To all whom it may concern:

Be it known that I, Adolph M. Preiss, a citizen of the United States, residing at Kansas City, in the county of Jackson, State of Missouri, have invented certain new and useful Improvements in Burners or Heaters, of which the following is a full and exact specification.

The present invention relates to improvements in heaters or burners, and has for one of its objects to devise an improved heater construction of the oil burner type, in which the burner portion proper will be automatically positioned with its oil burning channels in a horizontal plane. It is also an object to improve generally burners of this type and to produce a construction which will be comparatively simple and efficient and inexpensive to manufacture.

With these general objects in view, the invention will now be described with reference to the accompanying drawings illustrating one form of embodiment of the improvements, after which those features and combinations deemed to be novel will be set forth and defined in the appended claims.

In the drawings—

Figure 1 is a vertical section of the burner or heater, taken on the line II—II of Fig. 2;

Fig. 2 is a horizontal section of the same, taken on the line III—III of Fig. 1; and

Figs. 3 and 4 are sectional details on the lines IV—IV and V—V, respectively, of Fig. 1.

The present heater construction comprises an oil burner consisting of a lower portion or stand 26 supported in fixed position upon one of the brackets 22 or stands 24 and having a split socket 28 for pivotally carrying the burner portion proper, which is provided with the ball 30 adapted to be clamped in said socket by means of the screws 32. (see Fig. 3). The ball 30 projects from the horizontal skeleton plate 34 which carries the grating 36 constructed to provide an inner oil channel 38 and an outer channel 40 with an intermediate space 42 for the passage of air, said grating being secured to the plate 34 by the screws 41. Over the grating 36 is arranged a series of superposed gratings 44 of refractory material, such as fire clay, each grating being formed with lugs 46 adapted to be seated in recesses 48 in the next lower grating (see Fig. 4) so as to hold the series in proper relation to form a skeleton framework providing vertical passages 50 and 52 over the said oil channels 38 and 40, respectively, as well as an intermediate vertical air passage 53 over the space 42. The lugs 46 are also of a length serving to hold the gratings 44 spaced slightly apart from each other.

A metal casing 54 of appropriate form is provided for inclosing the grating 36 and its skeleton frame work, this casing being supported on lugs 56, projecting from said grating, and having depending flanges 56' in appropriate engagement with the top grating 44 for retaining said skeleton framework in proper position over the oil channels. The top of this casing 54 forms a closure over the intermediate air passage 53, while said casing is provided with openings 60, 62, registering with the vertical passages 50 and 52, respectively.

Within the burner stand 26 is provided a counterweight 64 having a stem 66 for suspending the same from the ball 30 of the plate 34, from which it will be apparent that said plate and the burner grating supported thereby will be swung to bring the oil channels into true horizontal position, in which position the burner may be clamped by means of the set screws 32.

Oil is supplied to each burner from a tank 68 suspended in position adjacent the burner and provided with separate pipes 70, 72, extending to the middle of the burner, from which are extended the lateral branch pipes 74, 76, having terminal outlets overlying the separate oil channels 38 and 40, respectively. By means of the separate valves 78 and 80 in said pipes 70 and 72, the flow of oil to the oil channels may be independently regulated.

From the foregoing it will be apparent that a simple and effective arrangement and construction have been devised for carrying out the objects of the invention. The construction of the burner proper is quite simple and inexpensive, and has proven efficient for the burning of common coal oil as well as the cheaper distillates, without the use of compressed air, hollow wires or needle valves. It is found also that it does not carbonize or fill up in a manner common to ordinary oil burners, and that it burns with practically no odors. In addition to its adaptability for heating rooms or buildings, the burner will be found well suited for such uses as burners for coffee urns, water heaters and boilers, cooking stoves and ranges, and
also for pressing machines in dry cleaning and tailoring shops, as well as in numerous other relations.

While the foregoing represents one efficient and practical form of embodiment of the improvements adapted to fulfill the objects of the invention, the right is reserved to all such formal changes and modifications as may fairly fall within the scope of the appended claims.

Claims:
1. An oil burner comprising a stationary stand, a horizontal burner portion mounted on said stand and provided with an open oil channel, a counterweight carried by said burner portion and acting to hold the latter with its oil channel in a horizontal plane, and means for clamping said burner portion in said horizontal position.

2. An oil burner comprising a stationary stand, a burner portion provided with separate inner and outer open oil channels spaced apart to leave an air passage between them, pipes for feeding oil to said channels and provided with means for independently regulating the flow of oil therethrough, a skeleton framework of refractory material mounted over said oil channels, and means acting automatically to level said burner portion and maintain it with said oil channels in a horizontal plane.

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