

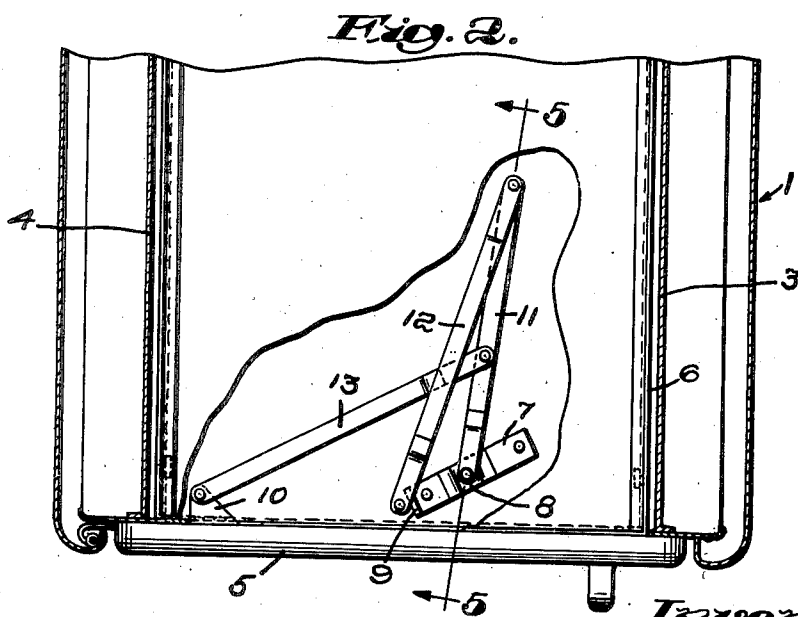
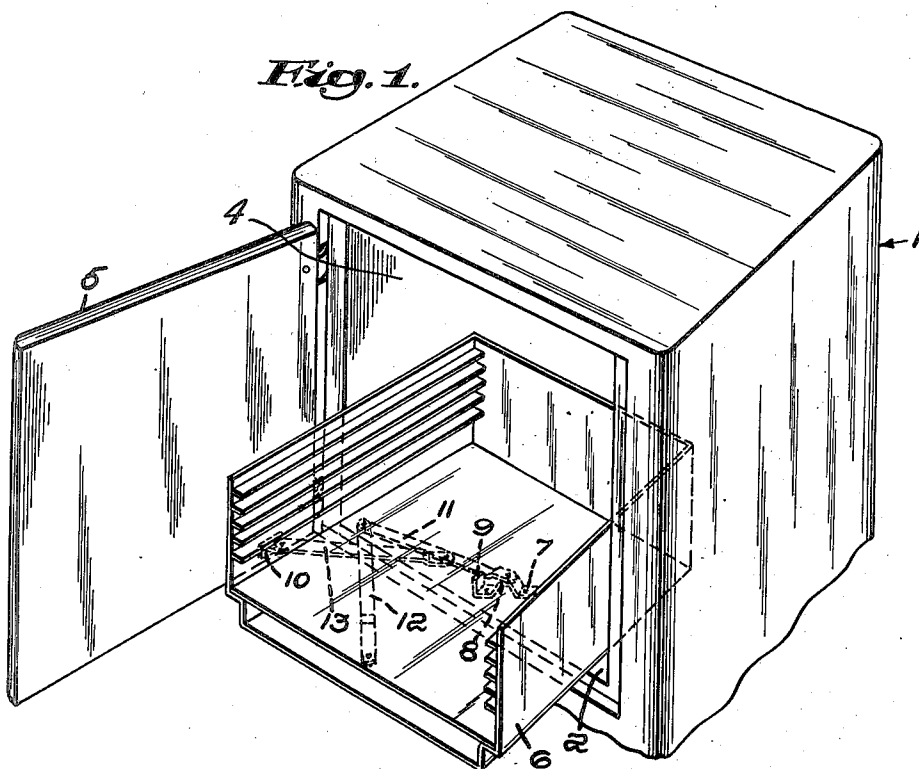
June 14, 1949.

Filed April 29, 1946

J. P. BURT
ATTACHMENT FOR DRAWERS IN OVENS
OF STOVES OR RANGES

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2 Sheets-Sheet 1



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2 Sheets-Sheet 2

Fig. 3.

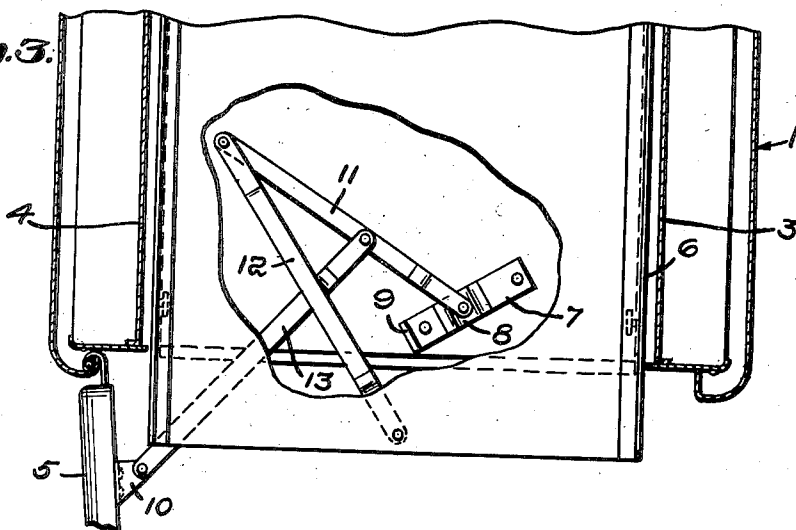


Fig. 4.

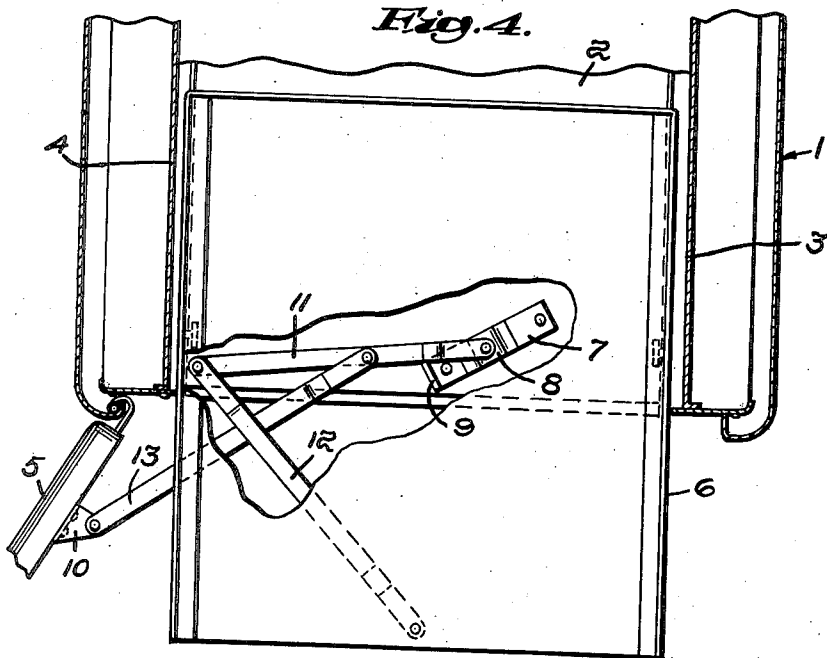
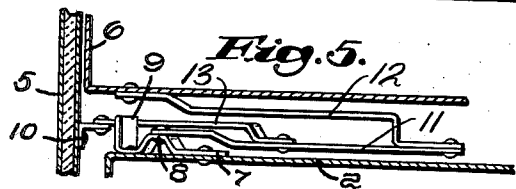


Fig. 5.



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ATTACHMENT FOR DRAWERS IN OVENS OF
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3 Claims. (Cl. 126—340)

1

The invention relates to an attachment for oven drawers of stoves or ranges, and especially broiler drawers, by which the position of the drawer is controlled by the opening and closure of the oven door.

The object of the invention is to improve and simplify the means by which the drawer is moved out and in by the opening and closing of the door, and especially to provide means by which the drawer will be moved in such manner that its contents will not spill if the door is quickly opened from a full closed position or quickly closed from a full open position.

The invention can best be seen and understood by reference to the drawings in which—

Fig. 1 is a perspective of the combined oven and drawer showing their general relationship and especially the position occupied by the drawer when the door is full open.

Figs. 2, 3 and 4 are views mainly in plan showing the various positions occupied by the operating parts which control the position of the drawer upon the opening and closure of the door; Fig. 2 showing the normal position of these parts when the oven door is closed, Fig. 3 their position when the oven door is partly open, and Fig. 4 their relative position when the oven door is full open.

Fig. 5 is a side elevation, especially that of the operating parts.

In the drawings—

1 represents an oven forming part of a range and having a bottom 2, and sides 3 and 4. The open front of the oven or doorway is closed by a door 5 hingedly mounted. This door when full closed occupies a position as shown in Fig. 2 substantially normal to a vertical plane passing through the longitudinal center of the oven bottom, and when full open as shown in Figs. 1 and 4 will occupy a position substantially parallel to said plane if the plane be continued, with preferred slight angular turning beyond said parallel position as shown.

Located within the oven is a drawer 6 which is withdrawn from the oven when the door is opened, and returned into the oven as the door is closed.

The drawer may be mounted to easily run in and out of the oven in any suitable manner, its mounting forming no part of the present invention which pertains to the mechanism or linkage by which the opening and closing of the door controls the position of the drawer.

Fastened to the bottom 2 of the oven is a strap 7. This strap has a raised central portion 8, and at one end is provided with an upturned flange 9 forming a stop. The strap is located at the fore part of the oven bottom laterally offset from said plane and between it and the adjacent side 3 of the oven.

Pivoted to the raised portion 8 of the strap and

2

to a bracket 10 on the inside of the oven door is a linkage composed of a series of levers which lie between the oven bottom and the bottom of the drawer and turn in planes parallel thereto but spaced therefrom. Of these the lever 11 is pivoted to the raised portion of the strap and when occupying an outwardly turned position, corresponding relatively with the full open position of the door as shown in Figs. 1 and 4, extends in a direction substantially normal to the plane previously referred to, and when occupying this position is preferably of a length to extend from the point of its pivotal connection to a point adjacent the furthestmost side 4 of the oven. From this position the lever is turnable to swing inwardly to an inwardly turned position corresponding relatively with the full closed position of the oven door as shown in Fig. 2. When occupying its inwardly turned position the lever extends in a direction substantially parallel with the plane previously referred to, and as the lever is turned to either approach or leave its inwardly turned position the free end of the lever will move in a direction substantially normal to said plane. In practice it is preferred that the lever in approaching or leaving its inturned position will not only pass through said plane but also through a second plane parallel with the first mentioned plane laterally offset therefrom and passing through the pivotal connection of the lever, the free end of the lever, as the lever is turned to approach or leave its inturned position, then moving in a direction substantially normal to both of said planes. Pivotally connecting with the free end of the lever 11 and extending to connect pivotally with the fore end portion of the oven drawer within the central longitudinal line of the drawer is a lever 12. Pivotally connected to a bracket 10 on the oven door adjacent its hinged side and extending to pivotally connect with the lever 11 between the free end of this lever and the point of its pivotal mounting, is a lever 13.

Arrangement of the combined levers with relation to each other and to the drawer and door is such that when the door is closed and the lever 11 is occupying its inwardly turned position as shown in Fig. 2 the lever will be turned by the initial opening of the door so that its free end will move in a direction substantially normal to the planes previously referred to with the effect of then imparting substantially no movement to the drawer for moving it out of the oven. In other words, if the door is quickly opened substantially no movement will be imparted to move the door but a lag will occur and the movement of the drawer will be very gradual, and it is not until the opening of the door increases that the free end of the lever will be turned with increasing degree of outward progression as to rapidly move the drawer out of the oven. As the door

approaches its full open position, which is defined by engagement of the lever 11 with the stop 9, it will come to move in a direction substantially normal to the plane passing through the longitudinal center of the oven bottom as previously referred to and consequently will operate to move the lever 11 with a very slow movement as the lever is brought into its outwardly turned position corresponding with the full open position of the oven door as defined by the stop. In other words, the drawer as it is moved out will not only have a very slow starting movement but as it approaches the end of its withdrawal it will then have a very slow movement which becomes practically negligible at the end of the movement.

A reverse operation takes place as the door is closed and the drawer moved into the oven. At the start the drawer will be moved very slowly with the return speed increasing until the drawer approaches the end of its return movement when its movement again becomes very slow and practically negligible, the drawer being brought gradually to a position of rest.

I claim:

1. In a range having an oven, a drawer in the oven, and an oven door hingedly supported and closing the doorway to the oven, a linkage for withdrawing the drawer from the oven as the door is opened and returning it into the oven as the door is closed, said linkage comprising a lever pivotally mounted upon the bottom of the oven at about the center of its fore end portion beneath the drawer and turnable transversely to and fro from an inwardly turned position corresponding relatively with the closed position of the oven door to an outwardly turned position corresponding relatively with the open position of the oven door and when occupying its said inwardly turned position extending in a direction substantially parallel with a vertical plane passing through the longitudinal center of the oven bottom and when occupying its said outwardly turned position extending in a direction substantially normal to said plane, a lever between the free end of said first named lever and the fore end portion of the drawer and pivoted, respectively, thereto, and a lever pivotally connected to the oven door and pivotally connecting with said first named lever between its free end and the point of its pivotal connection, whereby upon the opening and closing of the door said first named lever will be turned from its said inwardly turned position to its said outwardly turned position and return and when approaching or leaving its said inwardly turned position its free end will move in a direction substantially normal to said plane.

2. In a range having an oven, a drawer in the oven, and an oven door hingedly supported and closing the doorway to the oven and occupying when closed a position normal to a vertical plane passing through the longitudinal center of the oven bottom and occupying when full open an out-turned position substantially parallel with said plane, a linkage for withdrawing the drawer from the oven as the door is opened and returning it into the oven as the door is closed, said linkage comprising a lever pivotally mounted upon the bottom of the oven at about the center of its fore end portion beneath the drawer and turnable transversely to and fro from an inwardly closed position corresponding relatively with the closed position of the oven door to an outwardly turned position corresponding relatively with the open

position of the oven door and when occupying its said inwardly turned position extending in a direction substantially parallel with said plane and when occupying its said outwardly turned position extending in a direction substantially normal to said plane, a lever between the free end of said first named lever and the forward end portion of the drawer and pivoted, respectively, thereto, and a lever pivotally connected to the oven door and pivotally connecting with said first named lever between its free end and the point of its pivotal connection, whereby upon the opening and closing of the door said first named lever will be turned from its said inwardly turned position to its said outwardly turned position and return and when approaching or leaving its said inwardly turned position its free end will move in a direction substantially normal to said plane and when approaching or leaving its said outwardly turned position said first named lever will be turned by said door when moving in a direction substantially normal to said plane.

3. In a range having an oven, a drawer in the oven and an oven door hingedly supported and closing the doorway to the oven, a linkage for withdrawing the drawer from the oven as the door is opened and returning it into the oven as the door is closed, said linkage comprising a lever pivotally mounted upon the bottom of the oven at about the center of its fore end portion beneath the drawer in position laterally offset from a vertical plane passing through the longitudinal center of the oven and between said plane and the adjacent side of the oven, said lever being turnable transversely to and fro from an inwardly turned position corresponding with the closed position of the oven door to an outwardly turned position corresponding with the open position of the oven door, and when occupying its said inwardly turned position extending in a direction substantially parallel with said plane and with a plane parallel therewith laterally offset therefrom and passing through the pivotal connection of said lever, and which said lever when occupying its said outwardly turned position will extend in a direction substantially normal to said planes, a lever between the free end of said first named lever and the fore end portion of the drawer and pivoted, respectively, thereto, and a lever pivotally connected to the oven door and pivotally connecting with said first named lever between its free end and the point of its pivotal connection, whereby upon the opening and closing of the door said first named lever will be turned from its said inwardly turned position to its said outwardly turned position and return and when approaching or leaving its said inwardly turned position its free end will move in a direction substantially normal to said planes.

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