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O'Leary et al.

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[54] **INDUCED DRAFT HEATER WITH PREMIXING BURNERS**

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[58] **Field of Search** 431/12, 18, 19, 431/20, 354, 355; 126/116 R, 116 A, 91 A; 48/180.1

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[57] **ABSTRACT**

A fuel/air mixture control for an induction heater having a tube-type burner includes a side-venting fuel nozzle for introducing fuel into an induction air stream entering the burner. A multi-speed blower draws combustion air into the burner and an air flow constrictor disposed proximate the fuel nozzle increases the velocity of the induction air stream proximate the fuel nozzle, increasing the volume of fuel introduced into the burner conduit. The fuel/air mixture depends upon the speed of the blower, which can be thermostatically controlled to increase speed upon sensing higher temperature combustion products, thereby maintaining a steady mass air flow and air/fuel mixture.

20 Claims, 4 Drawing Sheets

