

TECHNOLOGY

Electronic 'Ear' First Step to Speech Machine

➤ AN ELECTRONIC "EAR" that picks up the basic sounds of words may lead to the development of a machine that will obey verbal commands.

The ear is a laboratory device that is a promising first step toward the construction of an operational speech recognition machine.

Just as all materials can be broken down into a few basic chemical elements, all the different words can be broken into 40 basic sounds called phonemes. Each phoneme can be isolated and characteristic features of each can be identified.

Research so far indicates that speech recognition by phonemes is a promising approach toward the development of a machine recognizing continuous speech.

The Air Force Avionics Laboratory, Wright-Patterson AFB, Ohio, and Radio Corporation of America's Defense Electronic Products, Camden, N.J., are cooperating in a program of speech recognition research. RCA has built a network of electronic neuron models. A bank of filters simulate the frequency response of the cochlea, that part of the human ear containing the auditory nerve endings.

• Science News Letter, 87:207 March 27, 1965

Nature Note

Japanese Cherry Tree

➤ THE DELICATE PINK and white border which ornaments the nation's capital each spring brings a touch of the Orient with it.

Skirting the Tidal Basin and decorating East Potomac Park are six of the 12 varieties of Japanese cherry trees presented to the United States by Japan in 1912.

A seventh variety, Akebono, was developed in this country in 1920 and supplies the pale pink tinge around the Basin. Contrary to many artists' conceptions, 90% of the Basin's cherry trees are of the Yoshino variety and have single white blossoms, although their buds are pale pink. The Yoshino trees are the first to bloom, sometimes as early as March 20. However, the average date when they are in full bloom is one day earlier than the scheduled opening of Washington's Cherry Blossom Festival this year, April 6 to 11.

Cherry trees belong to the genus *Prunus*, meaning stone fruit, the same genus as the plum and the peach. Even though the cherry tree is related to the rose, its blossoms are not necessarily scented.

Of the six varieties growing in the park—Kwanzan, Taki-nioi, Higan, Beni-Higan, Jugatsu-sakura and Yoshino—Kwanzan is most popular. Blooming rather late, Kwanzan bears heavy clusters of deep pink blossoms. The average date for full bloom in this variety is April 22.

These lovely blossoms will play a short role in the pageantry of spring, however. By the end of the first week, some have fallen, and within another week the smooth branches bear only greenish-brown leaves.

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