

No. 849,322.

PATENTED APR. 2, 1907.

V. W. BLANCHARD.
DOOR FASTENING.
APPLICATION FILED JAN. 22, 1906.

Fig. 1.

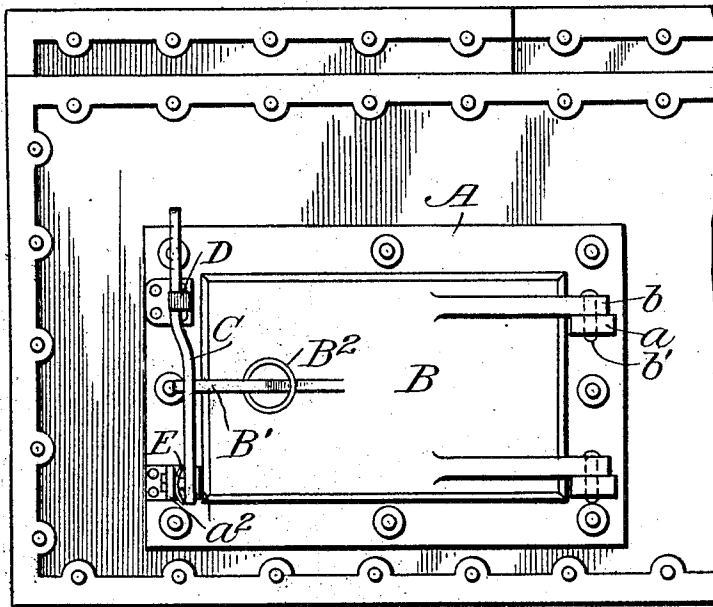


Fig. 2.

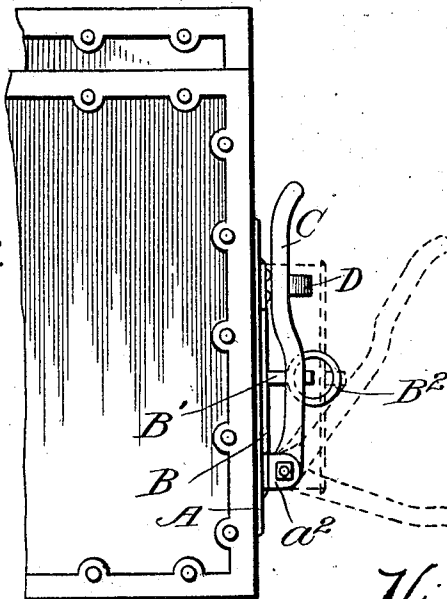


Fig. 3.

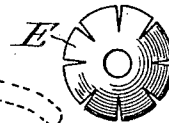
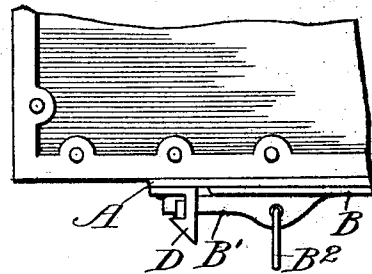


Fig. 4.

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VIRGIL W. BLANCHARD, OF NEW YORK, N. Y.

DOOR-FASTENING.

No. 849,322.

Specification of Letters Patent.

Patented April 2, 1907.

Application filed January 22, 1906. Serial No. 297,268.

To all whom it may concern:

Be it known that I, VIRGIL W. BLANCHARD, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Door-Fastenings; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form part of this specification.

This invention is an improvement in means for fastening doors, particularly designed for closing the doors of ranges, ovens, and furnaces and wherever it is desired to close such doors securely and tightly.

The invention consists in the novel construction of the fastening device, as hereinafter described and claimed, and will be fully understood from the accompanying drawings, in which—

Figure 1 is a front elevation of a heating-chamber, showing my improved door-fastening device applied thereto. Fig. 2 is a side view thereof, showing the fastening device in side elevation. Fig. 3 is a view showing the fastening device in plan, and Fig. 4 is a detail view of a spring-washer.

A designates a door-frame which is illustrated as surrounding an opening into a heating-chamber or heat-storing chamber. To this frame is hinged a door B, provided with hinge-ears *b* at one end, by which it is supported on and connected to hinge-ears *a* on one side of frame A by means of pins *b'* in the usual manner. The door is provided at its other end with a laterally-projecting rib or finger B' on its exterior surface and which is adapted to engage the fastening-lever hereinafter referred to. Attached to this rib is a pull ring or device B², by which the door can be easily swung open.

In the apparatus for which this invention is particularly designed the doors are very heavy and intended to fit very closely to and in the opening of the frame, and the hinge connection thereof should be such that practically no vertical play or oscillation of the door is permitted, and therefore the door cannot be secured by the ordinary notched lug on the frame or door engaging an opposed lug on the door or frame. Therefore I provide means whereby when the door is

nearly closed the finger B' can be engaged by a retaining device and the door forcibly closed and securely held by such device, 55 which enables the operation of closing the door, although it may be very heavy and large, to be performed easily and quickly. For this purpose I provide a hand-lever C, the lower end of which is pivoted to lugs *a*² 60 on the frame adjacent the lower edge of the door-opening and at one side thereof. After the door is swung to, but not entirely closed, said lever is swung upward, as indicated in dotted lines in Fig. 2, and engages the finger 65 B' of the door, and by pressing on the upper end of the lever the door is forcibly closed, as indicated in full lines, Fig. 2, the upper end of the lever passing behind a notched piece D, attached to the upper part of the frame 70 adjacent the upper edge of the door, so that the lever is retained in uplifted fastening position, and the door is securely held. I preferably place a spring-washer E between the lower end of the lever C and the outer 75 lug *a*², which washer is shown in detail in Fig. 4. The said washer tends to throw the upper end of the lever laterally toward the door and into engagement with the notched 80 lug D.

The particular advantages of this invention are, first, that the door B can be securely seated after it is partly swung to by the action of the hand-lever, which lever can be made long enough to give the operator a 85 powerful leverage on the door, so as to enable him to easily overcome the friction and resistance which the door may offer when entering into the frame A. It also enables the door to be fitted closely and accurately on 90 its hinges. It does not necessitate the rising or falling of the door to engage or disengage retaining devices. No effort on the part of the operator is required in releasing the door, and when the lever is dropped, as is indicated 95 in Fig. 2, the door can be readily swung open by pulling on the ring B².

Having thus described my invention, what I therefore claim as new, and desire to secure by Letters Patent thereon, is— 100

In combination, a door-frame, a door hinged to one side of the frame, a lever pivoted to the lower side and opposite end of the frame and adapted to engage the door when

the latter is partly closed and the lever is swung upward, a spring engaging the pivoted end of the lever to hold the lever in engagement with the catch, and a catch on the upper part of the door-frame adapted to engage the upper end of the lever.

In testimony that I claim the foregoing as

my own I affix my signature in presence of two witnesses.

VIRGIL W. BLANCHARD.

In presence of—

JAMES R. MANSFIELD,
L. E. WITHAM.