G. & W. G. BAUCH.

STOVE.

APPLICATION FILED JAN. 23, 1908.

959,107. Patented May 24, 1910.

Fig. 1.

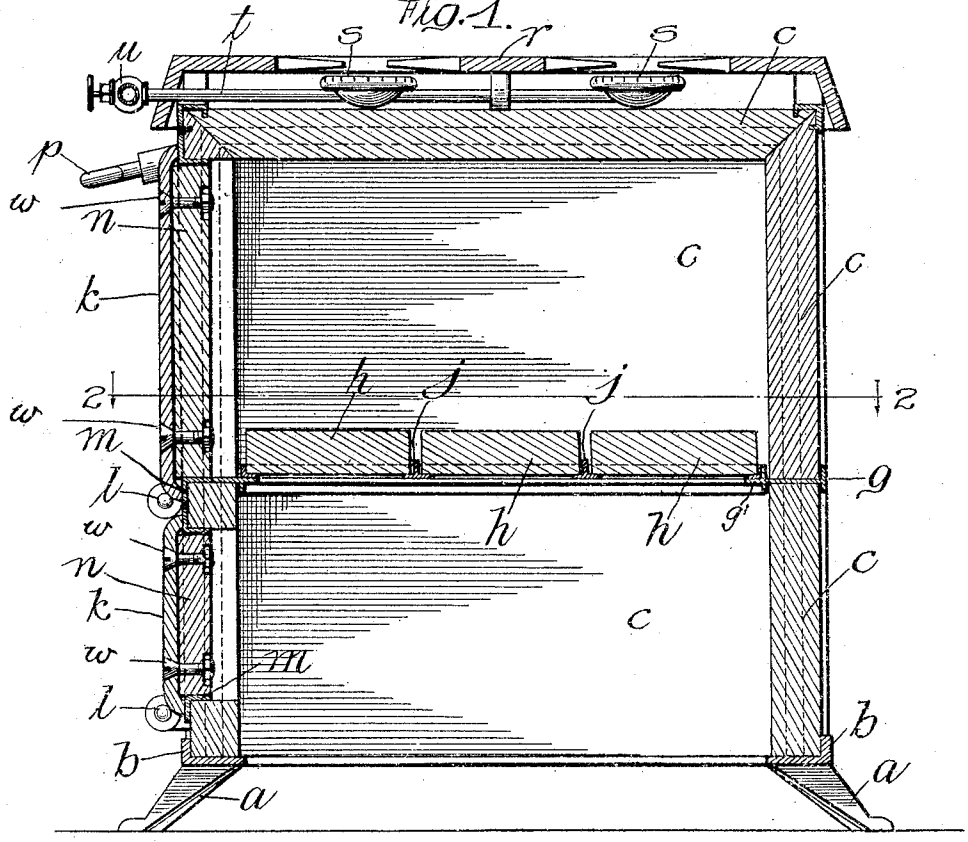


Fig. 2.

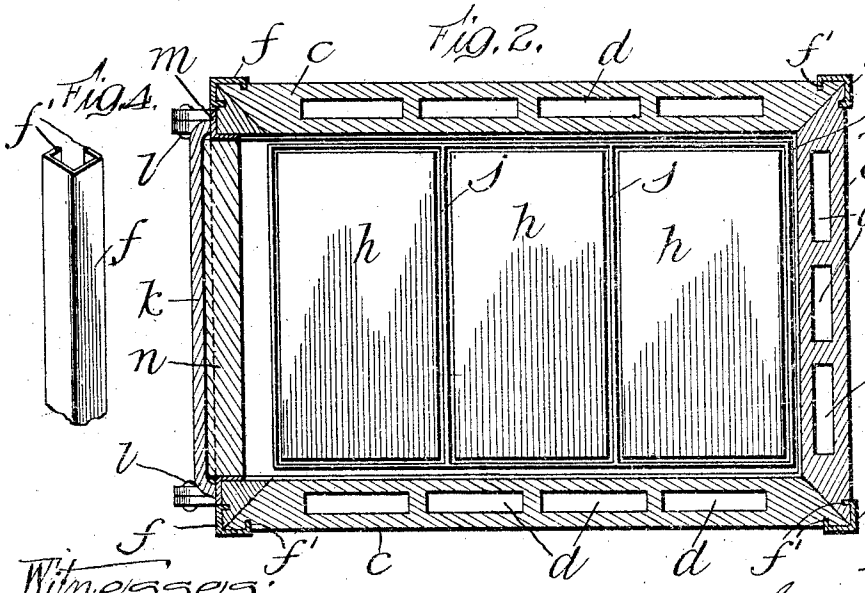
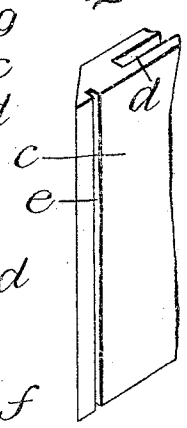


Fig. 4.

Fig. 3.



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UNITED STATES PATENT OFFICE.

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STOVE.

959,107. Specification of Letters Patent. Patented May 24, 1910.

Application filed January 23, 1908. Serial No. 412,258.

To all whom it may concern:

Be it known that we, GEORGE BAUCH and WALTER G. BAUCH, citizens of the United States, and residents of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Stoves, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, which forms a part of our specification.

Our invention relates to an improvement in stoves and has to do more especially with the class known as gas or oil stoves, and consists in the use of a heat-retaining material, such as tile, porcelain, or similar earthenware, for the body or walls, thus providing surfaces which will retain large units of heat and thereby necessarily increasing the heat radiating power of the stove beyond that of the ordinarily constructed metallic stove now employed.

In the drawing:—Figure 1, is a longitudinal sectional view of a gas or oil stove constructed in our improved manner, with the burner usually employed in the oven, omitted. Fig. 2, is a horizontal sectional view taken on line 2—2 of Fig. 1. Fig. 3, is a detail view of a portion of tile or earthenware showing one manner of constructing the same in order to form a proper joint with the adjacent tile or side. Fig. 4 is a detail view of a portion of the metallic fastenings or clamps whereby the adjacent pieces of tile are secured together.

Like letters of reference indicate like parts in the respective figures.

We have illustrated the invention in connection with a well known style of gas-stove, in which *a*, *a*, are the feet or standards which may be made of cast metal and either made integral with or secured to the angle-iron or frame which preferably extends about the lower edge of the sides or walls of the stove. The sides are composed of tile or similar earthen-ware *c*. We prefer to mold the tile in the manner illustrated, that is, of appreciable thickness so as to permit of the chambers or passages *d*, which can be clearly seen in Figs. 2 and 3 and are indicated by dotted lines in Fig. 1.

In order to permit of a neat joint between the sides or adjacent pieces of tile, we have shown the abutting edges with a bevel. To readily secure the sides or blocks together and at the same time provide protection to the corners against injury in any manner, the blocks of earthen-ware or tile are provided with a groove *e*, near their edges, into which the inwardly bent edges *f'* of the angle-iron or bar *f* take, as can clearly be seen in Fig. 2. With the angle-iron *f*, constructed as shown, it will firmly hold the adjacent edges of the different blocks of earthen-ware or tile firmly, and may be inserted into place by simply sliding it into the grooves *e* from one end thereof as will be readily understood.

The top of the oven part of the stove is also constructed of tile or similar material as shown in Fig. 1, and may be held in place in the manner described, by the use of the angle-iron.

The stove may be provided with a tile-bottom, or simply provided with a sheet-metal bottom especially as the same is not to come into direct contact with any flame.

The oven is of course provided with the well-known style of burner or burners usually arranged about the upper part of the lower compartment. But as the burners or their arrangement form no part of our invention, we have not deemed it necessary to illustrate the burners in the oven.

In order to provide the oven with a number of compartments, as is usual in stoves of the class described, we provide the sides or walls of the stove preferably with channel-shaped iron *g*, which thus not only provides a ledge or seat for the slabs or blocks of tile *c*, and retain them in place, but the inwardly projecting extension *g'* of said channel-iron *g* also provides a ledge whereby the pieces or blocks of tile or earthen-ware *h*, together with the supporting frame *j* which constitute a shelf or dividing wall for the oven, are supported. We prefer to make this frame *j*, with openings to receive the blocks of tile or earthen-ware *h*, and this frame is adapted to slide on the extension of the iron *g*, as clearly shown in Figs. 1 and 2. By employing a number of blocks of tile, as *h*, allowance is made for expansion which may take place during the use of the oven; furthermore, should the tile in any manner become broken, it would only be necessary to replace the particular block broken without replacing the entire shelf of tile as would be the case if one block was used.

k, *k*, are doors which are hinged in the usual manner at *l*, *l*, the one member of the hinges *l*, being either integral with or secured to the angle-iron or frame *m*, extend-

ing across the front side of the stove and providing not only a support, but also protection for the blocks or pieces of earthenware or tile which constitutes the front of the stove. The outside of the doors *k*, *k*, are preferably made of metal, while the inside of the doors are provided with a block of earthen-ware or tile *n*, which may be secured thereto in any convenient manner, as by bolts *w*, which may be counter-sunk as shown. The doors are of course provided with any of the well known styles of handles or latches, as at *p*.

The top of the stove comprises the usual frame or grating *r*, provided with any number of openings for the play of the flames from burners *s*, *s*, which are connected with the fuel supply pipe *t*, provided with the hand-valve *u*. This top *r*, is composed of metal as usually constructed, which may be enameled for appearance to correspond with the tile-sides of the stove, if desired.

A stove constructed as above described will retain a greater amount of heat-units than is true of the usual metallic stove, thus providing a greater amount of radiation. Furthermore, the flames in the oven of a gas or vapor stove do not usually play upon the entire under-surface of the partition or shelf in the oven but only come into contact with a part thereof. With the usual metallic shelf or partition, the portion in contact with the flame, becomes very much hotter than the other part; with a shelf or partition constructed in accordance with our invention, the entire shelf or partition becomes uniformly hot.

The advantages to be obtained by the use of our invention are very considerable; for example, the consumption of fuel is very much less with our improved stove than with the ordinarily constructed metallic stove heretofore employed, as the heat-retaining characteristic materially shortens the time of consumption of the fuel; and furthermore, the period of time required for baking or roasting is materially shortened.

A stove made as herein described will not only be very much more efficient than the gas or oil stoves heretofore in use, but it can be made at a very much less cost.

It is apparent that the construction shown in the drawing and described herein may be modified in a number of details without departing from the spirit of our invention, and we do not wish to be understood as limiting ourselves to the exact construction shown and described, but

What we do wish to claim as our invention and secure by Letters Patent, is:—

1. A stove of the class described whose walls are composed of blocks of earthenware of comparative thickness, said blocks being provided with chambers extending longitudinally of the blocks from end to end thereof, the outer faces of said blocks being provided with grooves adjacent to the edges thereof, channel-iron adapted to be slid over the corners of adjacent blocks of earthenware and into said grooves whereby the blocks forming the walls of the stove are removably held in place, a channel-iron taking between the blocks forming the side walls and extending inwardly to form a ledge within the oven, a metallic frame taking onto said ledge, and blocks of earthenware fitting within said frame.

2. A stove of the class described whose walls are composed of blocks of earthenware provided with chambers extending there-through, the edges of abutting blocks of different sides being beveled and provided with grooves in the outer faces thereof, a channel-iron adapted to take over the corners of the adjacent blocks and into the grooves, to hold the blocks in place, a channel-iron taking between the blocks forming the side walls and provided with an inwardly extending flange to form a ledge, blocks of earthenware extending from one side wall to the other and above said ledge within the oven, said blocks being so arranged as to permit of their expansion by the heat within the oven, and doors composed of metal and blocks of earthenware removably secured to the inside of the metal portion.

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