

(No Model.)

3 Sheets—Sheet 1.

J. M. BROOKS.
STOVE.

No. 540,142.

Patented May 28, 1895.

Fig. 8.

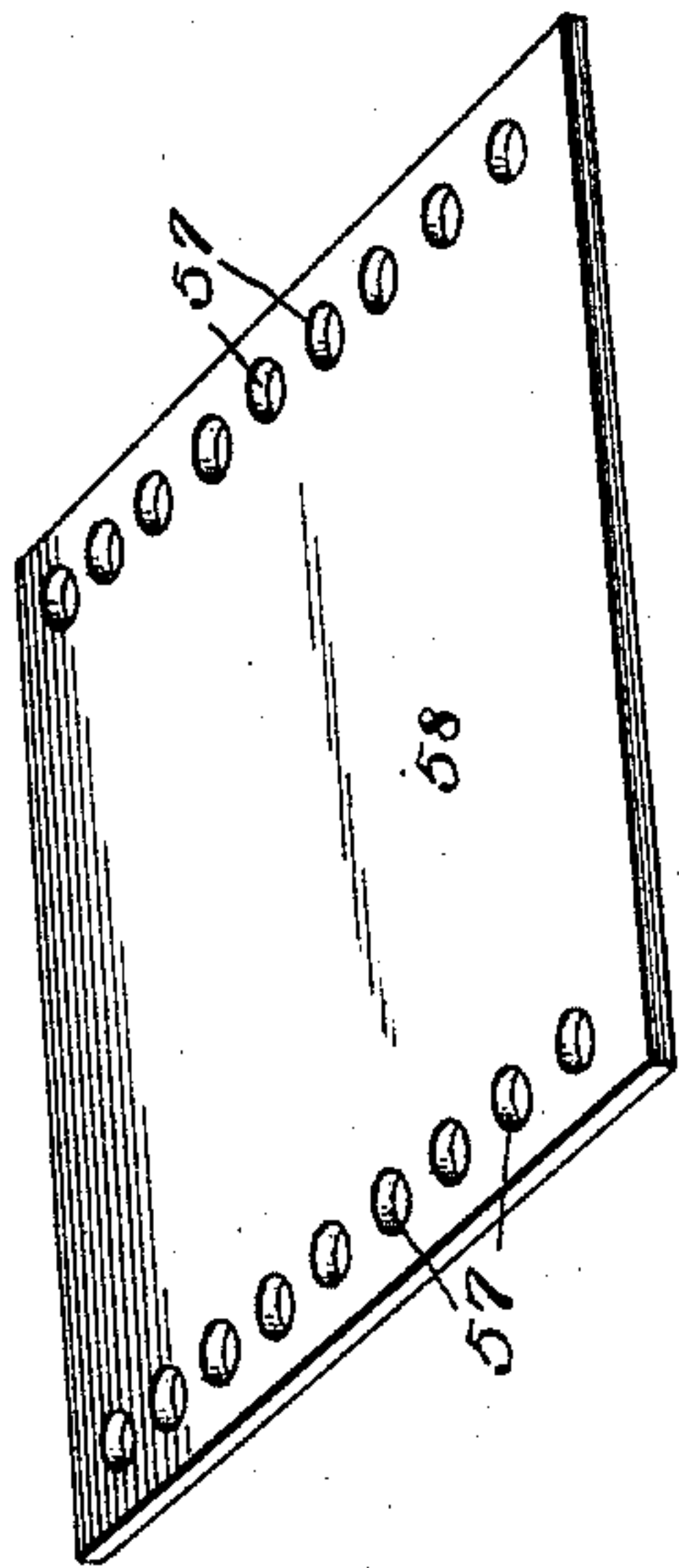


Fig. 4.

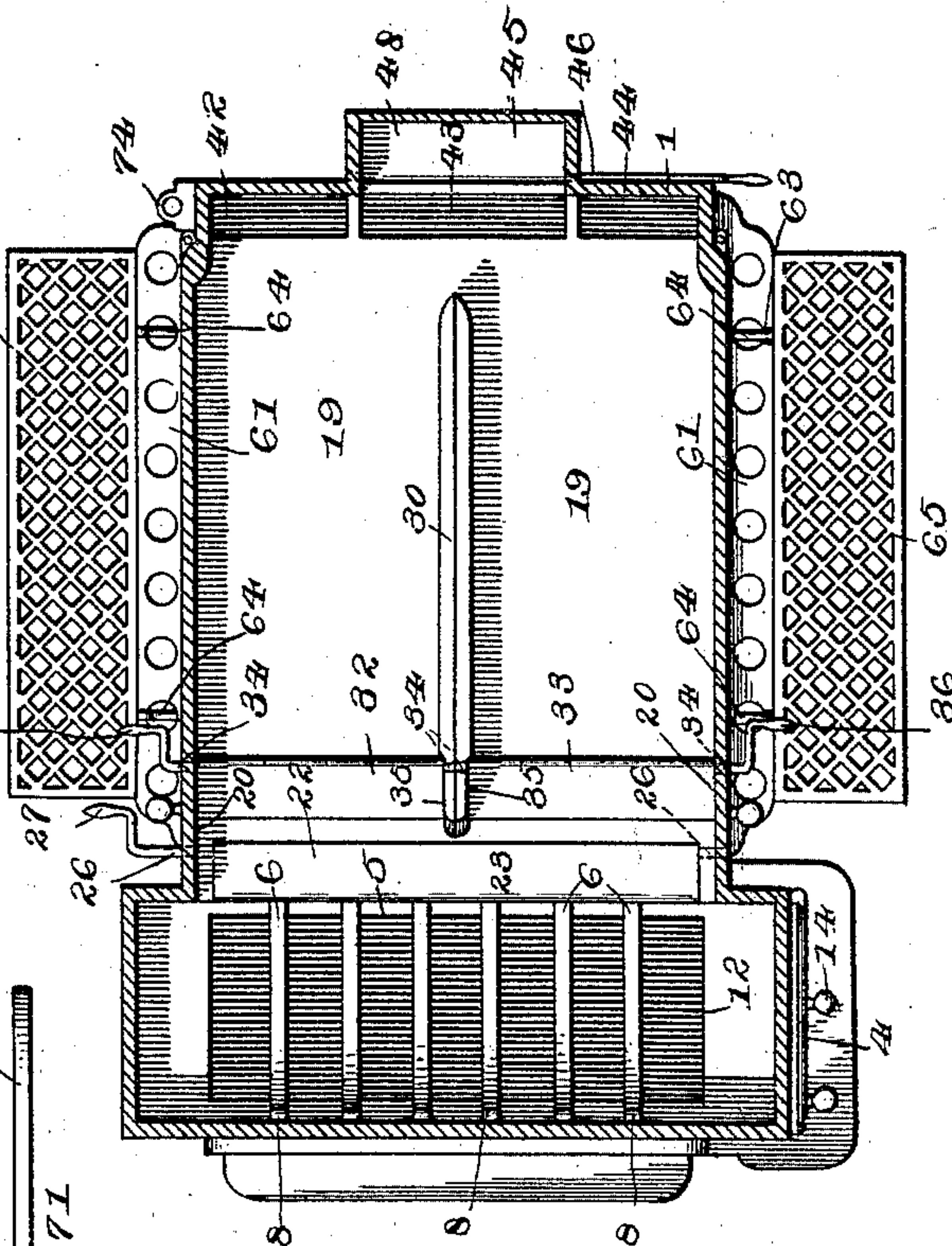
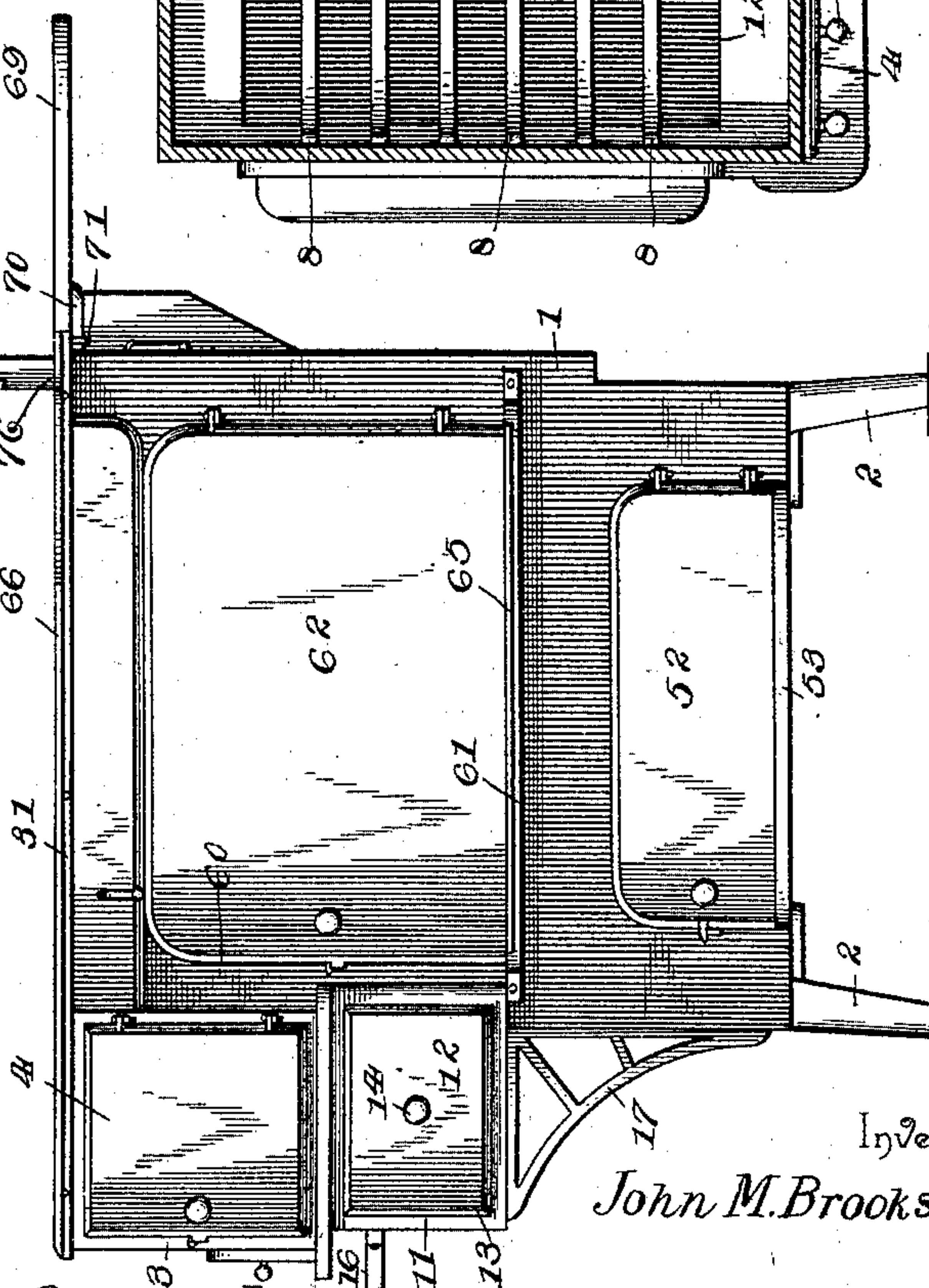
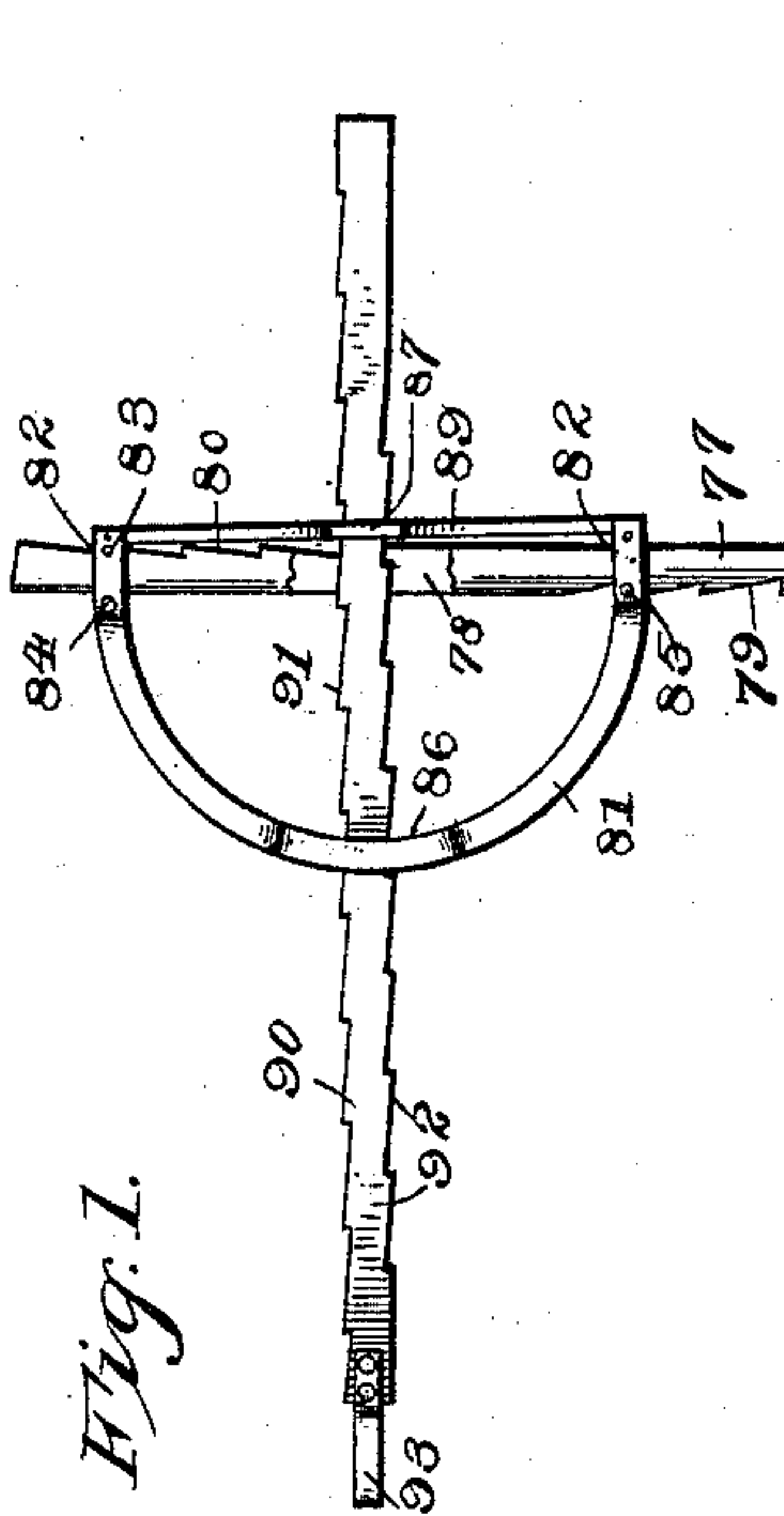


Fig. 1.



Witnesses

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By his Attorneys.

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(No Model.)

3 Sheets—Sheet 2.

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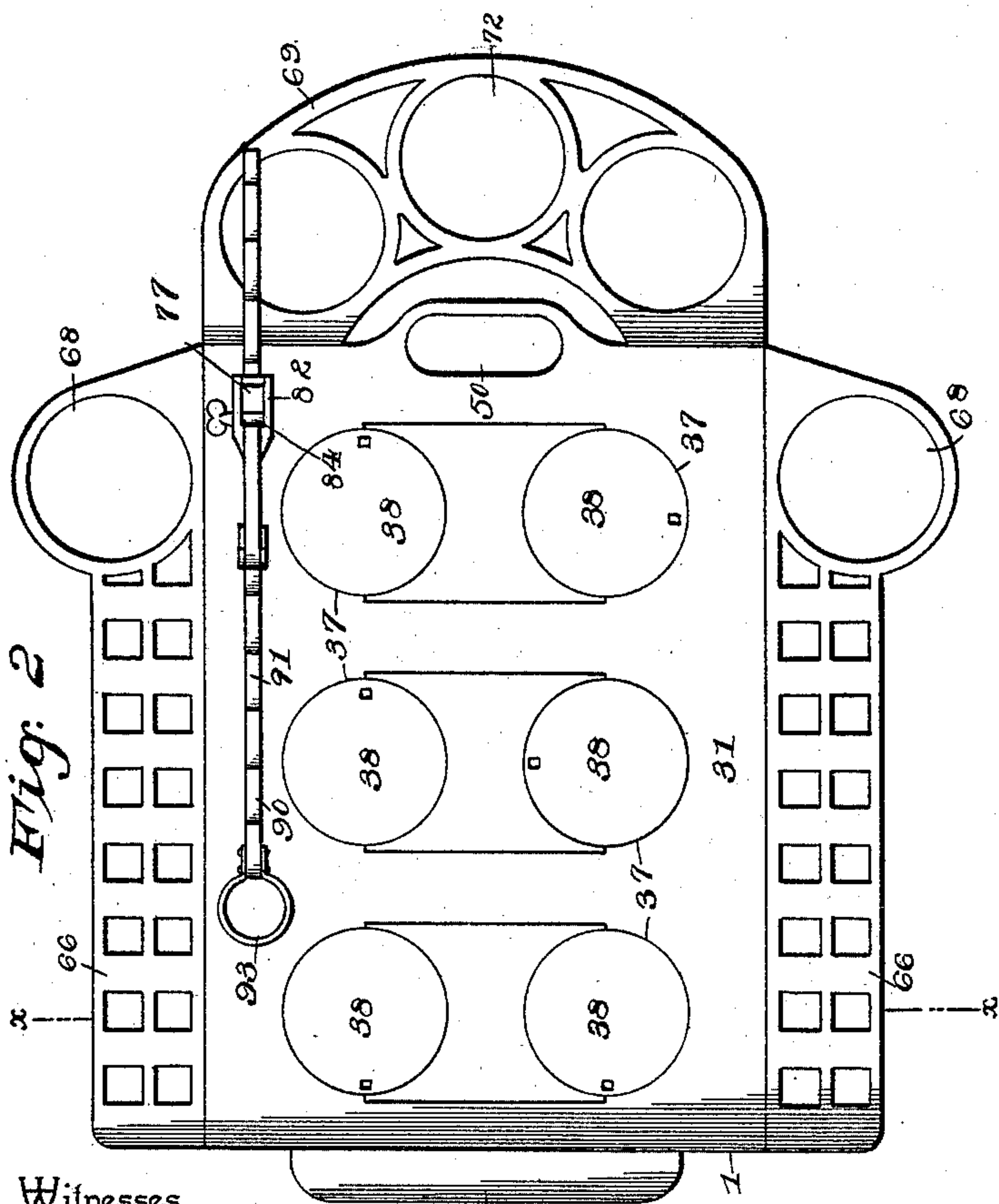
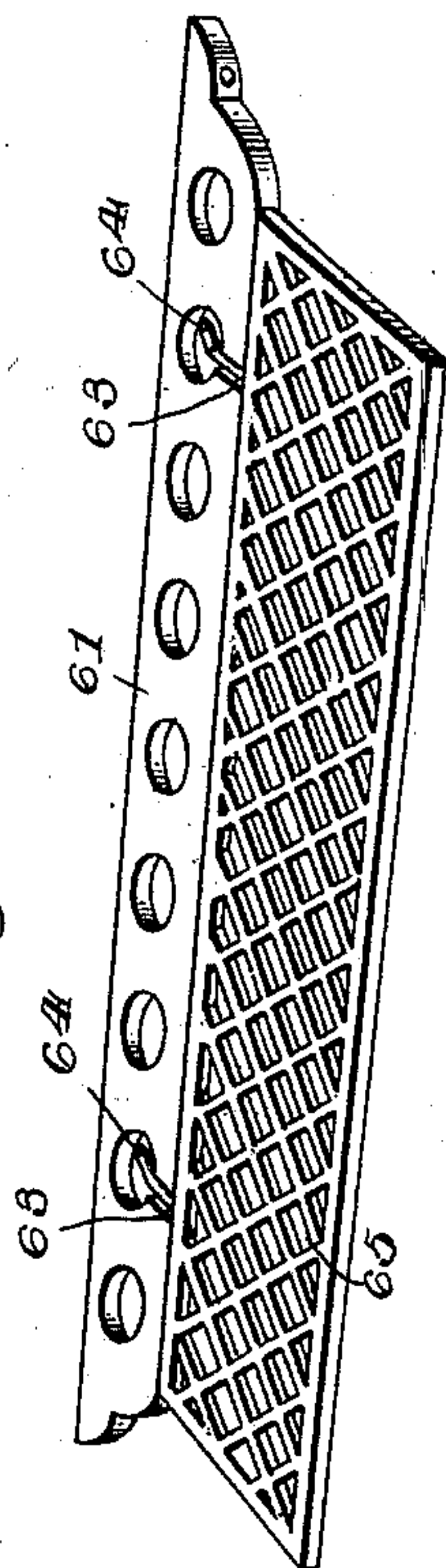


Fig. 2.



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Witnesses

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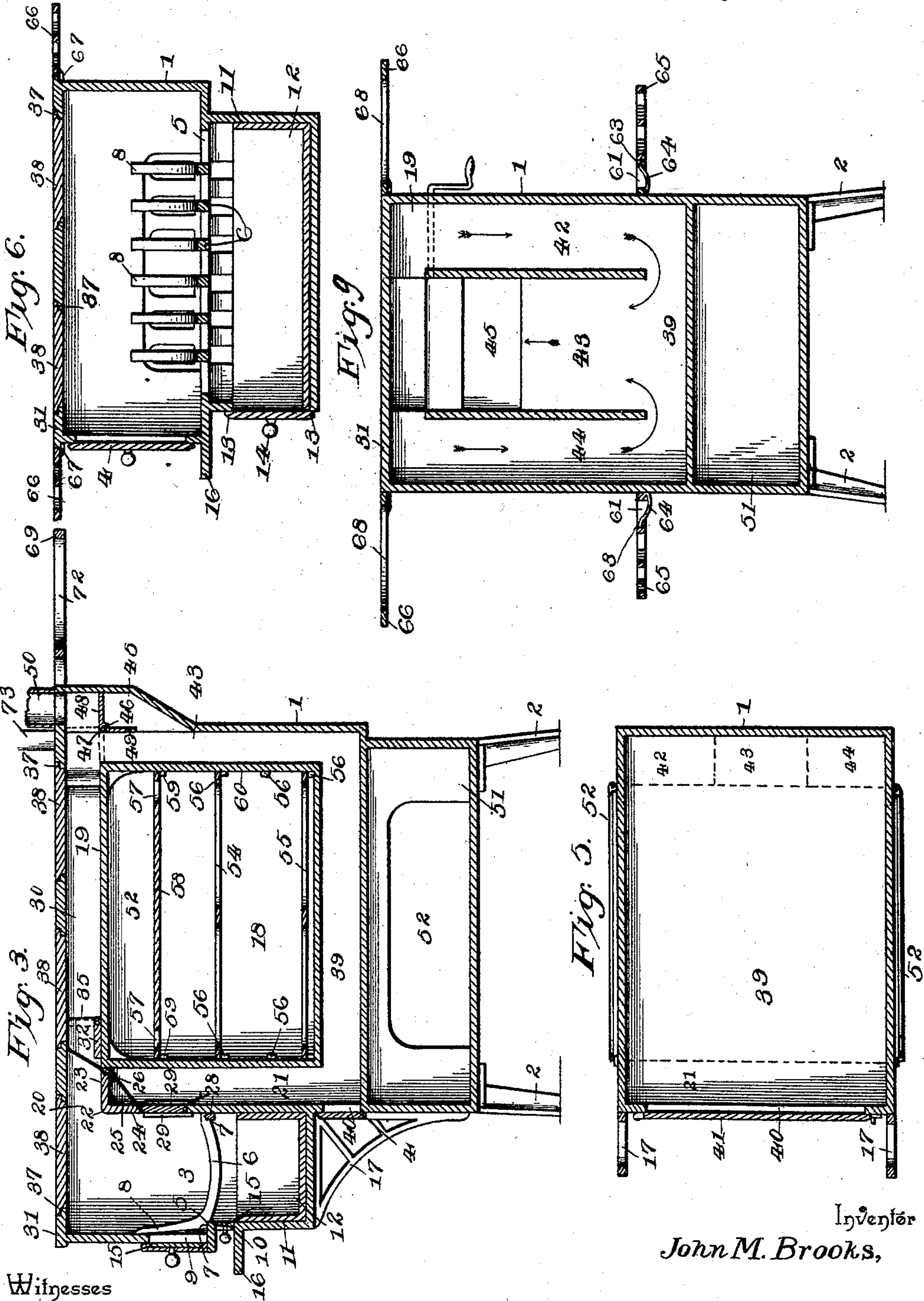
By his Attorneys,

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J. M. BROOKS.
STOVE.

No. 540,142.

Patented May 28, 1895.



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UNITED STATES PATENT OFFICE.

JOHN M. BROOKS, OF SULPHUR SPRINGS, TEXAS.

STOVE.

SPECIFICATION forming part of Letters Patent No. 540,142, dated May 28, 1895.

Application filed May 11, 1894. Serial No. 510,909. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. BROOKS, a citizen of the United States, residing at Sulphur Springs, in the county of Hopkins and State of Texas, have invented a new and useful Stove, of which the following is a specification.

The invention relates to an improvement in cooking-stoves; and it consists in various improvements in the construction and combination of such devices that will be more fully described hereinafter, and finally embodied in the claims.

The principal object of my invention is to provide a stove of the class stated, wherein the course of the heat from the furnace may be more effectively regulated, and applied in a way which will be productive of more heat than ordinarily.

A further object is to provide a stove in which the heat may be shifted to various parts thereof to the exclusion of other parts, and to combine with the means for attaining this end, devices whereby the top of the stove will be prevented from sagging and springing out of shape.

A still further object is to provide a stove wherein the radiation of the heat from the bottom of the heat-passage is made to heat a secondary or supplemental oven, thereby making use of heat which is otherwise lost.

I also contemplate the production of a stove wherein various racks and utensil receptacles are provided, so that these utensils may be conveniently placed off of the stove, though adjacent thereto, during the cooking operation.

In the accompanying drawings, Figure 1 represents a side elevation of my complete machine; Fig. 2, a plan view thereof; Fig. 3, a longitudinal section; Fig. 4, a plan view, the top of the stove having been removed, so that the arrangement of dampers is shown; Fig. 5, a horizontal section taken just below the main oven and illustrating the arrangement of flues; Fig. 6, a vertical section on the line *xx* of Fig. 2 and showing the arrangement of the fire-box or furnace; Fig. 7, a detail perspective view illustrating one of the utensil-racks which I have applied to my invention; Fig. 8, a detail perspective of a heat-deflecting plate which I have provided for use in the oven; Fig. 9, a sectional view on the line *yy* of Fig. 2

and further illustrating the arrangement of flues.

The reference numeral 1 indicates the casing or main portion of the stove, and this is formed, as usual, of cast iron and mounted upon legs 2, which may be of any form or construction. The fire-box or furnace portion of the stove is secured to or formed integral with the upper front part of the main portion, and consists of a furnace proper, 3, provided with a feeding-door 4, mounted at one end thereof and furnished with suitable catches and operating buttons.

The furnace is square in cross-section and extends for a distance greater than the width of the stove, while it is provided with the opening 5 in its lower side, through which the ashes and products of combustion fall to the ash-receptacle hereinafter explained. Located in the opening 5, and arranged equidistant throughout the extent thereof, are the grate-bars 6, which consist of a horizontal portion provided at its ends with the notches 7, whereby it is firmly seated in the edges of the opening 5, while the front ends of said horizontal portion have formed integral therewith the approximately vertical arms 8. These latter arms, 8, extend up the front side of the fire-box and snugly engage the interior thereof. Their upper ends terminate at a point above the draft-openings. I provide the fire-box with a double-line draft-opening, and this consists of the series 9 and 10 of horizontally-aligned openings formed in the front portion of the fire-box 3, and in the ash-receptacle below. The openings 9 are arranged in the fire box, and communicate therewith at a point directly below the upper ends of the arms 8, so that the draft is injected into the fire box at the lower front side thereof, while the openings 10 are arranged below the horizontal portion of the grate-bars 6. By this latter arrangement the second draft is forced into the fire-box from directly below the grate-bars, thereby securing the most approved draft and subjecting every portion of the fuel in the fire-box to the influence thereof.

Located below the fire-box 3, and in approximately vertical alignment with the same, is the ash-receptacle 11, which consists of an elongated chamber approximately square in cross-section, and communicating at its upper

end with the opening 5 of the ash-box 3, so that the ashes and other matter from such box will pass directly into the receptacle 11. Arranged within the ash-box 11, and occupying all of the space within the same, is the drawer 12, which is adapted for the reception of the ashes, and which has, at its outer end, the overlapping edges 13, whereby a close joint is made with the open end of the receptacle 11 to the end that no dust or dirt be allowed to pass from the stove accidentally.

14 indicates a button which is affixed to the outer end of the drawer 12, and which has for its purpose to permit the easy removal of the drawer.

It will be understood that the function of the drawer 12 is to receive all of the ashes from the fire-box, and when it is desired to clean the stove this may be easily done by removing the drawer, taking with it, of course, the ashes which it will contain. Thus it will be seen that the fire-box or furnace of my stove is practically a self-cleaning one, and that by means of the peculiarly constructed grate-bars the fuel is effectively kept from falling through the draft-openings. Each of the draft-openings 9 and 10 is provided with the horizontally-movable plates 15, which are of the usual construction, and which have for their purpose to regulate the draft passing through their respective openings.

16 indicates a ledge or table, which is rigidly secured to the front side of the ash-receptacle 11, and subjacent to the draft-openings 10, so that any ashes or coals of fire which might possibly escape through the draft-openings will be caught and retained, thereby avoiding all danger of damage resulting from such an accident.

The receptacle 11, and the fire-box above the same, are braced and rendered secure by means of the brackets 17, which are two in number and which are secured to the under side of the receptacle 11 and to the lower front portion of the casing 1. Formed in the casing 1, and occupying the major portion thereof, is the main oven 18, which is rectangular in shape and arranged with its upper portion directly adjacent to the upper flue, while its bottom is equally adjacent to the lower horizontal flue.

I will now describe the heat and smoke flues and their respective dampers and regulating devices. Formed above the oven 18, and parallel with the roof thereof, is the main or upper flue 19, which occupies the entire width of the casing 1, and which extends from the upper rear portion of the fire-box to the rear end of the stove. This flue communicates with the fire-box by way of the opening 20. Communicating with the front end of the flue 19, and with the upper rear portion of the fire-box or furnace, is the vertically-extending flue 21, which passes downwardly to the floor of the oven 18, and which has a width commensurate with the width of the stove. The flues 19 and 21 form a juncture at the upper

rear portion of the fire-box, and at this point are provided with the double or triangular damper 22, which commands the draft through each of said flues. This damper consists of two longitudinally-extending plates 23 and 24, rigidly secured at their edges and provided with triangular braces 25, by which their rigid adjustment is insured. These plates form a damper substantially V-shaped in cross-section, and are so disposed that they will lie at right angles to each other. The normal position of the damper is shown in full lines in the principal views of the drawings, and there it will be seen that its braces 25 are arranged on the under side, while the two plates are respectively aligned with the roof and with the front side of the damper 18, so that, when in the normal position, the flue 21 will be effectively closed, and a clear and unobstructed passage be left by way of the flue 19. Arranged at the rear edge of the plate 23, and projecting longitudinally beyond the ends thereof, are the trunnions 26, which are two in number and which are journaled in openings formed in the casing 1 for their reception. The right-hand trunnion, of the series 26, is extended beyond the casing 1 and formed into a crank-arm 27, whereby the damper may be swung on its trunnions so as to effect its manipulation. Thus it will be seen that by oscillating the damper so that the plate 24 will be raised from its normally vertical position to an approximately horizontal one, the flue 19 will be closed, as against the fire-box, and the flue 21 placed in direct communication therewith. By these means it is possible to throw the heat into either of the flues, and this for a purpose which will be hereinafter explained.

Should it be desired to use the flue 21 continually, I have provided means by which this may be accomplished; and these consist of a removable plate 28, which extends throughout the width of the flue 21, and which is seated between the vertical guides 29, arranged at either side thereof and directly adjacent to the fire-box or furnace 3. This plate, 28, is of a width which will place its upper edge snugly against the lower edge of plate 24, so that when in place it will form a close joint with the damper 22, when such damper is in its normal position. Thus it will be seen that by removing the plate 28 a large space in the upper part of the flue 21 will be placed in direct communication with the fire-box 3, thereby facilitating the easy transit of the heat into such flue. It will still be possible, under these circumstances, to operate the damper 22, and to cut off communication with flue 19, or to establish the same.

Rigidly secured to the bottom of the flue 19, and longitudinally aligned with the sides of the casing, is the supporting and dividing rib 30, which is formed, by preference, of two duplicate metallic plates rigidly secured adjacent to each other, to the end that increased strength and durability will be attained. This

rib 30 extends from the mouth of flue 21 to a point very near the rear end of flue 19, and it is adapted to engage, at its upper edge, with the under side of the stove-top 31. Thus it will be seen that by means of the rib 30 the flue 19 is divided into two longitudinal passages, which extend throughout its length and which communicate with each other at the rear end of the flue. In order that each of these divisions of flue 19 may be independently supplied with heat, and to the exclusion of the remaining division, I provide the dampers 32 and 33, which are one for each division, and which are rockably mounted on the trunnions 34, journaled respectively in the upper side of casing 1 and in the front portion of rib 30. These dampers, 32 and 33, are of a length equal to the width of their respective flues, while the width of the dampers is equal to the depth of the flue 19, so that each damper will be capable of closing its respective flue in a most effective way.

Formed in the front side of the rib 30 are the notches 35, which are adapted, respectively, for the reception of the inner ends of the dampers 32 and 33, so that a snug and airtight joint may be made between the two parts. The dampers commanding the divisions of flue 19 are each provided with the crank-arms 36, which are preferably continuations of the trunnions 34, and which project through openings in the sides of the casing 1, whereby the dampers are made susceptible of easy adjustment. The efficacy of this arrangement will be obvious, since by its means the heat may be turned into one-half of the flue, which will result in a heating of a corresponding part of the top, thus concentrating all the heat which the stove is capable of throwing off. Such an arrangement will facilitate the immediate cooking of food and without making it necessary to await the heating of the entire stove.

The top 31 is formed of an integral piece of metal, and provided with the six eyes or lid-openings 37, which are arranged in longitudinal lines of three each and are provided with the usual lids 38. The lower end of the flue 21 extends, as has been before stated, to a point just below the bottom of the oven 18, where it communicates with the horizontally-extending flue 39. This latter flue 39 is of a width which is equal to the width of the stove, and extends throughout the horizontal extent thereof, and directly below the oven 18. Formed in the front portion of the casing 1, and communicating with the corresponding end of the flue 39, is the opening 40, which opening is commanded by the door 41, hinged to the casing and provided with a suitable securing device. The purpose of this opening and door is to facilitate cleaning the flue 39, as will be necessary after continued use, and for obvious reasons.

Formed in the rear side of the casing 1, and extending vertically therein, are the three flues 42, 43 and 44, which are transversely aligned, and which constitute practically one

flue, their partitions or divisions giving them the effect of separate flues. All of these flues, 42, 43, and 44, communicate with the rear end of flue 39, and with the rear end of flue 19.

Formed in the rear side of the stove-casing, and communicating with the flue 43, is a supplemental flue 45, which is longitudinally aligned with the flue 43, and which is of a vertical length equal to about one-third the length of such flue. This flue, 45, has its lower end inclined inwardly and downwardly, so that it will communicate with the flue 43 by means of a gradual opening. Journaled in a plane with the upper end of the flue 43 and its companions is the shaft 46, which extends through the flues 43 and 45, and which has the double or triangular damper 47 fixed thereto, and so as to revolve therewith. This damper, 47, is substantially L-shaped in cross-section, and is formed of two longitudinal plates 48 and 49, so arranged that the damper will be capable of swinging to close the flue 43, as against the flue 19, or to close the flue 45, as against the flue 19. Thus it will be seen that by means of this damper, 47, the flue 19 can be thrown into communication with the flue 43 to the exclusion of the flue 45, and that the flue 45 can be immediately connected to the flue 19, and so that there will be only an indirect connection between the flue 43 and the flue 19, and all for a purpose which will be explained later on. It will also be seen that, owing to the co-operative relation of the several dampers with which my stove is provided, the draft from the fire-box may be made to traverse the flue 19 only, and to pass immediately into the flue 45. From thence it passes up the pipe 50, such pipe being the usual stove-pipe and in direct connection with the flue 45. On the other hand, if the conditions are such that it will be desired, the heat may be thrown out of the flue 19 and into the flue 21, from which it will pass into flue 39 and up the flues 42, 43, and 44, and finally out of pipe 50. A still further adjustment of the dampers is possible by closing the damper 22, as against the flue 21, and by closing the damper 47, as between the flue 19 and the flues 43 and 45, thus establishing a course of heat down the flues 42 and 44 to the lower ends thereof, thence inwardly and into flue 43, and finally up said flue and out by way of pipe 50. This last-described course of heat is that which is provided for the usual cooking-stove, and while it is by no means an effective system, it may be used if so desired.

Formed in the casing 1, subjacent to the oven 18, and occupying all of the space below the same, is the supplemental or secondary oven 51, which has its roof directly below the flue 39. The bottom of the oven 51 constitutes the bottom of the casing, and the oven is provided with the doors 52, which are arranged one on either side of the stove, and provided with the usual hinges and catches, all of which will be understood. Rigidly secured to the casing, at the lower ends of the

openings which it is the province of doors 52 to command, are the ledges 53, these ledges being one for each door and adapted to have the lower edges of the doors rest upon them, so that a tight joint will be the result.

The oven 51, while not well adapted for primarily cooking food, is provided to take the place of the usual "kitchen" of cooking-stoves and ranges; and in this capacity it is of great value, since the radiation of heat from flue 39 is caught and retained by this oven, so that it will always have a heat sufficient to keep food warm after it has been cooked by the oven 18, or by any other means which may be used for such purpose. By means of the peculiar construction which attends these ovens and flues the most imperceptible amount of heat is lost, since it is passed through and by those portions of the stove which need its influence, and since the arrangement of the ovens 51 and 18 is such that the heat lost from one is necessarily taken up by the other.

The oven 18 is provided with the racks 54 and 55, which are adapted to be adjustable in the oven by means of the cleats or blocks 56, arranged in horizontal lines and located one directly above the floor of the oven, while the remaining line is arranged about midway the vertical extent thereof. By means of this arrangement the racks may be placed or replaced so as to attain the desired capacity. Further, by placing one of the racks upon the lower line of blocks, the rack will be located immediately above the floor of the oven, so that dishes which it is desired to cook on the floor of the oven may be cooked without incurring the danger of burning at the bottom.

I have shown in Fig. 8 a deflector-plate by which the excessive heat of the oven may be partially overcome, as will be necessary when the oven has been accidentally overheated and it is desired to cook food without waiting for it to regain its normal condition. This plate consists of a metallic plate of a size equal to that of the oven, and provided at its ends with the series of openings 57. The openings 57 are transversely aligned, and the plate, numbered 58, is adapted to be arranged in the upper portion of the oven, and to be held in place by the cleat-blocks 59. These cleat-blocks 59 are arranged in two horizontal lines, and at a point on the vertical extent of the oven equal to about one-fourth its height. The operation of this part of my invention will be understood, since the heat in the case just stated will come from the flue 19, thus permitting it to be cut off by this plate. If so desired, the plate 58 may be arranged upon the lower line of blocks 56, and in this connection it will operate as the plates 54 and 55, namely, to keep the food from direct contact with the bottom of the oven.

Rigidly secured to, or formed integral with, preferably the former, the casing 1, and just below the openings 60 of the oven 18, are the perforated ledges 61, which are one for each

opening, and which extend longitudinally on the stove for a distance equal to little more than the length of the oven. 62 indicates two doors, which are one for each of the openings 60, and which are adapted to command the oven. It will be observed that the openings 60 are of a size equal to that of the oven, so that upon removing the racks 54 and 55, food may be inserted into the oven in any quantities.

Formed in the perforated plates 61 are the transverse slots 63, which are two for each plate and which are arranged near the front and rear ends, respectively, of the oven. These grooves are adapted for the reception of the hooks 64, of the utensil-rack 65. The hooks 64 are one for each groove and pass out horizontally from the rack 65, through the groove 63, and thence downwardly and upwardly to the upper and inner sides of their respective plates 61. Thus it will be seen that the racks 65 are removably, yet securely, connected to the plates 61, and that these racks furnish an efficient and convenient support for dishes and other culinary articles, as the convenience of the operator may require. The racks 65 are preferably formed of open-work, as is usual in such devices.

Rigidly secured to the sides of the top 31, and extending throughout the longitudinal extent thereof, are the additional racks 66, which are one for each side of the top and which are secured in place by the horizontally and inwardly extending studs 67, projecting therefrom and into corresponding openings formed in the edges of the top for their reception. By these means the racks 66 may be removably yet rigidly secured in place, and owing to its attribute they may be taken off when the convenience of the user will require. I do not anticipate, however, the necessity for the frequent removal of these elements of my invention, since they will take up but little room and are by no means in the way.

The racks 66 consist of open work or perforated plates, having their rear ends enlarged or extended laterally, so as to furnish a place for the eyes or openings 68, which are formed in such enlarged portions and which are adapted for the reception of those of the lids 38 which are not used in their respective openings 37 of the top. Thus it will be seen that by this construction a place is provided in which these unused lids may be seated, so that the former difficulty of leaving them around anywhere on the stove is obviated. It is also possible to place dishes upon these extended portions, as will be apparent.

69 indicates a second dish-rack, which is secured to the rear edge of the top 31, by means of the studs 70, which project inwardly and under the rear edge of the top and are held in place by the eyes or staples 71, secured rigidly to such under side. The plate 69 is also formed with eyes or openings adapted for the reception of temporarily unused lids. These openings are designated by

the numeral 72, and are preferably three in number, though this number may be increased or diminished as the exigencies of the occasion may require.

5 The filtering attachment consists of a vertical standard 73, revolvably seated in the yoke 74 of the side of the casing, and in the opening 75 of the top, so as to be capable of revolving in its seat, as will better appear hereinafter. The shaft 73 is provided with the shoulder 76, which bears upon the upper side of the top 31, and which is adapted to prevent excessive downward movement of the shaft. Secured to, or formed integral with, 10 the upper end of the shaft 73 and, in fact, forming the shoulder 76, is the standard 77, which is approximately square in cross-section, and which is provided with the vertical slot 78, extending for about one-half the 20 length thereof and located at a point midway its ends. Formed in the rear side of the standard 77, and extending from a point near its lower end to about the middle thereof, are the upwardly-disposed ratchet-teeth 79, while the 25 forward and upper side of the standard 77 is provided with the corresponding and similarly disposed ratchet-teeth 80. These latter teeth extend from about the middle of the standard to its upper end. Mounted upon the standard 30 77, and movable vertically thereon, is the semi-circular frame 81, which is formed of a bar of material provided at each of its vertically-aligned ends with the yokes or openings 82, which are adapted for the reception of the 35 standard 77, so that the frame will be permitted to move in its characteristic lines. Arranged in the upper yoke 82, and at the outer extremity thereof, is the transverse bar 83, which is adapted to engage the ratchet-teeth 40 80 of the standard 77, and which is thrown into engagement therewith by means of the eccentric spindle 84. The spindle 84 is journaled in the rear end of the yoke referred to and is adapted, owing to its eccentricity, to engage 45 and disengage the standard 77, and by such operation to force the pin 83 into engagement with its ratchet-teeth. This operation of the spindle 84 will be followed by an outward movement of the rear portion of the frame 81, 50 which will cause the pin 85 of the rear end of the lower yoke 82 to engage with the ratchet-teeth 79, thereby securely locking the frame 81 on the standard 77. Thus it will be seen that by means of these devices the frame 55 81 may be adjusted at any point along the standard 77, so that the filtering attachment may be arranged to any elevation which the convenience of the user may require.

60 Formed in the center of the curved portion of the frame 81 is the opening 86, which is adapted to co-operate with the opening 87, of the vertically-extending bar 89. The bar 89 is rigidly connected to the end of the frame 81, and extends from one to another and approximately parallel with the standard 77. 65 It will be seen that the openings 86 and 87, being substantially in horizontal alignment,

are capable of movement throughout the vertical extent of the slot 78, and that the device may be locked at any point on the standard. 70

Arranged in the openings 86 and 87, and movable horizontally therein, is the rod or shaft 90. This shaft is of a length equal to the length of the stove, and is formed at its upper and lower edges, respectively, with the 75 ratchet-teeth 91 and 92. The teeth 91 are located on the upper side of the rod, and are disposed with their shoulders toward the front end thereof; while the teeth 92 are at the lower side and have their shoulders disposed in the opposite direction. These teeth, 80 91 and 92, are adapted to engage with the shoulders of the openings 86 and 87, so that the rod may be secured in any position throughout its length. Rigidly secured to the forward 85 end of the rod 90 is the yoke 93, which is adapted to embrace and to hold any suitable filtering device, numbered 94 in the drawings.

It will be observed that the weight of the filter 94 will give the frame 81 a tendency to 90 swing, and that this will throw the pins of the yokes 82 into engagement with their respective ratchets, thus assisting in the operation of securing the frame in place. By means of this filter attachment the cooking utensils on 95 the stove may be easily furnished with filtered water, and the filter may be moved to any point over the top of the stove, so that it will not be necessary for the cooking utensils to be moved from their places. 100

In the use of my invention the fire-box is filled with fuel and the fire started in the usual way, after which the food is placed on the stove and cooked as is customary or preferred. Should it be desired to cook food 105 through the medium of the oven 18, as in baking, the damper 22 should be manipulated so as to cut off the flue 19, which will force the heat and flame down the flue 21 and into the flue 39, after which they will pass up flues 42, 43 and 44, and finally out pipe 50. On the 110 other hand, if it is desired to boil or otherwise cook food placed upon the top 31, this may be done by closing flue 21, and allowing the heat and flame to pass *via* flue 19 and up the pipe 115 50. This will cause the top 31 to be heated and will take away the heat from the oven. Should it be desired to concentrate all the heat at a particular side of the top, the dampers 32 and 33 may be manipulated to throw 120 the flame and heat into one of the divisions of flue 19, which will result in this end, as has been explained. It is still further possible, when using the oven, to force the heat down the flues 42 and 44 and up flue 43, and this is 125 done by manipulating the damper 47, so that the plate 48 will close flue 43, and plate 49 will lie between flue 19 and flue 45. This will make it possible, indeed necessary, for the heat to pass down flues 42 and 44 and out by 130 way of flues 43 and 45.

It will not be necessary for me to dwell further on the use of the several racks and dish-supports, since this is a matter of common

knowledge and will be apparent to persons acquainted with such things.

Having described my invention, what I claim is—

- 5 1. In a stove, the combination of a fire-box, an oven adjacent thereto, a flue arranged above the oven and communicating with the fire-box, a second flue arranged at the front of the oven and extending downwardly to the bot-
10 tom thereof, said second flue having communication with the fire-box, a damper arranged at the juncture of the said flues and capable of swinging to open or close them both, an additional flue communicating with the sec-
15 ond flue and extending by the bottom and rear side of the oven and communicating with the first-named flue, the said additional flue having arranged in its vertical portion two partitions whereby it is formed into three di-
20 visions, and an L-shaped damper located in the middle division at the top and back of the stove and adjacent to the stove pipe openings and capable of opening and closing the same, substantially as and for the purpose described.
- 25 2. In a stove, the combination of a fire-box, an oven adjacent thereto, a flue extending from the fire-box downwardly under the oven and thence up the rear side thereof, the rear vertical portion of said flue being formed with
30 three separate passages, a supplemental flue communicating with the middle of said passages and with the smoke pipe of the stove, an L-shaped damper arranged in the upper end of the middle passage and located adja-
35 cent to the stove pipe opening and capable of closing said middle passage and said supplemental flue, and a second flue extending horizontally above the oven and communicating with the fire-box and with the upper
40 rear end of the first flue, substantially as and for the purpose described.

3. In a stove, the combination of a fire-box, an oven adjacent thereto, a flue extending horizontally from the fire-box to the rear of

the oven and over the top of the same, a sec- 45
ond flue having an opening adjacent to the fire-box opening of the first flue and extend-
ing downwardly under the oven and thence
up the rear side thereof, a vertically disposed
plate 28 removably seated in vertical guides 50
and constituting the upper front side of the second flue, and a damper rockably mounted
adjacent to the front ends of both of said
flues and capable of swinging to open and
close the same, said removable plate being 55
adapted to be displaced so as to place the second flue and the fire-box in direct communi-
cation, substantially as and for the purpose
described.

4. In a stove, the combination of a fire-box, 60
an oven adjacent thereto, a flue passing from the fire-box to the rear of the stove and di-
rectly over the top of the oven, a second flue communicating with the fire-box and extend-
ing downwardly and under the oven and 65
thence up the rear side thereof, the rear portion of said second flue being divided into three passages, a supplemental passage com-
municating with the middle passage of the
second flue and with the pipe of the stove, 70
an L-shaped damper located adjacent to the stove pipe opening of the stove, and arranged in the middle passage of the second flue and
capable of closing said passage and said sup-
plemental passage as against the first flue, a 75
secondary oven arranged beneath the second flue, and a second damper arranged at the fire-box openings of both of the flues and ca-
pable of opening and closing the same, sub-
stantially as described. 80

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN M. BROOKS.

Witnesses:

JOHN H. SIGGERS,

GEO. C. SHOEMAKER.