DENTISTRY

One-Tenth of Population To Have Tooth Protection

➤ FROM NORWOOD Village, Wash., to Washington, D. C., communities are fluoridating their water as a protection against tooth decay. Latest tally reported to the American Dental Association in Chicago shows a total of 423 communities serving nearly eight million persons on the fluoridation wagon. The measure has been approved for another 305 communities serving 16 million persons.

Yearly cost averages slightly more than nine cents a person, with one-fourth of the communities operating at an annual cost of five cents per person or less.

Science News Letter, November 15, 1952

TECHNOLOGY

Whiter Sidewall Tires Use Paper Making Waste

➤ NEW AND better tire sidewalls that stay white longer are made possible by use of a waste from paper making.

John J. Keilen and Walter K. Dougherty, both of the West Virginia Pulp and Paper Co., Charleston, S. C., have reported to the American Chemical Society that tire sidewalls can be made from reclaimed rubber and coated with a thin layer of new white rubber. The sidewalls will stay white longer if protected by activated carbon made from a waste liquor of an alkaline wood-pulping process.

Reclaimed rubber has been used before in auto tire sidewalls. But processing chemicals often pass from the reclaimed rubber to the new rubber coating, causing discoloration.

Activated carbon absorbs many of these chemicals, such as oils and antioxidants. The absorption prevents the chemicals from migrating through the rubber so rapidly. That helps to keep the white rubber free of discoloring impurities for a longer time.

Science News Letter, November 15, 1952

ENTOMOLOGY

Insecticide Soak Keeps Bulbs Maggot-Free

➤ TO KEEP narcissus bulbs from becoming infected with the destructive narcissus bulb fly, soak them in insecticide solutions for short periods of time before planting.

Such treatment with aldrin, chlordane and heptachlor prevents the entrance of the larvae, or maggots, of this fly into the bulbs, scientists at the U. S. Department of Agriculture have found.

The narcissus bulb fly maggot enters the bulb while it is growing in the spring. The yellowish-white larvae, about three-fourths of an inch long, are equipped with strong hooked mouth parts and eat a tunnel into the bulb. The bulb then becomes soft and its growth is retarded.

Science News Letter, November 15, 1952

TYPHOON'S EYE—Taken from a B-29, 16,000 feet up, near the center, the picture shows the eye of a Pacific typhoon. The top rim towers 35,000 feet high. In the center can be seen what is believed to be a "horizontal tornado." At bottom are two squalls, thought to have been caught up in the typhoon when it was born.

METEOROLOGY

Temperature Change

➤ A TEMPERATURE drop of 32 degrees Fahrenheit in 60 miles was recently discovered in the center of a typhoon. This is the greatest temperature change in such a short distance ever discovered in free air and it is an indication of the terrific energy to be found in a tropical storm.

The discovery was made by Robert H. Simpson, a special assistant at the Weather Bureau and a typhoon and hurricane expert, who flew through the eye of a typhoon over the Pacific last summer. Mr. Simpson first learned of hurricanes the hard way—at the age of six his father took him on his shoulders to swim him hurriedly away from their home in Corpus Christi, Tex., during the great storm of 1919.

The temperature drop was observed as Mr. Simpson flew, in an Air Force B-29, 18,000 feet up over the direct center of the storm, to the edge of the eye 20 miles away and 40 miles beyond through the clouds. He comments that it takes a vast amount of energy to bring about such a temperature change and that the energy of a tropical storm seems to be concentrated to a great extent within 60 miles of the center of the storm. This particular storm was called "Typhoon Marge."

The B-29 flew through the eye of the storm at levels from 800 to 18,000 feet. The eye, around which a storm revolves, is a spectacular sight. Here is the way Mr. Simpson saw it:

"Marge's eye was a vast coliseum of clouds, 40 miles in diameter, whose walls rose like galleries in a great opera house to a height of approximately 35,000 feet where the upper rim of the clouds was smoothly rounded off against a background of deep blue sky."

The sea surface at the bottom of this bowl was obscured by clouds, in which there were two circular openings.

These appeared to be squalls, little storms which might have been caught up in the great whirl of the typhoon when it was first born. The squalls appeared to circle around the center of the eye. Mr. Simpson speculates that the force of these little squalls, as they circle, might account for the wobble noticed in the paths hurricanes and typhoons take as they traverse the oceans.

Mr. Simpson believes that two B-29's should be in the eye of a hurricane or typhoon at once in order to bombard it with observations. He is hoping this will happen one day and thinks it would produce much new knowledge about these storms.

Science News Letter, November 15, 1952