

# Know heating facts and avoid accidents

Some valuable information on the subject of oil heating plants is set forth in a large, heavy gauge steel tank located completely outside the burner. The oil is fed from this through piping to the burner always under full regulation of the electric controls which shut it off at any time there is a malfunction.

## TWO BASIC FACTORS

The basic factors in a home heating plant accident are: (1) the type of heating equipment which is used; (2) the type of heating equipment which is installed.

Since it is a relatively safe type of oil used in the home since it is non-explosive, non-toxic and in its inert state, non-inflammable. Heating oil (No. 2 fuel oil) is distinct from other types of oil used in the home—and it is particularly different in the type of equipment in which it is burned. Heating oil (No. 2 fuel oil) is always burned in a central heating plant consisting of automatic equipment regulated by electric controls. This is the type of heating installed in the majority of homes and particularly in the northern half of the country where full heating is required. It is the type commonly understood when the term "oil-heating" is used.

## EQUIPMENT USED

Central oil heating has high relative safety. The following summarizes the technical reasons for this:

Central oil heating consists of an automatically operated heating plant with three full groups of electric controls.

It manufactures heat by atomizing liquid fuel—breaking it up into particles and mixing it with air—within a completely enclosed metal combustion chamber. This is lined with firebrick or similar material.

Combustion occurs in the balanced oil-air mixture is ignited by a controlled electric spark.

This regulated heat in the fire chamber is transferred through special surfaces (in every direct contact) to one of three transistor heat-carrying mediums. These are warm air, hot water or steam—they are carried to the radiators or fins or pipes through the

## Repairing oil burners job for experts only

Build a backyard barbecue if you must—but don't tinker with heating equipment unless you know what you're doing.

That's the advice of one of the largest oil heating equipment manufacturers in the country. Probing a furnace or boiler outside of a professional's hands is a fool-yourself project for the average householder, the company believes.

"Such repairs or replacements should be left to the qualified serviceman who's been trained to the job correctly. Your enthusiasm should be confined to putting the complaints down on paper. This will be of considerable help to the expert you should call in to do the work since it simplifies his diagnosis."

Here are the company's suggestions on items that should be checked or changed before winter sets in.

Furnaces: The entire unit should have a general overhauling, cleaning (including flues) and replacement of parts where necessary. Have the chimneys and around the doors flues. Order a new supply of oil to be ready for use when needed.

Automatic controls: The thermostat should be in perfect working order. It may be out of adjustment at what time it may be out of adjustment, in which case it should be replaced with a modern model. If your home is long and rambling you may require more than one unit to keep each section or zone warm.

There are new electronic types that include a thermostat outside the house that works with another interior unit to anticipate weather changes and signals for more or less heat while the weather is still coming.

Heat outlets: Radiators and vents must be clean to give good performance. Depending

## Built-in cop safety aid

Every modern oil furnace installation has a built-in fire trap to give you safety. They call it the combination control, and unless all cooling air through your furnace won't operate.

These are some of the things a combination control does: Its sensitive thermostatic elements and delicate switching devices.

If there is no oil in the tank to burn, the control shuts off the burner and locks it off on a safety switch which must be reset manually before the burner can again be started.

If there is oil but no ignition to light the flame, the burner will be locked off on safety.

If during burner operation, the flow of oil should suddenly be turned off, the control again locks the burner off so that the burner will not permit the burner to resume operation for two or three minutes. Time for the flues to clear the furnace of any combustible gases.

If during the burner operation the flame should go out for a short period of time, the control shuts down the burner and locks it off on safety.

If the valves should drop to point that might cause damage to the motor and create a hazard this control shuts off the burner.

Albert L. Thomas Petroleum Products Grafton St. East

dial 4-6610

## Thermostat child of Scot chemist

An obscure Scottish chemist named Andrew Ure was the first person to describe the function of the device now known to most householders as the thermostat and give it its name.

In 1811—long before oil furnaces—Ure wrote a paper for the August Royal Society. In it, he described the thermostat or heat governor as a bi-metal device of zinc alloyed with copper and tin combined with steel. It would, he said, regulate dampers and drafts.

In 1863, Al Butz, a Minneapolis inventor, made a practical application of the idea that was soon used in some heating plants. He launched a little enterprise that is now one of the largest of its kind in the world.

## TO START BURNER—KICK IT

# Light moments in salesman's life

Oil furnace servicemen, who are now moving into their busiest season, have their light—and sad—moments. When the old, experienced hand is called to a home, the first thing he checks is the valve on the end of the oil tank. And, some of them claim it's simply remarkable how often that valve has been turned off. People with children should look at the valve first thing of all if they run into difficulties. The kids love to turn that little wheel," one oldtimer reported.

There are times, however, when even a serviceman has his troubles. For instance: One serviceman while

travelling, decided to stop overnight at a motel near Toronto. As he was registering the woman operator inquired as to his business. He told her he was "in oil heating," and she promptly asked if he could help with a problem.

She explained her oil burner sometimes failed to start when heat was required and the man who installed it had been unable to find the trouble. Always the burner was off on safety, and frequently—but not always—would start when the reset button was pushed.

When the burner failed to start when reset, she said, she

sent for the serviceman who removed the burner head, cleaned the nozzle and checked the ignition—all standard operating procedure. After this the burner usually started.

One night the burner locked out and resetting failed to start it. Irritated at the prospect of paying for another service call, the woman kicked the burner. It started immediately. Since then, she went on, whenever the burner locked out she pushed the reset button and pushed the burner. It always responded.

When she said the practice was not only hard on the burner—but often the place got pretty cool before she noticed the burner

wasn't operating. Investigation revealed there was a defective starting switch in the oil burner motor. Split phase motors are used on high-pressure type oil burners. They have special starting coils and can start only when this coil is in the circuit. When the motor comes up to speed the starting coil is disconnected by a centrifugal switch built in the motor. Occasionally the starting switch may develop a defect so that it does not readily return to starting position. When this happens a slight jer such as would be caused by working on the burner—or kicking it—will cause the

switch contact to close and start the burner. The remedy is to replace the motor or take it to a repair shop to have starting switch fixed.

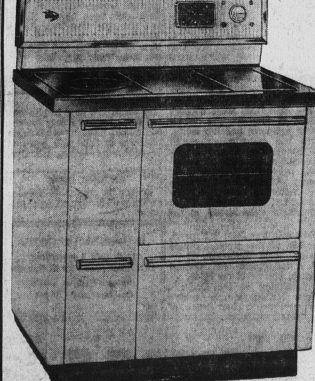
NO DETERRENT  
An expensive home is no deterrent. With more than 100 multiple-death tragedies took place in homes which would be classed as "modest" or sub-standard, 30 per cent were valued at \$10,000 or more, a d about 13 per cent were worth \$2,000 or more.

# STEWART & BECK ... MONTAGUE P. E. I.

# FAWCETT

# With a Complete Line of Ranges, Furnaces and Oil Heating Equipment

## TORRID-OIL RANGE



Brighten your kitchen, set the temperature you desire with the fingertip oven controls. It's just as simple as that with one of these Torrid-Oil Custom deluxe ranges. This beautiful range has a picture frame backguard with frosted glass, with full length fluorescent light, electric clock and four hour minute minder.

Regular 359.95  
**319.44**  
Only 12.00 Per Month

Complete Forced Warm Air Heating System

You can enjoy the carefree comfort of automatic oil heating at less cost than you think: 85,000 B.T.U. furnace, filter, automatic controls, draft regulator, air filter, automatic humidifier, ducts, diffusers and grills, 200 gal. tank and accessories. Installed complete including wiring.

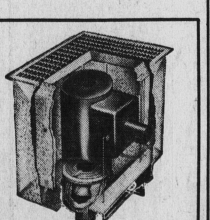
For Only **629.50**  
Payments as low as 11.00 Monthly

EXTRA SPECIAL For 10 DAYS ONLY

Fawcett FLOOR FURNACE

Installed with 200 gal. oil storage tank. FACTORY SPECIAL

For **259.95**



Fawcett MULTI-FUEL RANGE

IT'S an Oil Range—IT'S a Coal Range—IT'S a Wood Range

This Range is finished with deluxe enamelling, backguard with minute minder and large 17" wide enameled oven. If you are looking for a range that burns all fuels mentioned, this is the one you should own in your home.

Reg. 289.95 NOW **259.54**  
Only 10.00 Monthly—Not Installed

Fawcett Fully Automatic Oil PIPELESS FURNACE

This new Pipeless Furnace will allow you to set the room thermostat to a comfortable temperature. Equipment includes 65,000 B.T.U. furnace, Fawcett torrid oil gun-type oil burner, Automatic Controls, draft regulator, 200 gal. tank and accessories installed. Complete with wiring for only...

**467.95**  
As low as 8.00 Monthly

For The Handy Man who wishes to install his own HEATING PLANT

Fawcett Warm Air Heating Pre-Fab Duct Work, Fittings and Pipe—also return air Wall and Floor Grills, Ceiling-Wall or Floor Diffusers (register) are available at STEWART & BECK'S. Any size Oil, Coal or Wood Furnace required.

ENGINEERING SERVICE

Send us a plan of your home or building requiring heat and we shall be happy to mail you a quotation on size of furnace required and a price on all material. Or make a rough sketch of your home, showing windows (size), doors, flues, etc. etc. The comfort and convenience of Modern Warm Air Heating may be enjoyed at very reasonable cost.

We have in stock several FAWCETT used wood and coal furnaces that have been completely reconditioned and are available at reasonable prices.

Your Fawcett Dealer in Montague

# STEWART & BECK

MONTAGUE, P. E. I. PHONE 37