Sept. 6, 1927. 1,641,624

H. CHILINGIRIAN

SAFETY COOKING AND HEATING DEVICE

Filed Dec. 19, 1923 3 Sheets-Sheet 1

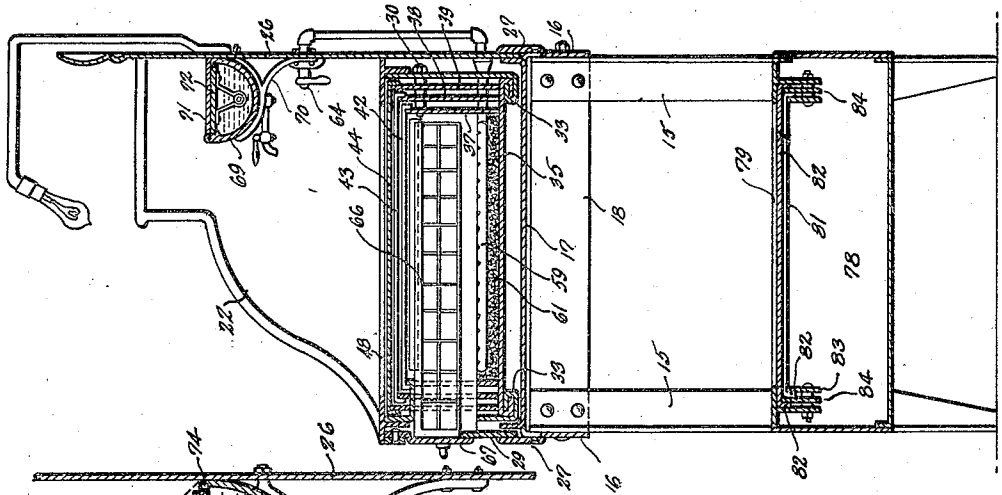


Fig. 2.

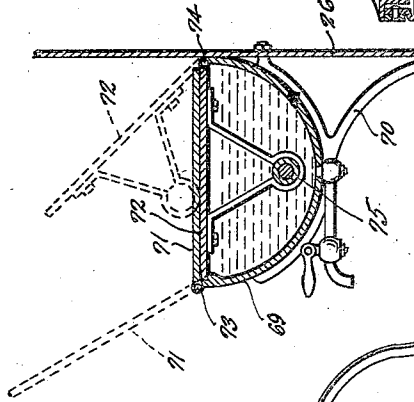


Fig. 3.

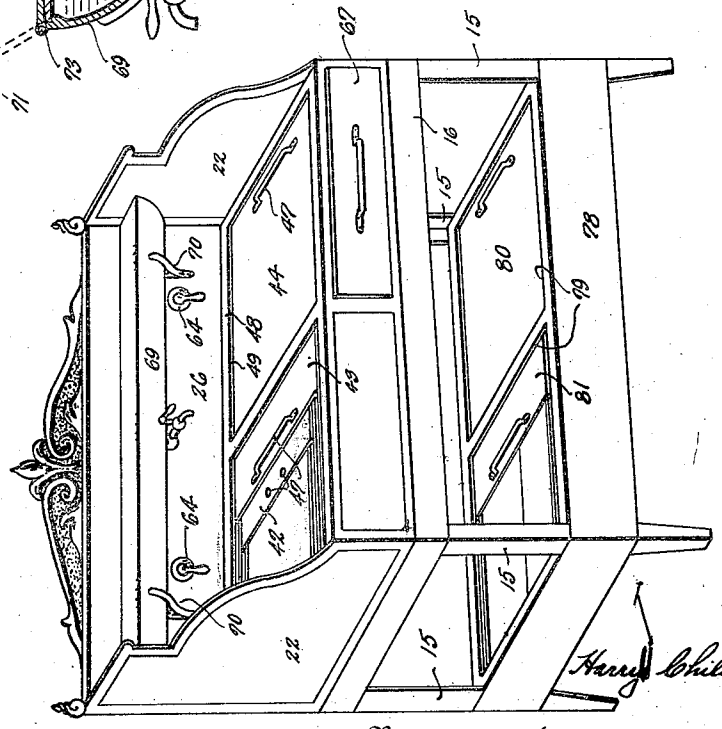


Fig. 1.

Inventor

Harry Chilingirian

By Wooster & Davis

Attorneys

Sept. 6, 1927. 1,641,624

H. CHILINGIRIAN

SAFETY COOKING AND HEATING DEVICE

Filed Dec. 19, 1923 3 Sheets-Sheet 2

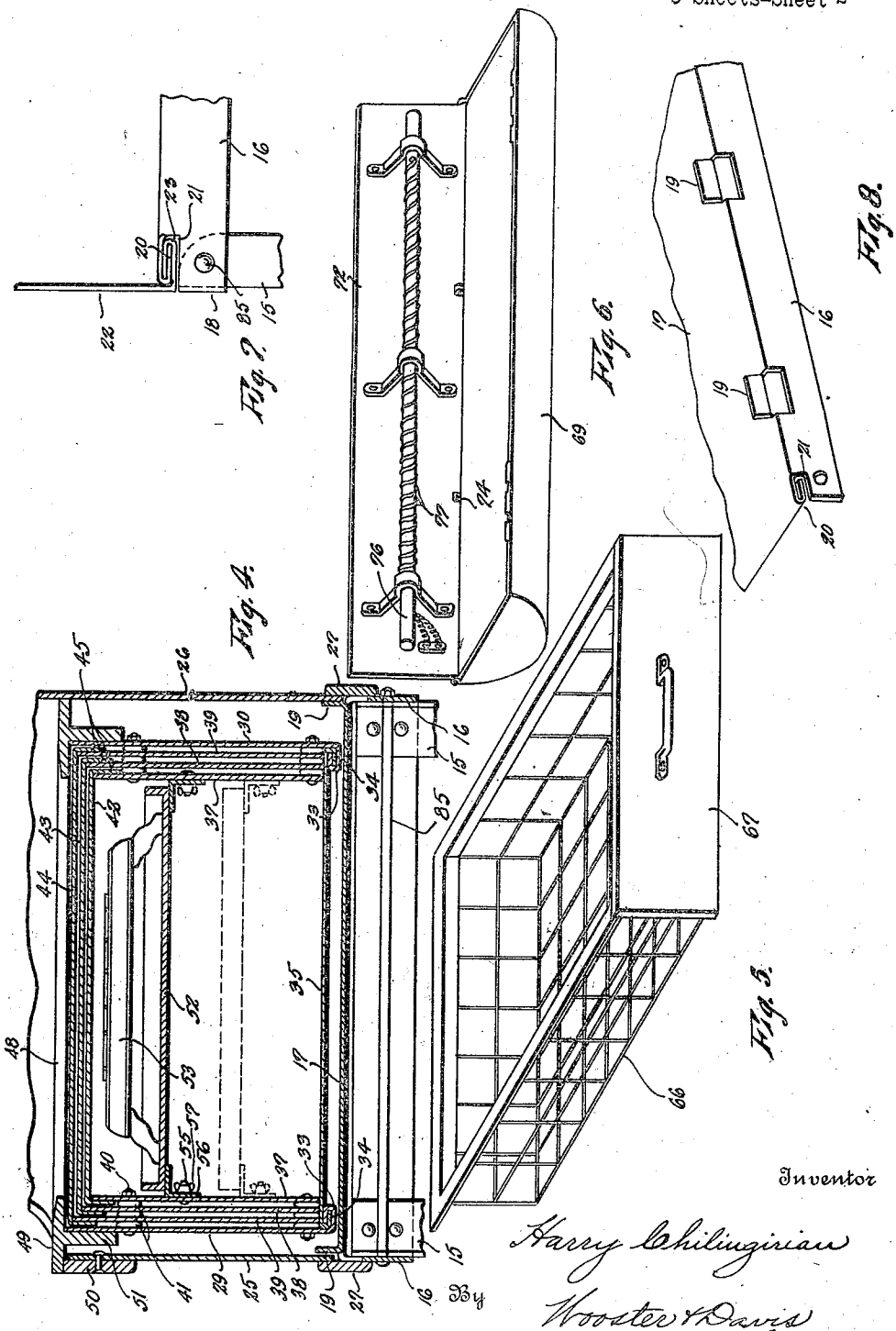


Fig. 7.

Fig. 6.

Fig. 8.

Fig. 4.

Fig. 5.

Inventor

Harry Chilingiriaw

By Wooster & Davis

Attorneys

Sept. 6, 1927. 1,641,624

H. CHILINGIRIAN

SAFETY COOKING AND HEATING DEVICE

Filed Dec. 19, 1923 3 Sheets-Sheet 3

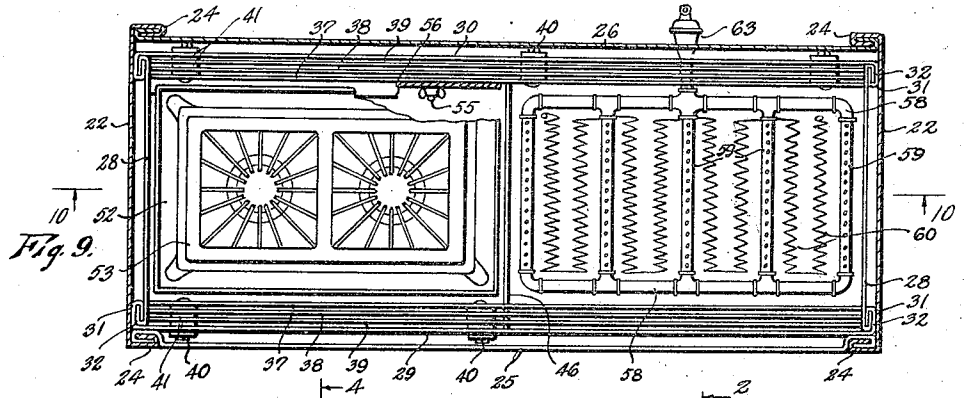


Fig. 9.

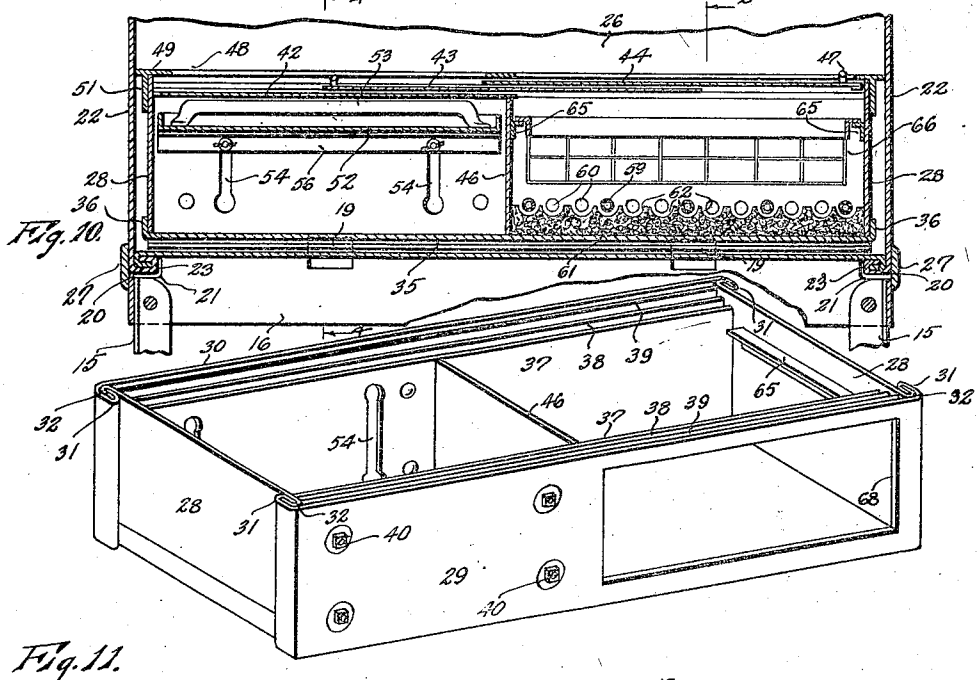


Fig. 10.

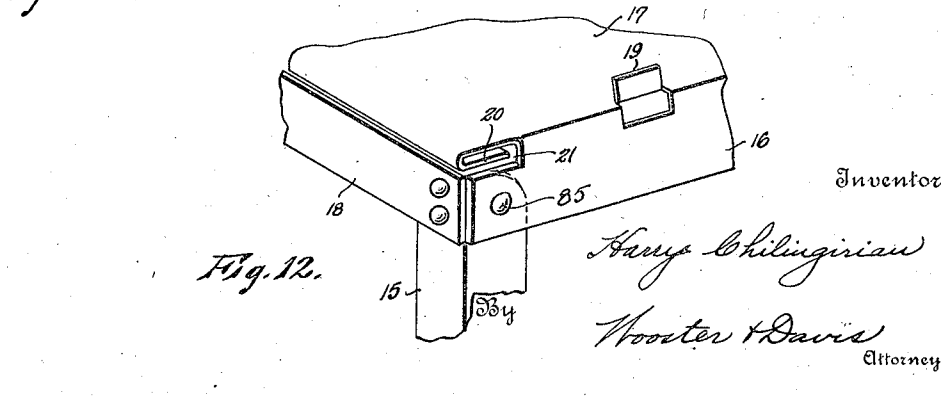


Fig. 11.

Fig. 12.

Inventor

Harry Chilingirian

By Wooster & Davis

Attorneys.

Patented Sept. 6, 1927. 1,641,624

UNITED STATES PATENT OFFICE.

HARRY CHILINGIRIAN, OF BRIDGEPORT, CONNECTICUT.

SAFETY COOKING AND HEATING DEVICE.

Application filed December 19, 1923. Serial No. 681,505.

This invention relates to cook stoves, and has for an object to provide an improved construction of stove which will be simple and comparatively cheap to manufacture, and which will be neat and attractive in appearance.

It is also an object of the invention to provide a construction in which different types of heating means may be employed, as for example, either gas or electricity or both.

It is a further object of the invention to provide a stove of this character which may be easily and quickly assembled or disassembled to facilitate manufacture, installing in a place of use, or shipping and moving.

With the foregoing and other objects in view, I have devised the construction illustrated in the accompanying drawings forming a part of this specification, similar reference characters being employed throughout the various figures to indicate corresponding elements. In these drawings,

Fig. 1 is a perspective view of the stove complete.

Fig. 2 is a transverse section through the same, the section through the compartment being substantially on line 2—2 of Fig. 10.

Fig. 3 is a transverse section through the water heating element on an enlarged scale.

Fig. 4 is a transverse section through the cabinet substantially on line 4—4 of Fig. 10.

Fig. 5 is a perspective view of a drawer adapted to hold food within one of the compartments.

Fig. 6 is a perspective view of the water heating element with the closure and heating means in a raised position.

Fig. 7 is a detailed view at one corner of the supporting frame.

Fig. 8 is a perspective view of the top adjacent one corner thereof.

Fig. 9 is a top plan view of the cabinet with the covers and the finishing frame removed.

Fig. 10 is a longitudinal section substantially on line 10—10 of Fig. 9.

Fig. 11 is a perspective view of the cabinet with the covers removed, and

Fig. 12 is a perspective view of one corner of the supporting frame top.

Referring to Figs. 1 and 2, the stove comprises a supporting frame made up of legs 15 of angle iron connected at their upper ends with downwardly extending side walls 16 of a top 17 by any suitable means, such as rivets or bolts, and the ends are finished by flat cross plates 18 also connected to the upper ends of the legs. The top 17 is provided adjacent its opposite sides with upwardly extending ears or lugs 19 which are preferably cut from the top and side walls and bent upwardly, as shown in Fig. 12. At its opposite ends the top wall is bent downwardly and inwardly, as shown at 20, in Fig. 12, and a notch 21 is provided in the side wall in alignment with this bent portion for insertion of the end walls 22 of the enclosing top section of the stove. These walls are also made of sheet metal with the lower edges bent inwardly at right angles and then outwardly upon themselves, as shown at 23 in Fig. 7, so as to embrace the end 20 of the top 17. It will be apparent that by sliding these lower ends of the walls 22 through the notch 21 with the elements 23 and 20 in engagement, the end walls will be securely mounted in position, and that they may be assembled or removed by a simple sliding movement. The vertical edges of the end walls 22 are also bent inwardly and upon themselves, as shown at 24 Fig. 9, for sliding engagement with similarly bent vertical edges on front and rear walls 25 and 26 respectively, so that after the end walls are in position the front and rear walls may be placed in position by merely sliding them down between the end walls, making a secure and rigid section which may be easily assembled or disassembled. The front and rear walls seat just outside the ears or lugs 19 thus securing the top section on the supporting frame and preventing accidental withdrawing of the end walls 22 from the bent ends 20 of the top 17. The joints between the top section and the frame are covered to give an attractive appearance by means of finishing strips 27.

Removably mounted within the top section formed by the walls 22, 25 and 26 and resting on the top 17 so as to be enclosed by said walls, is a section which for convenience I term a cabinet shown in perspective in Fig. 11 with the covers and heating elements removed. This cabinet when assembled is placed on the top 17 and between the walls 22, 25 and 26, and it may be removed at any time for repairs, cleaning or transportation purposes. It comprises end walls

28 and front and rear walls 29 and 30 respectively. The vertical edges of the front and rear walls are bent inwardly toward each other and then outwardly upon themselves, as shown at 31 in Fig. 11, and the vertical edges of the end walls 28 are bent outwardly upon themselves, as shown at 32, and are adapted for sliding engagement with the bent edges 31 of the front and rear walls, as shown, to give a complete rectangular frame. The lower edges of the front and rear walls are bent inwardly and back from themselves, as shown at 33 in Fig. 2, to receive the downwardly and inwardly bent side edges 34 of the bottom wall 35 to provide a sliding connection therewith. In assembling, the front and rear walls are slid onto the bottom 35 from the ends thereof with the portions 33 and 34 in engagement, and then the end walls 28 are slid in position from the top of the side walls with the bends 31 and 32 in engagement. The opposite ends of the bottom 35 are bent upwardly outside the lower edges of the end walls 28, as shown at 36, Fig. 10.

Within these walls of the cabinet and extending longitudinally on the opposite sides thereof are a plurality of vertical walls 37, 38 and 39, in the present showing there being three on each side and of different heights, the inner walls 37 being the lowest, the outer 39 being the highest while the intermediate walls 38 are of a height intermediate the others. These walls are mounted in spaced relation by suitable bolts 40 extending through them and washers 41 between the walls. Mounted to slide on the tops of these walls are a plurality of covers 42, 43 and 44. These covers are made of sheet metal and have downwardly extending flanges 45 at their opposite side edges to extend outside their respective supporting walls 37, 38 and 39, as shown in Figs. 3 and 4. As these covers slide on the top edges of the walls 37, 38 and 39 and these walls are of different heights, these covers are supported at different heights so that they may if desired slide by each other or be arranged in superimposed relation.

The cabinet is preferably divided into two compartments by a cross wall 46 and the covers are made of such a length as to cover only one of these compartments, but any cover may be moved to a position over either compartment. To facilitate shifting of the covers they are provided with suitable handles 47. After the cabinet is in position the edges of the covers and their supporting walls are covered by a finishing frame 48 which is substantially rectangular and made up of T-sections. The top portion 49 rests on the top of the end and side walls of the cabinet and extends inwardly over the edges of the cover supporting walls and extends outwardly to the end and rear walls 22 and 26, but extends over the top of the front wall 25, as shown in Figs. 2 and 4. A finishing strip 50 is secured to the front wall under this top portion to give a finished appearance. The vertical legs 15 extend downwardly on the outside of the end and side walls 28, 29 and 30, of the cabinet. As this frame rests merely on the top edges of these walls it may be removed by merely lifting it out of position to allow removal of the cabinet.

Heating elements are provided in the compartments of the cabinet. In one compartment is a supporting pan 52 adapted to carry a heating element 53, such as a gas burner, or any other type of heating element desired, and this pan is mounted on supports which are vertically adjustable in the compartment so that the position of the heating element may be adjusted in the compartment and its distance from the covers 42, 43 and 44 be varied as desired. For this purpose I provide in the inner wall 37 vertical slots 54 through which I pass suitable bolts 55 which also extend through one leg of angle iron 56. The pan 52 seats on the other legs of the angle irons, as shown in Fig. 4. By loosening the wing nuts 57 the pan may be adjusted to any position desired and then clamped in position.

In the other compartment I prefer to mount both stationary gas and electric heating elements. The gas element comprises a rectangular frame 58 and cross bars 59 connecting the sides of this frame having perforations in the top for the gas jets, and between these cross bars are electric heating coils 60. The gas burner and the coils are both mounted on a suitable heat resisting support 61 which has longitudinal grooves or troughs 62 in the top thereof in which these elements are seated. This support may be asbestos or suitable refractory material adapted to absorb and retain heat and give it out after the heating elements are cut off. I prefer to mount the air and gas mixer 63 for this burner at the rear of the stove and have the gas control valve 64 projecting inwardly from the back wall above the burners where it is out of the way and cannot be reached by small children. I also provide in this compartment suitable guides 65 on which a drawer 66 may be supported. This drawer is made up of open wire mesh so that any articles supported in it are directly exposed to the heat from the burner 58 or the coils 60. It is provided with a closed front wall 67 and is adapted to be withdrawn from the cabinet through an opening 68 in the front wall of the cabinet.

Mounted on the rear wall 26 above the cabinet is a water heating element. This comprises a suitable trough 69 carried by suitable brackets 70, and hinged to the top

of this trough on the opposite sides thereof are a pair of covers 71 and 72 shown more particularly in Fig. 3. In the illustration the upper cover 71 is hinged to the front edge of the trough, as shown at 73, and the lower cover is hinged to the rear edge of the trough, as shown at 74, but they are adapted to be closed in superimposed relation. Carried on the lower wall of the inner cover is a heating element 75, preferably comprising a suitable non-conducting support 76 about which is wound an electric heating coil 77. By immersing this coil in the water it is heated thereby. By raising the two covers to expose this heater and then closing the outer cover the heating element may be used for heating the room in which the stove is located.

I also prefer to mount below the cabinet a suitable compartment which may be closed to keep food warm or for other purposes. This is shown in Figs. 1 and 2, as a compartment 78 carried by the legs 15 and has two openings 79 in its top wall with a pair of sliding doors 80 and 81 for closing these openings. These doors are similar to the covers 42, 43 and 44, having downwardly extending flanges 82 and rest on the top edges of spaced guides 83 and 84. These are of different heights so that one door is higher than the other, and they may be moved to either superimposed relation under either opening 79 or be moved individually under either opening.

If this cabinet is not used I prefer to make the supporting frame so that the legs 15 may be folded under the top 17. Such a construction is shown in Figs. 4, 10 and 12, that is, the two legs at each end are hinged to the side walls 16 of the top by means of a rod 85 so that they may be swung inwardly under this top to occupy less space when transporting the device.

It will be apparent from the foregoing description that the stove may be easily assembled or disassembled and transferred in sections if desired, but when assembled it is of rigid and strong construction, that as the heating element 53 may be adjusted toward and from the covers 42, 43 and 44 for supporting the articles to be heated, the heating effect may be varied. This may also be done by shifting these covers so that one or more is positioned between the heating element and the article to be heated.

Having thus set forth the nature of my invention what I claim is:

1. In a stove, a supporting frame, a cabinet carried by said frame comprising bottom, side and end walls and a cross wall separating the cabinet into compartments, a plurality of metal cover plates slidably mounted over said compartments and adapted to form supports for articles to be heated, said covers being adapted to be placed in superimposed relation and also adapted to assume positions over either compartment, and heating means in said compartments.

2. In a stove, a supporting frame, a cabinet carried by said frame open at the top thereof, a plurality of metal covers mounted to slide longitudinally at the top of said cabinet and forming supports for articles to be heated, said covers being of less length than the cabinet and adapted to be moved to positions at either end of the cabinet or in superimposed relation, and heating means in said cabinet.

3. In a stove, a supporting frame, a cabinet carried by said frame open at the top thereof, said cabinet having a plurality of spaced side walls of different heights on the opposite sides thereof, metal covers mounted to slide on the tops of said side walls and provided with downwardly extending flanges in the spaces between said walls, and heating means within the cabinet.

4. In a stove, a supporting frame a cabinet mounted in said frame having a pair of openings at the top thereof to give access to the cabinet, a sliding metal cover over each opening, and adapted to form a support for articles to be heated, each cover being adapted for movement to a position over either opening, and heating means mounted in the cabinet under the openings.

5. In a stove, a supporting frame including supports and a sheet metal top wall, said top wall being provided with lugs cut from the top and bent upwardly, connected front, rear and end walls held on the frame by said lugs, a cabinet resting on the top and enclosed by said walls, covers for the cabinet, and heating means within the cabinet.

6. In a stove, a supporting frame including supports and a horizontal top wall, an enclosing section comprising connected front, rear and end walls mounted on said top wall, a cabinet enclosed by said section and removably seated on said top wall, the walls of the cabinet being spaced from the walls of said enclosing section, metal covers for said cabinet forming supports for articles to be heated, and heating means within the cabinet.

7. In a stove, a supporting frame including supports and a top, an enclosing section comprising connected front, rear and end walls mounted on said top, a cabinet removably mounted on said top and enclosed by said walls, a plurality of metal covers mounted to slide adjacent the top of said cabinet and forming supports for articles to be heated, said covers being of less length than the cabinet and adapted to be moved to positions at either end of the cabinet and in superposed relation, and heating means within the cabinet.

8. In a stove, a supporting frame, a cabinet mounted on said frame having a plu-

rality of compartments open at the top, a plurality of metal covers mounted to slide adjacent the top of the cabinet and adapted to be moved to positions over either compartment, heating means in said compartments, means for supporting the heating means in one compartment so that it may be vertically adjusted in said compartment, and a drawer in the other compartment above the heating means comprising open mesh bottom and side walls, said drawer being mounted for removal through the front wall of the cabinet.

In testimony whereof I affix my signature.

HARRY CHILINGIRIAN.