

## ANTHROPOLOGY

**Filipino Is Related to Chinese, Not Malaysians**

► THE FILIPINOS, dominant people of the great Philippine archipelago, are related to the southern Chinese rather than to the Malaysians as commonly supposed, says Herbert W. Krieger, anthropologist of the Smithsonian Institution in Washington.

The Filipinos, who have a long tradition of culture and accomplishment behind them, have never submitted easily to a conqueror. Heroic proof was offered in their defense of their islands against the Japanese, in which 20,000 Filipinos gave their lives.

Members of an East Asiatic, Mongoloid race, they apparently came to the Philippines much later than the black pygmy people—the Negritos—who seem to have been the first arrivals. Since the Negritos have never been boat-builders, anthropologists assume they came by way of a land bridge from the Malay Peninsula, whose people they closely resemble.

The diversity of language in the Philippines Mr. Krieger explains as partly due to the mountainous nature of the islands, which kept certain groups isolated for many centuries. The people became united in opposition to early Spanish colonists and in their desire for national independence.

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## PSYCHIATRY

**Overworked Generals Get War Jitters Too**

► DOES the high command need a psychiatrist?

Only to prevent sudden explosions due to war strain and overwork, it is suggested by Dr. Emilio Mira who, as chief psychiatrist for the Spanish Loyalist armies, has seen war's effect on both men and officers for many years. Dr. Mira is now professor of psychiatry at the University of Buenos Aires.

"By refusing to rest, the overworked leader may lose a battle," Dr. Mira told the New York Academy of Medicine in the second of the three Salmon lectures. "Or his fatigue may break out in sudden explosive behavior, drunkenness, or smoldering resentment."

To prevent this, Dr. Mira proposed that psychiatrists be attached to military staffs which are planning and conducting strategy. The preventive task of these psychiatrists would be just as vital

as that of aviation physicians who guard the mental and physical health of pilots.

A simple, ten-minute test which Dr. Mira calls "Myokinetic Psychodiagnosis" would measure the mental fitness of officer or soldier at any given moment. "It is not designed to measure his I.Q., which is, naturally, taken for granted."

War acts in erratic fashion, making some unstable individuals more healthy, and producing abnormal behavior among "normals." Most common symptoms of war among previously healthy soldiers are hysterical outbursts, anxiety states and loss of motor control, Dr. Mira says.

Oddly enough, it is harder to cure a mild case of the jitters, such as trembling of the fingers, than a case of complete paralysis which may yield readily to treatment. Trembling or paralysis is due, Dr. Mira believes, to the inhibitions against movement which have been set up in the brain due to fear and exhaustion. This may or may not be due, on a deeper level, to a subconscious desire to escape from an intolerable situation. Dr. Mira believes it is not.

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## INVENTION

**New Wood Burning Stove Connects to Oil Heater**

► OWNERS of oil burners who are able to secure a wood supply will be able to substitute wood for oil, according to an announcement by William L. Slate, director of the Connecticut Agricultural Experiment Station.

As a result of research in cooperation with Yale University and the University of New Hampshire, the station has developed a wood-burning unit which can be built out of firebrick by any good mechanic and then connected with an oil heater of the convertible type. Wood in the fuel magazine is carried by gravity to the combustion zone, where it is distilled with gas. After introducing secondary air, the gas passes into the furnace and burns at high temperature.

This emergency unit holds one-tenth cord of wood, which is sufficient to heat a ten-room house for 12 hours in cold weather without further attention. The only metal part required is the cast-iron door and frame, for which production arrangements are now being made. A special bulletin giving the details of construction and operation may be secured from the station or from the Connecticut Forest and Park Association, P.O. Box 1577, New Haven, Conn.

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**IN SCIENCE**

## PSYCHIATRY

**Learn to Think of Today In Terms of Next 20 Years**

► WE MUST learn to think about today in a way that also takes 1950 and 1960 into consideration, Dr. James S. Plant, director of the Essex County Juvenile Clinic, Newark, N. J., declared at the meeting of the National Committee for Mental Hygiene in New York City.

War, he said, is a surcease from "the real struggle as to how man shall live with man."

After the war, he predicted, "every sort of demagogue and ism" will spring up and there will be "bitter disillusionment aplenty as each ready road to what man searches for turns out to be a false trail."

Post-war problems, he said, are really only the "blank dismay" of united and purposeful peoples when they find themselves once more facing the perplexities of how man is to live with his fellow man and himself.

We must learn, Dr. Plant advised, to think of the war and the years of bitter confusion that will follow as part of man's progress toward his dream of dignity, liberty and freedom for each man.

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## GENERAL SCIENCE

**Fellowships Discontinued By Westinghouse**

► BECAUSE MAJOR efforts of both research and production are being devoted to the war job, the Westinghouse Electric & Manufacturing Company has discontinued for the duration its post-doctorate research fellowships that have been awarded annually for the past five years.

Scientists of advanced training are now engaged in war research and Westinghouse officials report a shortage of research workers with adequate training. Those who in normal times would be interested in research scholarships will be directed to research work of greatest value to the war effort.

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# E FIELDS

## PHARMACOLOGY

### Balkan Plant Gives More Effective Drug

➤ A CRYSTALLINE substance from a Balkan digitalis plant, or foxglove, has proved more effective in treating heart disease than the digitalis in common use, Dr. Francis E. Chamberlain and Dr. Maurice Sokolow, of the University of California Hospital, report.

The substance is called cedilanid and is found only in *Digitalis lanata*. Terming it the "first superior substitute for digitalis yet to be found," the California physicians say that it produces the same effect as digitalis and acts more rapidly. In many cases, they report, patients were benefited within 10 to 20 minutes after being given cedilanid. It may be given by mouth or by injection into a vein. Their report states that this drug is now on the market and readily available to physicians.

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## CHEMISTRY

### Structure and Composition Of Biotin Discovered

➤ THE STRUCTURAL chemical formula of biotin, important but little understood member of the vitamin B group, was announced by Prof. Vincent du Vigneaud, of Cornell University Medical College, at the meeting of the New York Section of the American Chemical Society.

Synthesis of the vitamin will probably soon follow. This will be a great aid to scientists seeking more exact knowledge of its function, since it is so difficult to extract biotin from natural sources, such as liver, that at the present commercial market price one ounce, if that much were available, would cost about \$4,000,000.

Biotin is necessary for the growth of yeast and other microorganisms. It cures rats of the skin disease known as egg-white injury. It may play a role in cancer and just recently has been found necessary to prevent a skin disease that develops in rats when given sulfa drugs.

The role of biotin in human nutrition

is not yet known, but with synthesis and consequent ample supplies of the vitamin now in sight, this knowledge may soon be gained.

According to the newly-discovered structural formula, biotin has the forbidding scientific name of 2'-keto-3, 4-imidazolido-2-tetrahydrothiophenevaleric acid.

Associated with Prof. de Vigneaud in the two-year research leading to the elucidation of the formula were: Dr. Dean Burk, Dr. Klaus Hofmann and Dr. Donald B. Melville at Cornell; and Dr. Karl Folkers, Dr. Wolf, Dr. Mozingo, Dr. John C. Keresztesy and Dr. Stanton A. Harris, of the Research Laboratories of Merck and Co.

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## MEDICINE

### New Test Improves Operation for Sciatica

➤ A NEW TEST that tells more exactly the spot for operation on the back in cases of sciatica and low back pain is reported by Dr. Walter E. Dandy, of Johns Hopkins Hospital (*Journal, American Medical Association*, Oct. 24).

In almost all cases of sciatica with low backache, Dr. Dandy points out, the trouble is due to rupture or defect of an intervertebral disk, the layer of fibro-cartilage between the bodies of the vertebrae. Treatment by operation is "absolutely safe and a cure is practically assured," he states.

The diagnosis, he believes, can be made solely on the patient's story of attacks of sciatica and low backache occurring after a relatively trivial injury, such as a lift, bend or strain, with the pain made worse during attacks by coughing or sneezing. In almost all cases the affected disks are at the fourth or fifth lumbar vertebra.

In order to determine the location more precisely, Dr. Dandy says that during the operation the surgeon should push the spines of the fourth and fifth spinous processes downward and determine the mobility of each vertebra. The affected disk will be where the greater movement is shown because the defective disk has weakened the spinal column locally and this causes the mobility.

This free play at the disk is responsible for the intensification of the pain by coughing or sneezing and if the patient can stiffen his back before the cough or sneeze, the pain will be ameliorated.

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## MEDICINE

### Sex as Well as Vitamins May Play Gray Hair Role

➤ SEX as well as vitamins may play a role in the gray hair problem, it appears from experiments reported by Dr. B. Gerstl, of Yale University School of Medicine, and Dr. B. Lustig and Dr. A. R. Goldfarb, of the Lawrence Richard Bruce Biochemical and Research Laboratory, Stamford, Conn. (*Science*, Nov. 13).

When mice of the C-57 strain were kept on a diet lacking certain vitamins, gray hair developed in more than half of the surviving males but in only 6% of the surviving females within 30 days. Within 75 days all but one of the males had become gray, the scientists report, while 13% of the surviving females showed only slight changes in hair color. The same sex differences showed up in response to daily doses of para-aminobenzoic acid, calcium pantothenate and a combination of the two.

These findings, suggesting that gray hair produced by certain vitamin deficiencies may also depend on sex hormone factors, seem in line with the work of another scientist, Dr. T. R. Forbes, of Johns Hopkins University, who found that female sex hormone pellets implanted under the skin of white rats produced local darkening of their hair while certain male sex hormone pellets failed to do this.

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## NUTRITION

### Carp, Alewife, and Skate For Meatless Days

➤ "FISH on Friday" may for the duration become carp on Monday, quillback on Tuesday, skate on Wednesday and alewife on Thursday, it appears from a suggestion for meatless days offered by the U. S. Fish and Wildlife Service.

Fish contains almost all the nourishing qualities of meat, it is pointed out. Greater variety in meals may be achieved by making use of many unfamiliar kinds of fish, or of those known now only in certain localities. The Great Lakes and other lakes and rivers of the Midwest offer many delicious varieties of fish, and in addition there are many kinds previously discarded by salt-water fishermen that could contribute much nourishment to the diet on meatless days.

Most fish can be cooked by boiling, steaming, broiling, pan frying, and deep fat frying.

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