L. PRINCE.

Railway-Car.

No. 211,181. Patented Jan. 7, 1879.

Fig. 1.

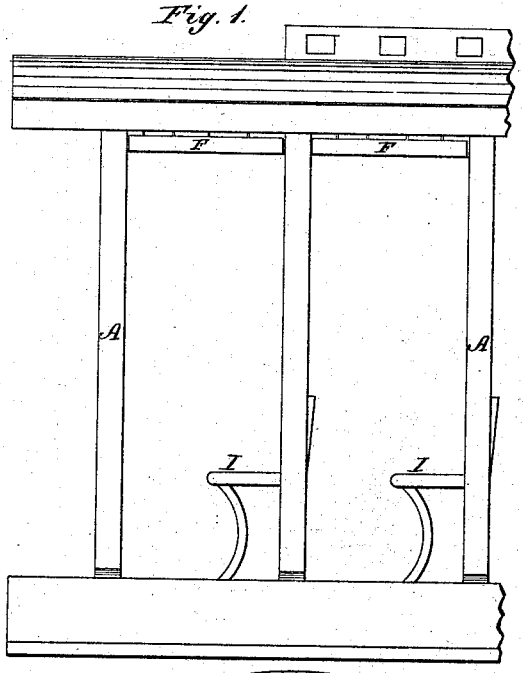


Fig. 2.

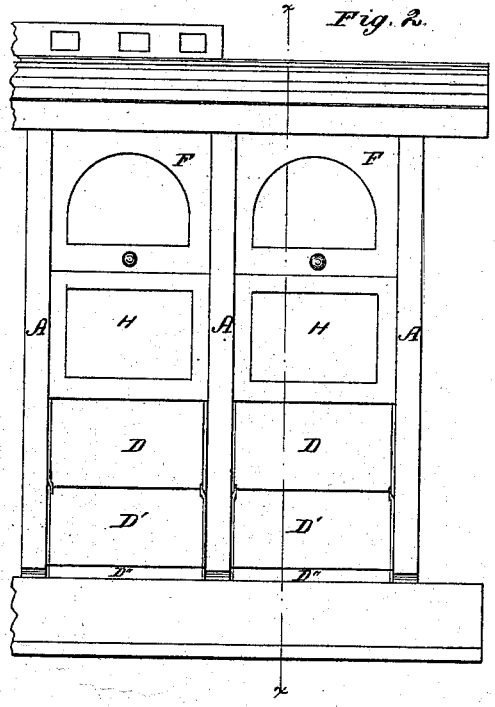


Fig. 3.

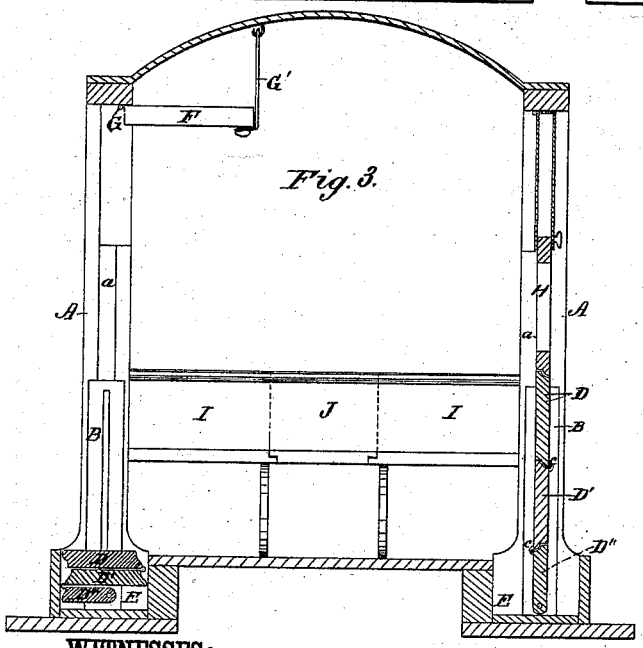
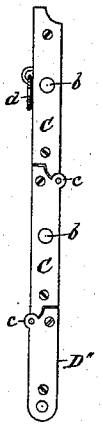


Fig. 4.



WITNESSES:

W. W. Hollingsworth

Solon C. Kemon

INVENTOR:

Louis Prince

BY Munn & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

LOUIS PRINCE, OF NASHVILLE, OHIO.

IMPROVEMENT IN RAILWAY-CARS.

Specification forming part of Letters Patent No. **211,181**, dated January 7, 1879; application filed October 8, 1878.

To all whom it may concern:

Be it known that I, LOUIS PRINCE, of Nashville, in the county of Holmes and State of Ohio, have invented a new and useful Improvement in Railway-Cars; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to that class of car designed to be changed from a closed or winter car to an open or summer one.

It consists, first, in constructing the sides or panels of the car in sections, so as to fold together; secondly, in a window-casing carrying a sliding sash adapted to swing inward and be secured near the roof; and, thirdly, in certain combinations and construction of parts whereby the main features of my invention are carried out.

In the accompanying drawing, forming part of this specification, Figure 1 is a side elevation of front end of a car arranged for use in summer; Fig. 2, a side elevation of rear end of car arranged for use in winter; Fig. 3, a vertical transverse section through line *x x*, Fig. 2; Fig. 4, detail view of sliding panels.

A A represent the uprights of the frame, having grooves *a a* on each side, which are preferably provided with slotted plates B. In these grooves or slots work pins *b b*, attached to plates C C on the ends of the two upper sections, D D′, of the panel between each pair of uprights. The third or lowest section, D″, has also a pin on each end; but these do not slide in the grooves, but work in holes at the bottom of the plates B. These sections are connected to each other by means of hinges *c c*, formed on the ends of the plates C C, which are so constructed as to allow the sections to fold together in a recess, E, as represented in Fig. 2, in which condition the upper section, D, forms the top step or a part of the flooring of the car. The ends of the hinges and sides of the sections are so formed as to prevent the sections from folding in but one direction, by which means the panels are the more readily kept in their proper position when the car is to be used closed at the sides.

At F is shown a window-casing, hinged at G to the frame of the car, so as to swing upward, as shown in Fig. 2, where it can be secured by a strap, G′. In this casing is a sash, H, which slides up or down in the casing and in the grooves *a a* in the uprights A A, or in suitable guides attached thereto.

The car is provided with a set of fixed seats, I I, between which is an alley or passage forming the means of access to the seats from the door at each end of the car in the usual manner; but when the car is to be converted to a summer car additional seats, J, (shown in dotted lines,) are placed between the fixed seats, thus extending the seating capacity of the car. Then by folding the sections of the panel together in the recess E, and swinging the casing to a horizontal position, the car becomes an open or summer car, provided with seats extending the whole width of the car, to which access is had between the uprights of the frame. Should a storm arise that would make an open car uncomfortable or inconvenient, it is only necessary to pull up the folding panel by the handle *d* and lower the casing and sash to make the car a closed one.

By this arrangement a comfortable, warm, closed car for winter, and a cool, open one for summer, may be obtained at the cost of a single car.

Although I have shown the sides of the car constructed in the form of panels set between the uprights of the frame, yet it is obvious that instead of forming panels the sections D D′ D″ may extend the whole length of the car on the outside of all or a portion of the uprights; but in this case some means will probably be required to fasten the sections to those uprights that are within the sides of the car.

I am aware cars have been provided with sliding and flexible or hinged panels, and do not, therefore, broadly claim a folding panel.

What I claim as new is—

1. A car having side panels which slide in grooves or ways in stanchions or posts, and are composed of pieces that are united by separate hinges in the manner shown and described, whereby said pieces will fold in opposite directions, so that one will lie flat upon the other, as and for the purpose specified.

2. In combination with the recess E, formed

in the floor of the car, the folding sections D D′ D″, as shown and described, whereby when the sections are folded the upper one becomes the top step or a continuation of said floor, substantially as specified.

3. The window-casing hinged at its upper side, and the sash H, sliding into the bottom thereof, in combination with the uprights having grooves *a a* to receive said sash, all as shown and described, whereby when the casing is raised the sash is concealed within it, and when lowered the sash is extended downward and holds the casing fixed in position.

4. The combination of the sections D D′ D″ with the swinging window-casing F and sash H, substantially as described.

The above specification of my invention signed by me this 5th day of October, 1878.

LOUIS PRINCE.

Witnesses:

SOLON C. KEMON,

CHAS. A. PETTIT.