

W. E. MERSFELDER.
OVEN BURNER CONTROLLING DEVICE.
APPLICATION FILED JUNE 20, 1910.

1,049,588.

Patented Jan. 7, 1913.

Fig. 1.

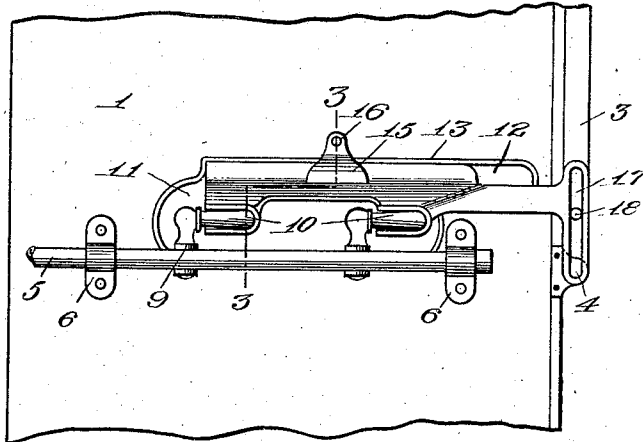


Fig. 2.

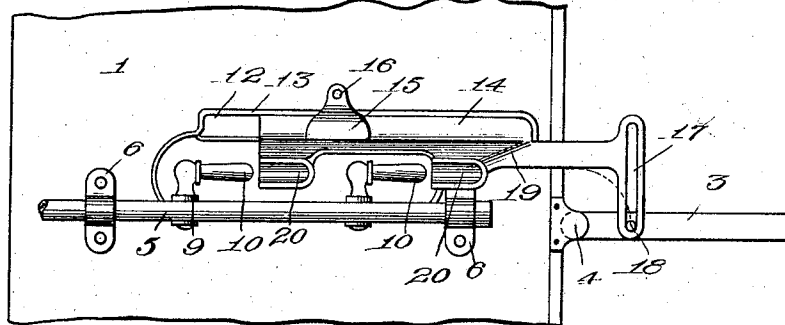
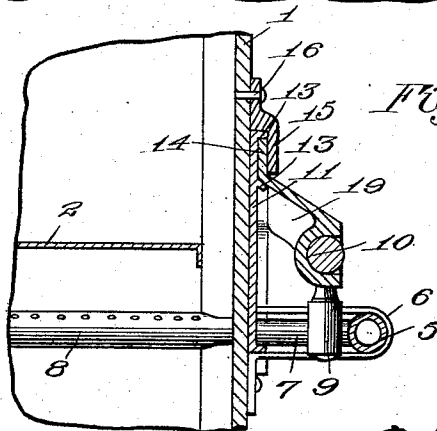


Fig. 3.



Inventor
William L. Mersfelder

Witnesses
Nelson Opp
Russell B. Giffels

By *Crunch & Rich*
his Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM L. MERSFELDER, OF KENNEDY HEIGHTS, OHIO, ASSIGNOR TO THE GRAVES SUPPLY CO., OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

OVEN-BURNER-CONTROLLING DEVICE.

1,049,588.

Specification of Letters Patent.

Patented Jan. 7, 1913.

Application filed June 20, 1910. Serial No. 567,860.

To all whom it may concern:

Be it known that I, WILLIAM L. MERSFELDER, of Kennedy Heights, in the county of Hamilton, State of Ohio, have invented certain new and useful Improvements in Oven-Burner-Controlling Devices; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

My present invention relates to stoves and furnaces and more particularly to the ovens thereof and it has for its object to establish control over the heating of the oven or oven burner thereof through the medium of the oven closure.

A particular object of the invention is to provide means whereby a careless user will be prevented from turning on the fuel of a gas oven and lighting the burner without first opening the oven to the end that explosions may be prevented due to accumulations of escaped gas inclosed within the oven at the time it is attempted to light the burner.

To these and other ends the invention consists in certain improvements and combinations of parts all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings: Figure 1 is a side elevation of the oven portion of a stove to which my improvements have been applied, the oven being closed; Fig. 2 is a similar view with the oven open, the burner in both figures being turned off, and Fig. 3 is an enlarged detail section taken substantially on the line 3—3 of Fig. 1.

The oven of the present embodiment of the invention is shown to be of a conventional type embodying side walls 1 and bottom 2, the front being closed by a door 3 pivoted at 4. Extending along the exterior of the stove from front to rear is a gas supply pipe 5 supported on the walls 1 in spaced relation thereto by suitable brackets 6 and laterally from this supply pipe leads the branch pipes 7 which are extended through the wall 1 to form burners 8 beneath the oven bottom 2. Each branch pipe 7 is fitted with a gas cock or valve 9 having an angularly extending handle or operating

portion 10 which, in the present embodiment, when the valve is closed extends parallel with the supply pipe 5 and with the oven wall, but which, when the valve is open, projects substantially at right angles from such position, a quarter turn being sufficient for the opening and closing movement.

Because of the fact that, in a practical stove, the gas combustion chamber and the oven chamber must be made to communicate with each other it will be seen in the construction outlined that if the gas is turned on an appreciable period in advance of the time that the burners are lighted with the oven door closed, the oven would fill with a more or less rich body of air and gas which, being confined, would constitute a dangerous explosive mixture. It is, therefore, important that the oven door should be left open in order to maintain a rarefaction of such explosive body until the burners are safely ignited. With my improvements such a safe disposal of the parts is automatically maintained against accident, inadvertence or mistake.

In the practice of the invention I prefer to employ a guide plate 11 secured to the exterior of the oven and stove wall 1 and having a channel 12 therein formed by flanges 13 which constitute a guide for a sliding bar 14 that is preferably held therein by a lip 15 overhanging the guide and secured at 16. The outer end of the bar 14 that projects toward the front is fitted with a guiding slot or eye 17 that receives a pin or projection 18 on one edge of the oven door 3 removed from the pivot thereof so that as the door is opened and closed the bar is moved longitudinally in and out between the positions illustrated in Figs. 1 and 2.

In the present embodiment, two burners and two controlling cocks 9 are illustrated but inasmuch as they are substantial duplicates of each other the description may be confined to the singular. An offset lug or bracket arm 19 on the bar 14 is so further formed as to provide a recess or pocket open at its outer side and rear end within which pocket the handle 10 of the gas cock enters endwise as the bar is moved from the position of Fig. 2 to that of Fig. 1, with the closing movement of the oven door, the said handle being in closed position. When so

embraced on its inner side the handle is rendered inaccessible to the fingers of the operator throughout substantially its entire length and in order to obtain a purchase for his fingers thereon he must first open the oven door. Supposing, however, that the burner is turned on, the oven door is closed, the oven being in use, and it is wished to turn off the burners, say, for instance, to let the oven cool slowly without opening the door, it will be noted that though the bar is in its rearward position the handles 10 can still be moved to closed position inasmuch as the pockets 20 are open to them on that, their outer sides. As the oven door is opened the pockets are withdrawn from their inclosing position with respect to the valve handles and the latter are freely accessible.

The formation and arrangement of the parts herein shown are such as are believed to adapt the practice of the invention to the general mode of construction usually followed in stove manufacture but this need not necessarily be strictly adhered to, alterations of design being possible without departing from the spirit of the invention in order to meet special requirements, such, for instance, as the application or combination of the device as a part of stoves of the usual type already in use.

I claim as my invention:

1. The combination with an oven and a burner therefor, of a valve controlling said burner having a handle offset at one side of the valve and a device controlling the opening movement of the valve having an open recess arranged to embrace the valve handle lengthwise when it is turned to one side in position to close the valve and preventing access to the valve handle by the operator's fingers, said controlling device being movable in a plane parallel to the valve handle when the valve is in closed position.

2. The combination with an oven and a burner therefor, of a closure for the oven, a valve controlling the burner and provided with a handle portion and a locking device located at one side of the handle portion and

actuated by the oven closure in a direction longitudinally thereof, said device embracing the handle portion on one side substantially throughout its entire extent when both the oven and valve are closed to render said handle portion inaccessible for opening the valve before opening the oven, the handle portion being movable within the embrace of the locking device from the opposite side when the oven is closed and the valve is open.

3. The combination with an oven and a burner therefor, of a closure for the oven, a valve controlling the burner and provided with a handle portion and a locking device actuated by the oven closure and having a pocket therein open at the side and one end to embrace the handle portion on one side substantially throughout its entire extent, the handle being received endwise within the pocket when the valve is in closed position and the oven closure is being moved to such position and sidewise when the oven is closed and the valve is being moved from open to closed position.

4. The combination with an oven and a burner therefor, of a closure for the oven, a valve controlling the burner and provided with a handle portion, a flanged guide on the oven wall, a bar slidable therein and connected to the oven closure, a lip on the oven wall overhanging the guide to hold the bar therein and a pocket on the latter cooperating with the handle portion of the valve when the latter and the oven are closed to prevent opening the valve while the oven is closed.

5. A safety appliance for valve controlled oven burners comprising a movable locking member having a pocket therein open at one side and adapted to embrace the handle portion of a valve to prevent access thereto by the operator's fingers, and to receive the valve handle sidewise.

WILLIAM L. MERSFELDER.

Witnesses:

CHARLES A. J. WALKER,
M. G. WILLIS.