No. 617,444. Patented Jan. 10, 1899.

W. M. LINVILL.

GRAIN CAR DOOR.

(Application filed Oct. 18, 1898.)

(No Model.)

Fig. 1.

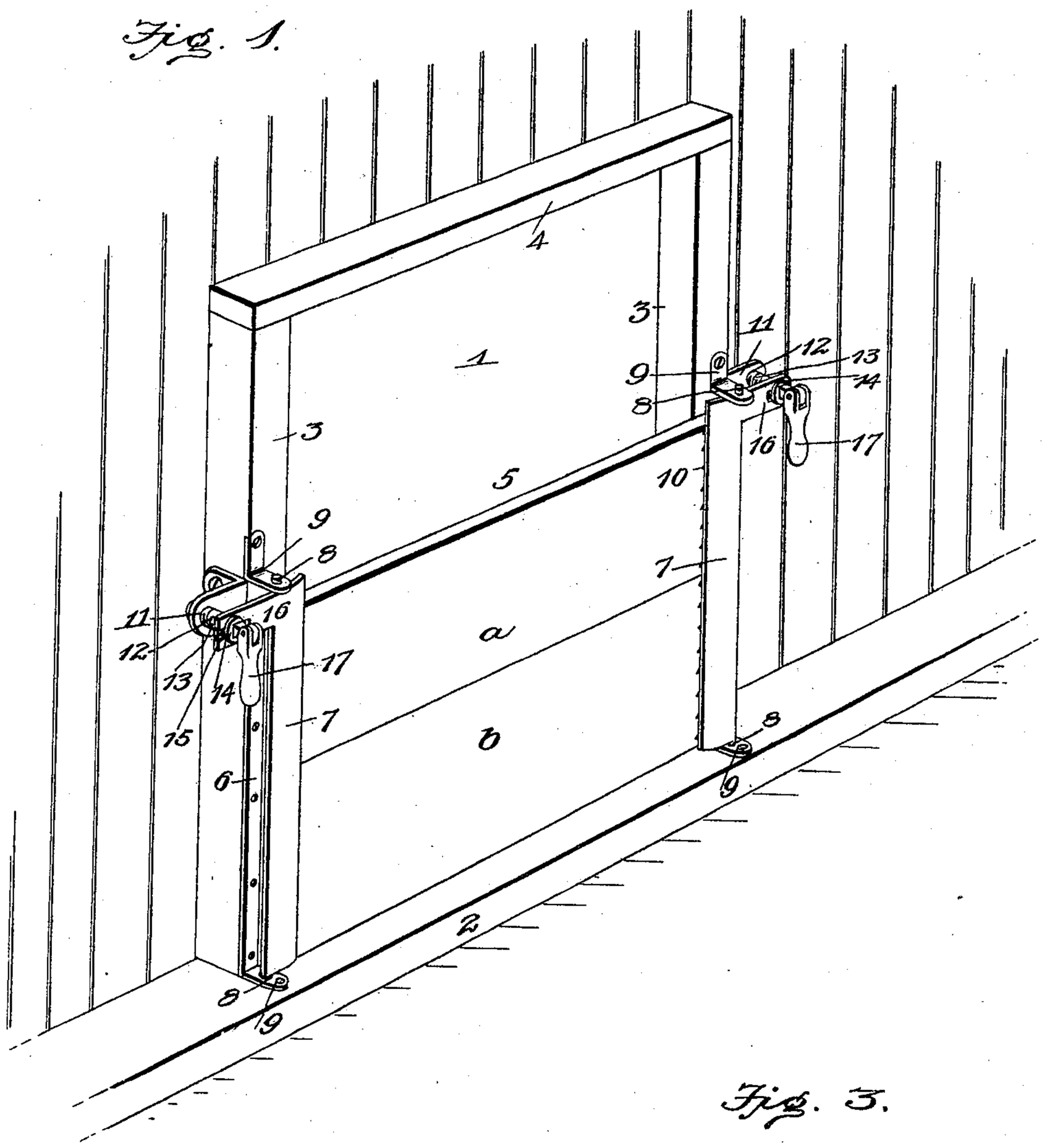


Fig. 2.

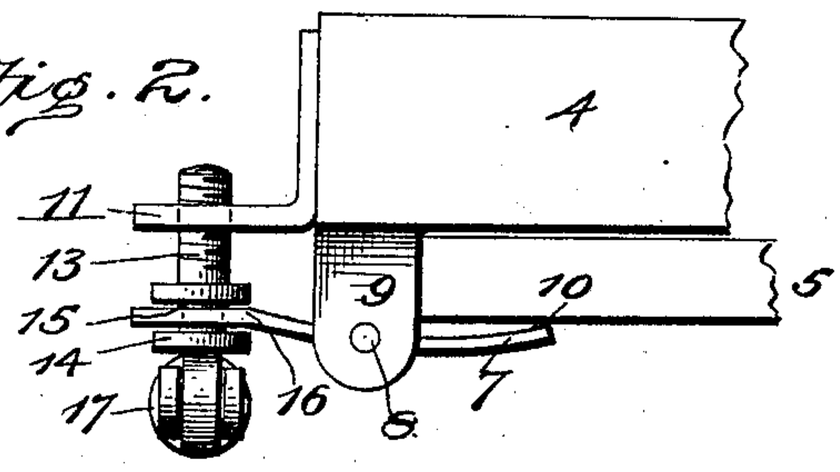
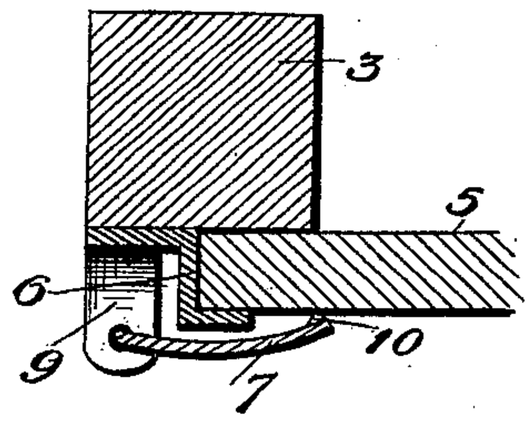


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM M. LINVILL, OF KOKOMO, INDIANA, ASSIGNOR OF ONE-HALF TO HENRY H. WILLSON, OF SAME PLACE.

GRAIN-CAR DOOR.

SPECIFICATION forming part of Letters Patent No. 617,444, dated January 10, 1899.

Application filed October 18, 1898. Serial No. 693,914. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. LINVILL, a citizen of the United States, residing at Kokomo, in the county of Howard and State of Indiana, 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.

The invention relates to grain-car doors; and the object is to provide simple, strong, durable, and inexpensive means for clamping the door in position and preventing its accidental removal or displacement and at the same time enabling the door to be easily removed when desired.

With this object in view the invention consists in certain features of construction and combination of parts, which will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a perspective view taken from the inside of the car and looking in the direction of the doorway, showing the grain-door and the mechanism for holding it in position. Fig. 2 is a top plan view of one of the doorway-jambs and one of the clamping-plates and its binding-screw. Fig. 3 is a transverse sectional view through the doorway-jamb, the guideway, and the clamping-plate.

In said drawings, 1 denotes the doorway-frame, composed of the sill 2, the jambs 3, and the top rail 4. These parts may be of any well-known or approved construction.

5 denotes the grain-door, consisting of sections *a* and *b*, slipped into guides 6, secured to the inner face of the doorway-jambs. To hold these sections firmly in position against accidental removal or displacement, I provide the clamping-jaws 7, the pintles 8 at the ends of which being journaled in brackets 9. The forward faces of the clamping-plates at their inner edges are provided with downwardly-directed points or prongs 10, which are adapted to be forced into the material of which the doors are composed, and thereby prevent them being pried upward by the pressure of the grain or being accidentally removed by any other cause.

11 denotes ears secured to the sides of the doorway-jambs and provided with screw-threaded perforations 12. 13 denotes screws engaging said perforations and having at their inner ends enlarged heads 14, formed with annular grooves 15, which are engaged by laterally-extending bifurcated arms 16, projecting from the upper ends of the clamping-plates. 17 denotes handles, which are preferably secured to the inner ends of these screws in a pivotal fashion. By turning these handles to rotate the screws the clamping-plates will be firmly pressed against the doors and the prongs or points embedded in the material thereof, so that it will be impossible for the doors to become loose or displaced.

It will be understood that changes in the form, proportion, and the minor details of construction may be made without departing from the principle or sacrificing any of the advantages of this invention as set forth in the claims hereto appended.

Having thus described the invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with the grain-door jambs, of hinged clamping-plates, and a screw for forcing said clamping-plates against the grain-door, substantially as described.

2. The combination with the doorway-jambs, hinged clamping-plates having laterally-projecting arms formed with bifurcations, brackets secured to said jambs and provided with screw-threaded apertures, screws working through said brackets and provided with grooved heads to receive the bifurcated arms of the hinged clamping-plates, substantially as described for the purpose set forth.

3. The combination with the doorway-jambs and the grain-door, of the hinged clamping-plates provided with piercing points or prongs and having arms projecting laterally from their upper ends and bifurcated, and a screw engaging said bifurcated arms and adapted to swing said clamping-plates toward or away from the grain-door, substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM M. LINVILL.

Witnesses:

J. C. BLACKLIDGE,

IDA I. WARD.