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MOUNTING FOR OIL BURNERS

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This invention relates to improvements in mountings for oil burners and the like, and is particularly directed to a mounting for that type of oil burners which are mounted on the front of a furnace.

In mounting oil burners of this type it is customary to mount the boiler by bolting the same rigidly to the furnace front, or to mount the burner on hinges so that it can be swung sidewise out of and into operative position. In this hinged construction the side of the burner opposite the hinge is provided with a keeper or clamping bolt to secure the burner in operative position. In both of these types of burner mountings, however, considerable time and labor is required in installing the burner and in removing the same for replacement or repair.

One of the objects of the present invention is to provide a mounting for oil burners whereby the burner can be readily placed in position and readily removed for repair and replacement in the field.

A further object of the invention is to provide a mounting for oil burners in which the burner will be maintained by gravity in properly adjusted and securely closed position with respect to the furnace at all times.

A still further object of the invention is the provision of a mounting or support of the character indicated which can be readily adjusted for initial proper positioning of the burner with respect to the fire box.

In carrying out my invention I provide an adjustable supporting stand for the burner, which may be bolted to the furnace front or merely allowed to rest on the floor in front of the furnace or both. This support is provided at its upper end with one component of an open socket hinge adapted to receive the other hinge component carried by the burner housing whereby the burner may be hung or suspended from the support, all of which will be obvious from the following description and the accompanying drawing, in which:

Fig. 1 is a side elevation of a burner showing my improved mounting therefor; Fig. 2 is a plan view thereof; and Fig. 3 is a front elevational view of the mounting and burner.

Referring to the drawing in detail, 1 designates a support or stand having a horizontal triangular base 2 provided with upright posts 3 and 4 adjacent one end thereof and an adjusting screw 5 adjacent the opposite end or apex. This base carries a vertical wall or plate 6 which is provided with trunnions 7 and 8 adapted to receive the posts 3 and 4 respectively whereby the plate 6 may be adjusted vertically on initial installations. Bolts or screws 9 and 10 are provided in the trunnions 7 and 8 to maintain the plate 6 in adjusted position.

The plate 6 of the support or stand 1 is provided with an integral hollow flange or cylindrical member 11 for receiving the front or nozzle end of the burner when the burner is in position. The burner housing 12 is provided with a cylindrical shoulder or flange 13 slightly larger in diameter than the opening in the plate 6 defined by the flange 11 so that when the burner is in operative position this flange 13 will engage the plate 6 and surround the opening defined by the flange 11.

The upper edge of the plate 6 is provided with one component 13 of an open socket hinge. The plate 6 may be secured to the front of the furnace 14 by means of bolts 15, or if desired the support or stand may be merely allowed to rest on the floor in front of the furnace.

The housing 12 of the burner carries a projecting arm 16 adjacent the nozzle end N of the burner, which arm in turn carries a plate 17 adapted to be received by the open socket hinge member 13 carried by the support. Angular adjustment of the support or stand 1 may be accomplished before the plate is finally bolted to the furnace by means of the adjusting screw 5 carried by the base 2 of the support, the end of which screw is in contact with the floor of the boiler room.

In mounting a burner on a stand or support constructed in accordance with my invention it is merely necessary to pick up the burner, position the nozzle N of the burner in the cylindrical flange 11 of the plate 6 and place the pintle 17 in the open socket hinge member of the support and then allow the burner to swing down by gravity until the cylindrical shoulder 13 engages the vertical wall or plate 6, the burner being automatically maintained in this position by gravity.

When it is desired to remove the burner from the support it is merely necessary to raise the same to the dotted line position shown in Figure 1, whenupon the burner may be bodily removed or unhooked from the open socket hinge member.

After the burner has been placed on the stand, if it should be desired to adjust the same angularly to set the burner nozzle in proper relative position with respect to the fire box, it will merely be necessary to rotate the adjusting screw 5 in the desired direction.
While I have illustrated and described a preferred form of my invention, it is to be understood that various modifications may be made therein without departing from the spirit and scope of the invention.

What I claim is:

1. In oil burning apparatus the combination of a burner comprising a burner housing and burner nozzle, a fixed support, means pivotally mounting said burner directly on said fixed support at the front of a furnace with a nozzle of the burner extending into the combustion chamber of the furnace, said means comprising an open hinge, one component of which is mounted on said fixed support, the other being carried by the burner housing so that the burner may be swung about its pivot and be lifted bodily as a unit from said support and moved away from the furnace to withdraw the burner nozzle from said combustion chamber.

2. A device of the class described comprising a support having a base portion, vertically extending posts carried by said base portion, a vertically adjustable upwardly extending member carried by said posts, an open socket hinge, an oil burner comprising a housing, one component of said open hinge being carried by said upwardly extending member and the other component being carried by said housing to provide a pivotal mount for said oil burner and adapting the burner to be bodily lifted from said upwardly extending member, and means carried by the base for angularly adjusting the base and upwardly extending member simultaneously.

3. In combination a support adapted to be bolted to a furnace front and comprising a base member and an upright member, the upright member being provided with an open socket hinge member, a burner, a hinge member carried by said burner and adapted to be received by said open socket hinge member to suspend the burner therefrom, said burner being adjustable vertically with respect to said support and means for adjusting the support angularly relative to the furnace front.

4. In combination a furnace having a fire box, a burner, a support for said burner exterior of the furnace, said support being provided with one component of an open hinge, the burner being provided with the other component of said hinge, said support being adjustable vertically and means for adjusting the same angularly to properly position the burner with respect to said fire box.

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