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O. M. OTTE

1,891,394

COMPARTMENT

Filed June 10, 1929

Fig. 1.

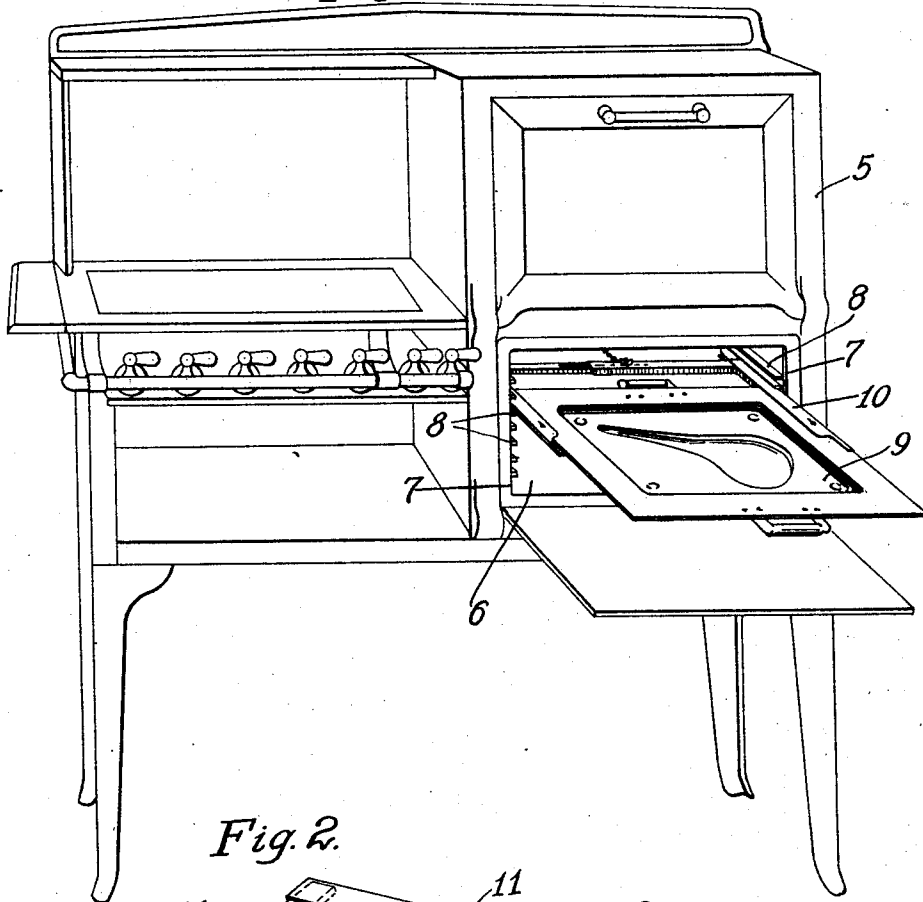


Fig. 2.

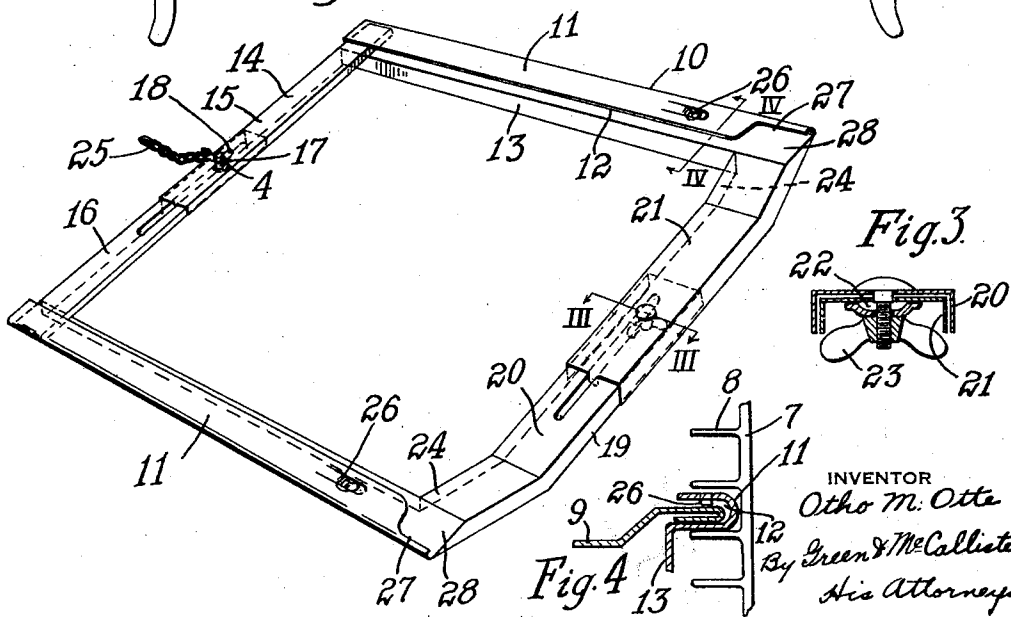


Fig. 3.

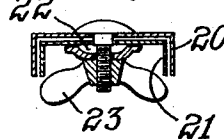


Fig. 4.

INVENTOR
Otho M. Otte
By Green & McCallister
His Attorneys

UNITED STATES PATENT OFFICE

OTHO M. OTTE, OF TARENTUM, PENNSYLVANIA

COMPARTMENT

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This invention relates to stoves and more particularly to the construction of a stove compartment such, for example, as a broiler, although it will be apparent that the invention is broadly applicable to compartments generally and is not necessarily limited in its application to stoves.

As generally constructed, the broiler compartment of a stove is provided with slotted side walls for receiving the edges of an associated tray or the like, and for supporting the latter at different heights for the purpose of positioning it at any desired distance from the associated burner. In the usual construction, the tray must either be entirely withdrawn from the compartment and placed upon a nearby shelf to permit the meat or the like to be turned over in the tray, or, if the tray is only partially withdrawn from the wall slots of the compartment, the top of the compartment interferes with such turning of the meat, rendering such operation difficult, if not impossible.

An object of the present invention is to provide an improved mechanism for use with trays, drawers, or the like in their associated compartments of such construction and arrangement as to permit the same to be entirely withdrawn from the confines of the compartment while still supported therein.

A further object is to provide a broiler compartment of improved construction and arrangement for cooking stoves.

A still further object is to provide a device of the type set forth which can be applied to stoves already in use.

A still further object is to provide a device of the type set forth which will be simple in construction, successful in operation and cheap to manufacture.

These and other objects which will be apparent to those skilled in this particular art are accomplished by means of the invention illustrated in the accompanying drawing in which Figure 1 is a perspective view of a stove having a broiler compartment constructed in accordance with one embodiment of this invention. Fig. 2 is a similar view of one of the details of the invention. Fig. 3 is a transverse sectional view on the line 3—3

of Fig. 2 and Fig. 4 is a similar view on the line 4—4 thereof.

It should be definitely understood that, although the present invention is described in connection with a particular article, namely, the broiler compartment of a stove, it is not limited thereto, but is equally applicable to all forms of construction having tray or drawer compartments.

The particular embodiment of the present invention which has been chosen for the purpose of illustration is shown in connection with a stove 5 having the usual broiler compartment 6 provided with slotted side walls 7 formed by a plurality of superimposed tray supporting slides or ledges 8 for supporting an associated broiler tray 9 at any desired level. In using the broiler tray it is constantly necessary to gain access to the meat thereon for the purpose of turning it. With ordinary constructions, it is practically impossible to gain access to the tray without entirely removing it from the compartment with the accompanying difficulty. The present invention provides a mechanism of such construction as to permit the broiler tray to be entirely withdrawn from the associated compartment 6 while still supported therein, and it will be apparent that the invention is equally applicable wherever shallow trays or drawers of considerable length are employed, whether in stoves or other devices.

The particular mechanism illustrated includes an open rectangular frame 10 composed of side members 11 formed of pressed metal and having a general U shape to provide inwardly facing slots 12 for receiving the edges of the associated broiler tray or other device. As illustrated, each side is provided with a downwardly extending flange 13, which can be duplicated at the upper side if necessary, for reinforcing purposes. A rear cross piece 14 of pressed metal is formed of two telescoping members 15 and 16 having a pin and slot connection 17 secured against relative movement by any desired means such, for example, as the wing nut 18. A front cross member 19 is formed by similar telescoping members 20 and 21 having a pin and slot connection 22 adapted to be secured

against movement by a suitable wing nut 23, see Fig. 3. The front cross member 19 is depressed below the level of the rest of the frame 10. This construction provides a face 24 on the inner edge of the front cross member at each end thereof which engages the front edge of the supporting ledge 8 so as to limit the inward movement of the frame 10 on the ledge. The outward movement of the frame 10 is limited by any suitable stop device such, for example, as a chain 25 connecting the rear cross member 14 to a stationary part of the associated compartment. Obviously, if the rear cross member or both cross members are omitted, a similar stop device can be employed with each side member 11.

The upper wall of each tray receiving slot 12 is provided with a yielding tray engaging finger 26 for frictionally engaging the edge of the associated tray so that when the tray is withdrawn from the compartment, the tray receiving side members 11 will be withdrawn therewith to the full extent permitted by the stop device. Further movement of the tray 9 is permitted by sliding it outwardly of the side members, as illustrated in Fig. 1, with the result that it is moved entirely out of the compartment to give full access to the tray while at the same time it is supported in the compartment.

As illustrated in Fig. 2, the upper arm of the U-shaped side member forming the upper wall of the slot 12 is cut away at 27 at the front end thereof so as to provide supporting surfaces 28 for receiving the inner corners of the tray 9 when the latter is being inserted into the broiler compartment, thus greatly facilitating this operation.

In operation, assuming the mechanism to be positioned entirely within the boiler compartment for cooking purposes, when it is necessary to gain access to the meat or other article on the tray for the purpose of turning it, the tray can be withdrawn from the compartment in the usual way. The friction fingers 26 on the side members engage the edges of the tray with sufficient force to move the side members outwardly with the tray to the full extent permitted by the associated stop device such as the chain 25. At this point, the side members 11 have been moved outwardly sufficiently far to support the tray even when it is moved outwardly with relation to the side members sufficiently far to be withdrawn entirely from the compartment as illustrated in Fig. 1 so that free access can be gained to the food on the tray without having to place it on another support and without interference from the associated stove parts. In returning the tray into the compartment, the side members will move inwardly until they engage the rear wall thereof or similar structure after which the tray will itself slide into the side members, as will be readily understood.

It will be apparent, as heretofore pointed out, that the present invention is equally applicable to other forms of compartments for receiving other types of trays, drawers, and the like, regardless of the use to which such compartments are put.

Although I have described a particular construction in more or less detail, it will be readily apparent that various changes, additions, omissions and substitutions can be made therein without departing from the spirit of this invention or the scope of the appended claims.

What I claim as new and desire to secure by Letters Patent is:

1. The combination in a compartment of an open rectangular tray supporting frame slidable into and out of said compartment and provided with tray receiving grooves formed along each side thereof and adjustable cross members connecting said side members so as to adapt said frame to different widths of compartments.

2. The combination with a compartment of a tray supporting frame slidably supported therein and including grooved side members for receiving and slidably supporting an associated tray or the like, adjustable cross members connecting said side members and means associated with said grooves for yieldingly and frictionally engaging the associated tray or the like.

3. The combination with a compartment of a tray support including grooved tray receiving side members slidable into and out of said compartment and provided with an unobstructed supporting surface at the front of each side member adjacent to and communicating with the grooves thereof for supporting the edge of a tray being inserted in the said grooves.

4. The combination with a compartment having slotted walls formed by a plurality of spaced supporting ledges, of a tray supporting frame slidable into and out of said compartment on said ledges and including a cross member formed so as to engage the fronts of said ledges to limit the inward movement of said frame into said compartment.

5. The combination with a compartment having slotted walls formed by a plurality of spaced supporting ledges, of a tray supporting frame slidable into and out of said compartment on said ledges and including side members adapted to receive the edges of an associated tray or the like, telescoping cross members connecting said side members at the front and back thereof, said front connecting member having a portion formed so as to engage the front of one of said ledges to limit the inward movement of said frame into said compartment.

6. The combination with a compartment of a tray support including grooved tray receiving side members slidable into and out of said

compartment, telescoping cross members located between and connecting said side members and means for securing said telescoping cross members together so as to provide a frame of predetermined size.

7. The combination with a compartment of a tray supporting frame including grooved tray receiving side members slidable into and out of said compartment, telescoping cross members located between and connecting said side members, the separate portions of said telescoping cross members being connected by pin and slot connections for securing said parts together so as to provide a frame of predetermined size.

8. In combination, a frame having grooved side members and cross-members connecting the front and rear ends of said side members, said frame being in operation movable into and out of a compartment, and a tray slidably disposed in the grooves of the side members.

9. In a compartment, in combination, a frame disposed for movement into and out of said compartment to provide an extended support for a tray or the like when out of the compartment and as a support therefor when in the compartment, and comprising grooved side members, a cross member connecting the rear ends thereof and a cross member connecting the front ends thereof, the portion of the cross member between the front ends of said side members extending downwardly and below the side members to provide clearance for a tray or the like adapted to be slidably supported in said grooves.

10. In combination, a frame having grooved side members and a cross member extending downwardly and below said side members, said frame in operation being movable into and out of a compartment, and a tray slidably disposed in the grooves of said side members.

11. In combination, an oven having supporting ledges on the side walls thereof, a frame having grooved side members supported by and slidably disposed on said ledges, said frame being adapted to be moved partly out of the oven and still be supported by said ledges, and a tray slidably mounted in the grooves of the frame side members, said frame being adapted to permit movement of the tray partly out of said grooves and still support the tray in the extended position.

12. In a supporting mechanism for a tray adapted for movement into and out of a compartment and disposed to permit the tray to be extended out of the compartment and still support the tray in the compartment, said mechanism comprising ledges on the side walls of the compartment, a frame having grooved side members slidably disposed on said ledges and a cross member connecting the side members and extending downward-

ly and below the same, and a tray slidably disposed in the grooves of said side members.

13. A frame adapted for movement into and out of an oven or compartment and disposed to support a tray, pan or the like, said frame comprising grooved side members for supporting the tray, pan or the like, and a cross member connecting said side members, said cross member extending downwardly and below the side members.

14. A frame adapted for movement into and out of an oven or compartment and disposed to support a tray, pan or the like, said frame comprising side members for supporting the tray, pan or the like, and a cross member connecting said side members, said cross member extending downwardly and below the side members.

In testimony whereof, I have hereunto subscribed my name this 8th day of June, 1929.

OTHO M. OTTE.

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