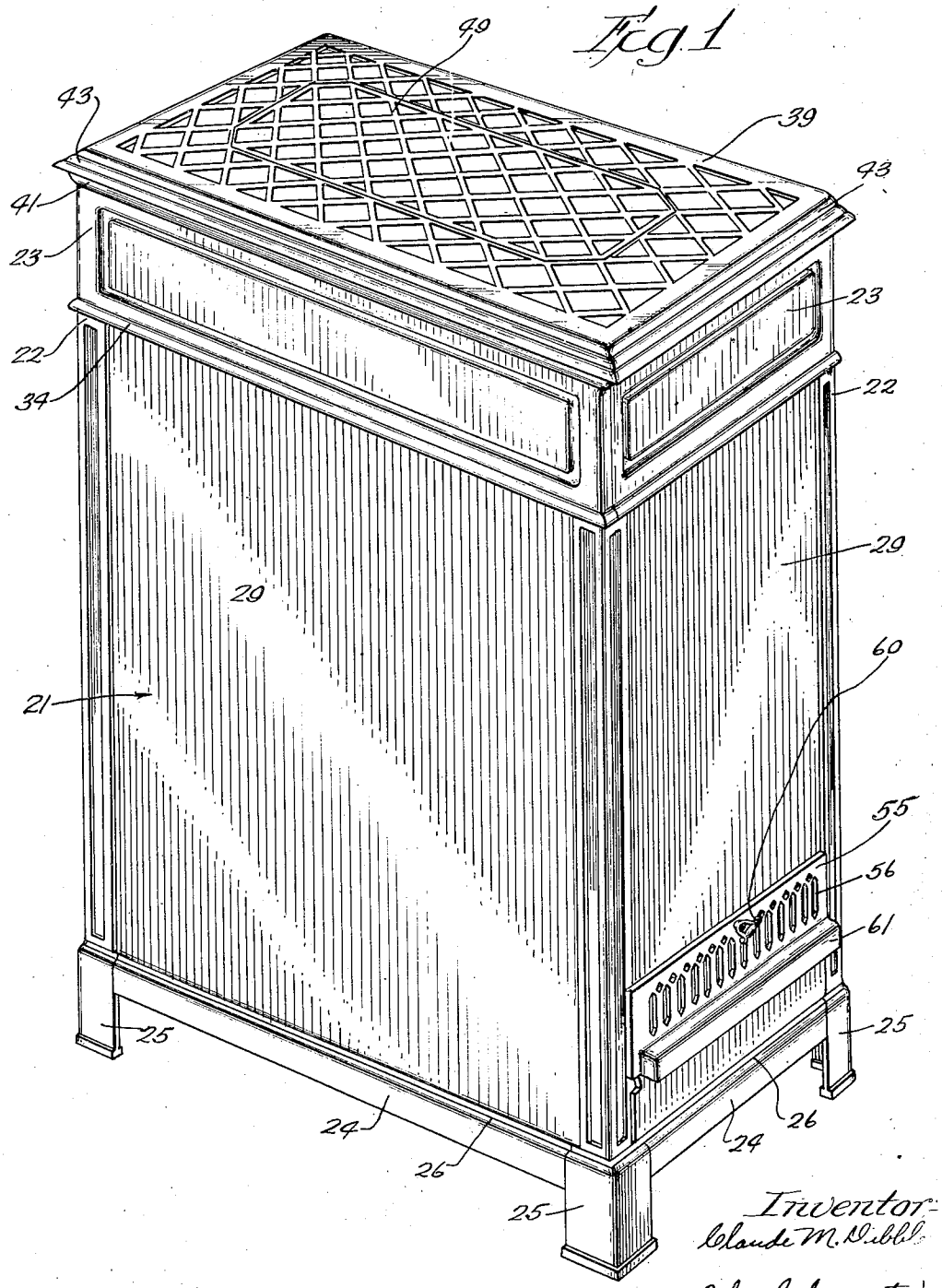
Sept. 8, 1931. C. M. DIBBLE 1,822,274

STOVE CONSTRUCTION

Filed Aug. 4, 1928 6 Sheets-Sheet 1

Fig. 1



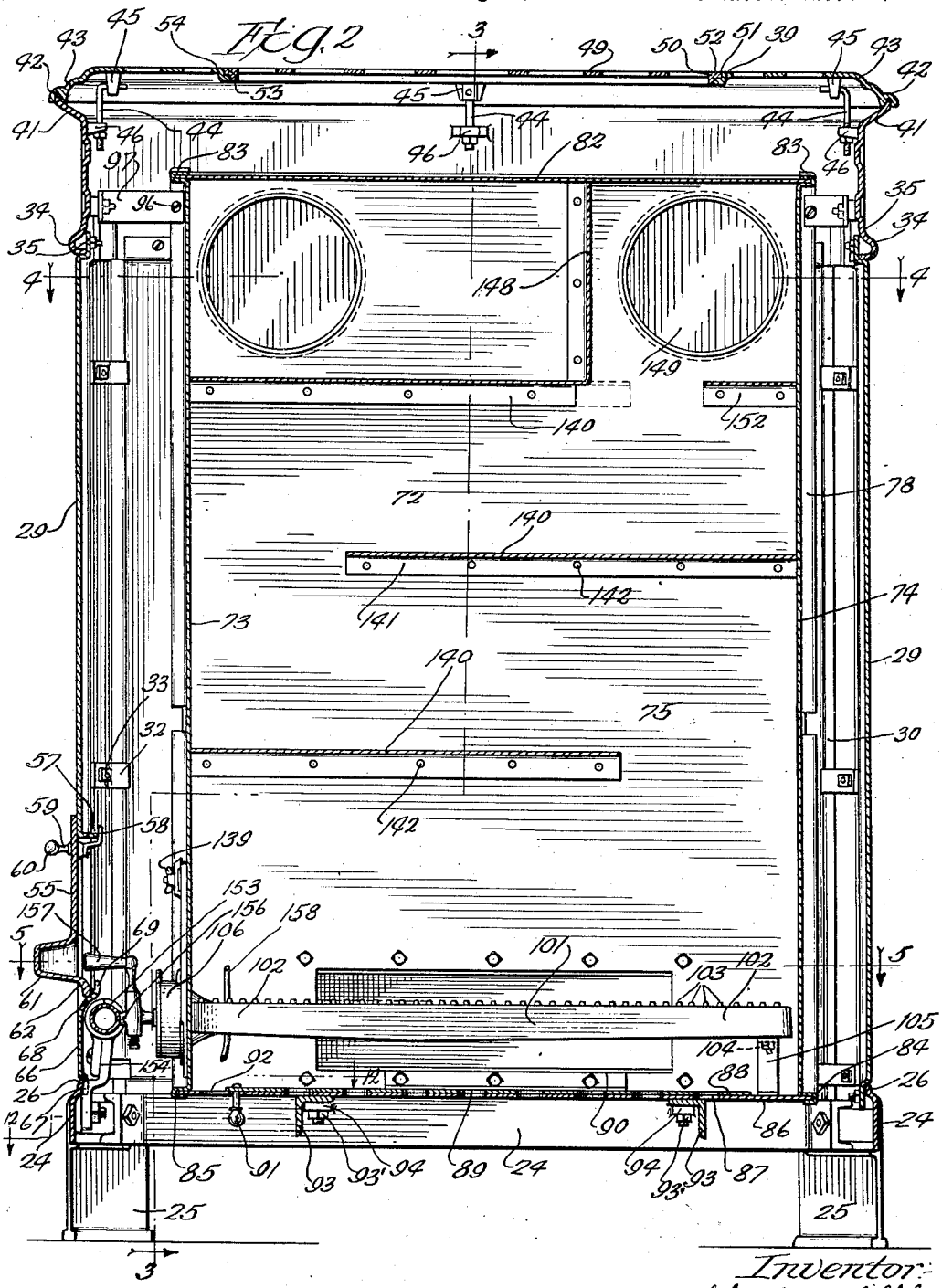
Inventor
Claude M. Dibble
John A. Carpenter
Atty.

Sept. 8, 1931. C. M. DIBBLE 1,822,274

STOVE CONSTRUCTION

Filed Aug. 4, 1928 6 Sheets-Sheet 2

Fig. 2



Inventor:
Claude M. Dibble
John C. Carpenter
Atty.

Sept. 8, 1931. C. M. DIBBLE 1,822,274

STOVE CONSTRUCTION

Filed Aug. 4, 1928 6 Sheets-Sheet 3

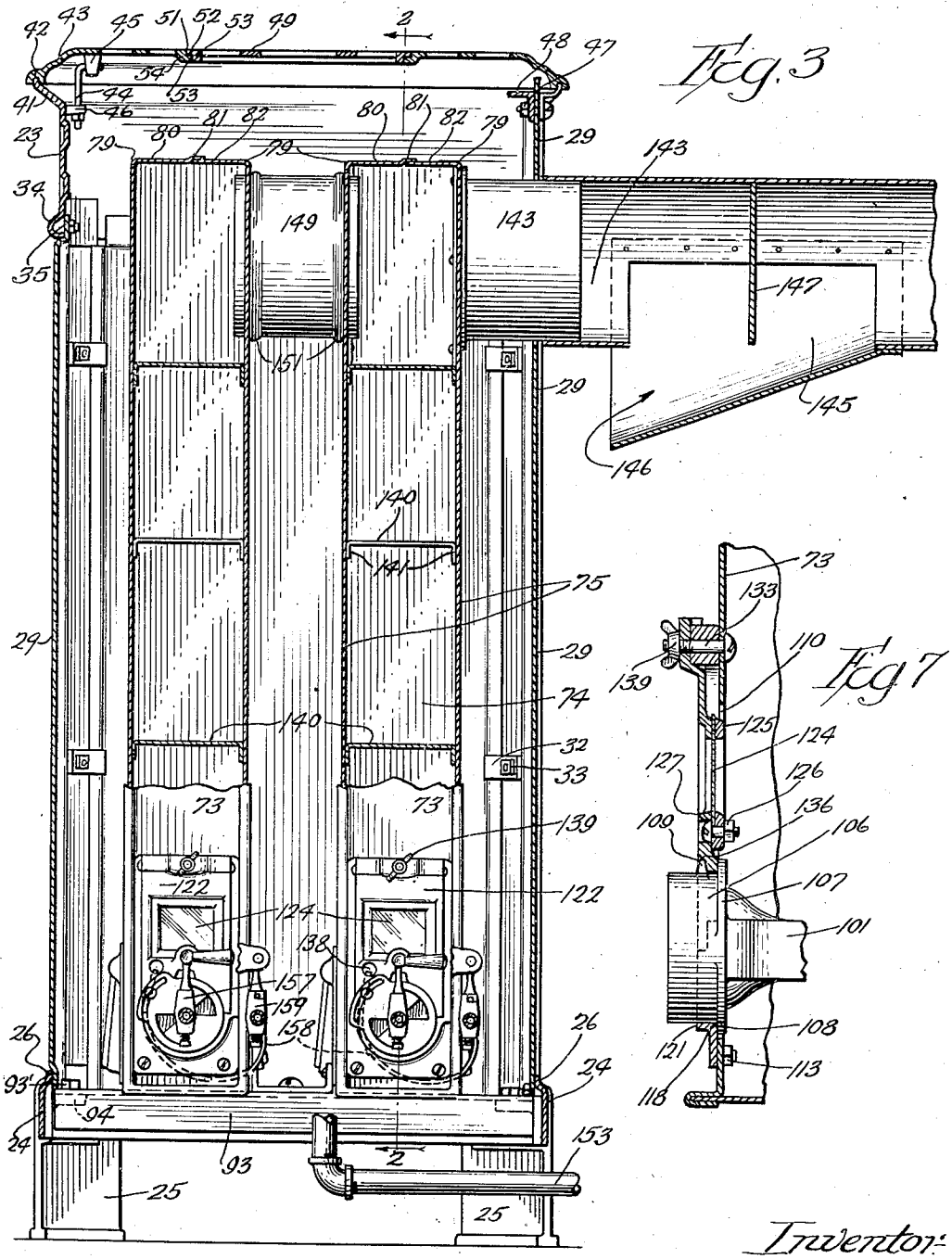


Fig. 3

Fig 7

Inventor:
Claude M. Dibble

John L. Carpenter
Atty.

Sept. 8, 1931. C. M. DIBBLE 1,822,274

STOVE CONSTRUCTION

Filed Aug. 4, 1928 6 Sheets-Sheet 4

Fig. 4

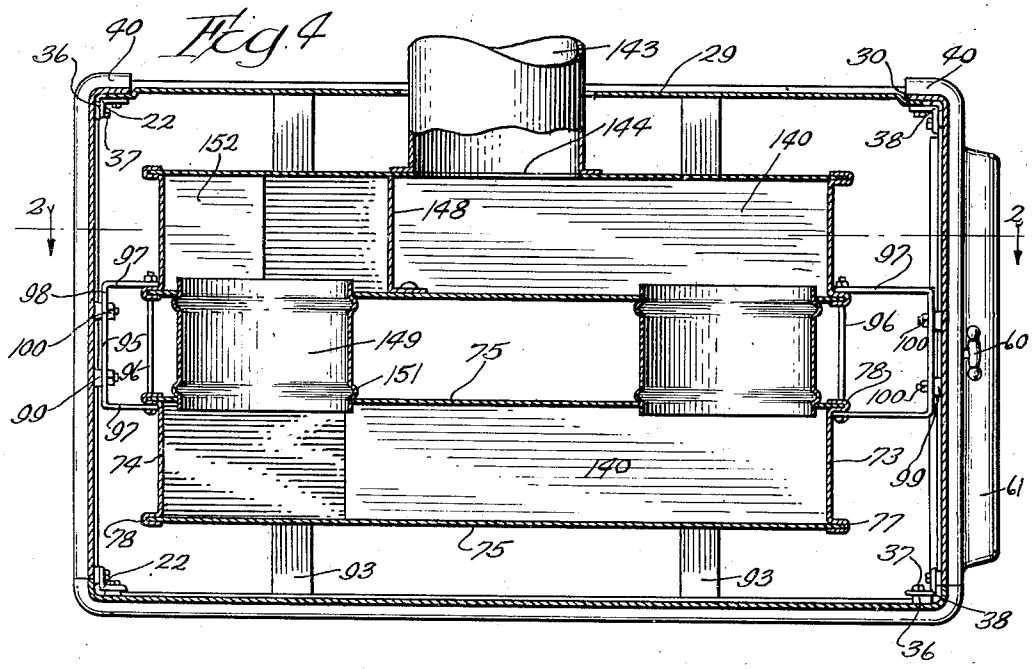
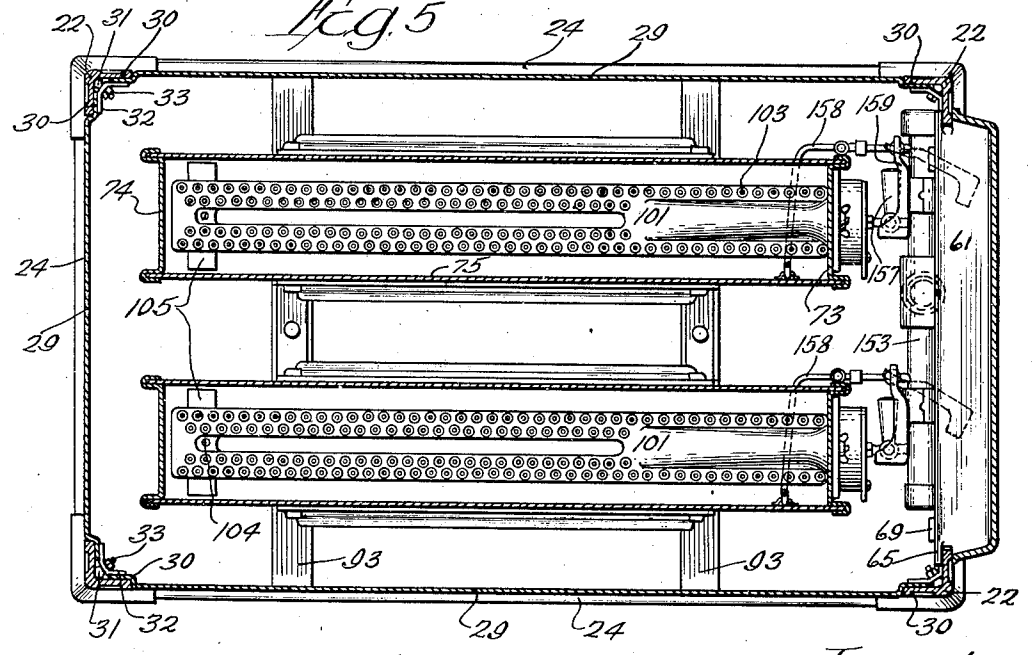


Fig. 5



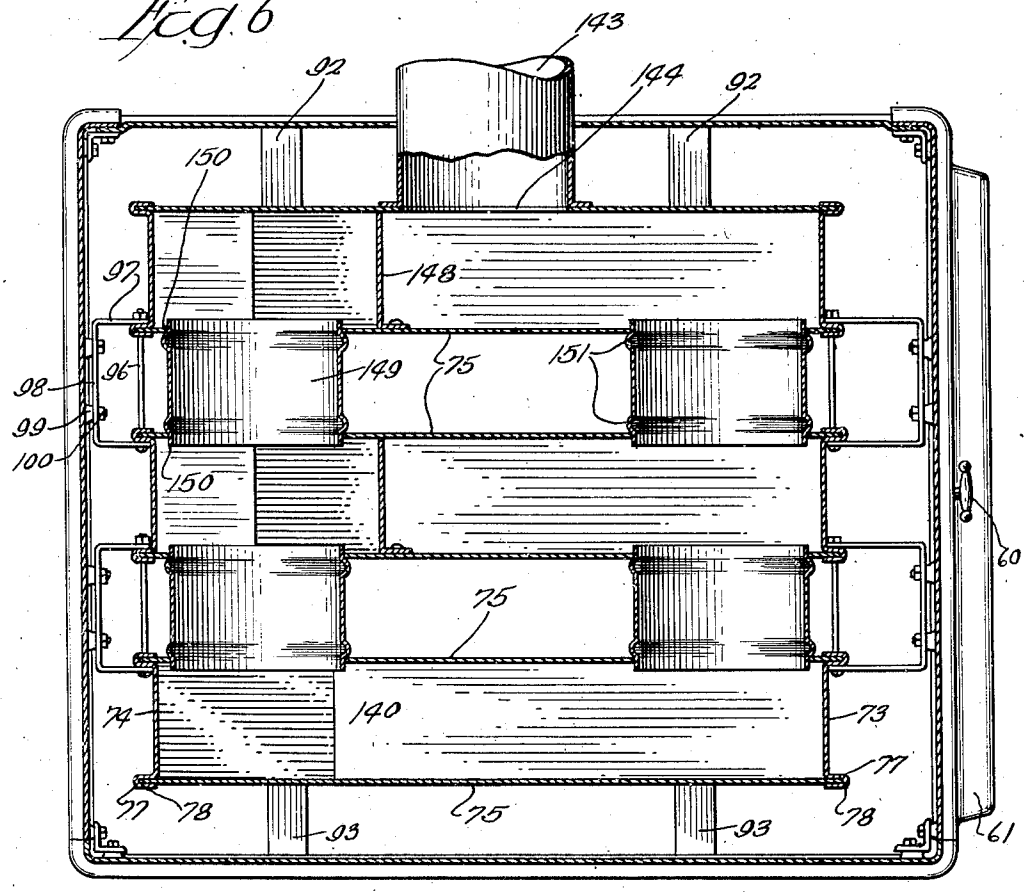
Inventor:
Claude M. Dibble
John C. Carpenter
Atty.

Sept. 8, 1931. C. M. DIBBLE 1,822,274

STOVE CONSTRUCTION

Filed Aug. 4, 1928 6 Sheets-Sheet 5

Fig. 6



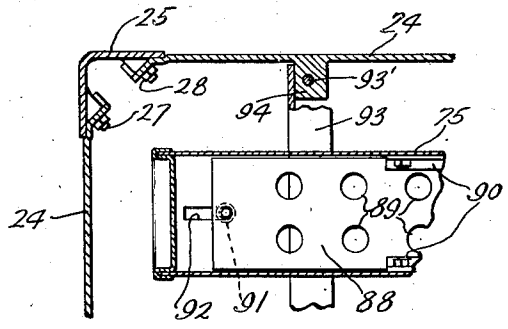


Fig. 12

Inventor:
Claude M. Dibble

John A. Carpenter
Atty.

Sept. 8, 1931. C. M. DIBBLE 1,822,274

STOVE CONSTRUCTION

Filed Aug. 4, 1928 6 Sheets-Sheet 6

Fig. 8

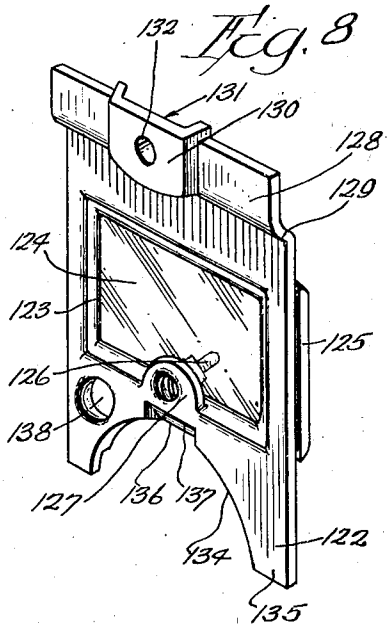


Fig. 9

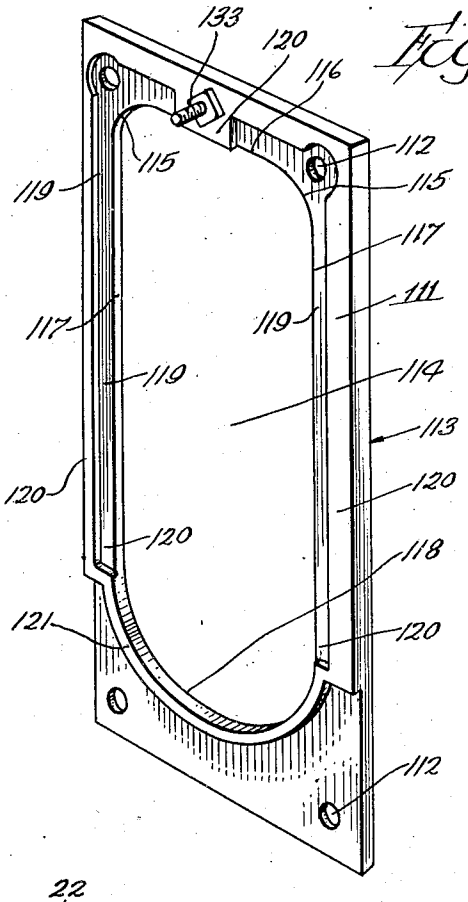


Fig. 10

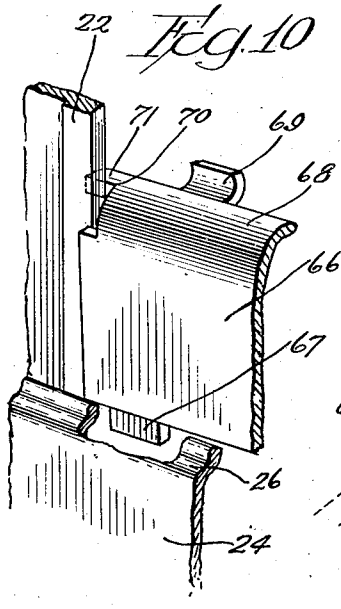
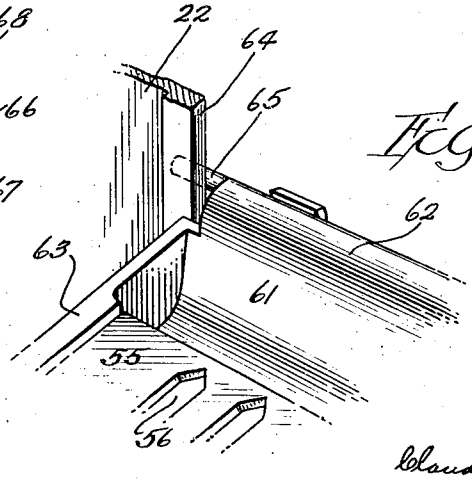


Fig. 11



Inventor:
Claude M. Dibble
John C. Carpenter
Atty.

Patented Sept. 8, 1931 1,822,274

UNITED STATES PATENT OFFICE

CLAUDE M. DIBBLE, OF JOLIET, ILLINOIS, ASSIGNOR TO MOORE BROTHERS COMPANY, OF JOLIET, ILLINOIS, A CORPORATION OF ILLINOIS

STOVE CONSTRUCTION

Application filed August 4, 1928. Serial No. 297,458.

This invention relates to stoves and has for its general object to provide a stove construction of superior heating efficiency in a structure having an improved arrangement of the parts which promotes rapid assembly into heating units of various capacities and also ready accessibility to the interior of the stove.

Numerous other objects of the invention will be apparent as it is better understood from the following description, which, taken in connection with the accompanying drawings, discloses a preferred embodiment thereof.

Referring to the drawings,

Figure 1 is a perspective view of one form of stove constructed in accordance with the invention;

Fig. 2 is a vertical section taken parallel with the longitudinal axis of one of the burners, as indicated by the line 2—2 of Fig. 3;

Fig. 3 is a transverse vertical section taken on the line 3—3 of Fig. 2;

Fig. 4 is a horizontal section taken on the line 4—4 of Fig. 2;

Fig. 5 is a horizontal section taken on the line 5—5 of Fig. 2;

Fig. 6 is a view similar to Fig. 4 but showing a stove construction of a larger capacity provided by the use of a greater number of heating units;

Fig. 7 is an enlarged detailed section taken through the front door of one of the heating units and showing the mode of application of the burner and other parts;

Fig. 8 is an enlarged perspective view of the improved window plate which is mounted in the front wall of each heating unit;

Fig. 9 is an enlarged perspective view of the window frame against which the window plate is mounted;

Fig. 10 is an enlarged fragmentary perspective view of the supporting apron for the front door of the stove;

Fig. 11 is a fragmentary perspective view of the front stove door; and

Fig. 12 is a horizontal section taken on the line 12—12 of Fig. 2, showing the improved damper construction in the bottom of the heating units.

The illustrative stove is of the portable cabinet type and the various parts are mounted within the casing 21, which is of generally rectangular form. This casing, as shown in Fig. 1, is made preferably of an ornamental design to give an attractive appearance to the stove, permitting its general use in the living quarters of private homes.

The casing 21 comprises corner posts or uprights 22, which extend from the top side plates 23 downwardly below the base plates 24. These corner uprights are constructed of angle bars, as shown more particularly in Fig. 5, and enlarged at their base portions to provide feet or pedestals 25, on which the stove is supported.

The base plates 24 may be made of suitable castings provided with inwardly bent flanging 26 along their top edges, as shown in Figs. 1, 2 and 3. These base plates extend within the pedestal portions 25 of the corner uprights and are provided with bolt holes (see Fig. 12) through which are passed bolts 27 inwardly projecting from the pedestal portions 25. Nuts 28 threaded on the bolts 27 secure the base plates 24 to the pedestal portions 25.

The side plates 29, constituting the four walls of the casing, may be made also of sheet metal, and are provided along their vertical edges with inwardly bent flanges 30 which respectively extend within and engage the inner faces of the angle corner uprights, as shown in Fig. 5. At suitable intervals, the uprights 22 are provided with inwardly projecting bolts 31. These bolts 31 extend diagonally substantially through the apices of the angles of the uprights and receive short angle straps 32 and nuts 33, which are tightened to press the flanging 30 of the side plates 29 securely against the uprights 22, to hold the side plates in place. At their lower ends, the side plates 29 project below and within the top flanging 26 of the base plates 24.

The top plates 23 constitute the front, rear and one side wall in the upper portion of the stove casing. The bottom edges of these top plates are provided with horizontal bead flanging 34 and the corresponding side plates are provided with top horizontal flanging 35

which projects within and is engaged by the inner edges of the beads 34 of the top plates. As shown in Fig. 4, the upper ends of the angle uprights project within the lower portions of the top plates 23. The top plates are provided with inwardly projecting bolts 36 which are passed through and secured by nuts 37 to the upper portions 38 of the corner uprights.

The other side wall of the casing, in which the flue is mounted, extends to the top 39 of the cabinet and its side flanging 30 is bolted between the upwardly projecting ends 38 of the uprights and the corners 40 of the front and rear top plates 23.

Along their upper edges, the top plates 23 are provided with outwardly and upwardly flared flanging 41. This flanging 41 projects within companion grooves 42 provided in the downwardly and outwardly peripheral flanging 43 of the cabinet top 39. As shown in Fig. 2, the casing top is held down in place by the L-bolts 44. These bolts 44 have their upper horizontal legs projected through holes in lugs 45 depending from the inner face of the casing top. The vertical legs of the bolts 44 are bolted to horizontal lugs 46 which project from the inner faces of the top plates 23. On the flue side, the wall plate 29 is bolted at 47 to an angle bar 48 which extends across between the corners 40 of the front and rear top plates and along the inner face of the side plate 29 adjacent its upper edge. The bolts 47 extend through the angle bar 48, side plate 29 and corners 40, and holds the parts rigidly together.

As shown in Fig. 1, the top 39 of the stove cabinet is made of suitable reticular formation providing open work for the escape of the heated air into the room. Preferably, the top includes a removable plate 49 of the same reticular formation. This plate 49 constitutes the central portion of the top and is provided with a depending peripheral flange 50 recessed from the edge 51 of the plate 49 to provide a seat 52 which rests upon a companion seat 53 furnished by the inwardly projecting flange 54 of the surrounding portion of the top 39. When in position, the removable plate 49 is flush with the remainder of the top 39. The reticular formation of the removable plate permits it to be readily grasped and lifted away, whenever it is necessary to have access to the interior of the cabinet.

In the illustrative stove, an improved door construction is provided in the front wall thereof, for permitting access to the interior of the stove, whenever it is necessary, for example, to operate the burners.

Referring particularly to Figs. 1, 2, 10 and 11, the door 55 is constructed of a metal plate provided with a plurality of sight openings 56 through which the interior of the cabinet may be observed whenever the door is closed.

As shown in Fig. 2, the front wall plate 29 terminates just below the top edge of the closed door 55 and said wall plate is provided at its lower edge with an inwardly bent horizontal flange 57 against which the pivoted latch 58 of the door may be moved for the purpose of keeping the door closed. The latch 58 is mounted on a pivot pin 59 extending through to the front of the door and provided on its outer end with a handle 60 by which the latch may be swung into and out of engagement with the door retaining flange 57 of the wall plate 29. The door 55 is made long enough horizontally to lap the front faces of the corner uprights 22 at the opposite corners of the front of the casing, as shown in Figs. 1 and 11, and is provided along its lower edge with an outwardly projecting bulge 61 which extends nearly the whole horizontal dimension of the door. The bottom of the bulge 61 merges into an inwardly and downwardly curved flange 62 which is coordinated functionally with the apron plate in a manner to be described presently. As shown in Fig. 11, the flange 62 terminates short of the opposite vertical edges 63 of the door so that it may be located between the terminal edges 64 of the uprights 22 at the opposite corners of the front of the casing. From the opposite ends of the flange 62 and at its lower edge project horizontal pins 65 which extend (as shown in Fig. 11) behind the uprights 22 when the door is mounted in position.

The apron 66, on which the door is mounted and supported, is formed from a metal plate provided with depending lugs 67 along its lower edge. As shown in Fig. 10, the apron is made longer horizontally than the distance between the edges of the corner posts or uprights 22 so as to lap partially the front faces of said uprights when in position. The upper portion of the apron 66 is formed into an upwardly and inwardly projecting flange 68 which is curved reversely in respect of the curved flanging 62 along the bottom of the door. Projecting from the top edge of the flange 68 are lugs 69 reversely curved in respect of the curve of the flanging 68. These lugs 69 are located near the opposite ends of the apron plate 66. The apron 66 is provided near its top and in the region of its flanging 68 with sockets 70 cut inwardly from the opposite vertical edges of the plate to receive the underlapping portions of the uprights 22, and to provide shoulders 71 which extend behind the inner faces of said uprights.

The apron plate 66 may be readily positioned in the front of the casing by tilting it so that the uprights 22 enter the sockets 70, the extreme ends of the apron overlap the front faces of said uprights, and the shoulders 71 extend behind the uprights. When so positioned, the apron may be allowed to drop until its bottom edge rests upon the inwardly bent flanging 26 of the base plate 24,

and the lugs 67 are located behind the base plate flanging 26. Although the apron may be quickly applied or removed from the front of the stove casing, the lug, shoulder, socket construction and the overlapping feature, as hereinabove set forth, securely hold the apron against accidental horizontal and vertical displacement.

The door 55 is applied to the front of the casing by holding it in a horizontal position, as shown in Fig. 11, and tilting it so that the uprights 22 enter the space between the rear pins 65 and the overlapping part of the bulge 61. The door may then be lowered until the flange 62 rests upon and cooperates with the reversely curved flange 68 and the curved lugs 69 at the top of the apron plate. In the operation of this construction, the door may be readily swung into and out of closed position in respect of the front of the casing, while the flanging and lug construction of the apron act as a support and guide for the pivotal movement of the door.

The pins 65 in cooperation with the parts of the bulge 61, which overlap the front faces of the uprights 22, prevent accidental displacement of the door during the operation of opening or closing. The improved construction permits quick operation of the door into either its open or closed position by the hereinbefore described pivotal movement, and yet is extremely simple in its nature and entirely eliminates the necessity for employing hinges.

The illustrative stove is of the gaseous fuel type and the heating effect is developed in a plurality of drums, which constitute an important feature of the invention. Each drum 72 constitutes a unit in which the heat may be propagated independently of the other drums, although the drums are interconnected in an improved manner to be described hereinafter, which permits the exhaust gases from the several drums to be fed to a single discharge flue.

In construction, each drum consists essentially of a vertically elongated substantially rectangular casing, and is made up of front and rear sheet metal plates 73 and 74 and side plates 75. As shown in Figs. 4, 5 and 6, the front and rear plates 73 and 74 are provided at their opposite edges with vertical outward and return flanging 77 providing grooves 78, which receive the opposite vertical ends or edges of the side plates 75.

At their tops, as shown in Fig. 3, the opposite side plates 75 of each drum are bent horizontally along the lines of bend 79 and the horizontal portion 80 of one side plate is flanged at 81 to overlap the edge of the corresponding horizontal portion 82 of the other side plate. This construction provides a top for each of the drums. The top edges of the front and rear end plates 73 and 74 of the drums are formed with outward and returned flanging 83 (see Fig. 2), similar to the flanging 78, to receive the front and rear horizontal edges of the flanged portions 80 and 82 constituting the top of the drum.

At their bottoms, the front and rear end plates 73 and 74 are provided with similar outward and returned flanging 84 within the resultant grooves 85 of which are mounted the front and rear ends of the bottom plates 86 of the respective drums. Each bottom plate 86 functions as one member of a damper for its corresponding drum, and for this purpose it is provided with a plurality of air holes 87 permitting the ingress of air into the drum. The other member of the damper consists of a slide plate 88 which rests on the top of the bottom plate 86 and has a series of air holes 89 companion to the air holes 87 of the bottom plate 86.

The movable damper plate 88 works in slides 90 secured to and projecting from the inner faces of the side plate 75 and is provided with a depending operating handle 91 projected through a slot 92 in the bottom plate 86. By grasping the handle 91, the movable plate 88 may be shifted to vary the registration of the damper holes 89 in respect of the damper holes 87 and thus to regulate the draft within the individual drum.

Any suitable number of drums or heating units 72 may be provided within the casing 21. In Figs. 3, 4 and 5, a pair of such units is shown, and in Fig. 6 three units are employed. At their bottoms, the drums 72, whatever the number may be, are mounted upon and supported by angle bars 93 which extend across the bottom of the casing and are secured by nuts and bolts 93′ at their opposite ends upon ears 94 inwardly projecting from opposite side base plates 24. The front and rear ends of the drums 72 of each pair, as shown in Figs. 4 and 6, are secured together at the top by stirrups 95, the opposite legs of which extend to and embrace the flanging 78. Spacing bolts and nuts 96 passed through the flanging 78 and legs 97 of the stirrups 95 hold the respective drums 72 in proper mutually spaced relation. The connecting parts 98 of the stirrups 95 are mounted upon bolts 99 projecting inwardly from the front and rear top plates 23 and are secured in place by nuts 100 threaded upon said bolts, as shown in Figs. 4 and 6.

The stirrups and spacing bolts 96 accomplish the combined function of securely holding the respective drums 72 not only in correct spaced relation in respect of each other, but also in respect of the front and rear walls of the casing.

Each drum 72 is provided with its own burner unit consisting of a gas burner 101 positioned in the bottom of the drum.

The illustrative stove provides an im-

proved construction whereby the burners 101 may be mounted in the respective drums. Each burner 101 consists essentially of an elongated burner member 102 provided with a plurality of ports or nozzles 103 for the exit of the gas. The rear end of the burner rests upon and is secured by a bolt and nut 104 to a pedestal 105 upstanding from the bottom plate 86 of the corresponding drum, as shown in Figs. 2 and 5. The forward end of the burner 101 projects through the front wall of the drum and consists essentially of a head 106 of substantially cylindrical shape provided with a rear upwardly projecting flange 107 and a rear downwardly projecting flange 108. The top of the cylindrical head 106 is provided with an upstanding lug 109 preferably formed with beveled front and rear faces and spaced in front of the top rear flange 107.

As shown in Figs. 2 and 7, the burner head 106 projects through the front wall plate 73 of the corresponding drum. A suitable portion of this front wall plate 73 is cut away to provide an opening 110 of substantially rectangular configuration for the reception of the parts including the window frame and window plate, which provide the improved structure whereby the head of the burner is mounted in the front of the drum.

The window frame 111 is shown in detail in Fig. 9 and consists of a plate provided with holes 112 at its opposite four corners, whereby it may be bolted by bolts 113 to the portions of the wall plate 73 surrounding the opening 110. The rear face of the window frame member 111 is flat so that it rests snugly against the front face of the drum wall 73. The window frame 111 is provided with an elongated opening 114 having rounded top corners 115, a substantially horizontal top 116, straight vertical sides 117 and a rounded or circular bottom 118. In the front face of the frame member 111 the metal is cut away except in the central portion at the top of the opening 114, to provide a recess 119 extending along the opposite sides 117 of the opening 114, and, at the top to the central lug 120.

The vertical side portions of the recess 119 terminate at the bottoms of the vertical sides of the opening 114 and at these points the vertical sides 120 of the recessed portion 119 merge into a substantially semi-circular flange 121, which forms the bottom of the opening 114 and constitutes a substantial support for the bottom of the cylindrical head 106 of the burner.

When the window frame member 111 is mounted in position, the curved bottom of the head 106 rests on the curved flange 121 of the window frame and the depending rear flange 108 of said head engages the flat rear face of the window frame below the flange 121.

The window 122 is shown in detail in Fig. 8. It consists of a metal plate provided with a central opening 123 adapted to be covered by a sheet of mica 124 or other suitable transparent substance. The mica sheet or plate 124 provides a pane through which the interior of the drum may be observed and is mounted against the rear face of the window plate 122 by a substantially rectangular retaining frame 125, which is held in engagement with the rear face of the mica pane 124 by means of a bolt and nut 126 passed through the frame 125 and a socketed lug 127 upstanding from the bottom of the window opening 123.

At the top the window plate 122 is formed with an offset flange portion 128 bent horizontally and outwardly from the main plane of the plate 122 along the line of bend 129. In its central part, the offset flange 128 is provided with an outwardly projecting portion 130, at the rear of which is a socket 131 companion to the lug 130 in the center of the top of the window frame 111. The projection 130 has a bolt hole 132 to receive a bolt 133 projecting from the lug 120 of the window frame.

The bottom of the window plate 122 is provided with a recess 134 substantially semi-circular in shape extending upwardly from the bottom edge 135 of the window plate. A socket 136 is formed at the top of this recess 134. This socket is formed with a forwardly beveled rear wall 137 companion to the forwardly beveled rear face of the lug 109 upstanding from the cylindrical head 106 of the gas burner. A hole 138 is provided on one side of the window plate 122 to permit access to the discharge end of the pilot light whenever it is desired to ignite the pilot light for the purpose of igniting the burner.

The window, window frame, and burner head construction, hereinbefore described, provide for a secure mounting of the burner in its position relative to the drum 72. In the assembly of these parts the window frame 111 is secured by means of the bolts 113 to the portion of the front wall 73 of the drum surrounding the opening 110. The burner 101 is positioned within the drum 72, so that its rear end 102 is supported upon the pedestal 105 and its head 106 rests on the bottom flange 121 of the window frame with the depending flange 108 of the head engaging the rear face 113 of the window frame below the flange 121. The window plate 122 may be secured in position by placing it so that it fits into the recess 119 surrounding the central opening 114 of the window frame and the lug 120 enters the socket 131 of the projection 132, while concurrently the bolt 133 is projected through the bolt hole 132 in said projection 130. When the parts are in this position, the surrounding wall of the semi-circular recess 134 at the bottom of the window plate 122 engages over the top of the cylindrical head

106 of the burner, the rear face of the window plate is engaged just above the recess 134 by the upwardly projecting flange 107 at the rear of the burner head 106, and the upstanding lug 109 in the front enters the socket 136, so that its rear beveled face engages the beveled rear wall 137 of said socket 136.

A wing nut 139 may then be applied to the bolt 133 for the purpose of securing the parts in place. Engagement of the lug 109 within the socket 136, in the front, and the engagement of the flanges 107 and 108 of the burner head, in the rear, with the rear face of the window plate, will whenever the window plate is applied by its single securing means 133, 139, effectively resist both outward or inward displacement of the burner, since the burner head is held against thrust in both forward and rearward directions. Yet the window plate may be quickly removed by the simple operation of unscrewing the wing nut 139 and lifting it away from its position relatively to the window frame 111.

The construction of the several drums 72 is such as to promote widely distributed flow of the heating gases developed as a result of the operation of the burners 101 and, thereby to augment the heating effect with attendant conservation of the fuel. Each drum 72 is provided in its interior with a plurality of horizontal baffle plates 140, respectively having depending horizontal flanging 141 at their opposite sides by which said baffle plates are secured by screws 142 to the side walls 75 of the drum.

The baffle plates 140 respectively extend alternately, first, for example, from the front wall 73 of the drum toward the rear wall 74 thereof, and next, from the rear wall 74 toward the front wall 73 thereof. The rearwardly extending baffle plates 140 terminate short of the rear wall of the drum to provide rear passages for the upflow of the heating gases and the forwardly extending baffle plates terminate short of the front wall 73 of the drum to provide front passages for the continued upflow of the gases. The rearwardly extending baffle plates 140 alternate with the forwardly extending baffle plates and in the illustrative stove are provided a bottom and top rearwardly extending baffle plate with an intermediate forwardly extending baffle plate. These baffle plates are located above the top of the burner 101 at substantially horizontal levels and cause the heating gases, as they arise toward the top of the drum, to flow back and forth from front to rear of the drum. This arrangement in the individual drum 22 prevents a mere straight vertical upflow of the heating gases with rapid discharge thereof and by confining the flow to the channels and passageways as force by the baffle plates causes the gases to traverse the entire space within each drum before permitting them to pass into either another drum or into the discharge flue.

The discharge flue, or stack, 143 extends through one of the side walls 29 of the stove casing, at the top, and is connected by a port 144 with the adjacent drum 72 at the approximate center of its top portion. The discharge flue 143 may be connected in any suitable or convenient manner with the chimney. Outside the casing of the stove, this flue 143 is preferably provided with a depending apron 145 inclined downwardly toward the proximate wall of the stove cabinet and having an outlet 146 for possible back draft. A vertical baffle plate 147 is mounted within the flue above the apron 145 and extends to the top of said flue but terminates above the apron 145, as shown in Fig. 3. This construction prevents back draft into the drum 72 with which the flue 143 is connected, inasmuch as the baffle would block the passage of possible back draft and back draft would be diverted through the outlet 146 into the atmosphere surrounding the stove.

The several drums 72, constituting a heating unit of the stove, are interconnected to regulate and control the flow of the gases, in such manner as to equalize and promote uniformity of the draft in the individual drums and prevent the flow in the drum adjacent to and directly connected with the flue 143 from impairing the draft in the other drums. As shown in Figs. 2, 4 and 6, a vertical partition 148 of construction similar to the baffles 140 connects the rear end of the top baffle with the top of the drum. Whenever more than two drums are employed in the heating unit, such as in the construction shown in Fig. 6, similar partitions 148 are provided in each of the drums, with the exception of the drum most remotely positioned from the flue 143.

Near their tops, the several drums of a heating unit are interconnected, each with an adjacent drum on both sides of the central axis extending transversely through the unit, by means of thimbles 149. Each thimble 149 comprises a short pipe section inserted into aligned openings 150 in the side walls 75 of adjacent drums, and providing a passageway whereby the gases from the interior of one drum may flow into the interior of another. The thimbles 149 are each provided with outwardly pressed peripheral ribs 151 which, when the thimbles are in position, engage the outer faces of the side walls 75 of the drums. This construction not only assists in proper assembly of the thimbles in respect of the drums, but also the spacing bolts 96 in holding the drums in proper spaced relation within the stove casing.

In the illustrative stove, and as shown in Figs. 2, 4 and 6, the partition 148 of the drum connected with the flue 143, or any other drum excepting the one most remotely positioned from said flue, is interposed between the flue

and the rear wall 74 of the drum. The arrangement of the baffles 140 compels ascending gases to pass to the rear of the drums before they may discharge, but the partitions 148 block any return movement of the gases in the direction of the flue 143.

The thimbles 149 are located between the partitions 148 and the rear walls 74 of the drums and provide passages whereby the gases from the drums, provided with such partitions 148, must pass in reverse direction to the flue 143 and back toward said most remotely positioned drum. If desired short baffles 152 may be provided in the drums having the partitions 148. These baffles 152 are located at substantially the same level as the top baffles 140 and extend from the rear walls 74 of the drums but terminate short of the rear ends of the top baffles 140 to permit the escape of gases through the connecting thimbles 149 into other drums. As shown in Figs. 4 and 6, the thimbles 149, at the rear of the interconnected drums, cause the gases to be collected from each drum and delivered into the drum most remotely positioned from the flue 143.

In said most remotely positioned drum, the partition 148 is omitted and, if desired, the rearwardly extending topmost baffle 140 may project rearwardly somewhat beyond the corresponding baffles of the other drums. The heating gases from all the drums are thus collected in the most remotely positioned drum, because of the enforced backflow hereinbefore described, and pass over the top baffle 140 in the last mentioned drum toward the front wall thereof.

As shown in Figs. 2, 4 and 6, similar thimbles 149 connect all the drums together above the top rearwardly projecting baffles 140 and between the partitions 148 and the front walls 73 of said drums. The flue 143 is also located between the partition 148 of its connecting drum and the front wall 73 thereof and above the topmost baffle 140. Hence, the gases may pass through the front of the drums and be delivered by the interconnecting passages provided by the thimbles 149 to the stack 143 for discharge into the chimney. This construction not only collects the combined heating gases from all the other drums into the beforementioned most remotely positioned drum before allowing them to pass to the discharge, but also serves to equalize the draft in several drums, and to prevent the draft in the drum connected with the stack flue from impairing the draft in the other drums.

A gas supply pipe 153 is located behind the apron 66 in the front wall of the casing and is supported by brackets 154 upstanding from and supported by the front base plate 24. This supply pipe 153 extends across the front of the several heating drums 72 and is connected at any suitable point with a gas supply main 155 (Figs. 3 and 5). From the pipe 153 connecting pipes 156 lead to the individual burners 101. These pipes 156 are provided respectively with cocks and valves 157 for controlling the flow of the gas into the individual burners 101.

Pilot light gas supply pipes 158 also lead individually from the pipe 153 into the interiors of the drums 72 and terminate, as shown, above the gas discharge ports of the respective burners 101 to provide, when lighted, small gas jets for igniting the main burner jets. The pilot light pipes 158 are provided each with control valves and cocks 159, which preferably are coordinated structurally and functionally with the main burner cocks 157, so as to enforce operation of the pilot valve cocks previous to operation of the main burner cocks in the manner and for the purpose set forth in my prior application for Letters Patent of the United States, filed February 8, 1928, Serial Number 252,901. By operation of the cocks 159 in conjunction with the cocks 157, the burners 101 of the individual drums 72 may each be operated independently of the other burners. Each drum 72 therefore constitutes an independent heating unit in which the heating effect may be regulated and controlled independently of that propagated in the other drums except in so far as it may be modified by the gas flow in the manner hereinbefore described.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. In a stove construction, the combination with interconnected heating drums, each provided with its individual heater, of a flue connected with one of the drums, and partitioning elements mounted within said drums, and constructed and arranged to provide passages for the gas flow which force gases in the drum adjacent to the flue to pass through the other drums before discharging into said flue.

2. In a stove construction, the combination with interconnected heating drums, each provided with its individual heater, of a flue connected with one of the drums, and partitioning elements mounted within said drums and constructed and arranged to provide passages for the gas flow which force gases in the drums to pass back to the drum most remotely located in respect of the flue, before discharging into the flue.

3. In a stove construction, the combina-

tion with interconnected heating drums, each provided with its individual heater, of a flue connected with one of the drums and a partition structure mounted within the so connected drum and positioned to block the exit of gases from said drum, whereby gases are forced to pass into another drum before discharging into the flue.

4. In a stove construction, the combination with a plurality of heating drums, baffles mounted within said drums and positioned to enforce backward and forward movement of gases from bottom to top thereof, of a thimble interconnecting said drums to permit the passage of the heating gases from one drum into another, a discharge flue connected with one of the drums, and means for forcing gases to travel through all the drums before permitting them to discharge into said flue.

5. In a stove construction, the combination with a plurality of heating drums, baffles mounted within said drums and position to enforce backward and forward movement of heating gases from bottom to top thereof, of thimbles interconnecting said drums to permit the passage of the heating gases from one drum into another, a discharge flue connected with one of the drums, and a partitioning structure located in the drum adjacent to said flue for forcing gases therein to pass through other drums before permitting said gases to discharge into said flue.

6. In a stove construction, the combination with a plurality of drums, of individual regulable and controllable burner units mounted within said drums, and thimbles connecting the drums together in series and operating to space the drums and provide for the flow of gases from one drum into another drum.

7. In a stove construction, the combination with a pair of heating drums, each provided with its individual heat-propagating equipment, of a connection for the gas flow between said drums, comprising, a pipe section and mounted within alined pipe receiving openings in the opposite walls of the drums and provided with peripheral flanging engageable with the outer wall surfaces of said drums to hold the latter mutually in spaced relation.

8. In a stove construction, the combination with a pair of heating drums, each provided with its individual heat-propagating equipment, of a connection for the gas flow between said drums, comprising, a pipe section having its opposite ends projected into aligned openings in the walls of said drums and provided with projecting surface portions engageable with said drum walls for holding the latter mutually in spaced relation.

9. In a stove construction, the combination with a plurality of heating drums, of thimbles interposed between said drums and interconnecting the same for flow of the heating gases from one drum into another, of a stove casing surrounding said drums, stirrups connecting the drum corners to the casing walls for holding the drums in spaced relation in respect of said walls, and spacing members interconnecting said drum corners and stirrups for securing together said drums and thimbles to provide an interconnected heating assembly.

CLAUDE M. DIBBLE.