

## POPULATION

# U. S. Could Feed Billion

➤ A POPULATION for the United States of about 1,000,000,000 people could be fed, and a world population of 15,000,000,000 would not seem unreasonable, if proper conservation and full use of available resources were developed, Prof. Eugene G. Rochow of Harvard University said.

He spoke as a guest of Watson Davis, director of Science Service, on Adventures in Science, heard over the Columbia Broadcasting network. Dr. Rochow described possible foods that can be made from materials not now used for the purpose, such as sugar from wood and an edible oil from coal.

The foods available to feed this tremendous population would not be those we eat at the present time. Our descendants on such a crowded earth would not be eating hot dogs and ice cream, he warned. These would be too expensive from the standpoint of chemical resources.

The only way to feed the billions will be to use the world's trees for feeding people instead of using wood for houses and other building purposes. A tree is able to get its mineral nutrients from the subsoil, and hence grows even in rocky areas because

it taps the unleached depths where the proportion of dissolved salts is high. We could get all our carbohydrate requirements by hydrolysing the cellulose in the wood to simple digestible sugars, he said, or by putting microorganisms to work to make saccharides for us.

There would be no meats, he continued, and other sources of protein would be necessary. It seems certain that meat and eggs as sources of protein will gradually vanish, for a beef steer converts only about 12% of its food to meat. It seems much more sensible, he stated, to feed the plant proteins to people directly, as the British have found in the last decade. If fish and plant proteins become too scarce, synthetic amino acids seem to provide the only answer.

Fats are not easy to obtain by micro-biological activity, nor do we have enough from plant sources. They can be made synthetically, he declared, and the Germans developed a satisfactory product during the recent war by converting coal to edible fats. Feeding the world would be a job for chemists, he indicated.

Science News Letter, June 18, 1949

## MEDICINE

# Uncover Abortion Records

➤ MORE married than unmarried women go to a physician for an illegal abortion operation, the Population Association of America learned from the report of Dr. Christopher Tietze, research associate of the National Committee on Maternal Health and physician of the Johns Hopkins University and Hospital, Baltimore, Md.

This is the first time that the records of specialists in illegal abortion have been made available to the medical world, Dr. Tietze indicated. Little has been known of such cases except through the medium of gossip and the suspicion that they are very numerous.

Dr. Tietze credits good fortune with his coming into possession of a series of 363 records which represent the practice of two such abortion specialists in a large Eastern city during several months in 1948. The records are genuine, complete and probably as good as those kept by most practitioners and clinics, Dr. Tietze assured his hearers.

The average woman who goes to one of these specialists pays from \$300 to \$500 for the operation, the records reveal. Of the 363 women, 102 were single, 180 (49.6%) married and 81 previously married. About half the latter group were widows, the rest divorced. The fact that the largest number of the married women had had two children previously suggests

that these women use abortion not as a method of spacing the children in their families but to limit the size of the families.

It is also used by girls who are very young and not yet ready to assume the responsibilities of parenthood. Of the 102 single women, 25 were less than 20 years old, three being between 10 and 14. Of the 180 married women, 10 were in this age group. There was only one case in this age group among a comparable group of 481 women having normal deliveries of babies in a large hospital in the same city.

Sixty-five women (17.9%) were repeaters at the illegal operation. Fourteen women had had two previous abortions and eight reported three or more. Many had been performed by the same physician.

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## PSYCHOLOGY

# Emotional Upsets May Affect Reading Ability

➤ EMOTIONAL upsets can account for difficulty in reading in an otherwise intelligent child, Drs. Joseph F. Hughes, Richard Leander, and Gilbert Ketcham of the Pennsylvania Hospital in Philadelphia told the American Academy of Neurology meeting in French Lick Springs, Ind.

Situations that make the child feel in-

secure such as family quarrels, rivalries with sisters or brothers, and difficulties in social relationships may result in a specific reading disability, they found.

Psychological causes, such as not being taught proper reading habits, and organic causes which may stem from under-activity of the thyroid gland may also be responsible for poor reading ability. But the investigators believe that no child has a specific reading difficulty without at the same time developing some kind of emotional disturbance.

Treatment, therefore, must include psychotherapy as well as corrective aid in reading, they pointed out.

This study was based on mental, physical and brain-wave tests of 125 patients between the ages of seven and 12, except for one who was 30.

The machine which registers the electric wave pattern of different parts of the brain is called an electroencephalograph. Deviations from the uniform patterns given off by a normal brain can be easily detected.

The Philadelphia doctors found that 75% of these patients had an abnormal wave pattern. But outside of this and the emotional disturbances these children did not differ from others of the same age group either physically, mentally or in the number and severity of childhood diseases, the investigators reported.


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## Science Service Radio

➤ LISTEN in to a discussion on "8,000 Miles Per Hour" on "Adventures in Science" over the Columbia Broadcasting System at 3:15 p. m. EDST, Saturday, June 25. Dr. Raymond J. Seeger, chief of the Mechanics Division of the Naval Ordnance Laboratory and Lyman O. Fisher, associate chief of the division, will be guests of Watson Davis, director of Science Service. They will discuss the wind tunnel of the highest speed in the world which will be inaugurated outside of Washington. Predictions of what will be found in wind tunnels by artificial super hurricanes will also be made.

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