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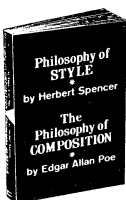
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MEDICINE

Quinine Shortage Results As Malaria Drugs Change

➤ WHEN SYNTHETIC chemicals took over the treatment of malaria from quinine, quinine shortages were created.

Chloroquine, a synthetic drug named Aralen, is now most widely used against malaria.

Resistance has developed to chloroquine on the part of one species of the malaria parasite called *Plasmodium falciparum*. In Southeast Asia and some parts of South America where this species exists, quinine sometimes must be used.

Dr. Geoffrey Jefferey of the National Institute of Allergy and Infectious Diseases, Bethesda, Md., told SCIENCE SERVICE in an interview that malaria specialists hope they will not have to go back to quinine since it is a poor drug compared to the newer synthetic ones.

"Attempts are being made to overcome the resistance to chloroquine by *Plasmodium falciparum*," Dr. Jefferey said.

U.S. Army and Public Health Service scientists are trying to find other drugs to replace chloroquine where it is ineffective.

Although malaria has been virtually eradicated in the United States, it remains a problem in other parts of the world where more than one-third of the population is exposed to it.

Scientists in this country are interested in eradicating malaria through the United States assistance programs and especially in protecting Army personnel in malaria-infested areas.

Quinine is found in the bark of the cinchona tree, which originally grew only in South America. More than a hundred years ago, the Dutch transplanted the tree to Indonesia and that country largely controlled the supply.

Cinchona trees have been allowed to die out because of the use of synthetic drugs, and it is possible that a new quinine demand might not be met for a number of years.

The bark of the cinchona tree contains several other alkaloids besides quinine, which has other uses in addition to treating malaria.

Laborers peel off the bark in long strips. For processing, the bark is mostly shipped to Europe.

• Science News Letter, 87:100 February 13, 1965

CHEMISTRY

Molecular Arrangement Irregular in New Rubber

➤ A NEW SYNTHETIC rubber, Duradene, expected to be used in both the tire and plastics industries, is now in production.

Developed by the Firestone Tire and Rubber Co., Akron, Ohio, Duradene is one of the "stereo" rubbers, so called because of the regular or stereotyped arrangement of their molecules in contrast to the irregular molecular pattern of earlier rubbers.

• Science News Letter, 87:100 February 13, 1965

Questions

AERONAUTICS—What new plane is being advocated as the answer for efficient, rapid passenger service? p. 103.

BIOTECHNOLOGY—How long can a new device that steadies an irregular heart beat last? p. 99.

CHEMISTRY—What is "stereo" rubber? p. 100.

MEDICINE—What antibiotic shrinks cancerous tumor masses? p. 98.

RADIO ASTRONOMY—In what galaxy was a new class of radio star recently discovered? p. 105.

SURGERY—What new grafting technique helps avoid leg amputations? p. 104.

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