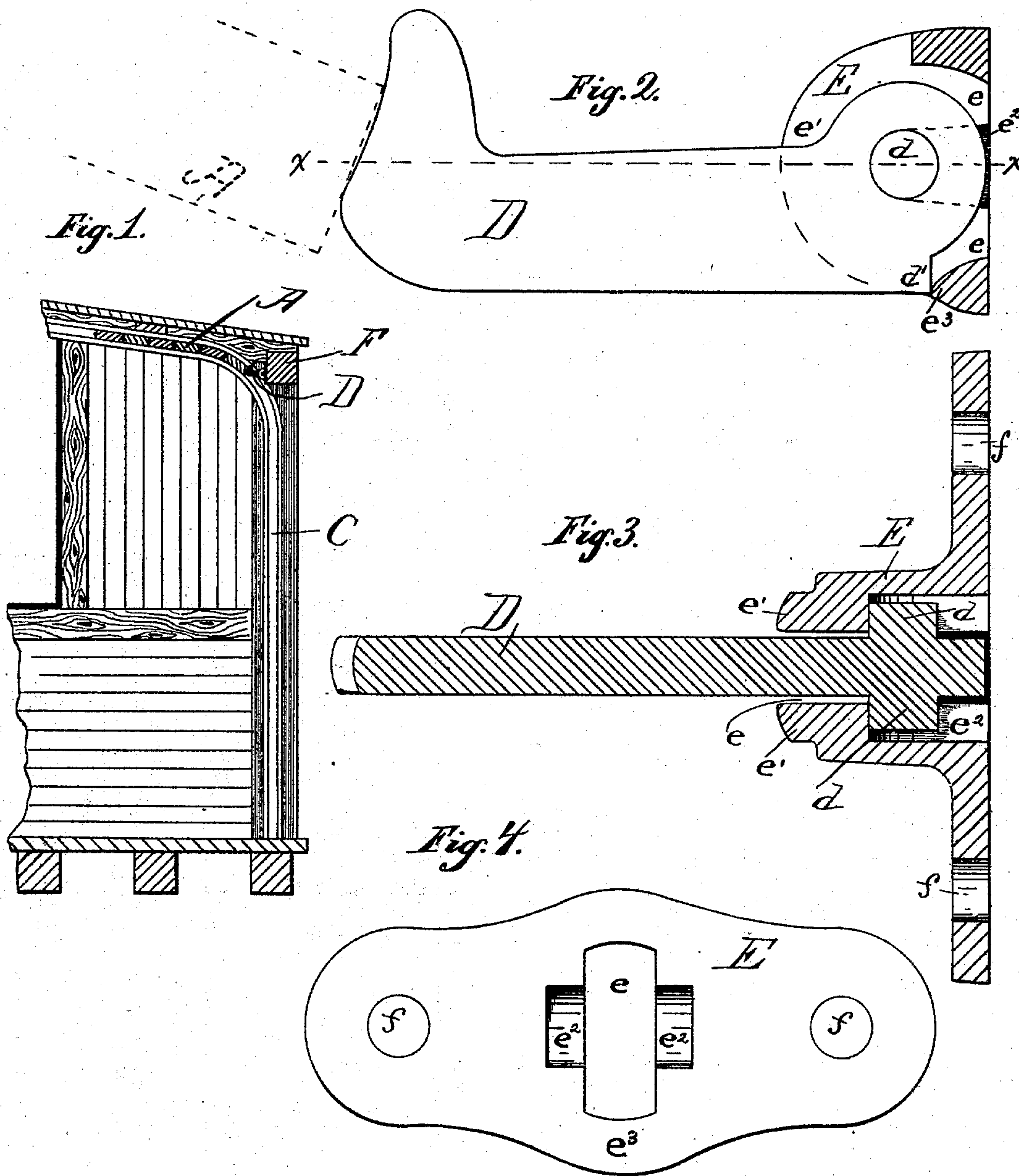


(No Model.)

D. F. VAN LIEW.
CATCH FOR GRAIN CAR DOORS.

No. 278,377.

Patented May 29, 1883.



Witnesses:
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UNITED STATES PATENT OFFICE.

DENNIS F. VAN LIEW, OF AURORA, ILLINOIS.

CATCH FOR GRAIN-CAR DOORS.

SPECIFICATION forming part of Letters Patent No. 278,377, dated May 29, 1883.

Application filed December 21, 1882. (No model.)

To all whom it may concern:

Be it known that I, DENNIS F. VAN LIEW, a citizen of the United States, residing in Aurora, in the county of Kane and State of Illinois, have invented a new and useful Improvement in Catches for Grain-Car Doors, of which the following is a specification.

This invention relates to the construction of the hinged catch employed in connection with flexible grain-car doors—such as are shown in the patent to A. B. Allen, No. 260,920, dated July 11, 1882—for holding said doors in the raised or open position, and is an improvement upon the catch described in said patent. As shown in said patent, and as heretofore constructed, the catch is hinged between two projections upon the disk of metal (whereby the device is secured to the plate of the car) by means of a wrought-iron pivot passing through the projections and catch.

In my present improvement I have sought to lessen the cost of the device by dispensing with the wrought pivot and avoiding the drilling of the projections and catch necessary in the old construction; and I accomplish this by making a central opening in the retaining or holding disk, through which the catch may be inserted from the back side of the disk, and by casting upon the sides of the catch itself the ears which serve as the pivots upon which it is oscillated and as the retaining-stops which prevent its withdrawal from the front of the disk. The disk and its projections are recessed at the sides of the central opening, to receive the ears of the catch, and the catch is provided with a shoulder upon the under side, adapted to engage with that portion of the disk below the central opening, so that the catch cannot fall below a horizontal position, as will be presently more fully explained.

In the accompanying drawings, which form a part of this specification, and in which similar letters indicate like parts, Figure 1 is a transverse section of a car, upon a plane through the doorway. Fig. 2 shows a side view of the catch detached and enlarged from Fig. 1 to its full size, the retaining-disk being in section, so as to expose the entire length of the catch. Fig. 3 is a section upon the line *x x* of Fig. 2. Fig. 4 is a view of the retaining-disk from the back or inside.

In said drawings, A represents the flexible

door, moving in guideways C at the side of the door-opening and extending up under the roof.

D is the catch to which my invention relates, and it is shown as performing its function of holding the door up in Fig. 1. It is provided with pivotal ears *d*, cast integral with it, as indicated in the drawings. The disk by which the catch is held is marked E, and is secured to the plate F of the car by screws passing through the openings *f*. Centrally through this disk is an opening, *e*, large enough to permit the passage through from the back side of the catch. At each side of this opening and upon its front side are projections *e'*, and these projections are recessed, as shown, to afford bearings for the pivotal ears *d*, as shown at *e''*. The catch is prevented from falling below the horizontal position by the contact of its shoulder *d'* with the portion *e'''* of the disk below the main opening *e*.

My invention permits the manufacture of the device without any special fitting or fastening of the parts together. At the same time it is as strong or stronger than the old construction. The opening in the disk is not such as to permit the putting in or withdrawal of the catch by moving it in a horizontal line; but the catch is raised and lowered to allow the passage of the hook end and the avoidance of contact between the shoulders *d* and the point *e'''*.

My invention permits the catch to be lifted by the door when it is being opened, and allows the catch to automatically drop into position to engage the door, as shown in the drawings, after the door has been raised beyond it. In these respects it is similar to the catch shown in the patent to Allen, above referred to.

I claim—

The device for holding up car-doors, consisting of the catch having the pivotal ears and the shoulder *d'*, and the retaining-disk having the central opening, permitting the insertion of the catch from the back thereof, the recesses for the pivotal ears, and the part *e'''* below the central opening, substantially as specified.

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Witnesses:

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