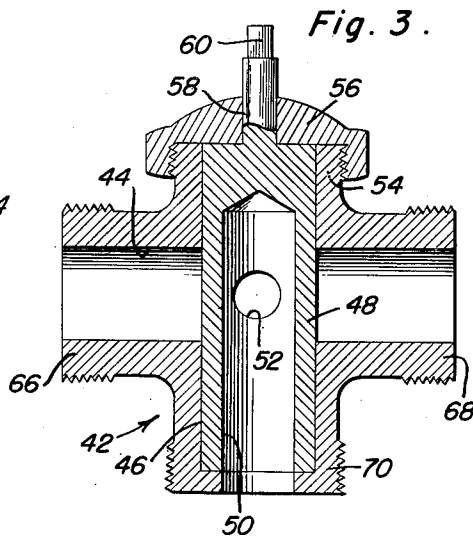
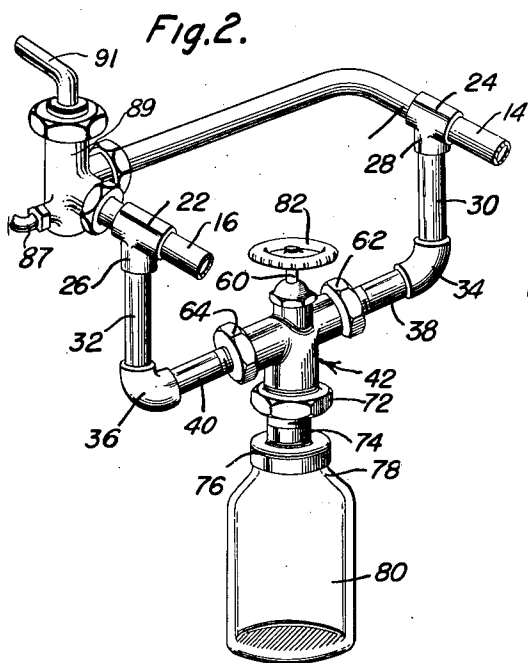
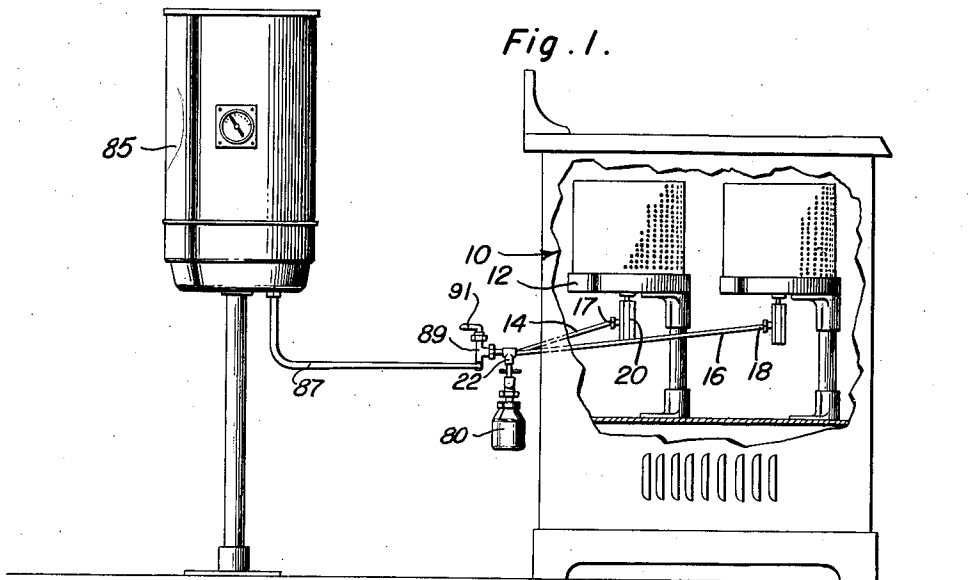


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T. J. MACIEJEWSKI  
ATTACHMENT FOR OIL BURNERS

2,533,596

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# UNITED STATES PATENT OFFICE

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## ATTACHMENT FOR OIL BURNERS

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2 Claims. (Cl. 158-49)

1

This invention relates to new and useful improvements in oil burning furnaces and the primary object of the present invention is to provide an attachment for the burners of oil burning furnaces that will receive the overflow of fuel from liquid holding chambers of the burners.

Another important object of the present invention is to provide a deflooder for the burners of oil burning furnaces including a container, conduits connecting the container to the fluid holding chambers of the burners, and novel and improved valve means for simultaneously controlling the conduits.

A further object of the present invention is to provide an attachment for oil burning furnaces including an overflow container that is so designed as to facilitate the same to be quickly and readily emptied in a convenient manner.

A still further aim of the present invention is to provide a deflooder for oil burning furnaces that is simple and practical in construction, strong and reliable in use, durable and efficient in operation, small and compact in structure, relatively inexpensive to manufacture, and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a side elevational view showing the present invention applied to the burners of an oil burning furnace;

Figure 2 is a perspective view of the present invention removed from the twin burners of an oil burning furnace, and with parts thereof broken away and shown in section; and,

Figure 3 is a longitudinal vertical sectional view of the valve housing used in conjunction with the present invention.

Referring now to the drawings in detail, wherein for the purpose of illustration, there is disclosed a preferred embodiment of the present invention, the numeral 10 represents a conventional twin burner construction for an oil burning furnace generally. Each fuel holding chamber 12 of this burner construction is provided with a normal liquid level, however, frequently the quantity of fuel rises above the normal liquid level thus flooding the burners which results in fire hazard. It is, therefore, the principle object of this invention to provide an attachment for the burners that will receive the quantity of fuel

2

in the chambers 12 as the same rises above the liquid level of the said chambers, and which is employed for draining the chambers 12.

To accomplish the above desired results, there is provided a pair of supply pipes or conduits 14 and 16, the inner open ends 17 and 18 of which are fixed to the intake nipples 20 of the fuel holding chambers 12 for supplying fuel to the chambers.

Interposed in the conduits 14 and 16 are T-joints or sections 22 and 24, the lower depending legs 26 and 28 of which are connected to the upper ends of a pair of substantially vertical pipe sections 30 and 32. The lower free ends of these pipe sections 30 and 32 support elbow joints 34 and 36 which are coupled to substantially horizontal pipe sections 38 and 40.

The numeral 42 represents a four-way pipe section or valve housing generally, having an open ended horizontal passage 44 and an open ended vertical passage 46. Rotatably positioned in the vertical passage 46, is a barrel type valve 48 having a delivery opening 50 and opposed diametrically disposed inlet ports 52 that are adapted to communicate with the horizontal passage 44. The upper externally threaded end 54 of the housing 42 is provided with a packing gland or sealing cap 56 having an axial opening 58 that supports the stem portion 60 of the valve 48.

Removably coupled by nuts or the like 62 and 64 to the externally threaded ends 66 and 68 of the housing 42, are the free ends of the horizontal pipe sections 38 and 40. The lower externally threaded end 70 of the housing 42 is coupled by a nut 72 to an externally threaded nipple 74 integrally formed with an internally threaded cap 76. The cap 76 receivably engages the externally threaded open end 78 of a preferably transparent container or overflow receptacle 80.

In practical use of the present invention, the valve 48 is rotated by a hand grip 82 fixed on the stem portion 60, so that the opening 52 in the valve 48 will register with the passage 44, thus permitting the fuel in the chambers 12 to drain through the pipes 14 and 16 into the container 80. It should be noted, that the fuel normally passes from a gravity feed tank 85 through a supply pipe 87, a valve housing 90 connected to the conduits 14 and 16 and hence into the burners 12. Although a small quantity of the fuel will enter the pipe sections 30, 32, 38 and 40 none of the fuel will enter the container 80 since the valve 48 is in its closed position.

When the burners 12 are to be drained of fuel,

the valve operating lever 91 for the valve housing 89 is moved to its closed position and the valve 48 moved to its open position so that fuel in the burners and the portions of the conduits 14 and 16 between the burners and the container will drain into the container.

In view of the foregoing description taken in conjunction with the accompanying drawings, it is believed that a clear understanding of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and the scope of the appended claims.

Having described the invention, what is claimed as new is:

1. In an oil burning furnace, a pair of burners that are provided with fuel holding chambers including liquid levels, a supply tank, a main supply conduit leading from the tank, a pair of supply conduits branching from the main supply conduit and connected to the burners below the liquid levels of the chambers, a valve controlling the flow of fluid through the main supply conduit, T-sections interposed in each of said pair of conduits, each of said T-sections including a depending substantially vertical leg, a four-way pipe section including a substantially vertical portion and a substantially horizontal portion, further conduits connecting the horizontal portion of said four-way pipe section to the vertical legs of said T-sections, a container attached to and depending from the lower end of the said vertical portion, and a valve disposed in the said vertical portion for controlling the flow of fluid through the horizontal portion, said pair of supply conduits sloping downwardly from the burners and said four-way pipe section being located below the burners.

2. In an oil burning furnace, a pair of burners each having a liquid level, a fuel holding tank, a main conduit attached to and extending from the tank, a pair of vertically inclined pipe sections having upper and lower portions, the upper portions of said pipe sections being attached to the burners below the liquid levels of the burners, conduit means connecting the lower portions of the pipe sections to the main conduit for the supply of fuel from the tank to the burners, a valve forming part of the conduit means for controlling the flow of fuel through the conduit means, drain pipes attached to and depending from the pipe sections, a container disposed below said burners and also below the lower portion of said pipe sections, additional conduit means connecting said container to the drain pipes for the draining of fuel from the burners to the container, and a further valve controlling the flow of fuel through the additional conduit means and into the container, said first mentioned valve being closed and said further valve being open during the draining of fuel from the burners, and said first mentioned valve being open and said further valve being closed during the supply of fuel from the tank to the burners.

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