ARCHITECTURE

Russia's Prefab Plans

➤ THE LATEST in Soviet building is the prefabricated house.

Two marked departures from conventional United States prefabricating practice are noted in the Russian plans. Multi-story buildings, including apartment houses, are prefabricated in the USSR and concrete sections are used. Plans call for a substantial increase in this type of structure.

United States builders do not ordinarily prefabricate apartment houses. In fact, almost all the factory-built homes in this country are one or two story single family dwellings. Also, in this country few concrete parts are prefabricated. Most of the sections are made from wood.

The Voks Bulletin (No. 5, 1954), a publication of the USSR Society for Cultural Relations with Foreign Countries, states that in Kiev in the Ukraine, a six-story house was built in 63 days and in Magnitogorsk, in the Urals, ten workers put up a four-story building with 36 flats in 28 days. United States builders and government experts frankly doubt the feats, but since we do not prefabricate that type of structure, there are no comparable United States statistics. Builders also point out that very little is known about the quality of the resulting structures.

Apparently, the program has been instituted because of the housing shortage in Russia. A joint government and party decree called for a great expansion in the building of prefabricated living quarters. By the end of 1956 the Russian goal is to have about 20% of urban housing factory-built. The extensive use of concrete seems to be designed to save steel.

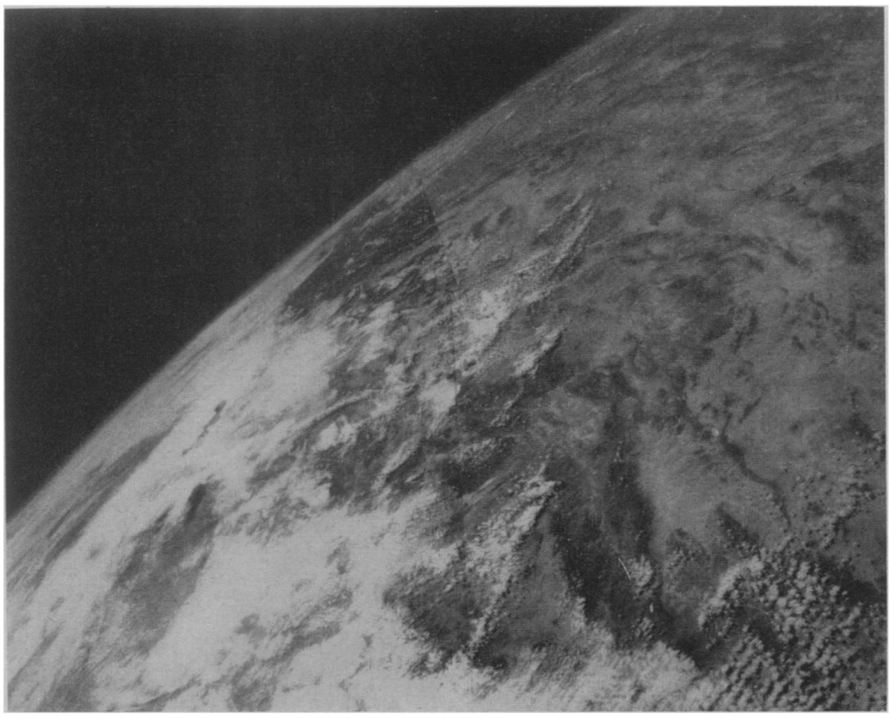
In the United States at present, about six percent of residential dwellings are prefabricated.

Machinery is slated to play an increasing role in Russian construction. All work on the building site from digging to paint finishing is to be done by machine. While prefabricated parts are being made at the factory, workers will be preparing the site.

Frame prefabrication houses are also planned. A factory is reported under construction that will manufacture 1,000 prefabricated frame houses a year and others are soon to be completed. Some American prefabricating plants far exceed this capacity.

Russian house-building factories are reported to be equipped with automatic concrete mixers, devices for joining fittings and machines for casting and finishing large structure units.

Science News Letter, February 5, 1955



600,000 SQUARE MILES—This picture of the earth showing mainly Texas and Mexico was taken from a Navy Viking 11 rocket when it made its record-breaking climb to 158 miles. Two shots taken with the aerial camera pointing south-southeast were combined. Mexico City is on the horizon, at about the middle of the photograph, while the Gulf of Mexico is on the left covered by clouds. The Pacific Ocean is on the right.

• RADIO

Saturday, February 12, 1955, 5:00-5:15 p.m. EST

"Adventures in Science" with Watson Davis, director of Science Service, over the CBS Radio Network. Check your local CBS station.

Winners of the Fourteenth Annual Science Talent Search for the Westinghouse Science Scholarships will describe their projects, speaking from various parts of the country.

CHEMISTRY

New Essential Nutrient In Fat May Be Vitamin

➤ A NEW vitamin-like substance, occurring in animal fats such as cream, butter and lanolin, has been found essential to life processes in some types of microorganisms.

The discovery of this hitherto unknown nutrient is reported by Dr. Max Dunn, professor of chemistry, and Merril N. Camien, assistant research chemist, at the University of California at Los Angeles.

The two U.C.L.A. chemists point out that while it has not yet been demonstrated that the substance is essential to higher animals, nutritional requirements generally carry over from lower forms of life to higher species. Some vitamins and other essential nutrients were first discovered in studies with simple organisms.

The new nutrient belongs to a chemical group known as the D-alpha-hydroxy acids, which includes lactic acid, found in milk. Members of this group have analogous but opposite configuration to the commonly occurring L-amino acids, the building blocks of proteins.

D-alpha-hydroxy acids occur naturally in certain animal fats but not in most vegetable fats.

Science News Letter, February 5, 1955

VETERINARY MEDICINE

Use of Infrared Lamps Can Save Young Pigs

➤ AN AVERAGE of three pigs in every two litters can be saved by using infrared lamps during and after the birth of a new litter.

Infrared lamps provide the necessary heat for the sow and her newborn. Chilling or being crushed by the sow lying on the young pigs costs hog producers an estimated 3,000,000 pigs each year in the United States. And three-fourths of these losses, the U. S. Department of Agriculture reported, occur within two days after farrowing.

Use of the infrared lamps also permits earlier farrowing in that sows can be bred without waiting for seasons, and the lamps are not costly to use. Saving one pig, the Department stated, more than covers the cost of using a lamp for two weeks. Young pigs should be kept under the lamp for three days to two weeks depending on the temperature, the agriculturists added.

Science News Letter, February 5, 1955