June 28, 1932. W. MOLL 1,865,331

CATCH FOR OVEN DOORS

Original Filed June 6, 1928

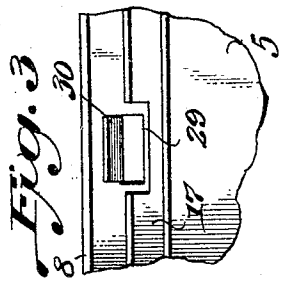

Fig. 3.

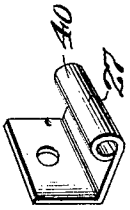

Fig. 4.

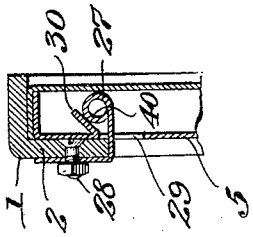

Fig. 5.

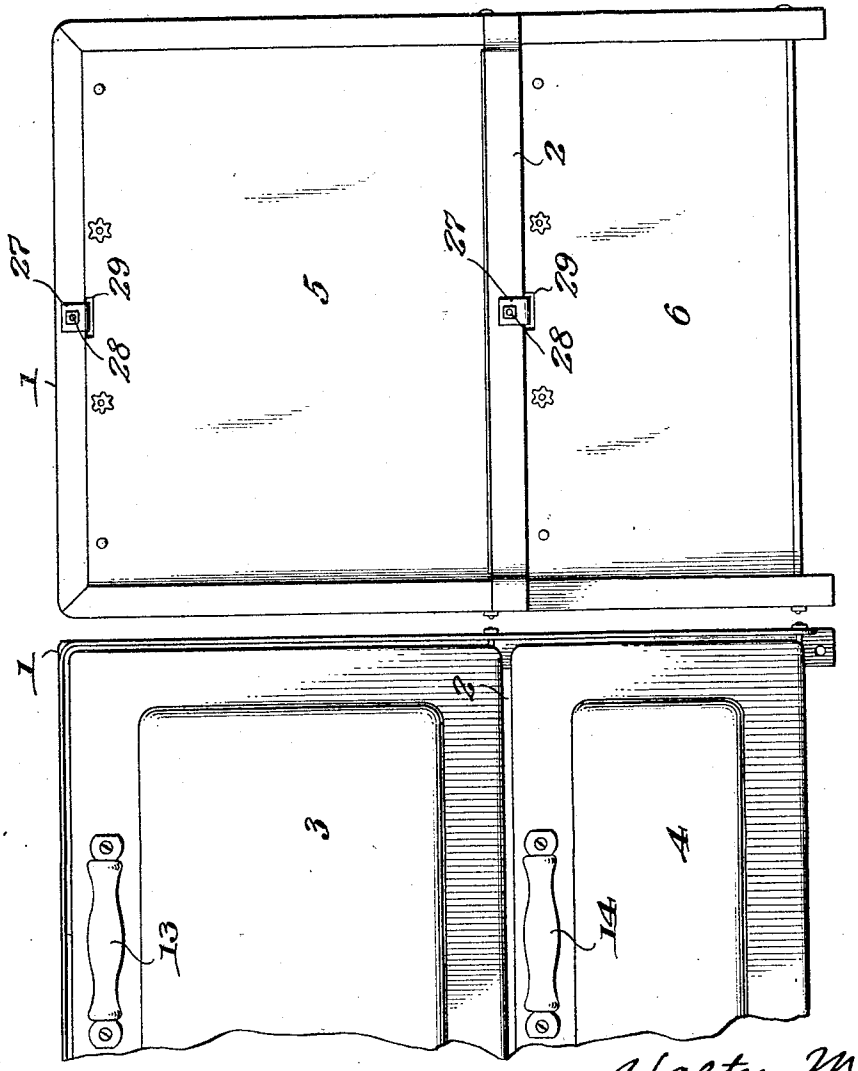

Fig. 2.

Fig. 1.

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UNITED STATES PATENT OFFICE

WALTER MOLL, OF EVANSVILLE, INDIANA, ASSIGNOR TO HOOSIER LAMP AND STAMPING CORPORATION, OF EVANSVILLE, INDIANA

CATCH FOR OVEN DOORS

Original application filed June 6, 1928, Serial No. 283,418. Divided and this application filed January 9, 1930. Serial No. 419,680.

This application is a division of my Patent No. 1,782,739, Nov. 25, 1930.

The object of the present invention is to provide, first, an improved friction spring catch for oven doors and, second, a novel combination of oven door frame lning or backing, a friction spring catch wherein the catch is carried by the door frame and the keeper for the catch is carried by the lining for the door on the inner face of said lining, whereby the head of the catch is positioned between the lining and the door when the door is closed, thus concealing the catch, obviating the necessity of providing an opening through the door with resultant loss of heat from the oven, rendering unnecessary the provision of any projecting part of the keeper on the door lining, and otherwise providing a neat, secure, and compact construction.

A practical embodiment of the invention is hereinafter described and shown in the accompanying drawing, in which:

Figure 1 is a front elevation of a duplex oven door provided with my improved catch, both doors being closed, and the view being broken away;

Fig. 2 is a rear elevation, both doors being closed and engaged by the catches;

Fig. 3 is a fragmentary view of the rear of the door, the lining being broken away to disclose the keeper;

Fig. 4 is detail view of the catch; and

Fig. 5 is a detail section through the catch and the keeper, when engaged with each other.

Only such disclosure is given of those parts of the door set forth and claimed in my Patent No. 1,782,739, as will afford a clear understanding of the construction, position, and operation of the catch and keeper constituting the present invention.

The door frame 1 by which the doors are attached to the front of the range or stove, is of U-shape, and preferably of angle iron construction. If upper and lower doors are provided, as shown, a light angle iron crosspiece 2 is riveted to the legs of the frame 1 and serves as a stop for the upper part of the lower door and for bracing the frame and also serving as a support for the front end of the burner hanger. The crosspiece 2 also serves as a closure to prevent a crack existing between the lower edge of the upper door and the upper edge of lower door, which would allow heat to escape.

The doors are shown at 3 and 4 and each has a back or lining, respectively appearing at 5 and 6. To prevent buckling, flexing, or warping of the linings 5, 6, they may be provided with vertical channel irons, as shown in my Patent No. 1,782,739.

It will be understood that each lining 5, 6, has a continuous marginal flange 8 which fits within a corresponding continuous flange on the door.

The doors are suitably hinged at their lower parts, as set forth in my application Serial No. 283,418.

The door handles appear at 13 and 14.

To the upper inner part of each lining 5, 6, is secured a channel iron 17 (Fig. 3) for the purpose of strengthening the lining and preventing it from buckling.

My improved catches for the respective doors 3, 4 are independent of each other, illustration being given of two doors, instead of only one, merely to illustrate the two-door arrangement such as provided on ovens.

The catches comprise spring pieces 27, respectively secured by screw bolts 28 to the frame 1, and crosspiece 2, and having engaging parts 40 adapted to pass through the respective slots 29 in the linings 5, 6 and to engage inclined keepers 30 struck up from, and constituting a part of, the linings 5, 6. The engaging part 40 may be formed as a tubular elongated head of shorter length than the slot 29 so that the engaging part or head 40 will readily enter said slot, even though the parts may have warped, and readily snap into engagement with the struck-up keeper 30. The head 40, when passed through the slot 29 is, with the keeper 30, located on the inside of the lining 5 or 6, and wholly concealed, being then disposed back of the door front 3 or 4. This construction obviates the necessity of having the catch extend all the way through the door and leave an opening through which heat can escape from the oven, beside affording a backing and neat

locking means which adequately secures the door and yet permits the door to be readily opened when the handle 13, 14 is pulled.

What I claim is:

The combination with a frame for an oven door, of a hollow oven door comprising an oven door proper, and a lining carried by said door in spaced relationship thereto, said lining having a slot, a keeper integral with the lining and struck up therefrom adjacent the slot and located inside the space between the lining and the oven door proper, and an inherently springy catch on the frame which is adapted to pass through the slot and to engage said keeper and to lie concealed within the space between the lining and the door.

In testimony whereof I affix my signature.

WALTER MOLL.