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SUPPORTING MEANS FOR LIQUID FUEL BURNERS

Original Filed Oct. 5, 1926

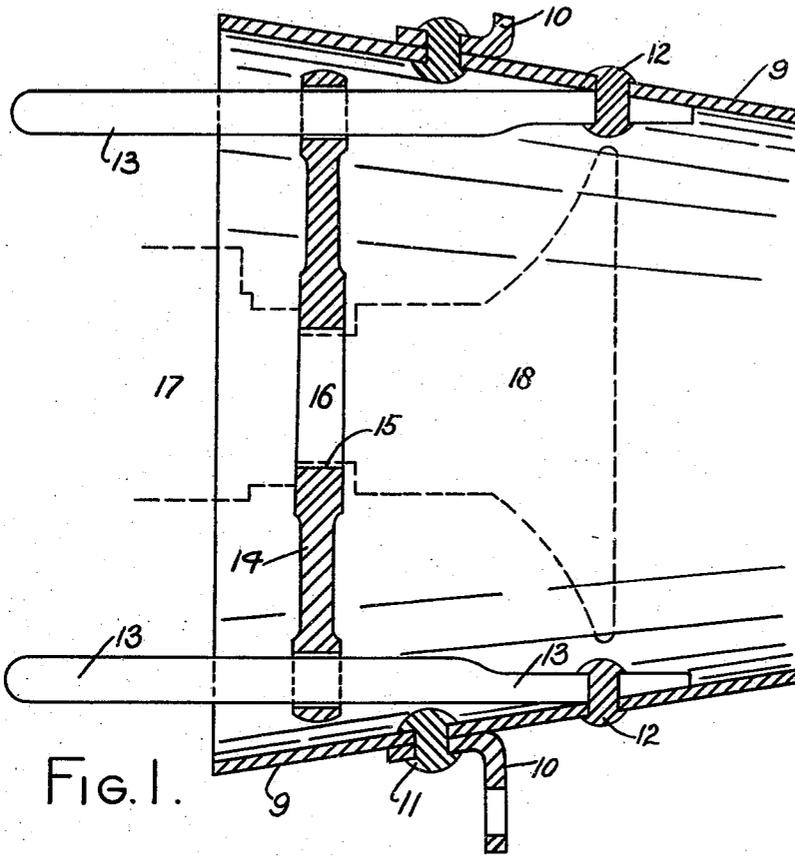


FIG. 1.

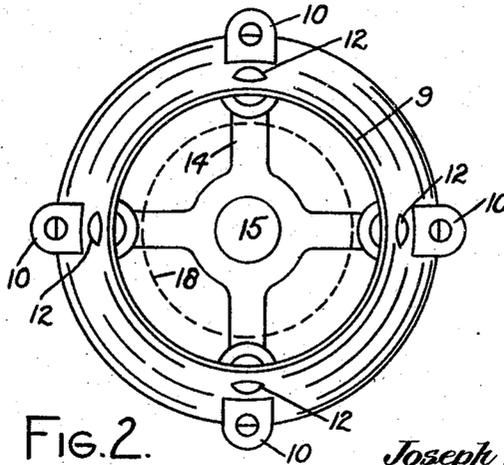


FIG. 2.

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SUPPORTING MEANS FOR LIQUID-FUEL BURNERS

Original application filed October 5, 1926, Serial No. 139,658, and in Australia November 5, 1925. Divided and this application filed November 10, 1927. Serial No. 232,438.

This invention relates to spray burners used for atomizing and projecting liquid fuel into furnaces and the like and has been specially devised in order to provide improved supporting means for liquid fuel burners where-
 5 by a burner is adjustably supported outwardly of and in the furnace mouth and is readily accessible for manipulation and may be adjusted, or advanced and retired in or upon
 10 said means, in relation thereto and to the furnace mouth in order to assist in regulation of the flame resulting from the atomized fuel projected from the burner.

The improved supporting means for liquid
 15 fuel burners comprise a frusto-conical flame concentrator and indraught guard affixable in the furnace mouth, arms secured thereto and within said guard and projecting outwardly and parallel to the axis thereof and
 20 a spider or brackets adapted to carry the burner and to be moved longitudinally upon said arms.

The invention herein described is a division of my copending application for U. S. Letters Patent filed October 5, 1926, and bearing
 25 Serial Number 139,658.

In order that the invention and practical applications of the same will be readily understood the same will be described with reference to the accompanying drawings in which:
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Figure 1 is a diametrical elevation of one arrangement of the improved supporting means for liquid fuel burners with the forward end of a burner shown in dotted lines,
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Figure 2 is a rear end elevation of the same.

Referring to the drawings a bell mouthed flame concentrator and indraught guard 9 which is affixable in the furnace mouth by lugs 10, fixed to said guard through rivets 11, has secured thereto by rivets 12 the inner ends of a plurality of spaced arms 13 which project beyond the mouth of the concentrator. A spider 14 having bores complementary to the arms 13 slides thereon and has a central bore
 45 15 in which the inner or forward end 16 of the burner 17, is positioned and secured by connecting thereon the bell mouthed flame deflector 18.

In use the burner is readily slidable longitudinally upon the arms in order to adjust

the position of the nozzle of the burner and the flame concentrator thereon in relation to the furnace mouth.

Having now fully described and ascertained my said invention and the manner in which it is to be performed I declare that what I claim is:—

1. A device for adjustably supporting a liquid fuel burner in a furnace mouth and regulating the indrawing of air to the furnace, comprising a frusto-conical flame concentrator and in-draught guard adapted to be affixed in the furnace mouth with its larger end portion extending out of the latter, arms mounted within said flame concentrator and in-draught guard and projecting outwardly and parallel to the axis thereof, and means free to slide upon said arms and adapted to receive and support the burner whereby the latter may be adjusted with respect to said flame concentrator and in-draught guard and said furnace mouth.

2. A device for adjustably supporting a liquid fuel burner in a furnace mouth and regulating the indrawing of air to the furnace comprising a frusto-conical flame concentrator and in-draught guard adapted to be affixed in the furnace mouth, with its larger end portion extending out of the latter, arms mounted within said flame concentrator and in-draught guard and projecting outwardly and parallel to the axis thereof, and a spider slidably mounted upon said arms and adapted to engage the forward end of the burner, whereby the latter may be adjusted with respect to said flame concentrator and in-draught guard and said furnace mouth.

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