(No Model.)

J. W. CLOUD & A. S. VOGT.

DEVICE FOR SECURING DOORS.

No. 327,238. Patented Sept. 29, 1885.

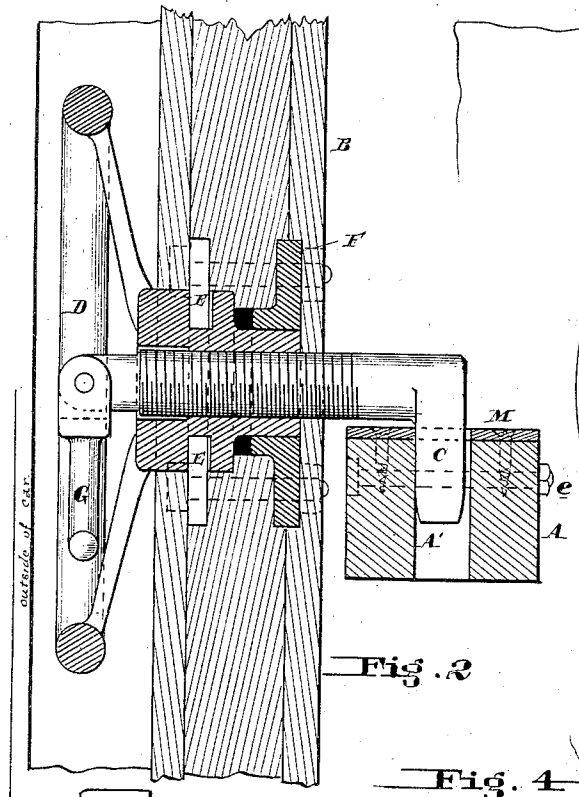


Fig. 2

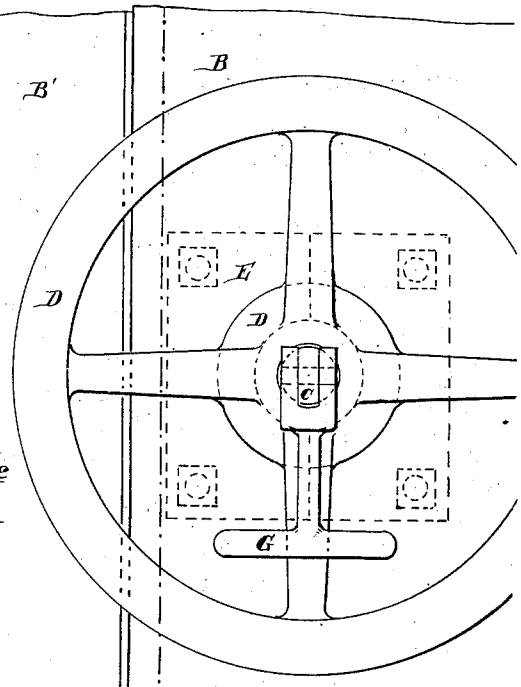
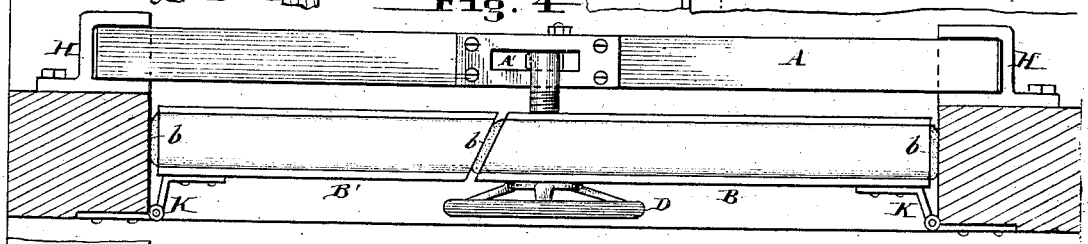


Fig. 1

Fig. 4



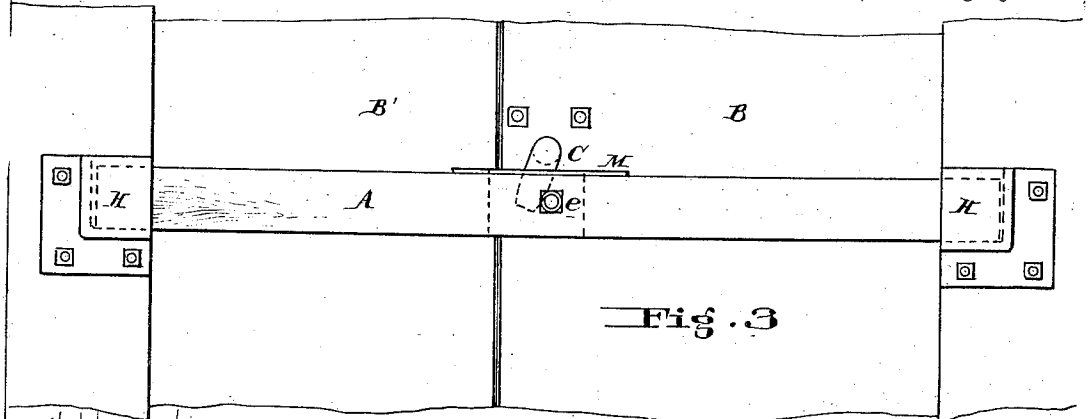


Fig. 3

Witnesses
Richd. Schild Jr.
Joshua Whatlack

Inventors
John W. Cloud
Axel S. Vogt
by their attorney
Francis T. Chambers

UNITED STATES PATENT OFFICE.

JOHN W. CLOUD AND AXEL S. VOGT, OF ALTOONA, PENNSYLVANIA.

DEVICE FOR SECURING DOORS.

SPECIFICATION forming part of Letters Patent No. 327,238, dated September 29, 1885.

Application filed July 31, 1885. (No model.)

To all whom it may concern:

Be it known that we, JOHN W. CLOUD, of Altoona, Blair county, State of Pennsylvania, and AXEL S. VOGT, a subject of the King of Sweden, residing in Altoona, Blair county, State of Pennsylvania, have invented a new and useful Device for Securing Doors, of which the following is a full and true description, reference being had to the accompanying drawings, which form a part of this specification.

The object of our invention is to enable the doors of refrigerator-cars and other compartments which it is desirable to secure hermetically to be easily and securely closed and sealed air-tight. This we accomplish by means of the devices hereinafter described, and by which the door or doors are caused to press against elastic packing interposed between their edges and the framing or other surfaces against which they rest.

Reference being had to the drawings, which illustrate our invention as applied to a refrigerator-car, Figure 1 is a side view from outside of our device, a portion of the outer sheathing of the door being cut away to show the plate E. Fig. 2 is a vertical section through the door-fastener. Fig. 3 is a side view of the door and fastener from inside, and Fig. 4 is a plan view of the doors and fastening devices, showing the elastic packing.

A is a cross-bar adapted to be dropped into and held by sockets H H on the door-posts.

B B′ are the doors, which are made to lap over each other and over the frame at top and bottom. They may be made to lap the side posts or not, as may be desired, and wherever the doors come in contact with the frame or with each other (if more than one is used) they are padded with an elastic material or packing, as shown at *b b b;* or, if desired, the packing may be attached to the frame instead of to the door.

C is a rod passing through the door B, and having its inner end bent at right angles, or so as to engage with the bar A when turned in its direction. At its outer end the rod C is provided with a handle, G, preferably hinged or pivoted to it, so that when not in use it may be bent down at right angles to the rod, as shown in Figs. 1 and 2. By this construction the handle G will not extend beyond the outline of the car-sides, and additional outside sliding doors may be used, if desired. The shaft of the rod C is threaded, as shown in Fig. 2.

D is a wheel secured to the door B by means of the plates E and F, Fig. 2, and the inside of the hub of which is threaded to receive the threaded rod C.

K K, Fig. 4, are the hinges of the doors B B′.

M and *e* are a plate and bolt used to strengthen the cross-bar A, the bolt *e* also serving as a stop for the catch on the rod C.

The operation of this device is as follows: The cross bar A is first placed across the doorway, resting in the sockets H H. The doors are then closed and the rod C rotated by means of its handle G, so that its bent end will pass down into the slot in the bar A. The wheel D is then revolved and the doors thus screwed up tightly against their frames and each other, the compression of the elastic packing making the joints air-tight.

In opening the doors, the tight joints may be loosened by turning the wheel D in the other direction, which will not only loosen the pressure holding the doors together, but will, if continued, force the doors outward and away from their frames. When the doors are loose enough to pull open, the rod C is again turned by its handle, so that it will no longer engage with the cross-bar.

It will of course be obvious that the cross-bar A may, if desired, be set vertically instead of horizontally, or a fixed post or brace may be used instead of a movable one, and that one door may be secured according to our invention as well as two, and also that a sliding door may be provided with elastic packing and made to fit hermetically in its frame by means of pressure applied by means of our device.

The lapping joints between the door and its frame, or between two doors, may be beveled, as shown, or rabbeted, if preferred.

Having now described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In combination with a door so constructed and placed in its frame as to hermetically close it when pressure is applied, a threaded

rod passing through the door and having a projection on its inner end for grappling a rigid brace, and a threaded nut fitting on the thread of the rod secured in the door and provided with a wheel or other handle for turning it, by means of which the door may be caused to press firmly against its frame, substantially as shown and described.

2. In combination with a door so constructed and placed in its frame as to hermetically close it when pressure is applied, a threaded rod passing through the door and having a projection on its inner end for grappling a rigid brace, and a handle on its outer end, whereby it may be turned to engage and disengage it, and a threaded nut fitting on the thread of the rod secured in the door, and provided with a wheel or other handle for turning it, by means of which the door may be caused to press firmly against its frame, substantially as shown and described.

3. In combination with a door so constructed and placed in its frame as to hermetically close it when pressure is applied, a threaded rod passing through the door and having a projection on its inner end for grappling a rigid brace, and a pivoted or hinged handle on its outer end, whereby it may be turned to engage and disengage it, and a threaded nut fitting on the thread of the rod secured in the door and provided with a wheel or other handle for turning it, by means of which the door may be caused to press firmly against its frame, substantially as shown and described.

In witness whereof we have hereunto set our hands this 29th day of July, 1885.

JNO. W. CLOUD.
AXEL S. VOGT.

Witnesses:
BENJ. JOHNSTON,
T. J. CASSIDY.