R. W. BURNETT.

HINGE.

APPLICATION FILED MAY 28, 1915.

1,263,203. Patented Apr. 16, 1918.

Fig-1.

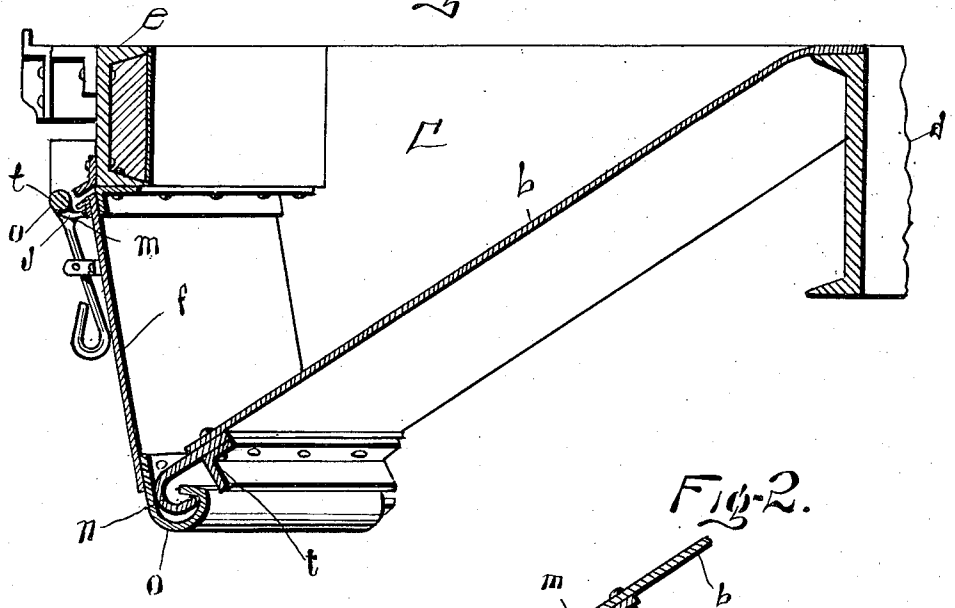


Fig-2.

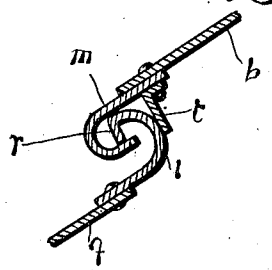
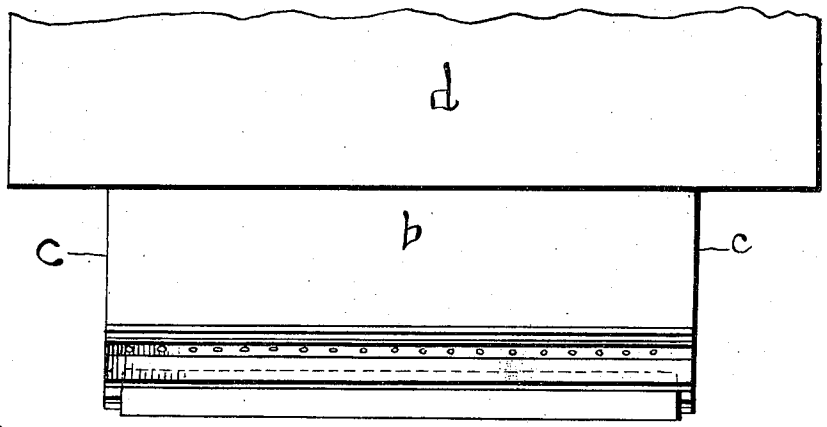


Fig-3.



Witnesses

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UNITED STATES PATENT OFFICE.

RICHARD WEBB BURNETT, OF CHICAGO, ILLINOIS.

HINGE.

1,263,203. Specification of Letters Patent. Patented Apr. 16, 1918.

Original application filed August 30, 1912, Serial No. 717,927. Divided and this application filed May 28, 1915. Serial No. 31,061.

To all whom it may concern:

Be it known that I, RICHARD W. BURNETT, a citizen of the United States, residing in the city of Chicago, State of Illinois, United States of America, have invented certain new and useful Improvements in Hinges; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates particularly to hinges of the type disclosed in my United States Patent granted August 25, 1914 under No. 1108327 of which this is a divisional part.

My invention consists of a hinge for doors adapted to close to positions in approximately vertical planes and comprises a pair of plates with intermeshing bent edges and with their edges engaging in such a manner that when the door is closed the bearing faces will be brought into engagement extending throughout the full length of the door for the purpose of presenting a grain tight joint.

For full comprehension, however, of my invention reference must be had to the accompanying drawings forming a part of this specification in which similar reference characters indicate the same parts, and wherein:

Figure 1 is a vertical sectional view of a dump car hopper taken on a line extending transversely relatively to the car;

Fig. 2 is a detail sectional view of the engaging edges of the hinge members of the door and door-frame; and

Fig. 3 is a front elevation of the door of the car with my invention applied thereto.

The hopper floor is indicated at *b* and the ends at *c*, the floor extending from the center sill *d* to within close proximity of the vertical plane of the side sill *e*, thus placing the discharge opening approximately perpendicularly. The dump door *f* is hinged to the lower edge of the floor member and engages pockets in the side edges of the ends and a flange *g* upon the side sill, and it is clamped in its shut position, after having been manually closed, by a rock shaft *t*, carrying a series of dogs *m*.

With doors of this type and applied in the manner described to hoppers through which granular commodities are discharged, while the free edges are effectively closed against leakage by the clamping appliances described, the hinged edge has been heretofore a source of trouble owing to leakage due to wear, imperfect fittings, and, in some cases, inherent weakness unless constructed from extra heavy materials.

In order to overcome these defects the hinge comprises a pair of hinged plate members *n* and *o* respectively each equal in length to the hinged edge of the door. One side edge of the plate *n* is secured to the hopper floor and the opposite side edge is bent back in hook form as at *p*. The other plate is secured to the door and its free edge is also bent back in hook form the bent back portion on this plate however is provided with an angular extension *r* which is constructed and arranged to engage the free edge of the plate *n* when the door is in closed position, thus preventing relative lateral displacement of the hinge plates in one direction.

To prevent upward displacement of the door when open an angle iron *t* is attached to the underside of the hopper floor contiguous to the hinge member *m*, and is adapted to be engaged by the bent back portion of the plate *o* when the door is in such open position. This angle iron is essential in hinge constructions the members of which are not interlocking in all positions.

What I claim is as follows:

1. The combination with a hopper and a door for closing the discharge end of the same; of a hinge connecting the door to the hopper, said hinge consisting of a pair of members presenting engaging bent edges, each bent edge extending continuously from end to end of the part hinged and one of such bent edges being adapted to inclose and grip the other bent edge when the door is closed, and means preventing relative lateral displacement of the hinged members.

2. The combination with a hopper door; of a hinge consisting of a pair of members presenting engaging bent edges, each bent edge extending continuously from end to end of the part hinged and one of such bent edges being adapted to grip the other bent edge when the door is closed, and an angle iron upon one of the hinge members for preventing relative lateral displacement thereof.

3. The combination with a hopper and a door; of a hinge connecting the door to the hopper, said hinge consisting of a pair of members each member having one side edge

thereof bent back in hook form the bent back portion of one of such members having an inward radial extension adapted to engage and grip the free edge of the other member when the door is in closed position for the purpose of preventing relative lateral displacement of the hinge members and to present a grain-tight joint.

In testimony whereof I have signed my name to this specification in the presence of two witnesses.

RICHARD WEBB BURNETT.

Witnesses:
WILLIAM HEWETSON,
GORDON G. COOKE.