

MEDICINE

Warns Against Use of Sulfathiazole in Skull

WARNING against use of sulfathiazole within the skull, which surgeons might consider as a means of fighting infection in war wounds of the head and brain or in operations for removal of brain tumors, appears in the *Journal, American Medical Association*, (July 18).

Convulsions and even death may result.

Experiments showing clearly the danger are reported by Dr. Cobb Pilcher, Dr. Ralph Angelucci and Dr. William F. Meacham, of Vanderbilt University School of Medicine. They refer also to a report from English surgeons of five patients who developed epileptic seizures, two of them dying, after sulfathiazole had been placed on the frontal portion of the brain to fight infection during brain operations.

Sulfanilamide and sulfadiazine apparently do not have as irritating an effect on the brain, but the Vanderbilt surgeons also caution against the use of these drugs in brain surgery until more is known about their action through microscopic studies now under way.

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NUTRITION

Not Enough Vitamin A In Average Infant's Diet

THE AVERAGE diet of babies from three weeks to six months of age does not supply enough vitamin A for maintaining optimal concentrations of the vitamin in the blood, Dr. J. M. Lewis and Dr. Oscar Bodansky, of New York, declared at the Gibson Island Conference on Vitamins, Gibson Island, Md.

The average diet given to infants over six months, however, does supply enough of the vitamin, their studies showed.

This vitamin is required for growth and good health generally, and also to prevent night blindness or poor dark adaptation of the eyes. Growth, resistance to infections and dark adaptation, however, are not as good criteria of the body's vitamin A stores as measurements of the concentration of the vitamin in the blood.

The New York scientists found that this last measurement is "the best single criterion available at present for the diagnosis of vitamin A deficiency."

Reason why so little night blindness

has been found in children and adults in recent surveys, when many were believed to be eating poor diets, is that dark adaptation becomes impaired only when the diet is markedly reduced in vitamin A. The last finding was made on investigations with rats.

Optimal growth, these studies showed, occurred in the rats when the vitamin A content of the diet was 5 to 12 times the minimum requirement. Optimal concentration of the vitamin in the blood was observed when the vitamin intake was 12 to 25 times the minimum requirement. Good storage of the vitamin in the liver was noted at an intake of 50 times the minimum requirement.

Science News Letter, August 1, 1942

PALEONTOLOGY

Collection of Fossils Stranded in Honduras

OIL and steel and other war materials are not the only things whose movement is hindered by the U-boat menace. The progress of science is held up as well. A large collection of fossils of Ice Age and earlier date, collected by an expedition of the Field Museum of Natural History in Honduras during the years immediately preceding the outbreak of the war, is having to remain in storage in that country for the duration, "because of the uncertainty of water transportation," Paul O. McGrew, paleontologist of the Museum, reports (*Science*, July 24). As a consequence, questions of the existence of a land bridge between the Americas at that remote period remain unanswered.

Science News Letter, August 1, 1942

VETERINARY MEDICINE

Chickens Saved From Ill By New Sulfur Compound

CHICKENS can be saved from one of the most serious diseases that decimates poultry flocks with a new sulfur compound, one of 11 tried out by du Pont chemists and tested at the University of Wisconsin.

Both disease and drug have very formidable-looking names. The malady is known as cecal coccidiosis; it is caused by a species of protozoa, or one-celled parasitic animals. The chemical is called tetraethyl thiuram monosulfide. Its action is preventive rather than curative. Further experiments are to be conducted before the new chicken-drug is considered ready for general use.

Science News Letter, August 1, 1942

IN SCIENCE

ORNITHOLOGY

New Hall of Birds to Be Opened in Philadelphia

A NEW hall of birds will soon be opened by the Philadelphia Academy of Natural Sciences. It is named in honor of John Audubon, famed ornithologist and painter of birds.

The new setting for the birds of the world has been under construction for the past four years. Specimens are shown in natural postures against backgrounds simulating their natural habitats.

Members and friends of the Academy are financing the project.

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PHYSIOLOGY

Baldness Ascribed to "Ivory Domes" in Men

"IVORY domes" are the answer to why some people grow bald and why more men than women lose their hair, Dr. Frederick Hoelzel, of Chicago, reports (*Journal, American Medical Association*, July 18).

He found this answer, he states, when removing the brains of about 80 cadavers for neurology classes at the College of Medicine of the University of Illinois in 1916-1917.

"Baldness occurred," he reports, "in persons in whom calcification of the skull bones apparently had not only firmly knitted the cranial sutures but also closed or narrowed various small foramina (openings) through which blood vessels pass, most prominently in persons with a luxuriant crop of hair."

Since bone growth or calcification is generally greater in males than in females, Dr. Hoelzel continues, this explains why men are more likely to become bald than women.

"Obviously 'hair tonics' or vitamins," he concludes, "are not likely to restore a blood circulation through what has practically become 'solid ivory.' Moreover, one wonders whether the promotion of a higher calcium intake among adults may not eventually increase the incidence of baldness."

Science News Letter, August 1, 1942

THE FIELDS

ICHTHYOLOGY

First Aid Saves Fathead, A Real and Rare Fish

FIRST AID, promptly and persistently administered at the Scripps Institution of Oceanography, saved the life of a fathead.

No, the poor fish wasn't of the two-legged variety, venturing beyond his depth on the beach. He was a real fish, and a rare one at that, brought to the Institution in a gunnysack and apparently gasping his last. C. W. Palmer, aquarium attendant, massaged the fathead's gills for two hours, at the same time letting water flow over them. Finally the fish "came to" and took charge of its own respiration from there on. It is now one of the prize exhibits in the Institution's aquarium.

The fathead, which bears the formidable scientific name of *Pimelometopon darwinii*, comes from the Galapagos islands, and is rare even there. It is a vivid pink fish, two feet long, with a lumpy projecting forehead, thick lips and sharp teeth. It attracts considerable attention through its ability to chew up mussels and spit out the shells.

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GENERAL SCIENCE

War Training Program Should Aid Women Students

URGING fuller utilization of American colleges and universities toward winning the war, a conference of officers of leading educational institutions meeting in Baltimore pointed out what they held to be weaknesses in the war-education program now in effect, in a communication handed to four directly concerned government leaders.

Specifically, the conference criticized the failure of the present war-training program to aid any but male students physically qualified for active military duty. Similar aid should be given, it was declared, to young women, as well as to young men who may not be able to serve at the battle-front but are nevertheless in position to contribute toward victory through exceptional talents in research and leadership on the home

front. The statement stressed a declaration that "Economic status, race, or creed should not be allowed to restrict the training of adequate, skilled manpower at the college level for the war program."

Identical copies were placed in the hands of Secretary of War Henry L. Stimson, Secretary of the Navy Frank Knox, Hon. Paul V. McNutt, chairman of the War Manpower Commission, and Gen. Lewis B. Hershey, director of the Selective Service System, by Dr. George F. Zook, president of the American Council on Education.

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NUTRITION

U. S. Government Buys Huge Quantities of Juices

OVER a half million gallons of concentrated citrus juices have been ordered by the Government in Florida alone in an attempt to avoid scurvy outbreaks among the peoples at war due to vitamin C deficiencies.

Improved methods of processing the fruits have been developed by the U. S. Citrus Products Laboratory. A large plant to be used for this purpose has just been completed for the U. S. Department of Agriculture. The concentrated juice is now being put into medicine bottles for rationing to British children.

By preparing the vitamin in concentrate in a special vacuum chamber a thick flavorful syrup is obtained which contains 85% of the original vitamin content.

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METALLURGY

Iron Can Replace Nickel And Copper for Printing

ALL of the nickel and at least a third of the copper used in printing plates, can be replaced by iron, the National Bureau of Standards has found through research conducted in cooperation with the Government Printing Office.

About 10,000 pounds of nickel and 350,000 pounds of copper are normally used every month by the printing industry in the manufacture of printing plates. Much of these strategic metals could be saved by the substitution of iron.

The iron can be electroplated onto stereotypes and copper electrotypes, or true iron electrotypes can be made on wax and lead molds.

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ENTOMOLOGY

Chiggers and Jiggers Not the Same Thing

CHIGGERS and jiggers, both very annoying "bugs," are not at all the same thing, Maj. John E. Weigel, Army surgeon, points out. (*Infantry Journal*) Chiggers are the larval form of ground-dwelling mites, that invade the human skin during a certain stage of their growth. Jiggers are true insects, better known perhaps as sandflies. They are bloodsucking biters, and the females, exceedingly tiny pests, are also skin-invaders when they have families to raise.

Both chiggers and jiggers can be repelled with sulfur, applied to the skin before going into places haunted by the pests. Direct use of powdered sulfur is inadvisable because it is very likely to cause skin irritation itself. Sulfur mixed with various kinds of ointments and vanishing creams has been tried with success. Another trick is to wet yourself all over with a strong solution of photographers' hypo, and let it dry on the skin before putting on your clothes.

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STATISTICS

Young Couple's Chances For Golden Wedding Double

THE YOUNG bridal couples of today have twice the chance of celebrating their golden wedding anniversary that their forebears had 50 years ago.

A survey by statisticians of the Metropolitan Life Insurance Company shows that for the girl of 21 years who marries a man five years older, the chances are one in five that she and her husband will survive together for the next half-century. For the bride of 25 years with a husband 30 years old, the chances are one in 10 (*Bulletin*, June).

For the silver wedding anniversary, 25 years from now, the outlook is even better. The bride 26 years old or younger marrying a man five years older has more than three chances in four of celebrating her silver wedding anniversary with her husband.

The brighter outlook for silver and golden wedding anniversaries today compared with that in grandmother's time is largely due, say the statisticians, to the advances in medicine and public health which have greatly added to the expectation of life of the individual, and through this to the anticipated years of married life of each bridal couple.

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