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## How to Burn Soft Coal in the House Furnace

# WITHDRAWN



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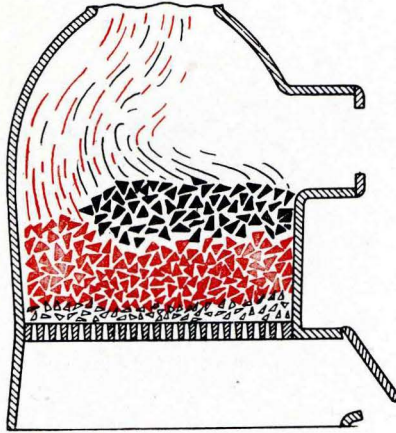
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## How to Burn Soft Coal in the House Furnace

A steady fire should be kept in the furnace when an even room temperature is desired. To keep a steady fire the furnace should be fired regularly.

In firing, the bed of live coal should never be covered entirely with fresh fuel. The fresh charge should be placed



After firing a fresh charge, air should be admitted through the firing door or air blast door to burn the gas

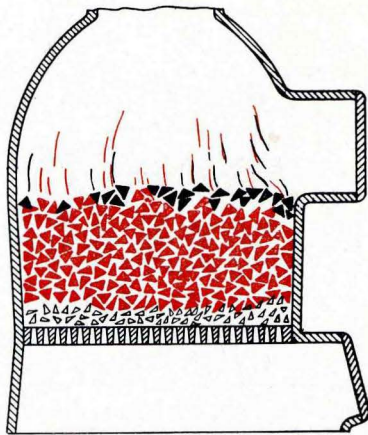
in front so that a small area of red coal is left uncovered at the back of the firepot. The gas from the fresh charge in passing over the red hot coal at the back, will be burned if enough air is admitted to the furnace. In order to admit the air required, right after firing, the fire door damper, or air blast door, should be opened for a short time. This damper should not be left open longer than necessary to burn the gas, or the furnace will be cooled off and heat wasted.



## AVOID OVER-HEATING

The fire should be checked by closing the ash pit damper to cut off the air through the fire and by opening the check damper in the pipe if necessary—not by opening the fire door or fire door damper. The fire should be checked before the house is quite warm enough, to prevent overheating and the necessity of opening windows to cool off the house. A great deal of fuel is wasted through overheating, which is entirely unnecessary if care is used.

If the water pan of the furnace is kept filled to supply moisture to the air, a temperature of 68 degrees is high enough for comfort.



Cold weather fire with shallow bed of ashes

## KEEP A THICK FIRE IN COLD WEATHER

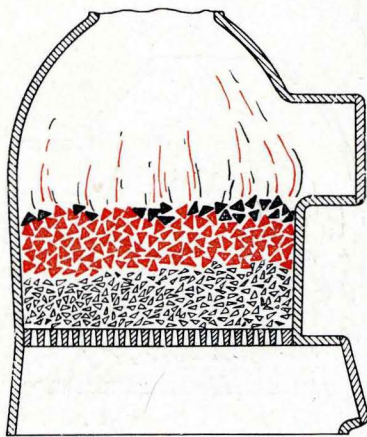
The thickness of the fire must be varied according to the weather. It is a good plan to keep the top of the fire as nearly level with the bottom of the firing door as possible at all times except in very mild weather. In mild weather ashes should be allowed to accumulate on top of (not under) the grates. In cold weather the fire should be well shaken and only a thin layer of ashes left on the grates, and if necessary, the fuel may be heaped above the level of the

bottom of the firing door. In other words, the thickness of the fire is to be varied chiefly by raising and lowering the bottom, and not by raising and lowering the top of the fuel bed.

If any considerable amount of coal or coke drops through the grates, this may be recovered by sifting the ashes, or it may be burned if the ashes are used for banking.

#### USE CARE IN FIRING FOR THE NIGHT

In firing for the night, the fresh charge should be placed on the fuel bed and the draft opened for a short time—five



Mild weather fire with deep bed of ashes

to fifteen minutes—then the check damper should be opened and the ash pit damper closed for the night. In this way, the gas is burned off and its heat utilized. This heat would be lost if the furnace were closed at once after firing. In order to handle a fire in this way, the furnace must be tight. A furnace with loose fitting doors and dampers will admit so much air that the fire cannot be effectually checked, after once being started. Sometimes it is desirable in mild weather to bank or cover the fire with ashes to keep it over night. With some coals, this cannot be done on account of excessive clinkering.



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