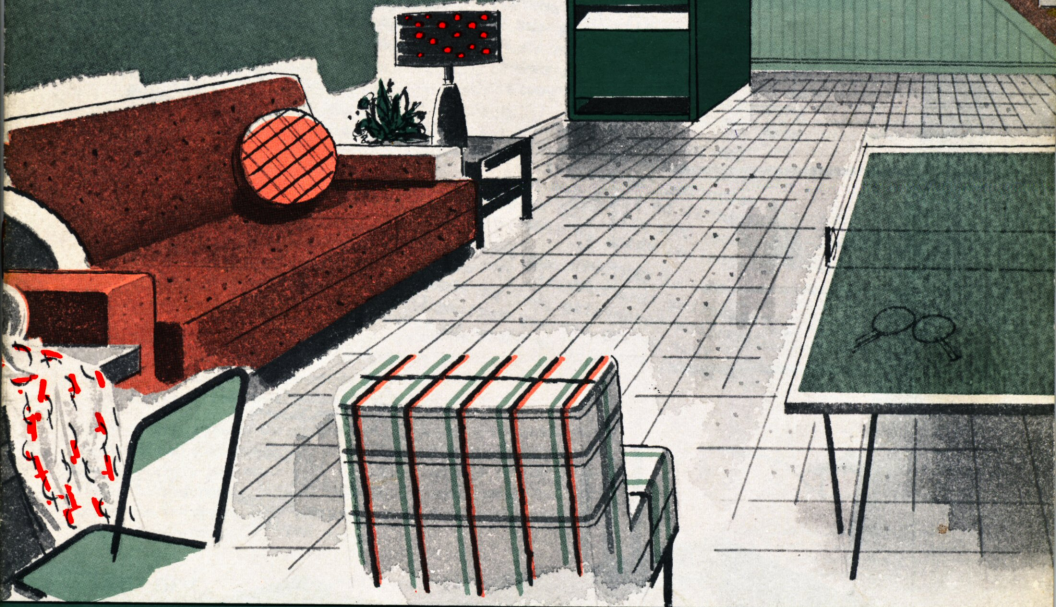


# Home Owner's Guide to Better Indoor Living

THROUGH BETTER HEATING AND COOLING



**Century**  
CEDAR RAPIDS, IOWA

**CENTURY ENGINEERING CORPORATION**  
Heating and Air Conditioning Division, Cedar Rapids, Iowa

# ... an open letter to homeowners

E. J. LATTNER

president

# GENTURY

Engineering Corporation



MAIN OFFICE AND FACTORY  
CEDAR RAPIDS, IOWA  
TELEPHONE 4-4101

Dear Homeowner:

Choosing a heating system for your home is an investment that can bring you years of economical comfort and enjoyment—providing you make the proper selection. This decision should be made only after you thoroughly understand the various types of heating systems and the job that each is designed to perform.

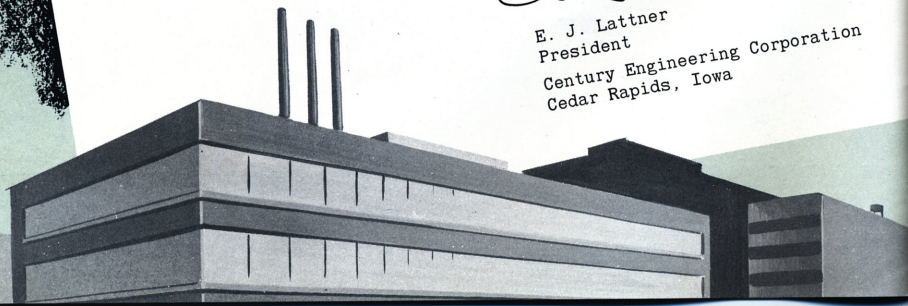
While you may be able to use almost any type of heating, certain systems will not prove as practicable as others. Your objective is to determine the exact type of heating system that will do the most efficient job in your size and style of home. Accomplish this, and the pleasure of economical, worry-free, home-heating comfort is yours, forever.

The purpose of this booklet is to bring you a better understanding of the various heating principles and systems to help you in selecting the heating system that is best suited to your needs. Whether it be for a new home, or the replacement of your present furnace, you will find many helpful facts on the following pages... information which we trust will help you to reach a decision.

We, at CENTURY, appreciate the interest you have shown by requesting this booklet. If, after reading it, you have further questions concerning your particular heating needs, we invite you to call your nearby Century Heating Dealer. He is a qualified heating specialist who will be happy to answer your specific questions.

Cordially,

E. J. Lattner  
President  
Century Engineering Corporation  
Cedar Rapids, Iowa



# keep year 'round comfort in mind when building your new home . . .

## LET YOUR "CLIMATE" BE YOUR GUIDE

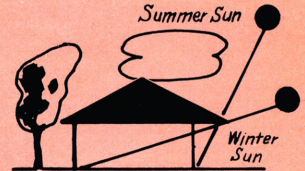
Put the best qualities of your climate to work for you. It can help you enjoy year 'round comfort and save you many dollars as well. There are different climates in different neighborhoods—even in the same town. In nearly every community you will find "hot spots" and "frost hollows," windy hills and sunny slopes . . . different "climates" that can make a big difference in the comfort you'll enjoy.

Here are a few things to consider when planning your home:

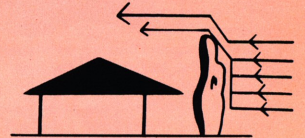
1. **WHERE** you live, geographically, determines to a large degree the amount of heating and cooling you will need. In Southern states, where only a small amount of heat is needed during the year, a much smaller heating unit is required than in the Northern states where more heat is needed during a greater portion of the year. Conversely, in the South more cooling is needed for more months of the year than in the North.
2. The **SIZE** of your home, the materials from which it is built, and its construction details are important factors. The amount and type of insulation used also have a marked influence on heat transference . . . keeping it inside in the Winter and outside in the Summer. Large windows and glass areas should be placed to take advantage of the Winter sunshine, since in the Temperate Zone (most of the U.S.), the midday sun is  $45^\circ$  lower in the sky—shining through the windows to help heat the house. For more effective cooling, an overhang or wide eaves will prevent the summer sun from heating these glass areas.
3. A house protected from prevailing Winter winds by a windbreak of trees, a hill, or by other buildings, is easier to heat than an unprotected house. Since cold air is heavier than warm air, valleys and low areas are subject to lower temperatures—especially at night. Aside from the wind, a house located on top of a hill is slightly warmer than one placed in a valley.
4. The "lay of the land" also makes a big difference. If your building site slopes—even slightly—toward the South, you'll find the seasons tend to flow smoothly into one another . . . Spring comes sooner . . . Fall lasts longer . . . and Winter days are less cold.

These are only a few of the climate-wise suggestions that can add to the enjoyment and economy of your home. Your architect and building contractor can give you many more suggestions on how to harness your climate to your needs. Without hesitation or compromise, our nearby dealer can install the exact size and type of equipment to meet your specific requirements.

**STUDY YOUR "CLIMATE" . . . PUT IT TO WORK FOR YOU . . .  
TO INCREASE YOUR YEAR 'ROUND COMFORT AT LESS COST**



The noonday sun is  $45^\circ$  higher in the sky in mid-summer than it is in mid-winter. By placing your large windows to the South you will capture more heat from the sun in the winter months. Wide eaves or an overhang protecting these glass areas in the summer will lower your summertime cooling costs.



A completely insulated house—having windows either of insulated glass or protected by storm sash during the winter months—is more comfortable the year 'round. Heating costs are less in winter and summer cooling is more economical. Light-colored roof and walls also help reflect sunlight to lower summer cooling costs.



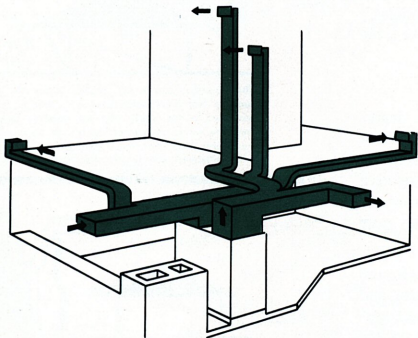
Especially at night, cold air—being heavier than warm air—tends to move downhill and remain in valleys and on lower ground levels. A home located in one of these "frost hollows" will require more fuel to keep comfortable during the winter months.



A sunny southern slope absorbs more of the sun's rays and tends to "smooth out" the seasons. A lot that slopes to the North tends to exaggerate them and increase winter heating costs. A house protected from Winter winds by a hill or windbreak of trees costs less to heat than an unprotected one.



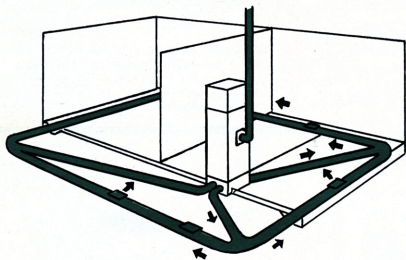
## Plan for year 'round comfort when you choose your heating equipment



### A CONVENTIONAL OR PERIMETER FORCED AIR INSTALLATION MAKES SUMMER AIR CONDITIONING EASY AND ECONOMICAL

Whether you plan to install summer cooling equipment at the time you build your home or to add it later on, either of these types of forced air heating systems will lower your costs of year 'round air conditioning. In fact, with a forced air heating system, your summer air conditioning is over half installed, since the same air inlets and outlets, ducts, filters and blower will serve for both.

**Conventional Forced Air** is adapted to larger homes and houses with or without a basement. The unit does not need to be centrally located since the air circulation is maintained by a fan or blower. This fan draws off the cooler air from the rooms through return air intakes and ducts, passes it through a filter and heat exchanger. Here it absorbs heat and passes on through warm air ducts and/or rises to the room outlets—which may be located in the ceiling, low or high in the walls, in the baseboard, or in the floor. Since positive circulation is maintained by the blower, air ducts can be as long or as short as required by your floor plan and the arrangement of your rooms.



**Perimeter Forced Air** heating can be used in homes having a slab floor, crawl space or basement. This method is similar to conventional forced air except the outlets are placed around the outside walls (perimeter) of the house with floor registers located under windows and glass areas. This method blankets the outside walls—the source of cold—with warm air. The return air intakes are located on the inside walls. The heating unit is the same as with conventional forced air.

By far, the majority of all new homes in the U.S. use forced air to provide winter air conditioning comfort during the months when heat is required. Primarily a four-step process, these systems provide for—(1) heating the air by oil or gas, (2) cleansing it, (3) moistening it, and (4) distributing it evenly throughout the living area of all styles of homes. All of this process is controlled—automatically—to provide the utmost in effortless, trouble-free comfort.

Now, with summer air conditioning practical for homes of every size, it is even more important to include this feature in present or future plans. Because of the economy of installation and efficiency of operation, forced air winter air conditioning is the logical choice for low-cost year 'round comfort.



## Why you should choose a "combination" unit



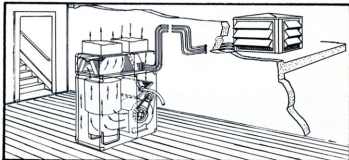
### ENJOY MODERN, ECONOMICAL WINTER AIR CONDITIONING NOW

The newest development in providing the utmost comfort for winter and summer living, is the new "combination" unit that is engineered to provide both summer and winter air conditioning. This unit is installed when you are building your home. It may be put in with complete equipment for both summer and winter comfort . . . or, with only the equipment necessary to provide winter air conditioning for the present—with summer cooling equipment to be installed at a later date.

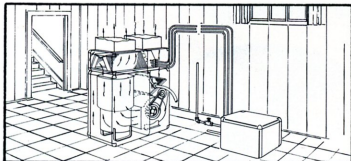
The "combination" unit is designed so that this summer comfort for every room in your home may be added without expensive changes in duct work or air inlets and outlets. In fact, no changes need to be made in the living areas of your home . . . even the thermostat that controls the temperatures you desire doesn't have to be replaced. When you install a "combination" unit, the shell or case for the summer cooling equipment is put in place along with the "year 'round" thermostat. This portion of the equipment costs less than an average window or door, and does not affect the efficiency of the system when in use as a winter air conditioner.

### ADD EFFICIENT SUMMER COOLING ANYTIME YOU WANT

#### AIR-COOLED INSTALLATION



#### WATER-COOLED INSTALLATION



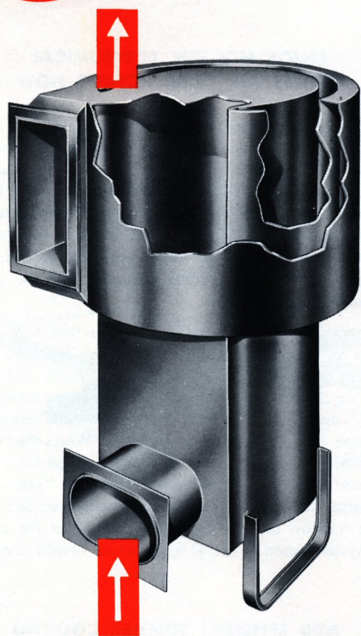
When summer air conditioning is added at a later date, the cooling coil is placed in its shell or case which you had installed at the time your house was built. Then, a detached compressor and condenser—that supplies the refrigeration—is connected to the cooling coil, and the "summer weather" portion of the "year 'round" thermostat is wired to it to control its operation. That is all there is to it. Every room in your home is kept delightfully cool—automatically—at any temperature you select.

The same filters and blower that are used for winter air conditioning keep this cool air clean and in motion. The summer cooling unit not only cools the air but also removes the excessive humidity. A detached compressor unit also assures quiet operation of the unit.

For greatest economy of operation, this warm weather air conditioning should be available with a choice of two types of compressors—air-cooled and water-cooled—so as to provide the home owner with the greatest possible efficiency at the lowest costs. For in many localities it is impractical to use a water-cooled unit due to excessive costs or limited supply.

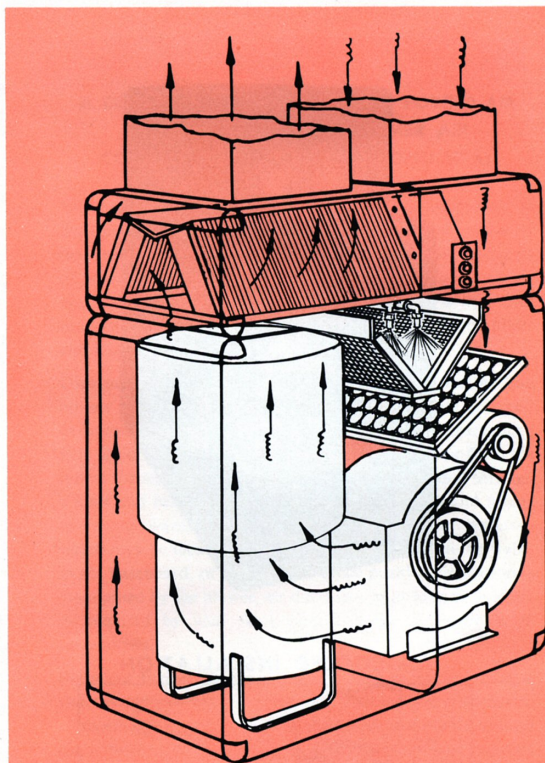


## Here's how CENTURY "Combination" systems

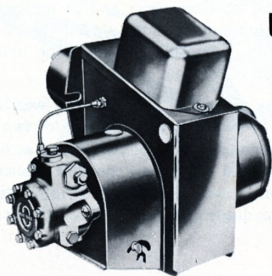


### • BROUGHT TO THE DESIRED TEMPERATURE IN THE EXCLUSIVE CRESCENT SUPERHEATER

Transferring the maximum amount of heat from your fuel to the living areas of your home is of vital importance to satisfactory winter air conditioning. In order to get the most heat from every dollar of fuel, this special "Superheater" has been developed. It provides three complete heating surfaces instead of the usual one. These extra surfaces extract the maximum of heat. Hot gases are forced to travel longer distances before entering the flue . . . All corners and dead "fuel spots" are eliminated. All combine to give you the ultimate for your fuel dollar.

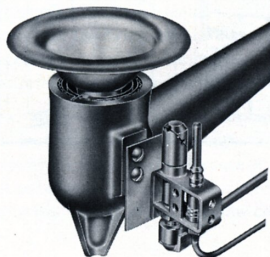


## Using the Fuel that is most economical



### OIL

When using this fuel, quiet operation of the burner is of primary importance. This new burner provides a "hushed" flame instead of a blowtorch roar. Efficiency has been "engineered in" . . . and trouble-causing parts have been eliminated by a new simplified design. Correct alignment of moving parts minimizes noise. Fully approved by Underwriters' Laboratories, Inc.



### GAS

In many localities this fuel is available at most economical rates. This new burner, designed for utmost efficiency and low-cost operation, assures proper combustion through a proper mixture of gas and air. Starts smoothly and operates quietly because of stabilized flame. All of our gas furnaces carry the American Gas Association seal of approval.

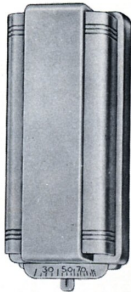
# provide ideal indoor climate for **Winter** living...

## • AIR IS DRAWN FROM YOUR LIVING AREAS.....

**Choose**... the degree of humidity you prefer...

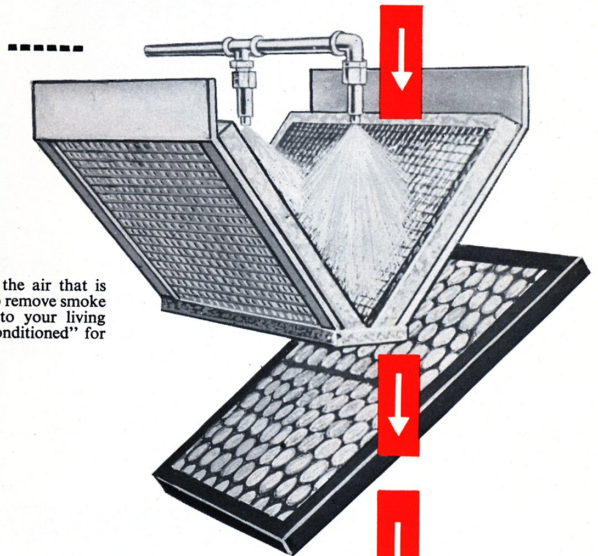
**Set**... the living room Humidistat...

**Forget It.** That degree of humidity will be maintained automatically all winter long.



## • WASHED AND HUMIDIFIED

For ideal warm air comfort with Winter air conditioning, this air should be thoroughly cleaned and the proper amount of moisture added before it is heated and returned to your living areas. This new "Air Purifier" is now available to do this automatically... permits you to control the exact degree of humidity in your home by simply setting a "Humidistat." Water is automatically sprayed through the air returning to the heating chamber whenever moisture is called for by the Humidistat... giving you the exact degree of humidity you desire.

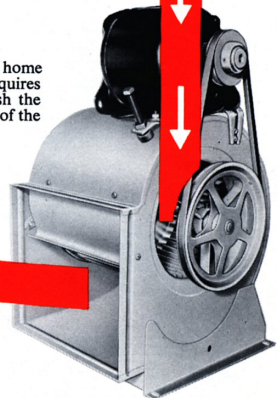


## • FILTERED AND PURIFIED

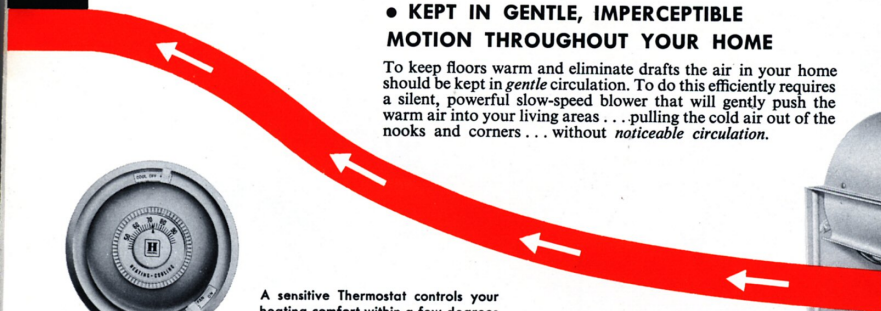
Special filters remove all dust and dirt from the air that is being returned to be re-heated. These filters also remove smoke and pollens so that the heated air returns to your living areas clean and free of staleness... Truly "conditioned" for more healthful living.

## • KEPT IN GENTLE, IMPERCEPTIBLE MOTION THROUGHOUT YOUR HOME

To keep floors warm and eliminate drafts the air in your home should be kept in *gentle* circulation. To do this efficiently requires a silent, powerful slow-speed blower that will gently push the warm air into your living areas... pulling the cold air out of the nooks and corners... without *noticeable* circulation.

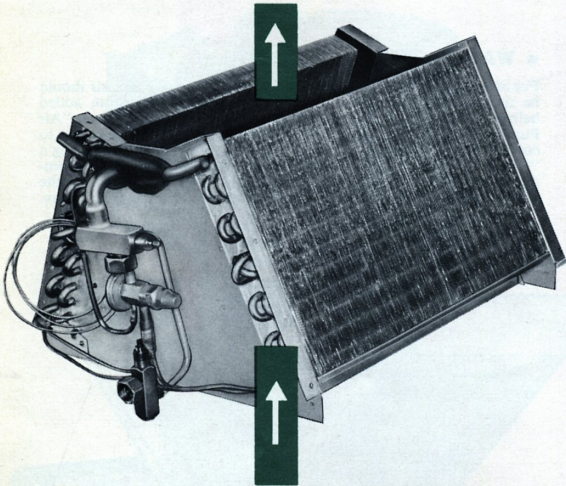


A sensitive Thermostat controls your heating comfort within a few degrees of the temperature you desire. Once you set it you can forget it, because the heat is regulated to flow evenly and maintain the temperature you have set on the thermostat.



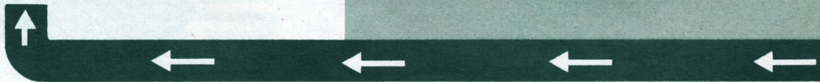
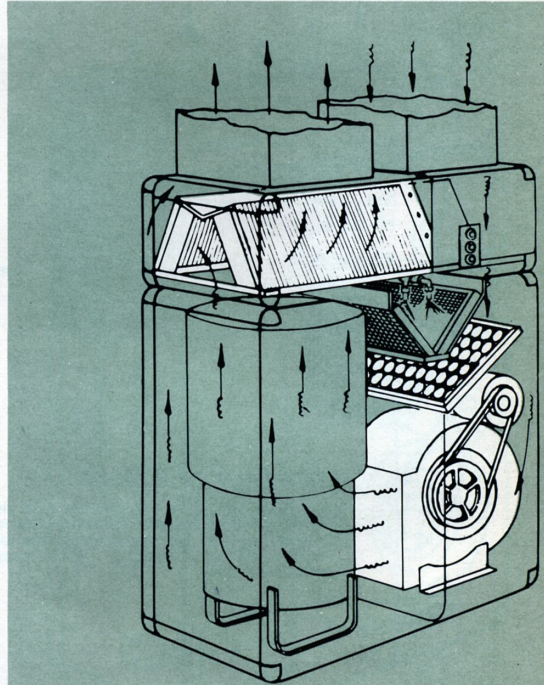


## Here's how CENTURY "Combination" systems



### • AIR IS COOLED AS IT PASSES THROUGH THIS EFFICIENT COIL . . .

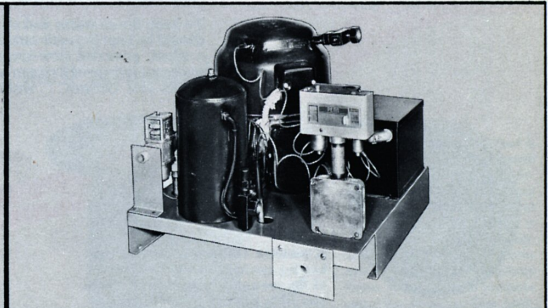
Connected by refrigerant tubes to either an air-cooled or water-cooled condenser-compressor unit, this "A" cooling coil removes excess humidity and heat from the air passing through. Since the air is not cooled until it is already past the heat exchanger, the danger of rust-making condensation is eliminated. Remote location of the compressor-condenser unit assures quiet operation without noticeable vibration.



### Use whichever Condenser is most economical to operate



Remote Unit (with casing and rain shields removed) containing sealed compressor, control panel and AIR-COOLED Condenser.

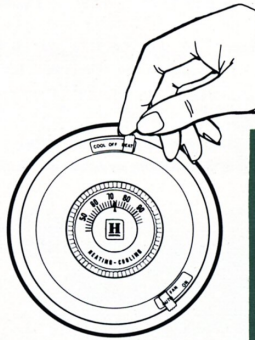


Remote Unit (with casing removed) containing sealed compressor, control panel and WATER-COOLED Condenser.



provide ideal indoor climate for Summer living ...

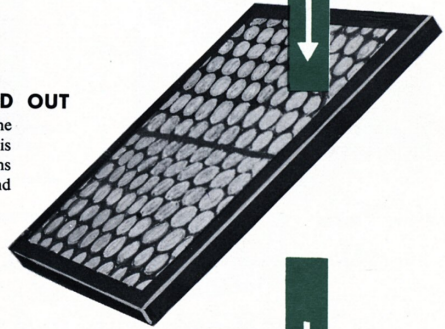
- CHANGE FROM HEATING TO COOLING BY MERELY SETTING THE THERMOSTAT



- WARM AIR IS DRAWN FROM YOUR LIVING AREA

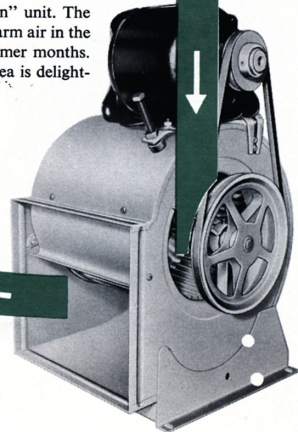
- SUMMER DIRT AND DUST ARE FILTERED OUT

The same filters that cleanse the air in your home during the winter months, are used when your "combination" unit is providing your summer air conditioning. Dust, dirt and pollens are removed ... lightening household cleaning chores and providing increased comfort.



- THE FLOW OF COOL, CLEAN AIR IS MAINTAINED BY THIS QUIET BLOWER

Here again is another economy of the "combination" unit. The same quiet, smooth-running blower that circulates warm air in the winter keeps your entire home cool during the summer months. Not just one or two rooms, but your entire living area is delightfully cooled by this draft-free movement of air.



The "year 'round" thermostat controls both the winter and summer air conditioning in your home. The "combination" unit provides the temperature you select—automatically. All you do is set the thermostat.

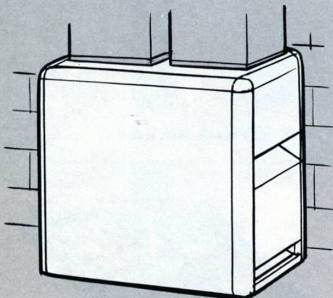


## There are CENTURY systems for all **Styles** of homes . . .

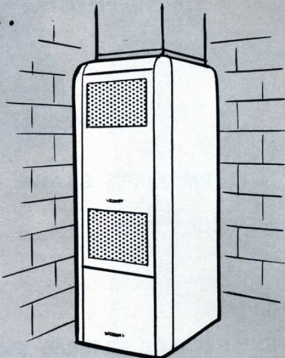
Here is equipment that will provide you with wonderful comfort tailored for your home. Designed for all styles of architecture, these units are housed in compact, modern cabinets, that will compliment any home. The attractive baked enamel surface resists mars and scratches, and is as easy to keep clean and sparkling as your stove and refrigerator.

Adaptable to all kinds of installations, you can count on this equipment to provide you with the utmost in comfort throughout your home. All of the styles pictured here (with the exception of the Gravity) are available as "Combination" Units for year 'round air conditioning.

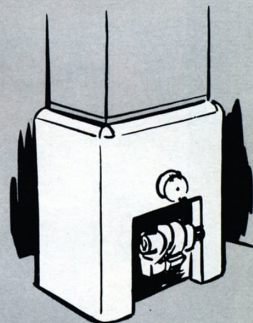
### for homes with a basement . . .



**LOBOY**—Trim, compact and space-saving. Designed especially for basement installation.

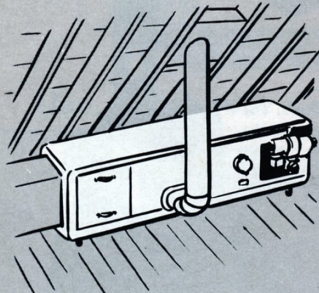


**UTILITY**—Designed for small-space basement installation. In houses with no basement, it can be installed in the utility room or other areas on the main floor.

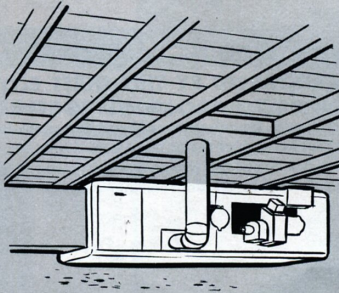


**GRAVITY**—Designed for basement installation. In houses with no basement, this unit can be used successfully in small, compact homes. Centrally located, it will circulate warm air evenly through the whole house.

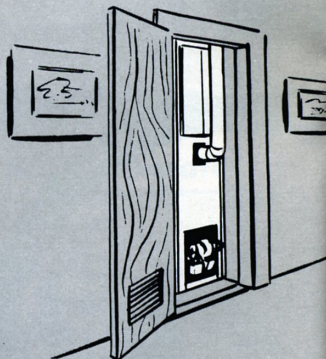
### for homes with no basements . . .



**HORIZONTAL**—If you are pressed for floor space, here's the heating system for you! The HORIZONTAL Unit doesn't take a single inch of floor space. It is designed for ceiling



suspension in crawl spaces, or for attic installation. Gives safe, dependable heating that is out of sight and mind.



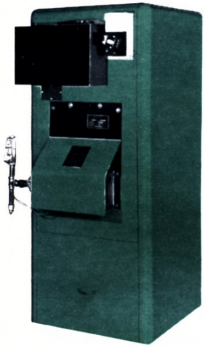
**COUNTERFLOW**—Permits installations in out of the way areas—closets, utility rooms or alcoves . . . guarantee perfect perimeter warm air heating and are approved by the American Gas Association for installation flush with walls and on combustible floors!

# The Size and construction of your home determines the size of model to choose

Although one particular heating unit will fit several identical styles of home architecture, the unit you select must match the size of your home and its exact heating requirements. Too large a unit is too expensive to buy and operate... too small a unit will operate too much for maximum efficiency. You can select from over fifty sizes and models to match

your specific heating requirements.

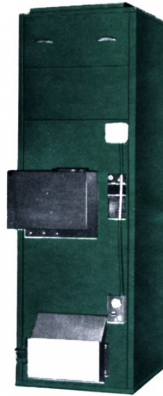
The installation you get will be pre-planned and accomplished by our Dealer who is a craftsman in his profession. Regulations and adjustments will be made accurately and expertly to give you all of the comfort and operating efficiency that is built into this equipment.



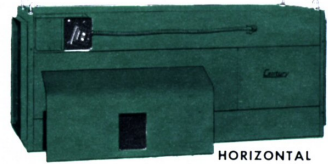
**FACTORY ASSEMBLED  
UTILITY—Series B**



**FACTORY ASSEMBLED  
UTILITY—Series C**



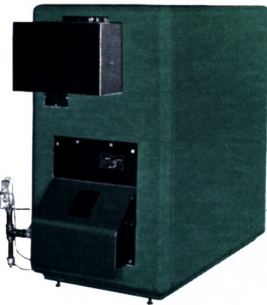
**COUNTERFLOW**



**HORIZONTAL**



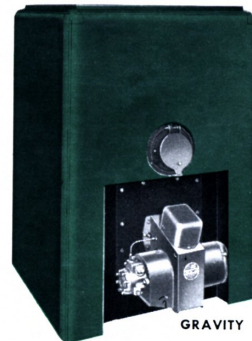
**LARGE RESIDENCE**



**FACTORY ASSEMBLED  
LOBBY—Series B**



**FACTORY ASSEMBLED  
LOBBY—Series C**



**GRAVITY**



## In your present home, a little improvement can mean a lot of added comfort . . .



If you're planning to remodel, there are many ways for you to gain "climate-wise" benefits for your present home. Consult your architect or building contractor for suggestions.

There are also many short-cuts to greater comfort and fuel savings that every homeowner should consider . . . Here are a few of the more important of these short-cuts.

**WINDOWS AND DOORS**—Anything that opens—becomes an easy target for outside air even when it's closed. Weatherstripping, storm doors and sash, or insulated glass on your windows and doors helps hold in the heat and eliminate drafts.

**STORM WINDOWS**—help to cut heat loss considerably. Be sure yours fit tightly. Any small crack or opening means a steady loss of heat.

**WINDOW LOCKS**—If your window locks aren't closing the windows as tightly as they should, change their position to eliminate cracks that let in cold air and drafts.

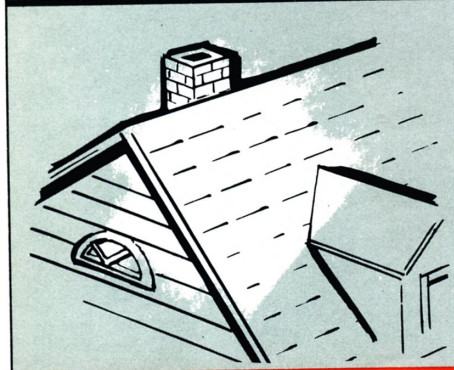
**INSULATION**—over the ceiling of the upper rooms in your home is a wonderful low-cost investment to insure winter fuel savings and summer coolness.

**SIDE-WALL INSULATION**—The side walls of your home can also be insulated in several different ways to give you year around comfort and greater fuel savings.

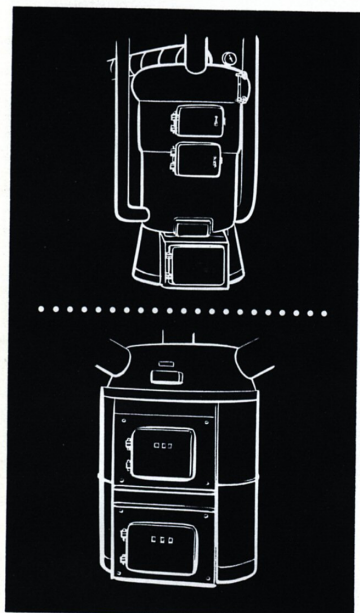
**HOW TALL IS YOUR CHIMNEY?**—If it isn't at least three feet higher than the roof peak or nearby obstructions, it won't produce enough draft for your heating plant and will waste fuel.

**DOWNDRAFTS**—Trees and buildings too close to your chimney can cause trouble from wind action such as downdrafts. Be sure to trim all branches near your chimney.

**INSPECT YOUR CHIMNEY**—Fuel can also be wasted by air leakage into the chimney through cracks, a loose cleanout door or badly fitted thimble. These are but a few of the dozens of easy-to-check improvements that bring you greater comfort and economy. They may or may not apply to your house. Our nearby Dealer will be glad to advise you of the specific improvements you can make.

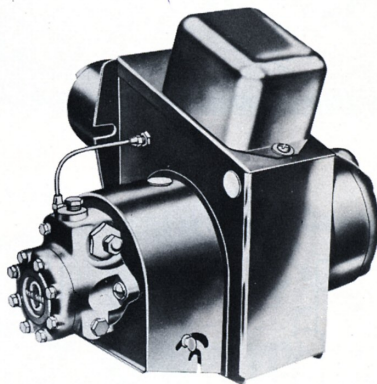
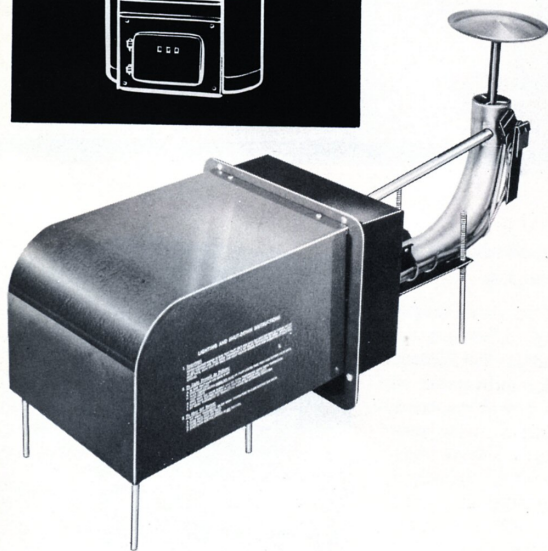


## It's easy to convert your present Furnace or Boiler to automatic heating with a CENTURY gas or oil conversion burner...



Your present furnace or boiler can be converted to automatic gas or oil heat simply and inexpensively. Lets you enjoy all the trouble-free comfort of automatic heat from your present furnace. If you have been putting up with an old, worn-out, fuel eating burner or stocker—or have been hand-firing with coal—investigate these remarkable Conversion Burners. Comparison has proved that no other gas or oil Conversion Burner on the market can match these many exclusive features... features that mean real savings in money and fuel for you.

Here again our nearby Dealer is the man who can best advise you about the converting of your present furnace. He has a complete selection of models to meet your heating requirements.

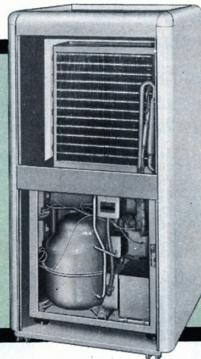
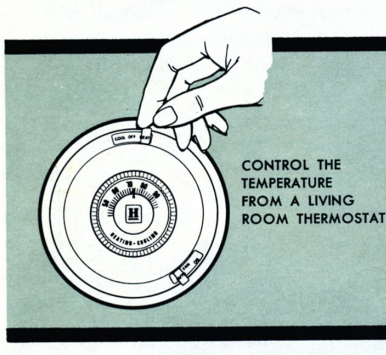




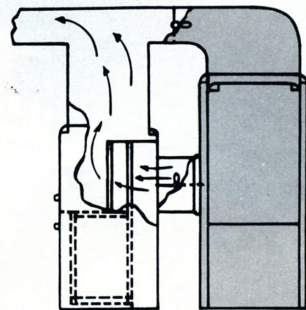
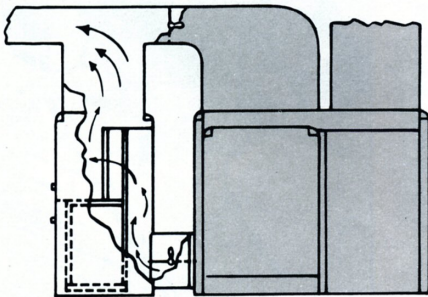
## CENTURY "Tie-In" Summer Water-Cooled Air Conditioning Unit for converting your present forced air heating system

### ADDS TO YOUR PRESENT SYSTEM...USING THE SAME DUCTS, BLOWERS, ETC., THAT ARE USED FOR WINTER HEATING

This extremely simple, highly efficient electric refrigeration unit for cooling the entire home is completely self-contained. There is a minimum of wiring, and no cumbersome auxiliary units are required. The condenser and compressor unit is hermetically sealed to assure efficient, trouble-free service. Working parts are in a single, isolated unit that floats on rubber, with no metal connections between this unit and the case, to assure quiet operation. Reduces humidity which makes it easy to compensate for differences in climatic conditions. Economical to install because it uses the duct work, filters and blower of your present forced air heating system.



**An ideal companion to most types of forced air heating systems**



# CENTURY "Midget" Powerhouse

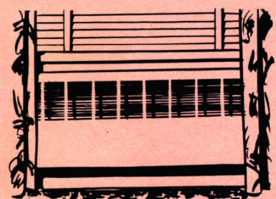
## automatic hot water boilers and water heaters

### THE COMPLETELY DIFFERENT OIL-FIRED BOILER BURNER UNIT FOR HOMES OF ALL SIZES . . . WITH OR WITHOUT A BASEMENT

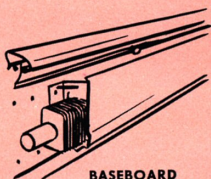
Here is your low-cost answer to comfortable hot water heating. The entirely new inner design permits faster heating with lower fuel consumption. Provides quicker circulation of sunny radiant warmth to every corner of your home . . . never overheated or underheated—truly the most uniform heat—at an economy you never dreamed possible. Equally efficient for gravity and forced-circulation hot water heating systems. So compact it can easily be moved through a standard door or down a basement stairway.



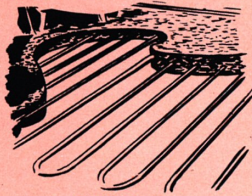
### FOR ALL TYPES OF HOT WATER HEAT



CONVECTOR



BASEBOARD



RADIANT  
Floor-Wall-Ceiling

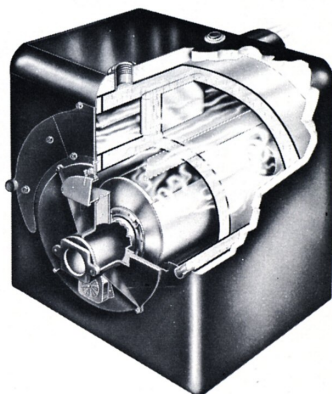


RADIATOR



### For an Abundance of Hot Water at Low Cost

Always plenty of hot water whenever you need it—automatically. For domestic hot water, this unit requires no separate storage tank since it carries a reserve of 25 gallons of hot water always ready for use. It will reheat another 25 gallons in only 10 minutes, or will furnish a continuous flow of 150 gallons an hour at 100 degrees rise. The unique inner design provides greater capacity in less space. Water heats quicker, circulates faster . . . at a saving in space, fuel and money.





PATENT NOTICE: All Century Heating Products are built under one or more of the following U. S. Patents owned by the Century Engineering Corporation: 203837, 2034686, 2057783, 2094456, 2094457, 2098455, 2123950, 2149969, 2163910, 2214676, 2222080, 2358981, also Canadian Patent 365582. Other patents pending are licensed to manufacture under all E. J. Lathner Patents, all trade marks registered in U. S. Patent Office. (All specifications subject to change without notification from the manufacturer.)