Sept. 16, 1930. M. SALZ 1,775,866

BURNER APPLIANCE

Filed Sept. 28, 1929

Fig. 1.

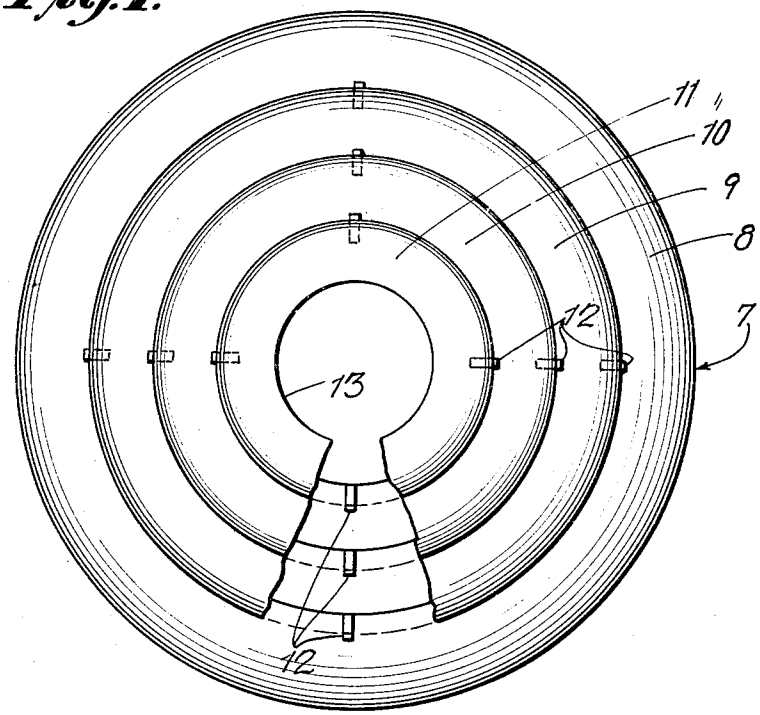
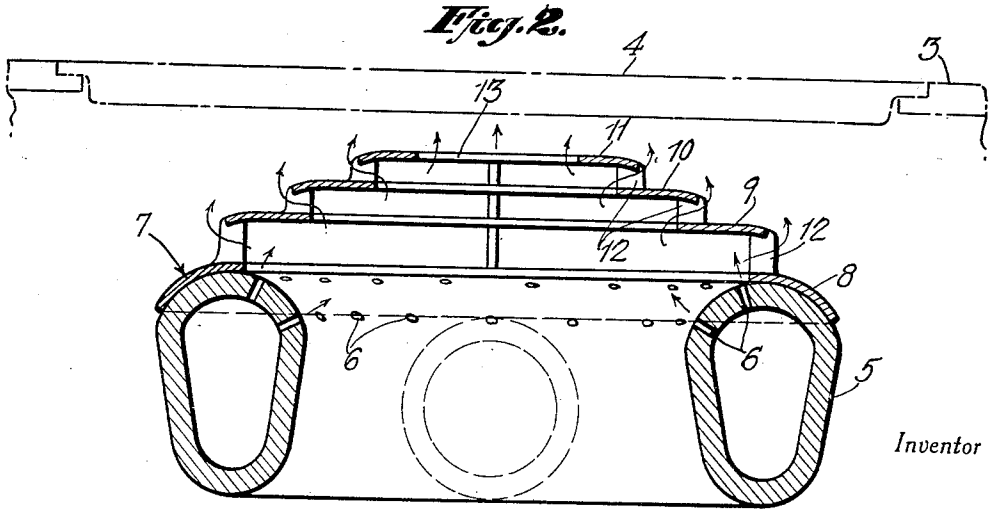


Fig. 2.



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UNITED STATES PATENT OFFICE

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BURNER APPLIANCE

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This invention relates to an appliance constructed for direct association with a gaseous fuel burner, for instance of the type employed in the construction of domestic gas ranges, stoves and the like.

The purpose of the invention is to provide a simple and inexpensive appliance in the nature of an attachment to be placed directly upon the apertured burner, the same being such as to permit it to be located beneath an overlying utensil supporting grid and of a special construction to enhance the heat productive properties of the burner.

More specifically stated I have evolved and produced a burner attachment which is constructed to concentrate the flame beneath the center of the utensil and to further distribute peripheral portions of the flame to cause said portions to impinge on the bottom of the utensil without playing up and around the sides, to minimize soot deposits on the lower part of the rim portion of the utensil.

I further propose the provision of an appliance which comprises a plurality of ring like vertically spaced elements formed into a substantially frusto-conical body, to minimize accumulation of grease and deposits around ports of the burner, to reduce extinguishing of the flame by blustering air currents, and to otherwise fulfill the requirements of a device of this kind.

Other features and advantages will become more readily apparent from the following description and drawings:

In the drawings:

Figure 1 is a top plan view with portions broken away to disclose the association of the parts more clearly.

Figure 2 is a section through a gas burner with the appliance seated thereon.

Referring to Figure 2 of the drawings it will be seen that the reference character 3 designates the top of a domestic gas range or stove, while 4 indicates the removable utensil supporting grid.

The reference character 5 designates generally a conventional gas stove burner provided with a multiplicity of gas discharge ports 6. The appliance is indicated generally by the reference character 7 and comprises a single metal casting including a base ring 8 which is of curved cross section to enable it to rest on and conform to the shape of the crown portion of the burner 5. The reference characters 9, 10 and 11 designate similar rings which are arranged in vertically spaced superposed relation, the ring 10 being smaller in diameter than the ring 9, and the ring 11 being graduated still smaller. The vertical circumferentially spaced posts 12 serve to connect the quartet of rings together in assembled relation. This arrangement defines a central flame discharge opening 13 at the top. In addition it defines annular peripheral flame discharge openings between the marginal portion of the superposed rings 8 to 11, inclusive. Thus, the flame takes the tortuous discharging passages indicated by the arrow in Figure 2.

It will be observed that the device is supported directly on the burner and that it is of a height to permit it to be disposed beneath the grid on the stove. Thus there is no likelihood of the appliance being accidentally knocked off of the burner. Once more the base ring conforms to the shape of the burner, thereby rests snugly and firmly thereon, being disposed outwardly of the gas ports and thereby not interfering with the flame jets.

Then too, the graduated vertically spaced and superposed arrangement of the annuli or rings serves to prevent clogging of the ports by dropping grease and extraneous matter from boiling utensils and the like. Moreover, the arrangement and cooperation of these rings serves as a flame guard in that it prevents the draft from extinguishing the flame. Then again, as before stated, the principal part of the flame is concentrated and discharged through the opening 13 while annular flame jets are formed around the marginal portions of the superposed rings. This brings about an entirely different equalization of the flame and prevents the sides of the utensil from blackening. By thus confining the flame and at the same time distributing it, effective results are insured.

It is thought that by considering the description in connection with the drawings, a clear understanding of the construction, fea-

tures and advantages of the invention will be had, therefore, a more lengthy description is regarded as unnecessary.

Minor changes in shape, size, and rearrangement of details may be resorted to in actual practice without departing from the spirit of the invention or the scope of the adjoined claims.

Having thus described the invention, what I claim as new and desire to secure by Letters Patents is:—

1. In a structure of the class described, in combination a port equipped burner, and a flame guard appliance comprising a single casting embodying a base ring resting removably and directly on said burner, and further including vertically spaced superposed imperforate rings constituting baffles and defining a main top flame discharge hole, and marginal annular flame discharge openings, the inner periphery of each superposed ring disposed inwardly of the inner periphery of the subjacent ring and the outer periphery of each superposed ring disposed intermediate the inner and outer peripheries of the subjacent ring.

2. In a structure of the class described, in combination, a port equipped burner, and a flame guard appliance comprising a single casting embodying a base ring resting removably and directly on said burner, and further including vertically spaced superposed rings constituting baffles and defining a main top flame discharge hole, marginal annular flame discharge openings, said base ring being of a curvate configuration and conforming to that portion of a burner on which it is seated, each of the superposed rings having its inner periphery disposed inwardly of the inner periphery of the subjacent ring and its outer periphery disposed intermediate the inner and outer peripheries of the subjacent ring.

3. As a new product of manufacture, a burner appliance of the class described comprising a body including a base ring shaped to permit it to rest firmly on the burner, a plurality of vertically spaced superposed rings connected together by circumferentially spaced vertical posts, said rings being decreased in diameter from the bottom toward the top to define a substantially frusto conical open frame-like body, the inner periphery of each superposed ring disposed inwardly of the inner periphery of the subjacent ring and the outer periphery of each superposed ring disposed intermediate the inner and outer peripheries of the subjacent ring.

In testimony whereof I affix my signature.

MICHEL SALZ.