

L. K. BELCHER.
HEAT DISTRIBUTER.
APPLICATION FILED JAN. 16, 1919.

1,326,904.

Patented Jan. 6, 1920.
2 SHEETS—SHEET 1.

Fig. 1.

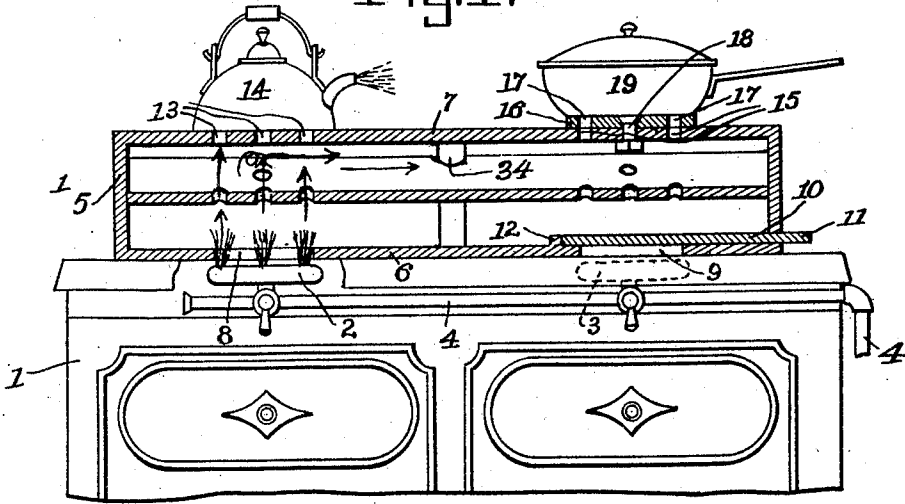


Fig. 2.

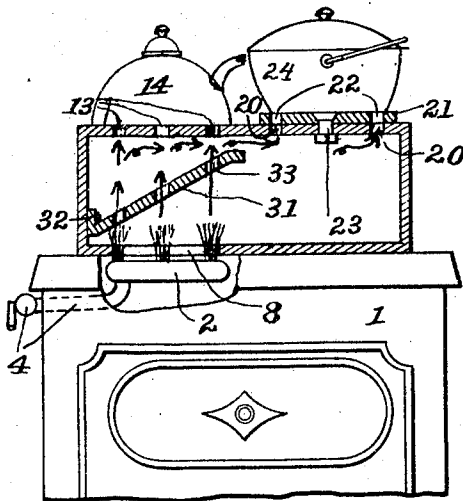
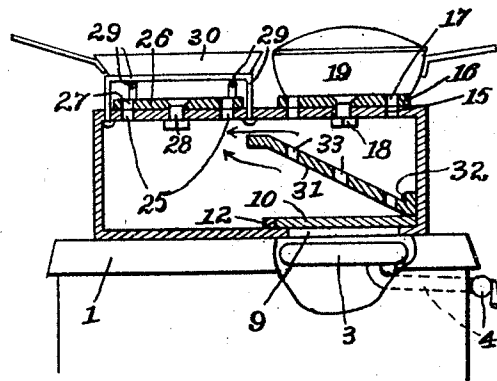


Fig. 3.

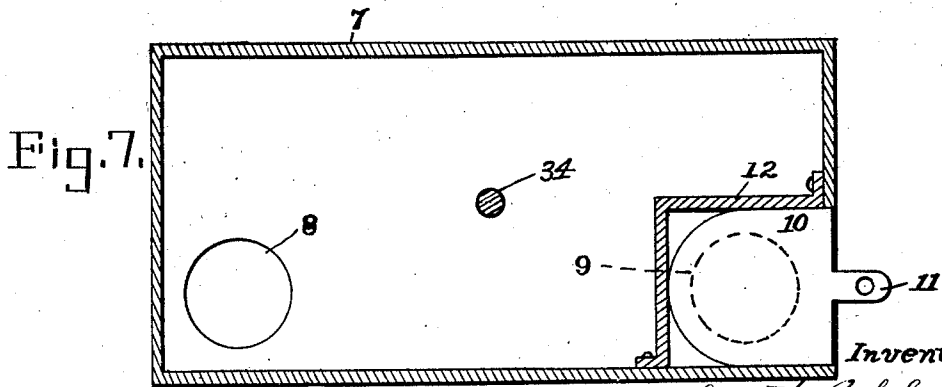
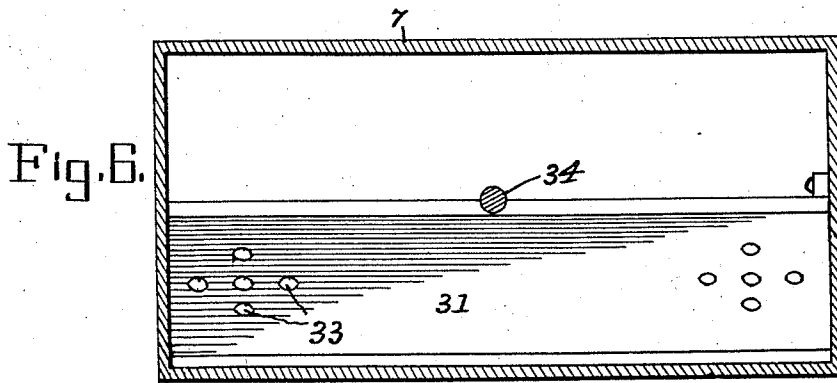
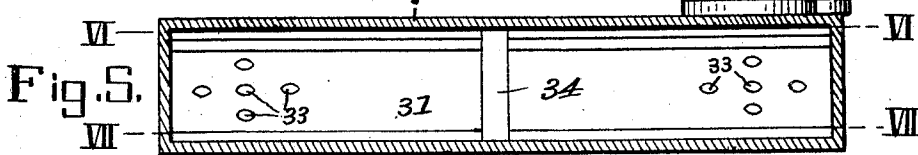
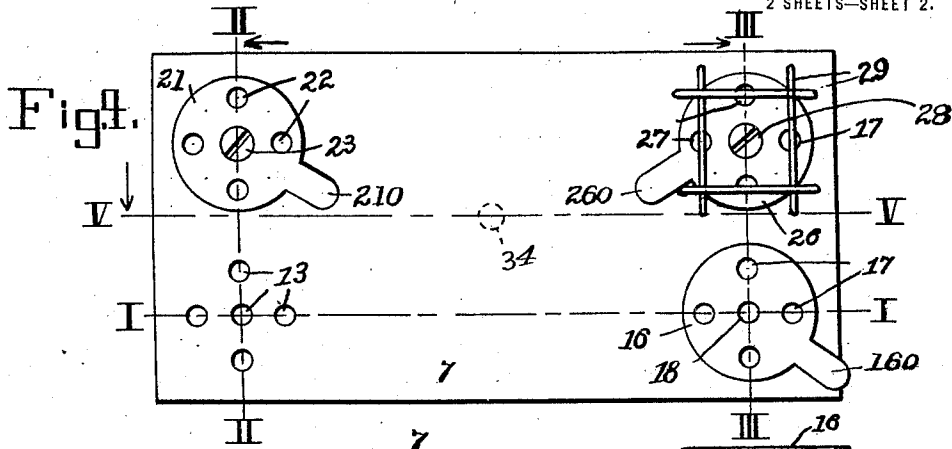


Inventor
L. K. Belcher,
By Frederick V. Winter
Attorney.

1,326,904.

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2 SHEETS—SHEET 2.



Inventor.

Leon K. Belcher
By Frederick D. Hunter
Attorney.

UNITED STATES PATENT OFFICE.

LEON K. BELCHER, OF NEW YORK, N. Y.

HEAT-DISTRIBUTER.

1,326,904.

Specification of Letters Patent.

Patented Jan. 6, 1920.

Application filed January 16, 1919. Serial No. 271,374.

To all whom it may concern:

Be it known that I, LEON K. BELCHER, a citizen of the United States, and resident of New York, in the county and State of New York, have invented certain new and useful Improvements in Heat-Distributers, of which the following is a full, clear, and exact specification.

This invention relates to heat distributing attachments for gas or other cooking stoves, whereby all the heat from a burner may be utilized for heating a plurality of cooking vessels.

It is the aim of this invention to generally improve the construction of such attachments, and especially to improve the distribution of the heat among the several openings in the top of the device from one or more openings in the bottom thereof designed to be arranged over stove burners. To this end a deflector is employed which has openings therein permitting part of the heat to pass through to an opening in the top of the device above the deflector, while the rest of the heat is turned by the deflector toward other top openings. Other objects will appear as the description proceeds.

The invention will be first hereinafter described in connection with the accompanying drawings, which constitute part of this specification, and then more specifically defined in the claims at the end of the description.

In the accompanying drawings, wherein similar reference characters are used to designate corresponding parts throughout the several views:—

Figure 1 is a longitudinal vertical section of a heat distributor constructed substantially in accordance with this invention, the same being shown arranged upon an ordinary gas range, parts of which are broken away for the sake of clearness, and the section of the distributor casing being taken on the line I—I of Fig. 4.

Fig. 2 is a section of the distributor taken on the line II—II of Fig. 4, part of the gas range also being shown, as in Fig. 1.

Fig. 3 is a section on the line III—III of Fig. 4, also showing part of the gas range.

Fig. 4 is a top plan view of the distributor casing.

Fig. 5 is a section thereof on the line V—V of Fig. 4.

Fig. 6 is a section on the line VI—VI of Fig. 5, and

Fig. 7 is a section on the line VII—VII of the same figure.

In Figs. 1, 2 and 3, 1 designates an ordinary gas range, and 2 and 3 top burners thereof which are supplied with gas via pipes 4. The distributor casing 5 is in the form of a flat box and has two openings 8 and 9 in its bottom 6, and four groups of openings 13, 15, 20 and 25 in its top 7. The number of the openings may, of course, be changed if desired.

The group of openings 13 in the top of the casing is arranged in vertical alinement with the bottom opening 8, while the group of top openings 15 are in vertical alinement with the bottom opening 9. The groups of top openings 20 and 25 are out of alinement with either of said bottom openings. The group of openings 13 is adapted to be closed by a cooking vessel 14 when placed thereon, as illustrated in Figs. 1 and 2. The group of openings 15 is fitted with a valve 16 having openings 17 adapted to be placed in or out of register with the openings 15 by adjusting said valve on its pivot 18 by means of the projecting handle 160. When the valve is arranged with its openings 17 in alinement with the openings 15, as illustrated in Figs. 1 and 3, a cooking vessel 19 may be placed on the valve so as to close the openings therein and prevent the escape of any of the heat units.

The group of openings 20 is similarly fitted with a valve 21 having openings 22 adapted to be placed in or out of register with said openings 20 when the valve is turned on its pivot 23 by means of the handle 210. The openings 22 in the valve 21 may likewise be covered by a cooking vessel 24, as shown in Fig. 2, for preventing any of the heat units from being wasted.

The group of openings 25 is also fitted with a similar valve 26 having openings 27 adapted to be placed in or out of register with said openings 25 when the valve is turned on its pivot 28 by means of the handle 260. This group of openings 25, being the farthest removed from the bottom opening 8, is provided with a raised stand 29 for supporting a cooking vessel 30 out of contact with the valve 26 and top of the casing, as shown in Fig. 3, so that the heat units may escape from said openings 25 and

in doing so create a draft which will aid in drawing some of the heat to said remote point of the casing.

The bottom opening 9 is provided with a valve 10 for shutting it off when only the one burner 2 is in use. Said valve 10 slides into a frame 12 on the bottom of the casing, and has a projecting handle 11 by means of which it may be removed or inserted. It will be understood that all four of the top openings in the casing, and the cooking vessels arranged thereon, may have heat distributed to them from the burner 2 through the single bottom opening 8 of the casing, but when greater heat is desired, the valve 10 may be removed from over the opening 9 and the burner 3 also lighted.

To effectively distribute the heat between the openings in the top of the casing which are not in line with the bottom openings, and the top openings which are in vertical alinement with said bottom openings, an inclined partition or deflector 31 is arranged in the casing over the bottom openings 8 and 9 and preferably extending fully across the casing from one end to the other. Said partition or deflector 31 may be suitably fastened to the walls of the casing, as by rivets or screws 32, Figs. 2 and 3, and it is provided with groups of openings 33 in vertical alinement respectively with the bottom openings 8 and 9 and top openings 13 and 15. Said openings 33 in the partition or deflector are of less area than the bottom openings in the casing, so that only part of the heat units are permitted to pass through the deflector to come in direct contact with the vessel placed on the top openings 13 and 15, the remaining heat units being turned by the deflector toward the top openings 20 and 25, as indicated by the arrows in Figs. 2 and 3. When only the one burner 2 is used, some of the heat units will also be directed longitudinally along the deflector as

indicated by the arrows in Fig. 1. The middle portions of the top and bottom plates of the casing and the deflector may be connected by a post 34 to prevent warping.

Having thus described my invention, what I claim as new and desire to secure by letters patent of the United States is:—

1. A heat distributor comprising a casing having an opening in its bottom to be arranged over a burner and a plurality of openings in its top, one of said openings in the top being in vertical alinement with the opening in the bottom and the other out of alinement therewith, and an inclined partition in the casing over the opening in the bottom and having restricted openings therein arranged in alinement with said bottom opening for allowing part of the heat from the burner to pass through the partition to the opening in the top of the casing above it while part of the heat is diverted by said partition to the other openings in the top.

2. A heat distributor comprising a casing having two openings in its bottom to be arranged over two spaced burners of a stove, and a plurality of openings in its top, two of said top openings being arranged respectively in vertical alinement with the bottom openings while other top openings are out of alinement with said bottom openings, and an inclined partition extending across the casing over the two bottom openings and having restricted openings therein in vertical alinement therewith for allowing part of the heat from the burners to pass through the partition to the openings in the top of the casing above it while part of the heat is diverted by said partition to the other openings in the top.

In testimony hereof I have signed my name to this specification.

LEON K. BELCHER.