

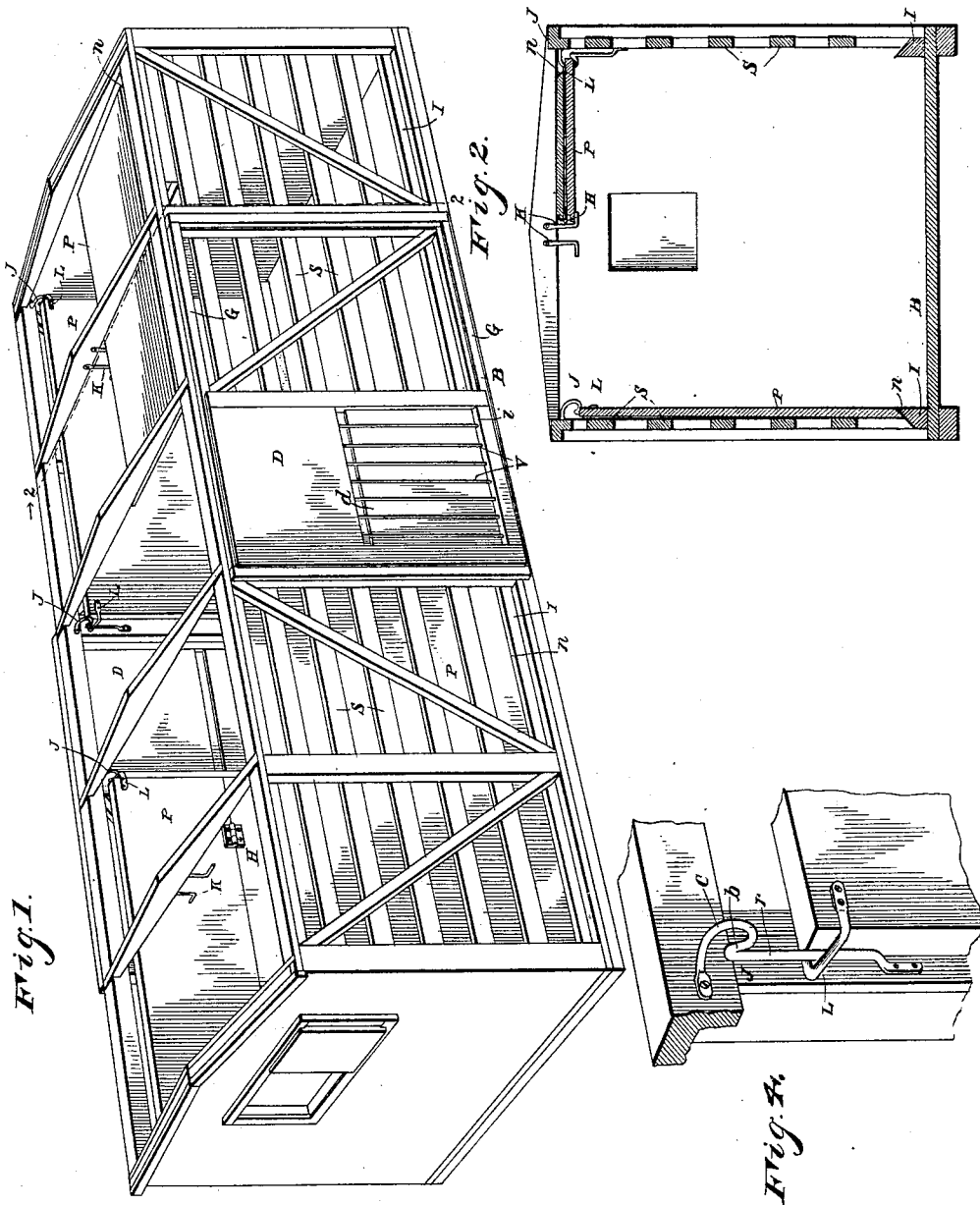
(No Model.)

2 Sheets—Sheet 1.

E. R. STEINHILBER.
COMBINED FREIGHT AND STOCK CAR.

No. 480,635.

Patented Aug. 9, 1892.



Witnesses:

M. W. Thomas

A. L. Collamer

By his Attorneys,

C. A. Snow & Co.

Inventor
Edw. R. Steinhilber

(No Model.)

2 Sheets—Sheet 2.

E. R. STEINHILBER.
COMBINED FREIGHT AND STOCK CAR.

No. 480,635.

Patented Aug. 9, 1892.

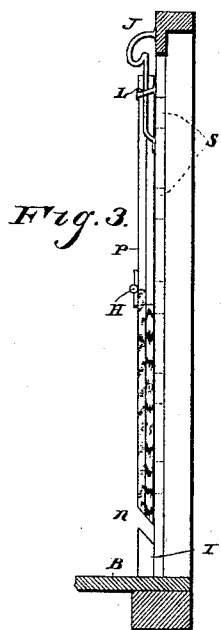


Fig. 7

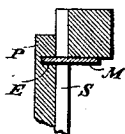


Fig. 5.

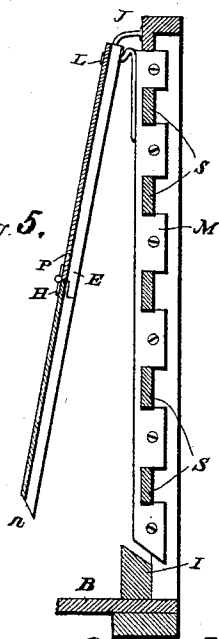
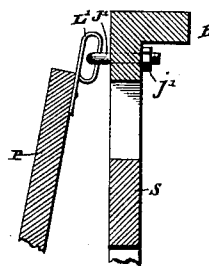


Fig. 6.



Witnesses;

J. M. Withers.

W. C. Colamer.

By *his* Attorneys,

C. A. Snow & Co.

Inventor
Edw. R. Steinhilber,

UNITED STATES PATENT OFFICE.

EDWARD R. STEINHILBER, OF GALESBURG, ILLINOIS.

COMBINED FREIGHT AND STOCK CAR.

SPECIFICATION forming part of Letters Patent No. 480,635, dated August 9, 1892.

Application filed March 23, 1891. Serial No. 386,089. (No model.)

To all whom it may concern:

Be it known that I, EDWARD R. STEINHILBER, a citizen of the United States, residing at Galesburg, in the county of Knox and State of Illinois, have invented a new and useful Freight-Car, of which the following is a specification.

This invention relates to railway-cars, and more especially to such cars as are used for carrying freight; and the object of the same is to produce a car of this character which can be changed at will into a stock-car.

To this end the invention consists of the car more particularly hereinafter described and claimed, and as illustrated on the two sheets of drawings, wherein—

Figure 1 is a general perspective view of the improved car with the top removed, showing the left end thereof as a box-car and the right end as a stock-car. Fig. 2 is a cross-section on the line 2 2 of Fig. 1, showing one side raised and the other lowered and showing the latter as in two sections hinged together. Fig. 3 is an enlarged end elevation of the two-part section of Fig. 2 in its lowered position, but before it is pressed down to its limit. Fig. 4 is a perspective in detail of one of the improved hinges preferably used. Fig. 5 is a vertical section in part elevation of the preferred form or hinged inner wall. Fig. 6 is a detail in section of another form of hinge for suspending the walls. Fig. 7 is a horizontal section illustrating how the metal strips engage the grooves at the ends of the side pieces.

Referring to the said drawings, the letter B designates the body of the car, which is constructed in the usual or in any preferred manner, and has slats S slightly separated after the usual manner of the construction of stock-cars. At the center of each side is a door D, sliding upon guides G, and the lower half of this door is open and may be provided with vertical bars V, as shown. Upon the inner face of this door in vertical guides *g* may move a supplemental door *d'*, this portion being held in elevated or lowered position by a catch Q of any suitable construction. The sill of the door inclines outwardly, as at *i*, and the upper end of the opening in the door is notched, as at N, inside the bars V. A sup-

plemental door *d* is used, which is correspondingly inclined and beveled at the bottom and rabbeted at the top, and which is put in place, as shown, by first inserting its upper end in the notch N, then pressing its lower end outwardly against the bars V, and then moving the whole supplemental door downwardly until the two inclined faces engage, and which is removed, when desired, by reversing the operation. When in place the door will not permit any leakage, because the inclined sill is beveled outwardly and will therefore shed water perfectly. The entire door may be moved horizontally within the guides G in a well-known manner and may be provided with any suitable lock.

The letters P designate side walls, which may or may not be longitudinally divided, the sections thereof being connected by hinges H, and the lower edge of each wall is provided with an outward bevel *n*, adapted to rest upon the outwardly-inclined face I of a hard-wood sill. Each side wall is preferably composed of two pieces of wood, the grain of the inner wall extending horizontally and that of the outer piece vertically. By this means when the wall is swung into vertical position, as shown in Fig. 3, and then lowered, as shown at the left of Fig. 2, the lower beveled edge *n* thereof will rest upon the sill I, and hence any water which may run down the outer face of this side wall will be directed out of the car by the sill in the same manner as above described with reference to the sliding door and its supplemental wall. At its upper corners each side wall is preferably provided with loops L, (best seen in Fig. 4,) and forming one member of the slide-hinge here shown. The other member J is secured to the inside of the car-body and comprises a vertical rod *r*, bent inwardly, as at *b*, at its upper end and then curved, as at C, the upper end of the curve being secured to the car-body. On this hinge member J the loop L slides, moving vertically on the vertical portion *r* and turning within the curved portion C. Thus when the side wall is lowered, as in Fig. 2, the loop stands near the lower end of the vertical portion *r*, and when the side wall is raised the loop slides up this portion over the bend *b* and

into the curved portion C. If the side wall has the hinges H, it is first folded, as seen at the right of Fig. 2, and after it is raised it is held in elevated position by a hook K; but obviously if the side wall be not provided with the hinges H, such hook K must be located at a greater distance from the hinges J, in order to properly engage the free edge of the side piece when it is raised.

- 10 In Fig. 5 is shown an elevation of the outer face of the side wall I preferably employ, and this piece has vertical grooves E in its outer face near its ends. M are metallic strips secured to the upright members of the car-body between the slats S and projecting inwardly slightly beyond the inner faces of said slats at points to enter these grooves. By this means when the side wall is swung into vertical position the strips M engage 20 the grooves E and form a seal to prevent the entrance of water at the ends of the side wall into the car. In cheaper forms of the car these strips may be omitted, and the side walls could even be supported by ordinary 25 hinges at their upper ends, although I prefer to use those described and permit the walls to have a vertical movement, so as to engage their bevels *n* with the sills I.

The ends of the car may be provided with 30 ordinary windows covered with blinds, and various other additions and alterations may be made which are desirable in cars of this character without in the least departing from the spirit of my invention.

- 35 In Fig. 6 is shown another form of hinge which I may use. This consists of a loop-shaped member L', secured to and projecting above the side wall P, and an eyebolt J', passing through the car-body B and having a nut 40 *j'* on its outer end. This hinge is much simpler than the one above described and may be used in some cases with equally good results. The elongation of the loop L' permits

the wall to have sufficient vertical movement for the purposes above described.

45

What is claimed as new is—

1. The herein-described car, the same comprising a body having slatted sides, hooks depending from the roof, solid side walls, each comprising members connected by hinges, and 50 sliding hinges at the upper ends of said side walls, said hooks holding the side pieces in folded and raised position, as and for the purpose set forth.

2. The herein-described car, the same comprising a body having slatted sides with outwardly-inclined sills, vertical strips secured to the uprights of the car-body and projecting inwardly past the slats, solid side members mounted in sliding hinges inside and at 60 the top of the car, said members comprising two strips, the inner with horizontal grains and the outer with vertical, and the lower edge of the side members being beveled and engaging said sills, and vertical grooves in 65 the outer faces of said members engaging said metallic strips, all substantially as and for the purpose hereinbefore set forth.

3. The herein-described car, the same comprising a body having slatted sides with outwardly-inclined sills, vertical strips secured to the uprights of the car-body and projecting inwardly past the slats, solid side walls mounted in sliding hinges inside and at the 70 top of the car, and the lower edge of the side walls being beveled and engaging said sills, and vertical grooves in the outer faces of said walls engaging said metallic strips, all substantially as and for the purpose set forth. 75

In testimony that I claim the foregoing as 80 my own I have hereto affixed my signature in presence of two witnesses.

EDWARD R. STEINHILBER.

Witnesses:

LAKE W. SANBORN,
FRED S. JOHNSON.