

## Electronic Brain Is Used To Control Home Heating

Heating problems brought up by some of the newer house designs—ranch styles that ramble for half a block and open-planned split-levels that form one big chimney from basement to attic—are inspiring the invention of new devices to benefit all houses, new or old.

The introduction of the idea of the electronic "brain" into heat control systems for the average family dwelling is one such development.

Sensitive instruments now being installed in homes mark as great an advance over the first thermostats as the modern heating plant marks over the pot-bellied stove.

Electronics have made thermostats eight times more sensitive than they were under the former electric-mechanical principle. Makers of the new devices say that temperatures within one degree of any desired point can now be maintained automatically in every room of a house.

Combined with tested practices of insulation, double glazing of large window areas and proper humidity control, electronic heat regulators are expected to cut costs on fuel bills while keeping all rooms comfortable at all hours.

Some of this economy is expected to be achieved by avoiding extravagances of overheating and preventing heavy loads required to bring temperatures back to normal after they have fallen.

One of the newest systems using this electronic brain idea employs thermostats both indoors and outdoors. The electronic center of this system digests information fed to it from instruments in both locations. Sudden shifts of the wind and quick drops in the outdoor temperature are automatically compensated for. In this way more heat is started on its way in either a circulating warm air or forced hot water heating plant without waiting for rooms to chill enough to affect indoor thermostats.

This is an interesting development in the evolution of home heating. The first thermostat, turned out about 70 years ago, opened and closed dampers as the temperature changed in a house. This was heat control, but it was sadly limited. The thermostat simply measured the air temperature near the location of the instrument, as any single thermostat does today. When the temperature dropped, the

dampers were opened. Aside from the delay involved, there was no control of distribution of the heat.

Even after ducts and pipes were used to distribute heat to all rooms, a single thermostat could record temperatures only at its location. Some rooms receiving heat from the sun were cozy. Other areas, on the windy and shady side of the house, were cold.

This problem, becoming intensified in rambling ranch houses, brought about separate controls for separate areas. You can now control the heat to various zones in a house—even to every room.

The latest improvement in zone control is continuous heat delivery. This modulation takes the place of a blast of heat followed by a period of no heat.

Further experiments with home heating have revealed that every house—according to its location, structure and design—has a different heating problem. But heating experts say that there is not a house which is properly constructed that cannot be heated efficiently with today's control systems—assuming, of course, that the furnace or boiler can deliver the heat.

### Modern Furnace Fits In Closet, But Heats House

Modern forced warm air heating plants, small enough to fit into closets, are far more efficient for house heating than the enormous old fashioned furnaces that filled basements with bulky ducts.

Some modern heating plants take as little as 2 1/2 square feet of floor space. For maximum space saving types that carry safety approvals for "zero clearance" can be used with their sides and backs actually touching walls. These plants are fired by either gas or oil.

Another big improvement in heating plant design has been the development of small diameter ducts and high velocity circulation. These ducts, measuring only 3 1/2 inches in diameter fit readily in standard wall spaces between the framing of 2 by 4s. They can be run between floor joists over a basement or crawl space, or can be fanned out through attic spaces to bring heat down into rooms.

## Keep Tots Away From Electricity

Curiosity of children is blamed for most of the 40,000 yearly accidents in which youngsters under 5 years of age are killed or seriously injured by electricity in the home.

A survey by the Institute for Sater Living, sponsored by the American Mutual Liability Insurance Co., shows that the greatest number of these mishaps are caused by open type baseboard outlets, lamp cords and other extension cords on floors.

The second largest group of hazards result from toasters and other appliances left connected after use.

Prayed cords handled by toddlers and hair pins and tableware poked into outlets and appliances by children produce most of the fatal shocks.

Here is a safety list prepared by the Institute for the protection of children:

1. Provide coverings for baseboard outlets that cannot be removed by little hands. Tamper-proof outlets, now on the market, provide maximum safety.

2. Replace all cords that show any evidence of wear.

3. Conceal or cover all extension cords that must be placed along

4. Disconnect all appliances immediately after use, and make sure that children cannot reach them while in operation.

5. Connection plugs should always be tightly engaged when inserted into an outlet. The prongs should not be visible.

6. Never leave wiring exposed or unattended while electric repairs or alterations are being made.

7. Do not leave children alone in rooms where portable electric heaters are in use.

Children normally cannot stand as much electric current as adults. A shock from ordinary house current can be fatal even to an adult.

## New Wheat Rules Studied

Some of the recommended changes in wheat standards now under review at the Department of Agriculture were outlined by C. A. Henderson, Klamath County Extension Agent.

Among the changes are:

A reduction in the minimum moisture requirement for tough wheat; a special grade for wheat in the limits of foreign material; a reduction in the limits of shrunk and broken kernels; lowering the limits of wheat and other classes permitted in each numerical grade; the expression of dockage in terms of one-half per cent instead of whole per cent.

Other recommendations are: The

incorporation of more specific sanitation factors in the wheat standards; consideration of changes in the structure or requirements for the subclasses of Hard Red Winter, Hard Red Spring, and White Wheats; adjustment of the test-weight-per-bushel requirements for all classes of wheat; elimination of smut dockage and the designation of all smutty wheat as "light," "medium," or "heavy" smutty.

### WEIGHT OF WOODS

The heaviest known wood in the world is black ironwood, native to the Florida Keys and West Indies. The lightest wood is balsa from Siam and the Malay Peninsula.

## CONTRACTORS! CARPENTERS!

**Republic**  
STEEL KITCHENS IN COLORS  
WHOLESALE

**Distributor**  
FREE ESTIMATES

**TELE PLIANCE CENTER**

11th & Walnut

Ph. 7709

Heavy Commercial Sewing

Canvas by the Yard

Truck Cushions

THE  
**CANVAS SHOP**  
Phone 6660

Next to the Merchandise Mart

"IF IT'S CANVAS — WE CAN MAKE OR REPAIR IT"

Irrigation Dams

Heavy Canvas

Covers - Tents

## H. E. Jones & Son

Newly Appointed Franchised Dealer For

**GENERAL ELECTRIC SILCONITE 76 WATER REPELLENT FOR MASONRY AND WOOD...**

**Dead Termites Do No Harm ---  
SILCONITE 76  
KILLS TERMITES!**

And those that are not killed are driven away from wood deeply penetrated with Silconite 76.

**Order Your Supply Now  
And Treat All Wood With This  
Miracle Preservative.**

**★ ASK FOR FREE QUART SAMPLE**

**Apply Silconite 76 Now ... Add To The Life Of Your Home!**

**H. E. JONES & SON**

520 Plum Street  
Phone 4818

### STOPS WOOD FROM:

Shrinking . . . Warping . . . Swelling . .  
Checking . . . Grain Raising . . . Shingle  
Curling . . . Splitting.

### PREVENTS:

Dry Rot . . . Stain . . . Decay

### KILLS TERMITES:

Fungus . . . Parasites . . . That Feed On Wood