(No Model.)

J. W. PETERS.

CAR DOOR.

No. 359,281. Patented Mar. 15, 1887.

FIG 1

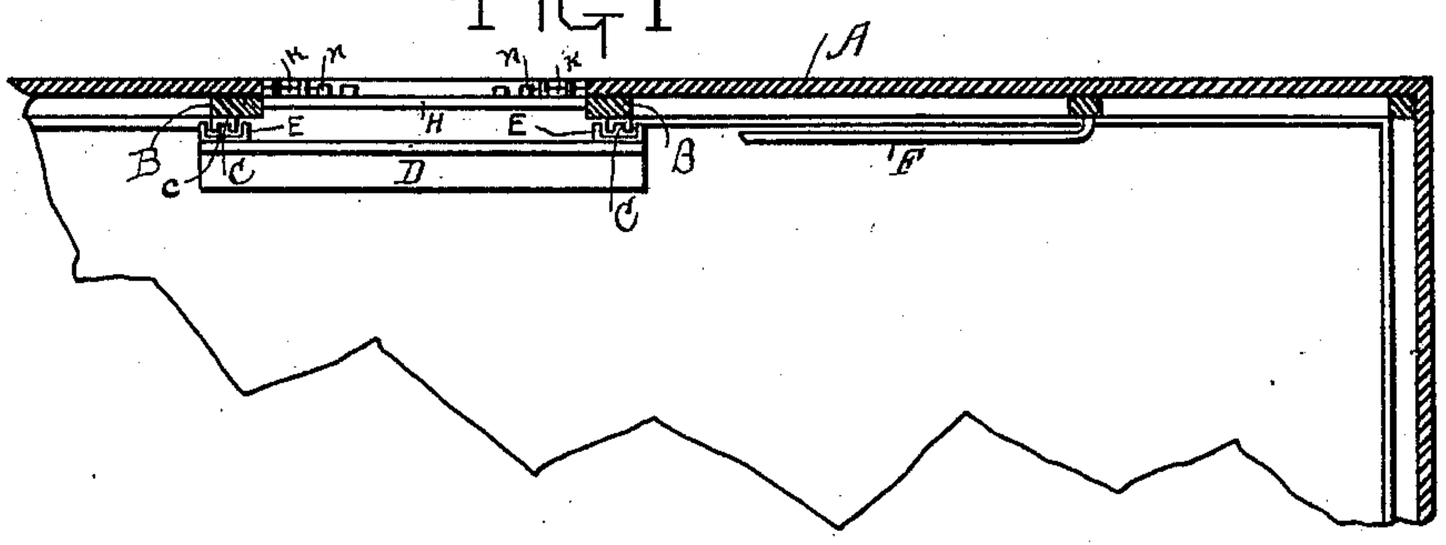


FIG 2

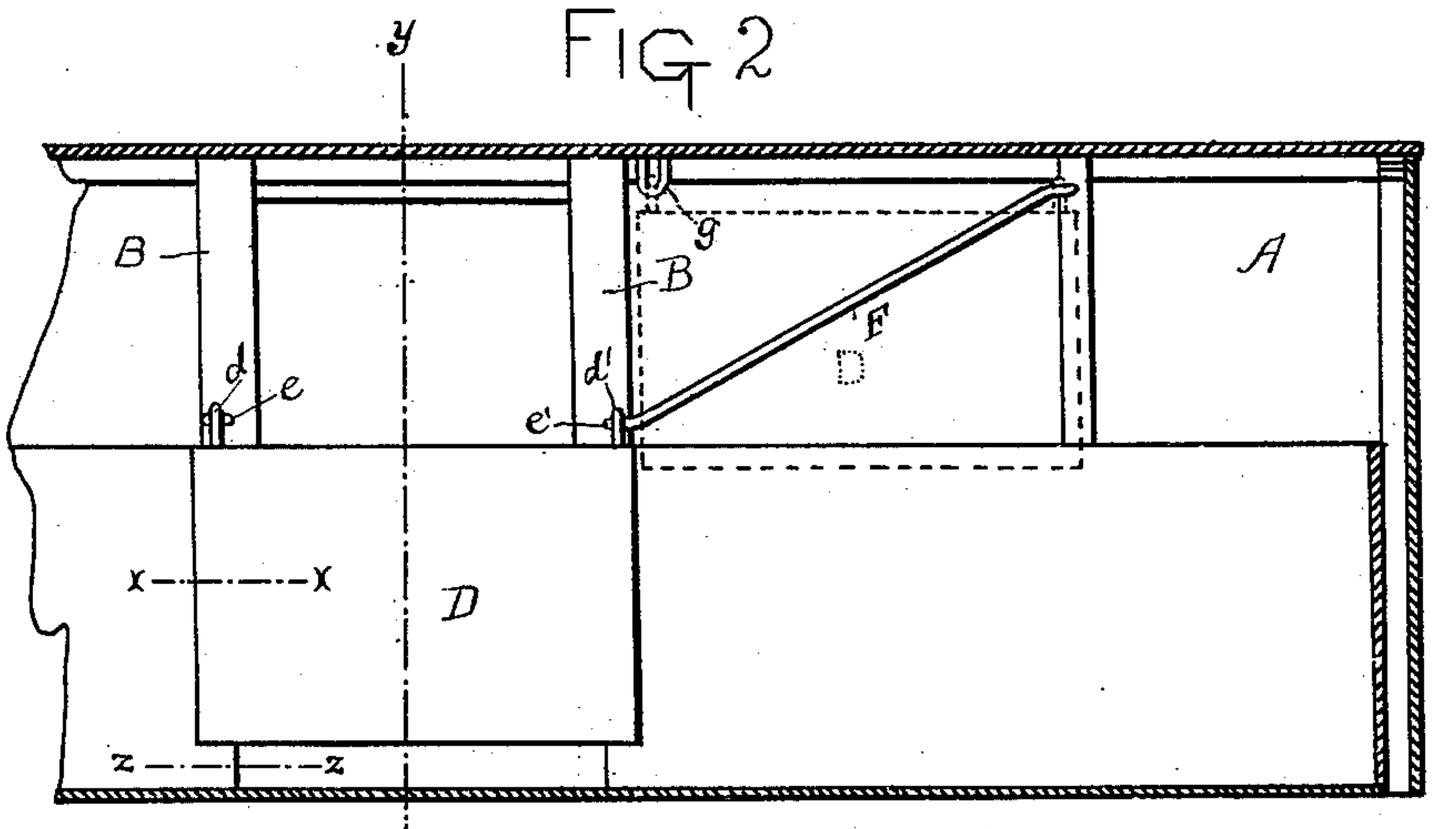


FIG 3

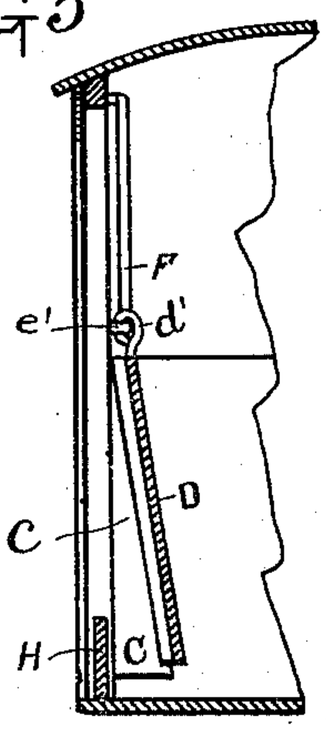


FIG 4

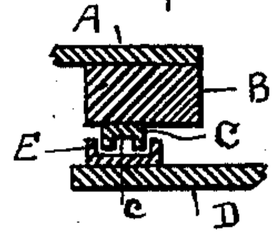


FIG 6

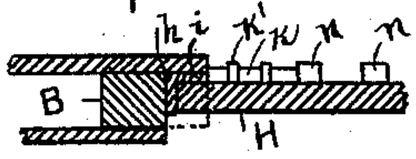
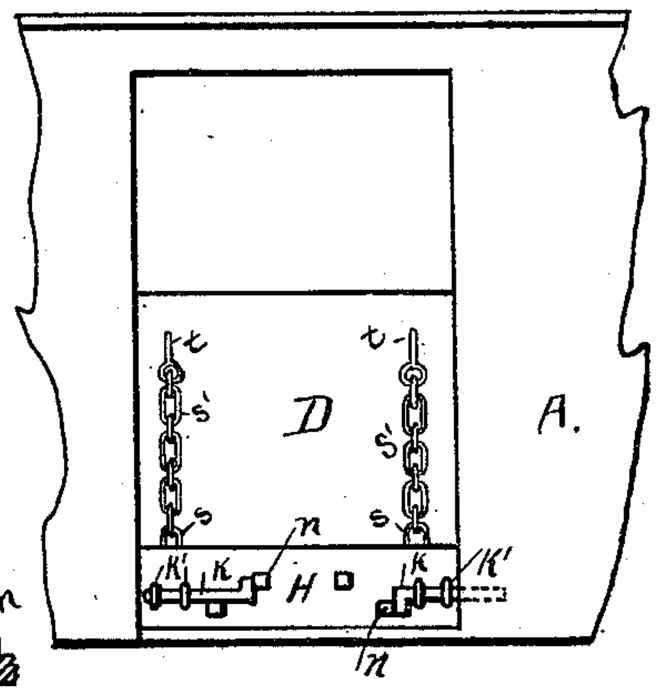


FIG 5



WITNESSES

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J. WILSON PETERS, OF GALLOWAY, OHIO.

CAR-DOOR.

SPECIFICATION forming part of Letters Patent No. 359,281, dated March 15, 1887.

Application filed September 8, 1886. Serial No. 212,972. (No model.)

To all whom it may concern:

Be it known that I, J. WILSON PETERS, a citizen of the United States, and a resident of Galloway, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Car-Doors, of which the following is a specification.

My invention relates more particularly to improvements in doors for grain-cars; and the objects of my improvements are, first, to so construct a door for grain-cars as to obviate the difficulty usually experienced in removing or opening the same when the car is loaded; second, to construct said door in a neat and simple form; third, to provide means for suspending the same at a point within the car when not in use, and to admit of its being easily and readily closed. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal section of a portion of one side of a car, showing a plan view of my device. Fig. 2 is an inner side elevation of the door when closed. Fig. 3 is a vertical section taken on line *y y* of Fig. 2. Fig. 4 is a transverse section taken on line *x x* of Fig. 2. Fig. 5 is an outer side view of the door when closed, and Fig. 6 is an enlarged sectional view taken on line *z z* of Fig. 2.

Similar letters refer to similar parts throughout the several views.

A represents the side of a car. Fixed against the inner side of the car, adjoining the doorway on either side thereof, are vertical studs B, to the face of each of which is secured a bearing-strip, C, beginning at a point near the middle of the height of said stud and extending to within a short distance of the floor of the car. The face of each of said bearing-strips is provided with a vertical groove, *c*, and being made to oblique downwardly and and inwardly gives the strip a greater width at the bottom than at the top.

D represents the door, being oblong in form and having projecting from its upper side, near either end thereof, hooks *d* and *d'*, said hooks being adapted, when the door is in position, to engage with staples *e* and *e'*, made to project inwardly from the face of the studs B. The outer side of the door D is provided near each end with a vertical grooved strip, E, within the grooves of which, when the door is suspended by means of the hooks *d* and *d'* and staples *e* and *e'*, are made to fit loosely the inner faces of the bearing-strips C. The door, when in this position, extends to within a short distance of the bottom of the car, and, conforming to the shape of the bearing-strip C, has its lower portion projecting inwardly in an oblique position.

The staple *e'* is provided with a continuation in the form of a rod, F, which, projecting slightly inwardly, extends diagonally upward and has its outer end bent inwardly and secured to the frame-work of the car at a point near the top thereof.

Made to project downwardly or inwardly from the frame-work of the car, at a point adjacent to the upper end of the stud B, is a staple, *g*. The inner sides of the lower ends of the studs B are provided with notches *h*, within each of which is fitted and secured a thin angle-iron plate, *i*, the latter being made to bear against the notched surface of the stud B and against the inner side of the door-frame.

Within the angles of the angle-irons *i* may be made to bear the ends of a board, H, which extends transversely across the door-frame of the car, and, resting on the threshold thereof, is of a height sufficient to extend slightly above the lower line of the door D. This board H may be secured in this position by means of bolts *k*, pivoted within keepers *k'*, made to project outwardly from the outer side of the board, and adapted to be forced into suitable bolt-holes or sockets, formed either in the inner edges of the door-frame or the edges of the angle-iron *i*. The bolts may be locked in this position by turning their outer bent heads in position to bear against outwardly-projecting lugs *n*, as shown in Fig. 5.

The door D and board H being in the position above described, it will be seen that the inwardly-projecting lower portion of the door D is made to support the weight of the grain bearing thereon, and that the pressure against the inner side of the board H is greatly relieved thereby, thus facilitating its removal. The bolts *k* having been withdrawn from their sockets, the board H is removed, thus allowing sufficient grain to escape to relieve the door D of the pressure thereon. Said door may then be raised slightly to disengage the hooks *d* and *d'* from the staples *e* and *e'*. The hook

d', being hooked over the rod F, may then be made to slide obliquely upwardly on said rod until near its upper end, when the door may be raised and the hook *d'* made to engage with the staple *g*, thus causing the door D to be suspended out of the way, as shown in dotted lines in Fig. 2.

By the construction and operation above described it will be seen that the difficulty usually experienced in removing the boards or door of a grain-car when the same is loaded is obviated.

In order to prevent losing or displacing the board H when not in use, I provide the same with two staples, *s s*, made to project upwardly from the upper portion of the board, said staples being connected by means of short chains *s'* with hooks *t t*, made to project outwardly from the outer side of the door D. The board H, having been raised, may be suspended against the outer side of the door by causing the hooks *t t* to engage, respectively, with the staples *s s*.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a car-door, the combination of the door D, detachably suspended in an inclined position, with the board H, detachably secured across the lower portion of the door-frame and made to rest on the threshold thereof, substantially as and for the purpose specified.

2. The combination of the door D, detachably suspended across the door-frame and made to rest against inclined bearing-strips C, and board H, detachably secured across the lower portion of the door-frame and made to rest on the threshold thereof, with the rod F and staple *g*, substantially as and for the purpose specified.

J. WILSON PETERS.

Witnesses:
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