Aug. 20, 1940. J. S. DUGAN 2,212,015

FIREPLACE

Filed June 24, 1939

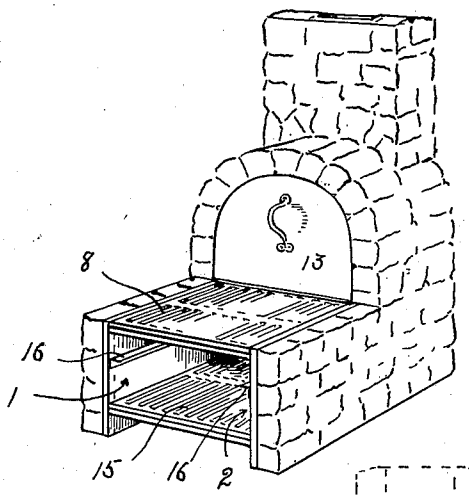


Fig. 1.

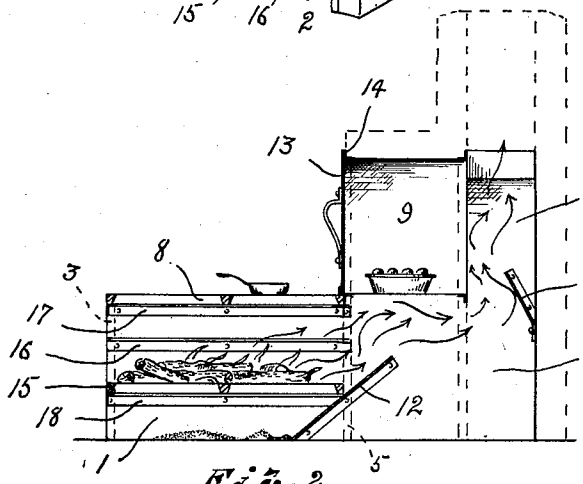


Fig. 2.

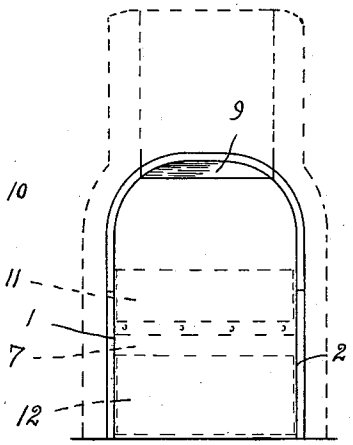


Fig. 3.

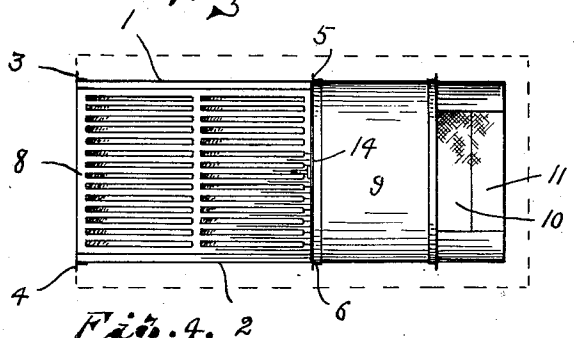


Fig. 4.

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FIREPLACE

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3 Claims. (Cl. 126—137)

This invention relates to fireplaces and has special reference to one particularly adapted for outdoor use, the principal object of the invention being to combine in a satisfactory and practical manner an open fireplace and a heating oven.

Another object is to provide means for the most practical and efficient application of heat to the oven from fire otherwise utilized in the fireplace.

Still another object is to provide a simple and inexpensive unit embodying such a combination and which may be readily surrounded with brick, stone, or the like, for decorative purposes.

Other objects and advantages of the invention will appear in the following description thereof.

Referring now to the accompanying drawing, forming part of this application, and wherein like reference characters indicate like parts:

Figure 1 is a perspective view of a complete outdoor fireplace, illustrating one embodiment of the invention.

Figure 2 is a transverse sectional view of the metal portion of one of the combined units.

Figure 3 is a rear end elevation of Figure 2.

Figure 4 is a top plan view of Figure 2.

In the drawing, 1 and 2 represent the side walls of the fireplace which are of comparatively light sheet metal and supported for example as by a frame-like angle iron construction embodying the front corner members 3 and 4 and like upright angle members 5 and 6 and which latter members are at the back corners of the fire box portion of the unit. The side walls 1 and 2 extend rearwardly beyond the termination of the so called fire-box and form the smoke chamber illustrated at 7, and above which, and parallel with the top of the grid 8, is installed the oven, indicated at 9. The smoke chamber 7 is also continued upwardly back of the oven 9 as at 10, forming the lower portion of what ultimately serves as the smoke or chimney flue. Within the lower portion of this smoke flue is installed an inclined baffle indicated at 11 for diverting the heat units and smoke towards the back of the oven 9, while within the smoke chamber and just below the rearmost portion of the fire-box is installed the larger inclined baffle 12 for directing the smoke and heat units upwardly against the bottom of the oven, thus providing novel and adequate means for utilizing as much as possible of the heat passing the bottom and rear wall of the oven.

A removable door of any desired design or description may be installed as a closure for the front of the oven, as indicated at 13, and the front corner angle of the sheet metal structure forming the oven may be made to extend as illustrated at 14 to provide a convenient and better appearance of the union of the ultimate covering of the unit, for instance brick, stone, or the like, and the sheet metal portion of the fireplace.

To this same end the front corner angles 3 and 4 of the fireplace may extend laterally as best shown in Figure 4 of the drawing.

It is to be noted that the grid 8 is removable, and that within the opposed side walls 1 and 2 of the fireplace and a predetermined distance from the grate 15, are installed an extra pair of horizontally disposed angles 16 so that the grid may be readily removed from the position shown in the drawing and placed upon the lower angles 16, bringing the grid in closer proximity to the fire as for example when the latter has burned down to a bed of coals and better suited for closer association with the particular comestible being prepared for consumption.

A similar pair of angle bars are provided as at 17 for the normal support of the grid, and also similar angles are provided as at 18 for supporting the fireplace grates 15.

One particular feature that is contemplated in such a structure is that the angle iron frame portion is made of considerably more substantial and lasting material than that of the sheet iron covering for same especially that portion coming in direct contact with the fire and which may become burned out or destroyed long before the heavier frame portion, and this is of particular advantage in cases where the unit is well surrounded with either stone, brick, or other more permanent material.

By the novel arrangement of baffles 11 and 12 in the smoke chamber, it will be noted that a substantial vacant area is provided back of each of these baffles, which areas function, in the event of a sudden downdraft of short duration, in cushioning the downdraft and thus preventing smoking of the fireplace.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is:

1. An outdoor fireplace of the type described, comprising an angle iron frame structure, an outer covering of sheet iron, a fire box, a smoke flue communicating therewith, an oven intermediate of the uppermost rear end of the fire-box and the smoke flue therefrom, and baffle plates rearwardly of said fire box and within said flue for directing the heat therefrom against both the bottom and back of said oven.

2. In a combined outdoor fireplace and oven unit, an open fire box in the front of the unit,

an oven back of said box and above same, a smoke flue beneath and back of said oven, and means within said smoke flue for directing the smoke and heat units against the bottom and back of said oven, said means creating a plurality of areas at one side thereof within said smoke flue for cushioning effect therein in the event of sudden downdrafts, thus avoiding smoking of the fireplace.

3. A combined outdoor fireplace and oven unit comprising a horizontally disposed open firebox in the front of the unit, an oven back of said firebox and above same, a smoke flue extending longitudinally from the rear of the firebox under the oven and upwardly back of said oven, and inclined baffles within said smoke flue for directing the hot products of combustion against the bottom and back of said oven, said baffles extending in a direction to also prevent sudden downdrafts of air in said flue reaching said firebox and thus preventing smoking of the fireplace therefrom.

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