

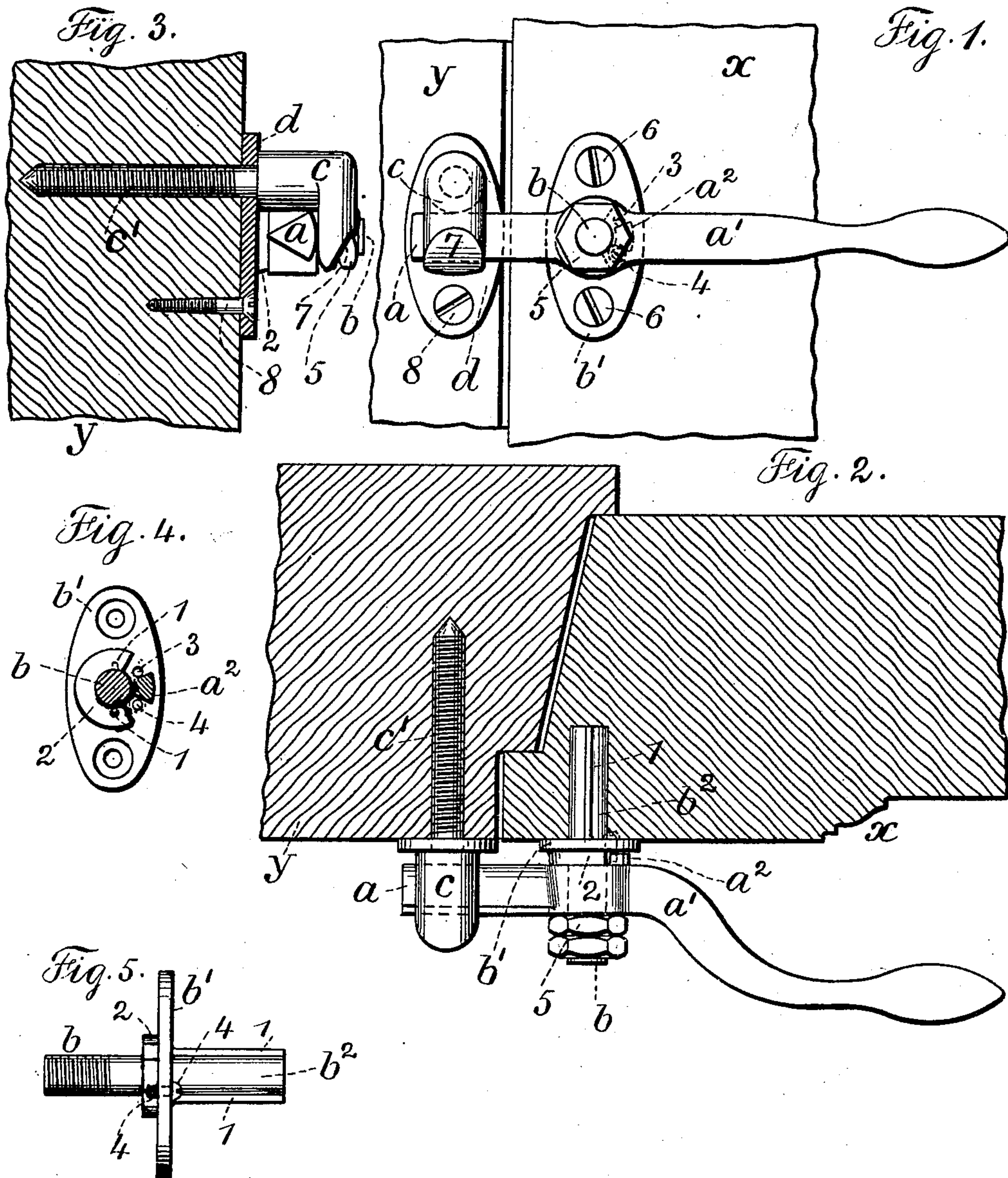
No. 632,009.

Patented Aug. 29, 1899.

A. D. FRITTS.
FASTENER FOR DOORS.

(Application filed June 17, 1899.)

(No Model.)



Witnesses:
J. Staib
Chas N. Smith

Inventor :
Atwood D. Fritts
per L. W. Serrell & Son Attys

UNITED STATES PATENT OFFICE.

ATWOOD D. FRITTS, OF HOBOKEN, NEW JERSEY.

FASTENER FOR DOORS.

SPECIFICATION forming part of Letters Patent No. 632,009, dated August 29, 1899.

Application filed June 17, 1899. Serial No. 720,884. (No model.)

To all whom it may concern:

Be it known that I, ATWOOD D. FRITTS, a citizen of the United States, residing at Hoboken, in the county of Hudson and State of New Jersey, have invented an Improvement in Fasteners for Doors, of which the following is a specification.

My invention relates to new and useful improvements in fasteners for doors, especially fasteners adapted for use upon the doors of refrigerators and ice-boxes; and the object of my invention is to so construct the parts as to make them adapted for use in either a right or left handed position, besides constructing the parts in a strong, substantial, and simple manner for use.

In carrying out my invention the latch is provided with a handle extension in line with the latch, and the latch is adapted to be used at the right hand or at the left hand, and the catch which is engaged by the latch can be used regardless of the direction in which the latch stands to the catch. The end of the latch is made with opposite inclines or triangular, so as to act against the inclined face of the catch and operate automatically in closing the door.

I provide a changeable stop for limiting the movement of the latch as the handle end of the latch descends by gravity, and this stop can be changed in its position, as said position is determined according to whether the latch is used right-handed or left-handed. I also provide means for preventing the stem of the latch turning or gradually loosening, and the catch is made with a screw-stem that is separate from the plate employed in connection therewith, the plate being secured to the wood of the refrigerator or ice-box, and the stem of the catch passing through a hole in the plate into the wood firmly secures the catch in place, so that the action of the latch in connection therewith does not disturb the catch.

The features of my improvement are more particularly hereinafter described.

In the drawings, Figure 1 is an elevation representing my improvement. Fig. 2 is a plan with the door and casing in section. Fig. 3 is a vertical section of the door-casing and partial elevation of the parts shown in Fig. 1.

Fig. 4 is an elevation of the stem-plate and a section through the axis connected therewith and through the projection on the rear of the handle, and Fig. 5 is a side elevation of the parts shown in Fig. 4.

The latch *a* and its handle extension *a'* are in one continuous piece in line with each other in elevation, the handle extension being much heavier than the latch *a*, and the latch is preferably triangular in cross-section, with inclined faces adapted to act upon the catch as the door is closed. The latch and handle extension normally occupy a horizontal position, and they can be used either at the right hand or at the left hand with equal facility. At the rear of the latch is a projection *a*², coming adjacent to the axis *b*, upon which the latch is pivoted. In making the parts I prefer to make the axis *b*, the plate *b'*, and the stem *b*² either integral or so permanently connected that they are practically inseparable.

The stem *b*² is provided with two ribs 1 on opposite sides, and said stem is to be driven into a hole made in the door *x* of the refrigerator or ice-box. These ribs prevent the stem turning accidentally. I provide a boss 2 on the face of the plate *b'*. This boss on one side is cut away down to the face of the plate, as shown in Fig. 4, and the plate at this point is provided with two screw-holes 3, in one of which is inserted the screw 4, the head of the screw being on the rear of the plate. The latch *a* upon the axis *b* is held by clamping-nuts 5, and the plate *b'* and connected parts are secured to the door *x* by the screws 6.

The projections *a*² on the rear of the latch comes against the screw 4 when the parts are in a horizontal position at either the right or left hand, and when the handle extension is gripped and raised and the latch *a* depressed the projection *a*² stops against one end of the boss 2 of the plate *b'*, so that the movement of the handle is limited between these two points. The catch *c* is made with a long screw-stem *c'* and an inclined outer face 7, and the plate *d* is provided with a hole for said screw-stem and with another hole for an ordinary wood-screw 8. The parts are made thus because greater strength is thereby obtained than would be the case if the catch

was made as a part of the plate and the plate was held to the casing *y*, as usual, by two ordinary wood-screws.

It will be noticed from Figs. 1 and 2 that the inclined face 7 of the catch starts above the center line of the latch *a*. Consequently when the door is closed the angular edge of the latch *a* strikes the face of the incline and moves down the same, swinging the latch and the handle extension, and one inclined face of the latch passes beneath the lower end of the catch, and thereafter the weight of the handle extension may raise the latch up within the catch to hold the door, or force may be applied, and the curved face of the latch acts as a wedge against the catch to insure the closing of the door.

To open the door, the latch is swung on the axis *b*, the handle extension being moved as far upward as it will go, the distance being limited by the projection *a*² coming against the boss 2. In the elevated position a pull opens the door. As shown, the latch operates by the right hand. Should it be desirable to reverse the same, no change is needed in the latch and handle extension nor in the parts of the catch and its plate or in the manner of connecting the same, and the only change needed is to remove the screw 4 from the screw-hole in which it is shown and place it in the other hole and reverse the position of the parts, so as to provide for moving the projection on the latch between the screw in its new position and the other end of the boss 2, and when reversed the operation of the parts is precisely the same as has been described in connection with the position shown.

I claim as my invention—

1. In a door-fastener, the combination with the latch and the catch, of an axis for the latch, a plate and stem integral therewith, the stem having opposite ribbed edges and the plate holes for screws by which the same is secured to a door and the stem prevented from accidentally turning, substantially as set forth.

2. In a door-fastener, the combination with the catch and the latch, of an axis upon which the latch is pivoted, a stem entering the door and a plate connected to the stem and axis,

and a boss upon the plate cut away upon one side down to the plate and provided with two screw-holes, a screw 4 adapted to be placed in either of said holes, and a projection upon the rear of the latch adapted to move between the screw in either position and the edge of the boss to limit the swing of the latch, substantially as set forth.

3. In a door-fastener, the combination with the catch, of a latch and a handle extension thereto in line, an axis and plate to which the latch is pivoted in either a right or left hand position, a stop upon the latch and an adjustable stop connected to the plate for limiting the movement of the latch in either position, substantially as specified.

4. In a door-fastener, the combination with a latch and gravity handle extension and an axis and stem adapted to be connected to the door and upon which the latch swings, of a plate adapted to be screwed to the casing, a catch separate from the plate and having a long screw-stem passing through a hole in the plate and adapted to enter the casing in securing the catch and the plate to the casing, substantially as set forth.

5. In a door-fastener, the combination with a latch triangular in cross-section and having inclined faces and a gravity handle extension thereto, and an axis and stem adapted to be connected to the door and upon which the latch swings, of a plate adapted to be screwed to the casing, a catch separate from the plate and having a long screw-stem passing through a hole in the plate and adapted to enter the casing in securing the catch and the plate to the casing, the said catch having an inclined face whose surface extends above the center line of the latch and upon which inclined face the latch strikes and automatically moves down the same so that the latch passes below the lower edge of the catch and rises by gravity, substantially as set forth.

Signed by me this 14th day of June, 1899.

ATWOOD D. FRITTS.

Witnesses:

GEO. T. PINCKNEY,
S. T. HAVILAND.