

DEMOGRAPHY

Population: Peace Threat

FAILURE TO control explosive population growth in the Far East "will certainly adversely affect the peace of the world."

Robert C. Cook, president of the Population Reference Bureau, Washington, D. C., foresees "social invention of the highest order" as the only way to cope with the problem.

"Those countries which are prepared to attack this surpassing problem of the balance between births and deaths," he says, "should be given all possible technical assistance."

More than half of the world's population lives in Asia and the Far East. China and India account for almost 70% of this total. Japan, Indonesia, and Pakistan, each with more than 80,000,000 people, are also among the seven most populated countries of the world. Continuance of the present growth rate will double the population in Asia and the Far East in 30 years.

The only population-control success in this area has been achieved in postwar Japan with one of the most dramatic birth-rate reductions "in history." Unlike its neighbors, however, Japan is an industrial, urban nation with high levels of education and large groups of technically skilled workers.

Mr. Cook attributes the drop in population growth to the Japanese Government's emphasis on family planning. Public interest in sterilization and abortion is at least partially responsible. Abortion now seems to be on the decline as a result of a vigorous information program on contraceptives.

Mr. Cook believes the other underdevel-

oped Far Eastern countries cannot match Japan's outstanding success, nor can they approach the problem in the same way.

"The varied social, religious, economic and political 'climates' . . . indicate that different approaches to the problem are essential," he says. "Just what these are remains to be discovered. Acute necessity may bring about some radical and effective social inventions."

Although most of the Far Eastern nations recognize the seriousness of their population trends, Mr. Cook says, they must produce results within the next two decades or face frustration of their hopes for a new life.

Mr. Cook's comments, published in the *Population Bulletin* (Aug.), are based on a recent report by the United Nations Economic Commission for Asia and the Far East.

Science News Letter, August 22, 1959

INDUSTRIAL MEDICINE

Vibration Sickness Points To Need for Study

THE PNEUMATIC drill may be literally knocking the stuffings out of the big-muscled worker hanging on to its handle.

Reduced sharpness of hearing and vision, blood vessel spasms, and damage to bones and joints are but some of the symptoms of vibration sickness.

Scientists know relatively little about this occupational disease, Dr. R. Lomax Wells

of Washington, D. C., told SCIENCE SERVICE. However, vibration sickness is becoming increasingly important with the expansion in road-building and construction. Very little work has been done on the effects of long-term vibration on the human body.

The Russians are also concerned with the problem, according to *Scientific Information Report* (July 3), distributed by the Department of Commerce's Office of Technical Services.

Several researchers report, in a journal which is translated by the Central Intelligence Agency, on the symptoms, causes and treatment of sickness caused by both high and low frequency vibration. Several recommendations are made by the Russian scientists to improve conditions for the worker:

1. Redesign pneumatic drills to suit various types of work. (One researcher suggested a drill that uses a new cycle to reduce recoil.)

2. Standardize industrial vibrations, defining the permissible limits in order to take preventive measures.

3. Make periodic X-ray examinations of the workers' bone tissue and joints.

4. Use devices such as heat-insulating handles on drills and special footwear that absorbs vibration.

One Russian researcher, A. M. Mel'kumova of Moscow, reported that vibration in factories where reinforced concrete items were manufactured affects the nervous system primarily. The morbid condition, she said, is localized in the cerebrum and spinal cord.

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CHEMISTRY

Water-Hating DDT Poses New Scientific Problem

DDT, ONE of the oldest and supposedly best known insecticides, hates water, U. S. Department of Agriculture scientists have just discovered.

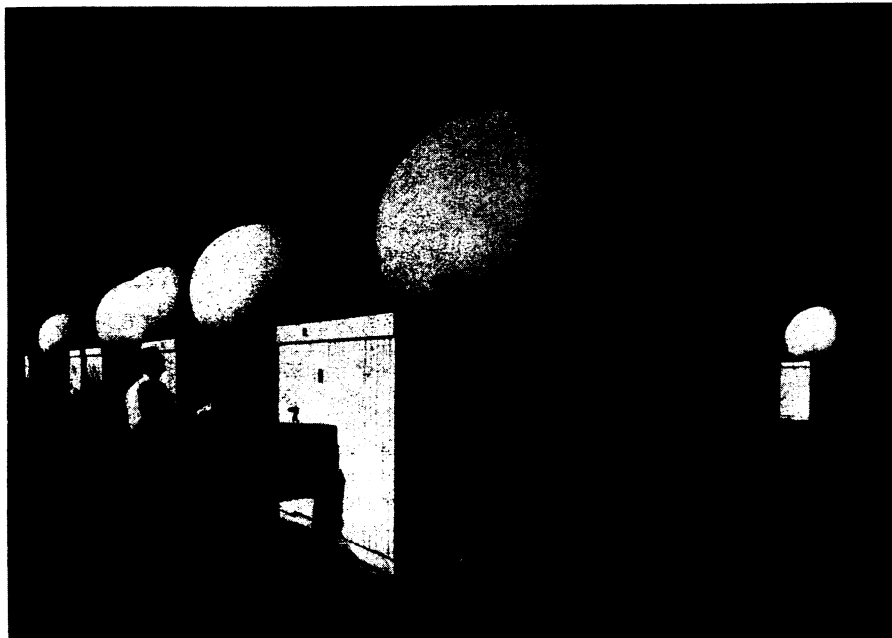
This may help explain some of the strange results when mosquito control workers tried to use the insecticide on ponds, lakes and other mosquito-breeding areas. DDT is so hydrophobic, or water-hating, that it "rushes to get out of suspension." It also tends to concentrate on the upper water surface and to cling to the walls and bottoms of containers, USDA entomologists and chemists report.

In laboratory tests as much as one-third of the insecticide had fled to the walls and bottoms of the containers within two minutes after stirring in one part DDT per 100,000,000 parts of water. It made no difference whether paper, glass or aluminum containers were used. Within 24 hours more than half the DDT, long known for its persistence and non-volatility, had evaporated.

Field studies are underway to see if changes in application methods will lead to more effective results.

Similar tests with other insecticides, parathion, malathion, lindane and dieldrin, did not show this hydrophobic reaction. This action of DDT was discovered by USDA scientists at Orlando, Fla.

Science News Letter, August 22, 1959



MISSILE TRACKERS—The plastic radomes that protect parabolic antennas being used at the Atlantic Missile Range, Cape Canaveral, Fla., get a final check by C. M. Hay, engineer at Convair division of General Dynamics Corporation, San Diego, Calif. Each antenna installation is pressurized to inflate these radomes and to keep out moisture, dust and fungus.