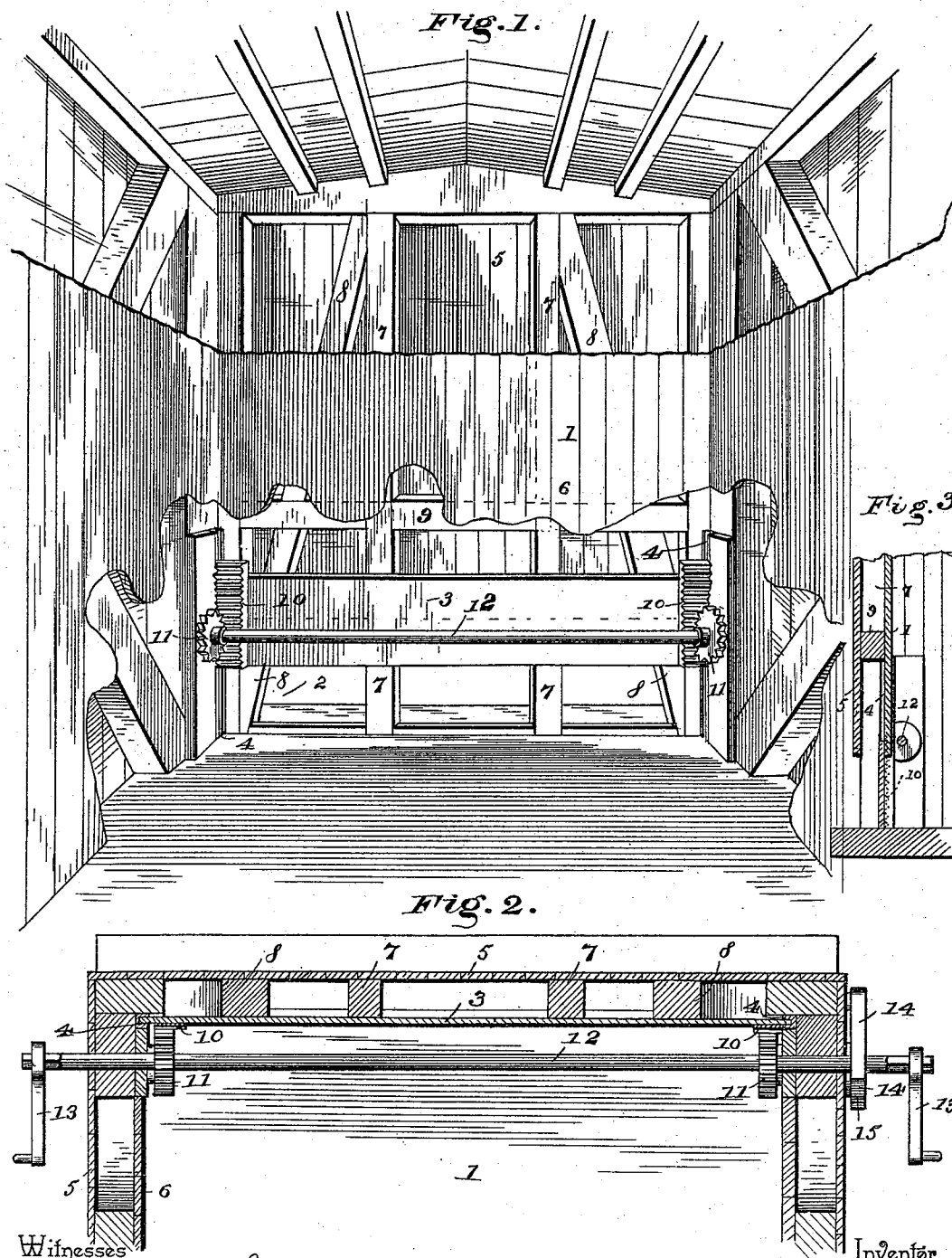


(No Model.)

A. L. WHITCOMB.
GRAIN CAR.

No. 492,128.

Patented Feb. 21, 1893.



Witnesses
J. U. ...
N. H. ...

Inventor
A. L. Whitcomb.
By his Attorneys,
C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

ALONZO L. WHITCOMB, OF GREAT BEND, KANSAS, ASSIGNOR OF ONE-HALF
TO H. ELMER DEAN, OF SAME PLACE.

GRAIN-CAR.

SPECIFICATION forming part of Letters Patent No. 492,128, dated February 21, 1893.

Application filed September 26, 1892. Serial No. 446,904. (No model.)

To all whom it may concern:

Be it known that I, ALONZO L. WHITCOMB, a citizen of the United States, residing at Great Bend, in the county of Barton and State of Kansas, have invented a new and useful Grain-Car, of which the following is a specification.

The invention relates to improvements in grain cars.

The object of the present invention is to improve the construction of cars for carrying grain, potatoes, and the like in bulk, and to enable the contents of a car to be readily discharged.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claim hereto appended.

In the drawings—Figure 1 is a perspective view of a portion of a grain car constructed in accordance with this invention, the inner lining being broken away to show the means for operating the sliding door. Fig. 2 is a horizontal sectional view of the same. Fig. 3 is a vertical sectional view showing the inner lining complete and the rack bar and pinion incased.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a portion of a car designed to be provided at each end with a transverse opening 2 located at the bottom of the car to allow the contents of the car to be discharged when the latter is placed or run on a dump. The opening 2 is normally closed by a vertically sliding door 3 which is arranged in vertical ways 4, and which is located between the siding 5 of the end of the car and the inner lining 6 thereof, the latter being broken away at the bottom of the end to show the construction of the door more clearly. The sliding door is guided by uprights 7 and inclined braces 8 of the frame-work of the car which

also has horizontal cross-pieces 9; and the sliding door is raised and lowered to regulate the size of the discharge opening 2 by means of gearing consisting of vertical rack-bars 10 secured at the ends of the door to the same and pinions 11 mounted on a shaft 12 and meshing with the rack-bars. The ends of the shaft are squared for the attachment of a crank handle 13 and the shaft is held against rotation to secure the door at any desired adjustment by a pawl 14 and a ratchet wheel 15. The braces and uprights 8 and 9 extend to the bottom of the car but the opening 2 may if desired be framed, and the braces and uprights need not extend across it.

The rack bars and pinions are designed to be incased, as illustrated in Fig. 3 of the accompanying drawings, to prevent them becoming clogged by grain.

It will be seen that the vertically sliding door is adapted to control the size of the opening to regulate the discharge, and by being located between the siding and the lining of the car, it will be perfectly grain tight.

What I claim is—

The combination with a car provided at its end with an opening at the bottom and having uprights and braces 7 and 8 and provided with an inner lining and having the outer siding, the vertical ways arranged at the sides of the car, the vertically sliding door arranged to close the opening and having its ends sliding in the ways and designed to be located between the siding and the lining, gearing for raising and lowering the door, and a pawl and ratchet for securing the door in its adjustment, substantially as described.

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

ALONZO L. WHITCOMB.

Witnesses:

CHAS. E. CASTLE,
W. M. GUNNELL.