AGRICULTURE

World Food Fund Proposed At UNSCCUR Conference

➤ A WORLD Food Fund, to be established by the member countries of the United Nations, was proposed by Sir Herbert Broadley, K.B.E., deputy director-general of F. A. O., at the United Nations Scientific Conference on the Conservation and Utilization of Resources, Lake Success, N. Y.

This fund, Sir Herbert explained, would not be expected to provide capital for a world program of increased food production; neither would it be called on to finance commercial transactions in the commodity field. Its purpose would be to "provide the resources for accurately measuring the possibilities, organizing the necessary research, planning the strategy of the international food campaign, and training those upon whom will fall the responsibility of directing the tactical operations of that campaign."

The world's increased food needs are measurable in almost astronomic figures, the speaker pointed out. To lift the curse of chronic hunger from the planet's increasing population, there must be by 1960 an annual production of 60,000,000 tons of cereals more than in prewar years, of 30,000,000 more tons of meat, of 250,000,000 more tons of fruit and vegetables, and of 35,000,000,000 more gallons of milk.

To meet these stupendous needs it will be necessary to use every possible means of encouraging greater production, Sir Herbert declared. More efficient use of lands now under cultivation, restoration of worn-out and abandoned soils through soil-conservation practices and irrigation, opening up of new lands, and improved transportation and distribution of products are among the things that must be done. Beginnings have been made, but they are only beginnings, he insisted. The cooperation of all peoples is necessary if chronic hunger is to be banished from the world.

Science News Letter, September 3, 1949

CHEMISTRY

Chocolate for Candy Now Made by One-Step Process

➤ CHOCOLATE for candy bars and other confections can now be made by modern scientific methods instead of by the usual rule-of-the-thumb method.

A one-step process of chocolate making, recently patented, is reported to give a much finer, tastier confection than heretofore obtained.

This new method will also allow a small manufacturer to go into the chocolate-making business with comparatively little capital and with a greatly reduced labor force, explains Justin J. Alikonis of the Paul F. Beich Company, Bloomington, Ill.

Basis of the one-step process is simultaneous air flotation of cocoa nibs and milk, powder, salt and other dry ingredients. Nibs are the chocolate particles obtained when cocoa beans are roasted and cracked open.

Temperature is kept below the melting point of the cocoa butter in the chocolate nibs. The nibs are roasted to the desired moisture content and cooled before being mixed with other ingredients.

Candy manufacturers, declares Mr. Alikonis, can save power, repair and maintenance costs and reduce their labor force as well as improve product quality using the new method.

Science News Letter, September 3, 1949

MEDICINE

Undercooked Polar Bear Meat May Transmit Disease

➤ LATEST health tip to vacationers in the very far north is to beware of undercooked polar bear and walrus meat. They might get trichinosis from it, warns the American Veterinary Medical Association in Chicago.

More usual source of trichinosis is undercooked pork that has the wormy germs, called trichinae, in it.

The disease hit 15 men on an expedition when they sampled raw or rare polar bear steak, one veterinary medical journal reports. And Eskimos are reported to have contracted the disease from eating walrus meat.

Science News Letter, September 3, 1949

NUTRITION

Freezing Will Not Make Those Steaks Tenderer

➤ THE notion that freezing meat will make it more tender is false, according to research findings at Cornell University. While there's an even chance of the meat becoming slightly more tender or slightly tougher, the difference either way is slight.

Neither does rate of freezing make much difference. There was more variation in tenderness between steaks cut from different carcasses than between steaks frozen at different rates.

The preliminary work also indicated that neither freezing nor rate of freezing has much effect on vitamin B content. After six months of storage, however, riboflavin content decreased markedly, while pantothenic acid and pyridoxine decreased slightly but consistently during that period.

"A turnover of all foods in the freezer at least once a year should result in little if any vitamin loss in freezer stored foods," said Prof. J. J. Wanderstock.

Other results show that storage temperatures must not be allowed to fluctuate above zero if the eating qualities and nutritive values of frozen foods are to remain constant. Pork, for example, easily becomes rancid under such conditions even after as short a period as four months.

Science News Letter, September 3, 1949

IN SCIEN

MEDICINE

Penicillin Fails as Cold Preventive in Trials

➤ HOPE that daily prophylactic doses of penicillin would keep people from catching colds and other respiratory ailments and losing time from work on account of such illness can be given up in the light of a report to the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION (Aug. 27).

The report is by Drs. Clifford Kuh and Morris F. Collen of the Permanente Hospitals at Oakland, Calif. These hospitals are part of the Permanente Health Plan established by Henry Kaiser early in the war for workers in his shipyards and their families.

Large-scale trial of daily penicillin doses as prophylaxis against nose, throat and similar illnesses was carried out for one year among members of the Permanente Health Plan who volunteered to take part in the trial.

The results of this trial were negative, Drs. Kuh and Collen report. Of the 2,937 volunteers, 1,486 were given twice-daily doses of penicillin pills. The other 1,451 were given pills of a harmless chalk mixture (calcium carbonate). Records at the end of the period showed practically no difference between the two groups in amount of respiratory or other illness, days lost from work or regular activities, days in hospital or number of persons who sought medical attention.

None of the volunteers knew which kind of pills they were getting. They were given a month's supply of pills at a time, and had to report in person to the hospital for the next month's supply. At the time of each monthly report, information was obtained as to whether they had been sick, what illness they had had, whether they had lost time from work on account of it and whether they had been in the hospital for any illness. Many of the original group dropped out in the course of the year, but several hundred carried through for the entire period.

Many relatively mild reactions to penicillin and also to the chalk pills were reported but there were no disastrous toxic effects from the long-continued taking of the penicillin. Neither was there any evidence that the prophylactic doses of penicillin kept it from being effective when it had to be given in remedial doses for illness.

The 730,000 penicillin tablets needed for this large-scale trial, worth over $100,000 at the minimum prevailing rates at the time, were supplied by the Lederle Laboratory Division of the American Cyanamid Company.

Science News Letter, September 3, 1949

CE FIELDS

ANTHROPOLOGY

New Human Fossil Found In South African Cave

➤ ANOTHER very early human type has been discovered in South Africa, source of many new human and near-human fossils in recent years. This newest find, which is more nearly human than some of the others, was made in the same cave that a short time ago yielded the jaws of a huge ape-man that was given the name *Paranthropus crassidens.*

The new fossil consists only of a lower jawbone, in which five molar teeth are still fixed, with the sockets of other teeth well preserved. It was found by J. T. Robinson, and is reported in the scientific journal, NATURE (Aug. 20), published in London, by him, together with Dr. Robert Broom. Both researchers are on the staff of the Transvaal Museum in Pretoria. They have given their new type the name, *Telanthropus capensis.*

The Telanthropus jaw is described as of ordinary human size—no larger or more massive than many modern jawbones. The two wisdom-teeth, however, are larger than any known similar modern tooth. While it is primitive in many respects, it is quite definitely human. Nearest resemblance is to the lone, and still puzzling, Heidelberg jaw, found in Germany many years ago. Like Heidelberg Man, Telanthropus was rather lacking in chin.

Site of the discovery, and poverty of the adjacent area in datable fossils of other animals, leaves the age of the new type in some doubt. Early pleistocene Ice Age seems likeliest.

Science News Letter, September 3, 1949

PSYCHOLOGY

Approval Necessary To Adolescent

➤ TO the boy of 12 years, the approval of others and having people look up to him is much more important than it is later when he is grown. Despite popular opinion that pictures the young boy as brutally indifferent to the feelings of others, the adult is no more interested in seeing other people happy than is the 12-year-old.

These are conclusions based on a study of the change of interests with age reported by the educational psychologist, Dr. E. L. Thorndike, of New York, to the JOURNAL OF APPLIED PSYCHOLOGY. Dr. Thorndike asked 37 graduate students of education to rate themselves on certain interests as they are now at the age of about 30 and as they were at the age of 12.

The boy is more interested in studying things, it was disclosed; the adult more interested in studying people and abstractions.

It is much more important to the boy to be among his own crowd.

Despite the changes with age, the boy's nature at 12 is prophetic of the kind of man he will become. The child to whom approval is more important than being boss is likely to grow up to be a man who seeks applause rather than power.

Science News Letter, September 3, 1949

GENERAL SCIENCE

Now It's HCSB: High Cost Of Scientific Books

➤ ADD HCL problems: the cost of scientific books.

They now cost so much that "it is virtually impossible for many scientific workers to own volumes they need and this is to say nothing of the poor student, who has to struggle to pay for texts that are absolutely essential," complains a communication to the journal, SCIENCE (April 22).

The protest against book costs by John R. Lowry of General Foods Corporation, Hoboken, N. J., appears in the journal's annual book issue.

"I see no reason for paying $4.00 for a 147-page book—the price asked for a recent publication," he comments.

Mr. Lowry's solution: use the European procedure of issuing books unbound as well as bound. This would cut the price of many books by a fourth, he contends.

Science News Letter, September 3, 1949

AGRICULTURE-ENTOMOLOGY

If Carrot Seeds Fail, Blame Bad Lygus Bugs

➤ IF LESS than half of your carrot seeds sprout, blame it on the Lygus bugs. Evidence that these inconspicuous, "average-looking", quarter-inch-long insects are to blame for wholesale failure of seeds of the carrot family to germinate and produce new plants is presented in the journal, SCIENCE (April 8), by Florence Flemion of the Boyce Thompson Institute for Plant Research in Yonkers, N. Y.

Seed-producing plants of carrot and dill were placed in insect-tight cages, and various kinds of insects were caged with them. The plants with which Lygus bugs were caged produced very high percentages of seed without embryos, hence incapable of sprouting. Those caged with other kinds of insects, but with Lygus bugs excluded, produced full crops of normal seed, complete with embryos.

Although only carrot and dill were used in Miss Flemion's experiments, there is reason to believe that the results hold good for other members of the family as well—parsnip, parsley, caraway, coriander, fennel and several other flavoring herbs.

Science News Letter, September 3, 1949

GENERAL SCIENCE

Truman Asked To Appoint Group To Study Security

➤ PRESIDENT Truman is asked to appoint a commission on science and national security in a letter from 145 scientists published in the journal SCIENCE (Aug. 26).

A full investigation is suggested for "excessive attempts at secrecy" that may "diminish instead of preserve our national security."

Other questions that the proposed group of leaders from various fields of science, education, government and business would consider include:

Should secret research be conducted outside military establishments?

What clearances of scientists "admissible within the bounds of scientific and democratic tradition" should be required in military, other government and non-governmental laboratories?

If political tests for non-secret scientific work are required, what effect would there be on the morale of scientists and scientific progress?

The dilemma, the letter says, is that the narrowest interpretation of military security demands that nothing be revealed that might conceivably be useful to a potential enemy, while experience shows that withholding knowledge and abridgment of freedom of thought rapidly inhibit research.

Science News Letter, September 3, 1949

MINERALOGY

Low-Grade Ores Yield Gold By Magnetic Method

➤ GOLD and silver can be pulled out of hitherto unworkable low-grade ores by means of invisible iron handles, in a process on which U. S. patent 2,479,930 has just been granted to Earl C. Herkenhoff and Norman Hedley of Stamford, Conn., assignors to the American Cyanamid Company.

Concentration of practically all precious metals out of their ores begins with getting them into a cyanide solution. This is followed, in the case of high-grade ores, with precipitation on finely divided zinc. With some low-grade ores, finely divided activated carbon is used instead, followed in turn by a flotation treatment. Flotation is troublesome, however, and appreciable losses are entailed.

Messrs. Herkenhoff and Hedley obviate this handicap by rendering their carbon magnetic, either through the incorporation of ground magnetite or by impregnation with an iron salt which is subsequently reduced, leaving pure iron in the pores. After the carbon has adsorbed the dissolved gold, it is separated out by familiar commercial magnetic means. Much larger carbon particles can be used with corresponding reductions in losses.

Science News Letter, September 3, 1949