, so that the part D^3 , which is pivoted to the part D^2 at b^2 , will assume the position shown in dotted lines and cooperate with the movable partition C in its dotted-line position to form a cab for the motorman.

In Figs. 6, 7, 8, and 9 I have shown the convertible seat or the combination motorman's and passengers' seat in its various operative positions, Figs. 6 and 7 representing the seat in its position for use by the passengers, and Figs. 8 and 9 representing the same with the passengers' seat turned back out of the way and the motorman's seat in its operative position. K represents the passengers' seat, and K^2 the back of the seat, which is pivoted to the seat K at $p p$ and is adapted to be folded down parallel to said seat. The seat K is pivoted at one end to the supporting-frame P at p' , the other end of said seat being supported by lugs e , which, as above described, are fastened to the movable partition C, the relative position of said lugs being clearly shown in Fig. 6. Pivoted at p^2 to a bracket m , fastened to the under side of passenger-seat K, is a motorman's seat L, which is held in the position shown in Fig. 6 by means of a spring-pressed catch f when the passengers' seat is in its operative position. The catch f is pivoted to the under side of the passenger-seat at g . When the back K^2 of the passenger-seat is turned down on the pivots $p p$ parallel to the seat K and the said seat K is moved into the position shown in Figs. 8 and 9, the motorman's seat L may readily be moved into its operative position by releasing the catch f , thereby allowing the rod t' , carried by the upper ends of the braces u , to slide along the slotted way t until it comes to rest at the outer end of said way. The braces u are pivoted to the supporting-frame P at $p^3 p^3$. P' represents a cross-brace for the supporting-frame P. The plate b , which is fastened to the under side of the seat K, carries the supporting-pivots p' , which operate in the supporting-frame P. The upper part of the supporting-frame P is curved, and the pivots p' are located in the recesses o^2 in the under side of the seat K for the purpose of allowing a more compact arrangement of parts when the seat is turned into the position shown in Fig. 9. A spring-pressed catch f' , which is pivoted at g' to the under side of the passengers' seat at one end thereof, engages with the lug g^2 , carried by the supporting cross-brace P' when the seat K is moved into the position shown in

Figs. 8 and 9, to maintain said seat in said position.

I have herein shown and described my preferred construction of convertible cab and combination-seat; but I do not intend to be limited to the specific devices shown, as many modifications within the limit and scope of my invention will readily suggest themselves to persons skilled in the art to which my present invention pertains.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a railway-car, controlling apparatus within the car at one or each end thereof, a passengers' seat normally occupying the space adjacent to said controlling apparatus, and partitions arranged near said controlling apparatus for inclosing the space normally occupied by the passengers' seat in such a manner as to form with the walls of the car a compartment for use by the motorman.

2. In a railway-car, controlling apparatus therefor, a convertible cab comprising a fixed partition adjacent to the end of the car and a movable partition adapted to be swung back against the end of the car when the cab is not in use to form a protection for the controlling apparatus and to be swung forward to form with said fixed partition a closed cab.

3. In a railway-car, controlling apparatus therefor, a convertible cab having fixed and movable walls or partitions, said movable walls or partitions being so constructed and arranged that when in certain positions they cooperate with the said fixed walls or partitions to form a compartment to be used by the motorman when operating the car, and when thrown into other positions to serve as a protection for the controlling apparatus and allow the greater part of the space previously constituting said compartment to be thrown into communication with the remainder of the car and contain seats for passengers.

4. In a railway-car, a convertible cab having a fixed and a movable partition, said movable partition when in one position cooperating with the end wall of the car to form a small compartment which completely incloses the controlling apparatus when the said apparatus is not in use, and when in another position cooperates with said fixed partition and the said side and end walls of the car to form a cab for the motorman when he is operating said controlling apparatus.

5. In a railway-car provided with an entrance at one end, a stationary partition, and a movable partition inclosing with the stationary partition the side wall and end wall of the car a space at one side of said entrance, the said movable partition being adjustable to form a smaller compartment by cooperating with the said end wall.

6. In a railway-car provided with an entrance at one end, a stationary partition and

a movable partition, said movable partition inclosing with the said stationary partition and the side and end walls of the car a space at one side of said entrance adapted for use
5 by the motorman when operating the car, said movable partition being so constructed and arranged that when the controlling apparatus is not in use it will close the said apparatus within a narrow compartment and allow the
10 remainder of the space previously used by the motorman to be used for other purposes.

7. In a railway-car, a platform and a convertible cab at each end of the car, the end walls of the car separating the cabs and their
15 adjacent platforms, controlling devices located near the end walls, and movable partitions adapted when the space previously occupied by each cab is used by passengers to form a protection for said controlling devices, said
20 end walls being provided with entrances which are unobstructed by the movable partitions whether or not the controlling apparatus in each of said cabs is in use by the motorman.

8. In a railway-car, a convertible cab having
25 a movable partition, a car-seat in said cab, a support on which one end of said seat is pivoted, and means for allowing said movable partition when in a certain position to act as a support for the other end of said seat.

9. In a railway-car, a convertible cab having
30 a movable partition, a car-seat in said cab, a supporting-frame in which one end of said seat is pivoted, and lugs or brackets carried by said partition on which one end of said
35 car-seat is adapted to rest so that the said partition when in a certain position acts as one of the supports for said seat.

10. In combination, a convertible cab having a movable partition, with a convertible
40 passengers' seat, the said partition being so constructed and arranged as to form a support for one end of said seat when the latter is in position for use by passengers.

11. In a railway-car, a convertible cab comprising a fixed partition adjacent to the end of
45 the car and a movable partition adapted to be swung back against the end of the car when the cab is not in use and to be swung forward to form with said fixed partition a closed cab,
50 and a seat arranged to occupy the space between the fixed and the movable partitions when the cab is not in use.

12. In a railway-car provided with controlling devices at one or both ends of the car, a
55 convertible cab comprising a fixed partition adjacent to the end of the car and a movable partition adapted in one position to form with the said fixed partition a closed cab for a motorman or operator and in another position to
60 inclose the controlling devices only.

13. In a railway-car provided with controlling devices at one or both ends of the car, a convertible cab comprising a fixed partition adjacent to the end of the car and a movable

partition adapted in one position to form with
65 the said partition a closed cab for a motorman or operator and in another position to inclose the controlling devices only, and a movable seat arranged to occupy the space between the fixed and movable partitions when
70 the cab is not in use by the operator.

14. In a railway-car provided with controlling devices at one end, a convertible cab having a wall or partition adjacent to the end wall
75 of the car, and another partition adapted when in one position to form with the said first-mentioned partition a closed cab for the motorman or operator and when in another position to form with the end wall of the car an
80 inclosure for the controlling devices only.

15. In a railway-car provided with controlling devices at one end, a convertible cab having a wall or partition adjacent to the end wall
85 of the car, and another partition adapted when in one position to form with the said first-mentioned partition a closed cab for the motorman or operator and when in another position to form with the end wall of the car an
90 inclosure for the controlling devices only, and a seat adapted to occupy the space formerly inclosed by said partitions when the last-mentioned partition is used to inclose the controlling devices only.

16. In a railway-car provided with controlling devices at one end, a convertible cab having
95 a wall or partition adjacent to the end wall of the car, and another partition adapted when in one position to form with the said first-mentioned partition a closed cab for the motorman or operator, and when in another position
100 to form with the end wall of the car an inclosure for the controlling devices only, and a pivoted convertible seat adapted to occupy the space formerly inclosed by the two partitions when the last-mentioned partition is used
105 to inclose the controlling devices only and to be turned back out of the way when the closed cab is ready for use by the motorman.

17. In a railway-car, a convertible cab having a movable partition, in combination with
110 a convertible seat which when the controlling apparatus on the car is not in use occupies the space inclosed by the cab when the controlling apparatus is in use by the motorman.

18. In a railway-car, a convertible cab having
115 a movable partition, in combination with a convertible seat which when the controlling apparatus on the car is not in use occupies the space inclosed by the cab when the controlling apparatus is in use by the motorman, said
120 movable partition acting as a support for one end of said seat when the controlling apparatus is not in use and the said seat is in position for use by passengers.

19. In a railway-car provided with controlling
125 apparatus located against the end wall of the car, a partition extending out from the side of the car, a movable partition adapted

when in one position to form with the fixed partition and the side and end walls of the car a motorman's cab, and when in another position to form with walls of the car a small
5 compartment inclosing only the controlling apparatus, a seat arranged to fill the space between the fixed and movable partitions when the latter is in position to inclose only the controlling apparatus, the said seat being hinged

to a suitable support at the end adjacent to the fixed partition, and a motorman's seat secured to the under side of the said hinged seat. 10

In witness whereof I have hereunto set my hand this 18th day of September, 1902.

JAMES S. DOYLE.

Witnesses:

HJALMAR WALLERSTEDT,
ARTHUR E. ROBBINS.