

(No Model.)

H. G. EPPS.
GRAIN CAR DOOR.

No. 464,709.

Patented Dec. 8, 1891.

Fig. 1.

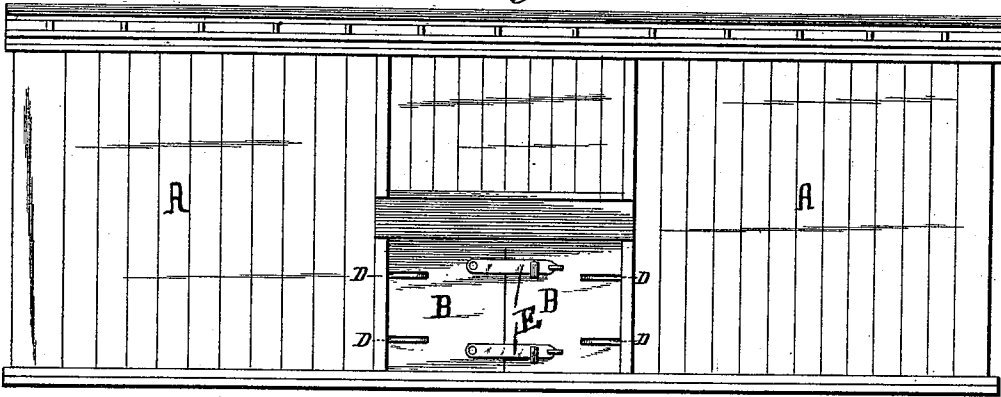
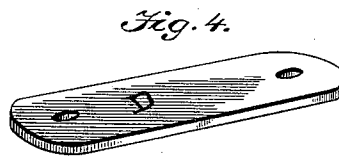
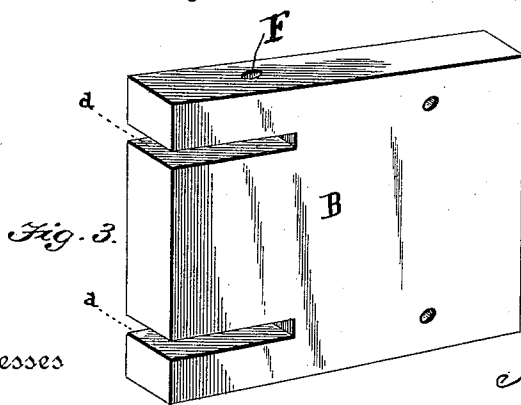
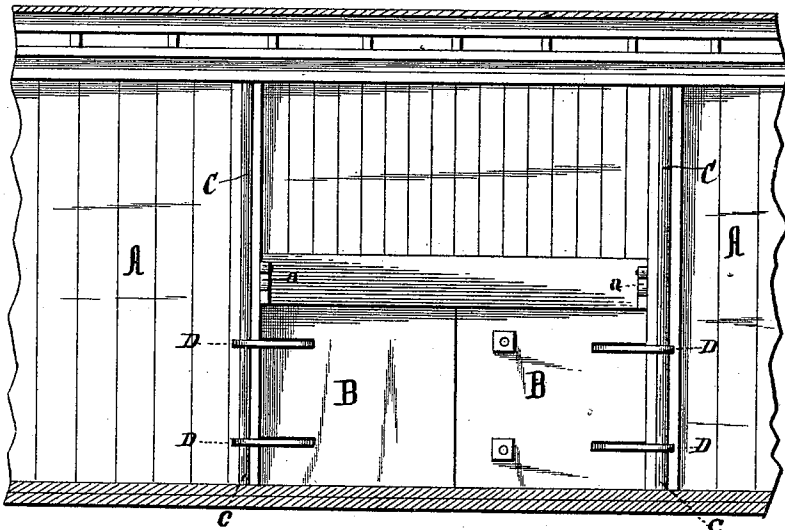


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

HARRY G. EPPS, OF PARIS, ILLINOIS.

GRAIN-CAR DOOR.

SPECIFICATION forming part of Letters Patent No. 464,709, dated December 8, 1891.

Application filed May 12, 1891. Serial No. 392,477. (No model.)

To all whom it may concern:

Be it known that I, HARRY G. EPPS, a citizen of the United States of America, residing at Paris, in the county of Edgar and State of Illinois, have invented certain new and useful Improvements in Grain-Car Doors; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in grain-car doors, and has for its object to provide a door which will be simple in construction and operation, and which may be easily and quickly opened by the pressure of the grain on the inside of the car after being unfastened.

To this end my invention consists in the novel construction, combination, and arrangement of its several parts, as will be hereinafter more particularly described, and specifically pointed out in the appended claim.

I have fully and clearly illustrated my invention in the accompanying drawings, to which reference is had, and which form a part of this specification, wherein—

Figure 1 is a side view of a car, showing the doors closed. Fig. 2 is a view of the doors from the inside of the car, showing the upright iron rods. Fig. 3 shows one of the doors detached, and Fig. 4 is a view of one of the flat hinges.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A represents a side of an ordinary grain-car, provided on the inside with the doors B B, which are loosely and permanently hinged to the upright iron rods C C by means of the flat hinges D D D D, so that they may be slid up and down thereon.

a a designate two supports or lugs formed centrally on the jamb and intended to perform the duplex function of preventing the elevation of the doors, except at an angle

greater than the arc of said lugs, and to constitute supports for said doors when elevated. 50

The doors are of the usual thickness—about two inches—and may be strengthened by iron bands or bars secured crosswise the grain of the wood.

In each door in the side or edge nearest the jamb and upright rods are formed two long slots or recesses *d d* for the admission of the flat hinges D D D D. The hinges are provided with an eye or perforation near each end thereof, one through which is passed the upright iron rod C, and through the one on or near the opposite end is passed a smaller rod F, which passes down through the door, and outer eyes or perforations in the hinges, thus connecting one end of each of the hinges to the door in the slot or recess formed for that purpose. These slots are slightly larger than the hinges to permit the latter to work easily therein. By the use of this hinge and slot and upright rod the door, when unfastened, can be swung either outward or inward, so that when the car is to be unloaded the fastening of the door is removed and the door will swing outward by the pressure of the grain on the inside thereof, and when the car has been emptied the doors may be swung clear inward until they rest against the inside of the car and out of the way, or they may be slid up to the top of the car on the inside and held in that position by means of metal supports *a*, before mentioned. By either of these means the doors are disposed of when not in use without being detached or separated from the car to which they belong and thus rendered liable to being lost, misplaced, or broken, as is often the case where the doors are detachable. 85

For locking or fastening the doors it is preferable to use the means shown in my drawings—namely, two or more iron bars E E one end of each of which is bolted to one of the doors and the other end of each left free to fit in brackets on the other door and held there by usual means. 90

Having thus described my invention, what I claim is— 95

In combination with the car-body A, the rods C C, adjusted as shown, the doors B, provided inwardly with fastenings E and outwardly with flat hinges D, which swing pivotally on the rods C C, the bars F F for maintaining said hinges in position, and the lugs *a a*, which prevent the vertical elevation of the doors except at a certain angle and constitute supports for the same when elevated,

as set forth and illustrated, whereby the pressure of the grain will automatically open the doors upon releasing the fastenings E.

In testimony whereof I affix my signature in presence of two witnesses.

HARRY G. EPPS.

Witnesses:

S. I. HEADLEY,
BRUCE MCNUTT.