

PUBLIC HEALTH

Own Fluoridation Possible

A method of supplying fluoridated water that is reported to be safe and reliable has been developed for use in an individual's private water system.

► FLUORIDATED water can be supplied to the 60,000,000 persons in the United States who are served by private water systems such as wells.

The method for doing this consists of either a hydraulic or solenoid-actuated installation that feeds a fluoride solution into the water supply.

Such a method has been developed and has been used during the past two years in four homes in a suburban area of Maryland. Each of these homes is served by individual wells, approximately three inches in diameter, delivering between three and nine gallons of water per minute by means of a jet pump.

During one four-month period of operation, the analysis of four samples of water tested showed a maximum variation of only .02 milligram of fluoride per liter of water, Franz J. Maier, sanitary engineer, division of dental public health, Public Health Service, U. S. Department of Health, Education and Welfare, reports in the *American Journal of Public Health* (June).

Experience with such a feeder device indicates a satisfactory fluoride level can be achieved in home water systems if the installations are properly maintained and adjusted periodically.

A service group might be organized to

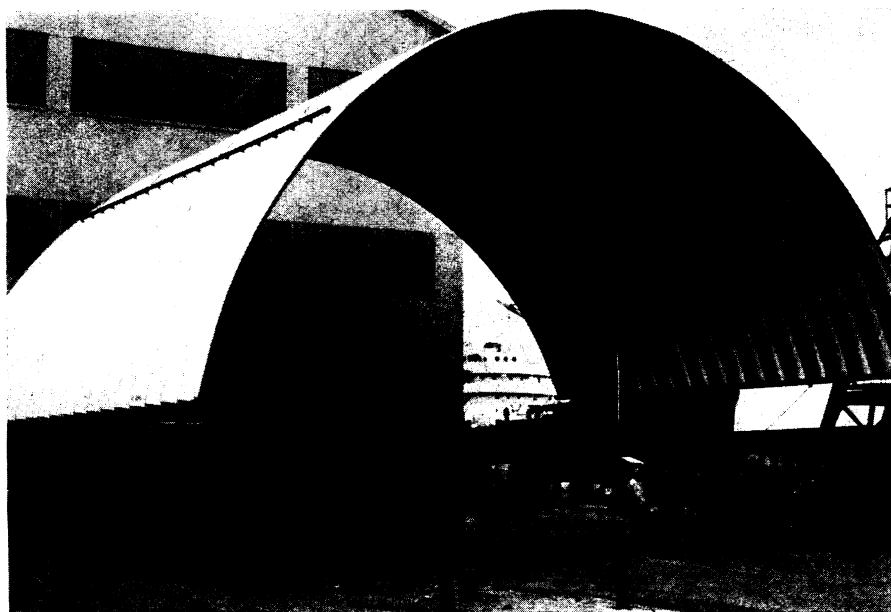
provide fluoridated water in this manner to owners of private water supplies, he suggested. To do this, a servicing organization similar to those now providing chlorinated water, softened water or bottled water would supply and maintain the fluoridation equipment and be responsible for the entire installation. Estimated costs for such a service per month is approximately \$3.00, depending upon the number of customers and their location, Mr. Maier said.

At the present time, the most widely used method of fluoridation for the group unable to receive fluoridated water is the direct application of fluoride solution on children's teeth by dentists or hygienists. The cost is considerably more than the fluoridation of water supplies.

Bottled fluoridated water has also been suggested, but the cost, like that of dental application, is very high.

Fluoride pills have been used, but unsuccessfully. The persistent, constant and prolonged effort required by parents to provide the pills for their children has proven unsatisfactory. Likewise, other methods, such as fluoridated food, milk, and salt, have evolved into far more problems than the fluoridation of water supplies, Mr. Maier said.

Science News Letter, July 12, 1958



PRE-FAB SHELTER—Prefabricated steel buildings, manufactured by the Wonder Building Corporation of America, Chicago, can be used to shelter workers. Their trussless design makes possible space-saving stacking for storage.

● RADIO

Saturday, July 19, 1958, 1:30-1:45 p.m., EDT "Adventures in Science" with Watson Davis, director of Science Service, over the CBS Radio network. Check your local CBS station.

Dr. Maurice M. Shapiro, superintendent of the nucleonics division and head of the cosmic ray branch, Naval Research Laboratory, Washington, D. C., will discuss "High Energy Radiation."

MEDICAL

Study Prenatal Factors In Childhood Cancers

► THREE PRE-BIRTH events occurred at a significantly higher rate to children who later died of malignancies, or cancers, than to living children.

The three events are direct irradiation during the fetal stage, before birth, virus infections and threatened abortion, Dr. Alice Stewart, Josefine Webb and David Hewitt, all of the department of social medicine, Oxford University, report in the *British Medical Journal* (June 28).

One other prenatal influence, excessive maternal age, appears to increase the risk of leukemia in childhood and be related to the fact that this disease and mongolism tend to occur together, they said.

The experimental group, studied through reports made by the mothers, consisted of 1,416 children, 677 leukemia, 739 other cancers. Controls were children born at the same time and place and of the same sex as the children who died of malignancy.

Science News Letter, July 12, 1958

SOCIOLOGY

Marriage and Education Both More Popular

► THE PROPORTION of Americans who are married has increased more since 1940 than in any other comparable period.

And they are not quitting school to get married. By 1957, the number of persons with at least a full high school education was twice as large as it was in 1940. This trend toward marriage and more education is reported to the *American Sociological Review* (June) by Drs. Paul C. Glick of the U. S. Bureau of the Census and Hugh Carter of the National Office of Vital Statistics.

Women need no longer choose between a career and marriage, they found. In the fall of 1956, one of every four college students was married.

Men who marry and continue to live with their wives have more education and income, on the average, than those with broken marriages or those who remain bachelors.

The story is quite different with women, however. The single women are those with the most education and income.

Men who are making a very good living tend to have more education, a high marriage rate, an above-average age at marriage and a low divorce rate.

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