

## PHYSIOLOGY

# Can Air-Condition Tropics

**Adequate food supply is called primary need of tropics, but after that provision of improved living condition is most important.**

➤ **AIR-CONDITIONING** indoor sleeping and working quarters in the humid tropics the year around can be done and is just as practical as heating homes and buildings of New York or Philadelphia through the winter, a physiologist, Dr. H. C. Bazett of the University of Pennsylvania, told the Congress of Tropical Medicine and Malaria meeting in Washington.

Provision of improved living conditions is the second greatest need of the tropics, Dr. Bazett said.

Assurance of an adequate food supply is the primary need.

Muscular work can be performed efficiently in the tropics, but the quantity that can be done is limited.

Mental work, on the contrary, suffers on both counts, quantity and quality.

The reason for the differences, Dr. Bazett explained, lies in the different ways the body handles heat during exercise and rest. During rest, most of the heat is formed in the trunk and dissipated through the arms and legs. Transporting the heat is a major problem. But during exercise most of the heat is formed in the arms and legs where it is also dissipated. So the transport problem becomes minor.

A person's mental work gets poor in both quality and quantity with very slight changes in body temperature, experiments have shown. The person himself may not be aware of the falling off in quantity and quality of work he is doing. Inadequate circulation of blood through the brain may be the cause of the deterioration in mental work.

Only a small degree of cooling is needed to correct the disability for mental work, Dr. Bazett stated. This is one reason why the job of cooling the tropics can be done efficiently. The amount of cooling needed is not so great. A temperature of 78 degrees Fahrenheit with humidity at the point of a saturated atmosphere is cool enough for efficient working.

With well-insulated buildings, this temperature could be achieved in Bombay throughout the year, Dr. Bazett said, with "an energy load for air conditioning far below the normal heat load for heating houses in Philadelphia or New York through the winter."

*Science News Letter, May 29, 1948*

## AERONAUTICS

## To Set Up Basic Air Navigation System

➤ A **TEMPORARY** working group from the U. S. Air Force, Navy and Civil Aeronautics Administration is formulating plans for an Air Navigation Development Board which will be charged with the duty of preparing a single basic system of air navigation and traffic control for both civil and military users, it was revealed in Washington.

The new government board will be

set up by the Secretaries of Defense and Commerce working together. The joint action is the result of a six-months study made by the Research and Development Board of the National Military Establishment. This organization recommended that a single group be established under the Department of Commerce and charged with the responsibility for the research, development and standardization of the national air navigation system.

Such a group would constitute a planning and steering organization, headed by a man of national reputation and not representing any government agency concerned with civil or military aviation. It would have under it an engineering staff charged with translating the broad requirements set by the board into technical specifications for the development of projects which would be executed under contract by university and commercial laboratories.

*Science News Letter, May 29, 1948*

## SAFETY

## Place Next the Driver Is Called "Death Seat"

➤ **"DEATH SEAT"** is the name given the front seat of an automobile next to the driver (*Journal, American Medical Association, May 22*).

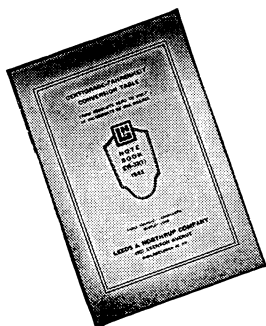
Of 50 consecutive patients with face injuries from automobile accidents, almost three fourths (70%) were young women and girls who had been riding next to the driver, Dr. Claire L. Straith, Detroit plastic surgeon, reported.

Detroit police department records show that in 219 accidents involving more than one occupant of an automobile, 260 passengers but no drivers were injured. More than half the front seat passengers had face cuts and damage to the teeth, chin, nose, cheeks, ears, forehead and skull.

Dr. Straith's suggested remedy for the situation is removal of all knobs, cranks, drop down ash trays and sharp ledges on the dashboard and use of rubber padding on the dash in front of the guest passenger.

*Science News Letter, May 29, 1948*

Automotive engineers advise *drivers*, as a gasoline-saving step, to warm up engines by letting them idle a few minutes to permit oil to circulate properly; the engines should not be raced.



### QUICK-READING TEMPERATURE-CONVERSION TABLES

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