

## METEOROLOGY

**Electronic Computer to Make Weather Charts**

► ELECTRONIC "BRAINS" will be making weather forecasts for the Weather Bureau in two or three years.

Meteorologists at the bureau are now making plans to install an electronic computer that will make weather charts predicting the general pattern over the United States for 24 hours ahead. These charts will be transmitted to regional weather offices to provide a new and extremely useful tool in local forecasting.

The computer will be used for the system called numerical forecasting, pioneered at the Institute for Advanced Study at Princeton, N. J. There, information as to present weather conditions over a large area is fed into the computer together with complicated mathematical formula. What comes out is a picture of the same chart as it will be 24 hours from the time of the original data.

The process is still in the experimental stage, but the studies have been successful enough to enable the Weather Bureau to plan on an operational installation.

Actually, eight charts will be prepared each 24 hours. These will represent eight horizontal slices of the atmosphere, beginning at sea level and extending up to about 18,000 feet. Thus indications of vertical as well as horizontal changes will be present on the chart.

The advantage of numerical forecasting is that it can take into account very many more pieces of information about weather conditions than a human forecaster can hold in his brain. With the electronic "brain" and numerical forecasting, local weathermen should be able to make more accurate predictions in the future.

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## AERONAUTICS

**"Ozone" Lamps Freshen Airplane Cabin Air**

► TINY LAMPS of walnut size are now being installed under passenger seats in airplanes to kill odors and to freshen the air in the cabin and bring comfort to travelers. They produce ultraviolet rays which in turn generate ozone, a natural deodorizing agent.

These lamps, a product of Westinghouse, use a fixture developed by Aviation Mart Company, Alexandria, Va., which permits them to operate on the 24-volt direct-current electric supply of many planes. This means that the lamps can function when planes are grounded at an airport.

The lamp is known as the Westinghouse Odorout. Planes of All American Airways are now being equipped with Odorouts, and other companies are experimenting with the ultraviolet-ray fresh-air device. Installations are delayed somewhat awaiting approval of the Civil Aeronautics Administration for their use.

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**ASSEMBLY-LINE HOUSES**—An interior view of one of the thousands of homes being built entirely from pre-cut and pre-drilled materials. The "three-way" fireplace on the left is wood-burning.

## TECHNOLOGY

**Houses Without Saws**

► THOUSANDS OF workmen swarming over 5,000 acres of one-time farmland are erecting a city designed to have a population near 70,000, yet they do not need a single hand-saw.

A projected 16,000 houses are being built at Levittown, Pa., on an assembly-line basis to house future steel workers of a nearby mill currently under construction, as well as persons working in Trenton, N. J., about eight miles away.

Although the houses are not prefabricated, they are assembled from pre-cut and pre-drilled materials. Many of the most up-to-date gadgets of the house-building business have been worked into their designs.

A special kind of bolt, for instance, replaces 12 nails in roof trusses. And pre-cut slabs of  $\frac{3}{8}$ -inch plywood roof great sections at once. The roof is supported by rafters of lighter construction than usual.

Seam-hidden wallboard walls are sprayed with a two-tone paint. The paint contains tiny flecks of color that blend with a base color to produce a plaster effect when viewed from a distance.

Outside walls are made of large sheets of an asbestos substance said to be "everything-proof" by enthusiastic employees of Levitt and Sons, Inc., of Manhasset, L. I., the town-building firm that already has constructed a similar Levittown on Long Island.

Mostly of the single-story type, the houses have been engineered to utilize the maxi-

imum of available space. Closets are screened by split-bamboo sliding curtains instead of doors. That permits a piece of furniture to be set in the space normally occupied by the closet door when open.

The most inexpensive house, costing \$9,990 with a lot thrown in, has two regular bedrooms and a living room that can be partly cut off to make bedroom number three. It has two picture windows made of special glass that helps insulate the house from the winter's cold.

A radiant heating system is operated from a small oil burner enclosed in an attractive cabinet situated in the all-electric kitchen. Heating coils are imbedded in the floors of the house. The same heating unit supplies hot water to the kitchen and bathrooms.

At least 13 trees and 43 assorted shrubs, bushes and vines are included to help owners landscape the yards.

From base-slab to roof-shingle, the smaller houses require only 45 days to build. Materials pour into the town at the rate of 40 carloads a day. They are deposited exactly where needed exactly when needed.

In addition to the housing project, this town has been engineered to provide schools, churches and a shopping center for its residents. Playgrounds, swimming pools and even regulation baseball diamonds are included in the over-all plans.

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