

NUTRITION

Meat Substitute

Sprouted soy beans suggested as one solution to shortage. Are high in protein, fat, minerals and vitamins. Require no ration points.

► **SPROUTED SOYBEANS**, in the opinion of Dr. C. M. McCay of the School of Nutrition at Cornell University, are one answer to the meat shortage. He has worked on the problem of meat substitutes for nearly a year, with Dr. Peng Cheng Hsu, stranded Chinese student at Cornell.

The big job, they say, is to familiarize people with this valuable food. It takes a few meals to develop a liking for the soybeans, and since they contain no starch, they go well with rice and potatoes.

Dr. McCay's search even took him to New York City's Chinatown to observe bean-sprouting methods in local cellars. The sprouts are sold in bins and barrels like other vegetables. They are regarded as good meat substitutes because they are high in protein and fat; minerals, including calcium and utilizable iron; and vitamins. Best of all, they require no coupons or ration points.

The Cornell scientists worked with the light-colored Seneca variety, which is grown extensively in New York by dairymen. They developed a quick and easy method of sprouting the beans, now possible in three to five days. Sprouted beans are preferred to the unsprouted because of ease of cooking and high vitamin C content.

All the homemaker needs to sprout them is a simple arrangement like a flower pot, into which the beans are placed and water poured over them. The water escapes at the bottom, but the beans are kept moist. Dark, damp, clean conditions are required.

A test in the Cornell cafeteria, with a few persons, revealed the need for some flavoring, as practiced in the Orient. Cooking tests are underway to develop a variety of tasty dishes, including soups, stews, and salads. Work is also being done on freezing and drying the beans.

Mass production of the sprouts offers no serious problem, in the scientists' opinion. Cheap processes can be developed for creameries, canneries, and other established manufactories. There is no waste in this vegetable, and quick cookery, from 10 to 20 minutes, like a

pork chop, makes it ready for the table. At Cornell 100 pounds of sprouts a day are easily produced for laboratory purposes.

In the post-war period, Dr. McCay says, the soybeans offer big possibilities for shipping abroad to prevent scurvy and to maintain starving populations.

A test marketing program is planned in Ithaca and the hope is to extend use of the sprouted soys throughout the state, particularly in New York City, to relieve the meat woes of harassed housewives.

Science News Letter, May 22, 1943

GEOGRAPHY

Amchitka and Adak Are Valuable Bases

► **AMCHITKA** and Adak, two of the Aleutian stepping-stones on the road from America to Tokyo, now bases for American armed forces, are exceptionally well located for offensive activities.

Amchitka is particularly so. Adak is a partway station between Amchitka and Dutch Harbor, where munitions and equipment may be held ready to rush forward to Amchitka and beyond when the usual Aleutian fogs makes transportation from Dutch Harbor or the mainland difficult. Adak's good harbors will permit bringing supplies by boat.

Amchitka is a sort of a half-way station between the North American continent and Japan or Asiatic mainland. It is almost on the great circle route from Seattle or Fairbanks to Tokyo. It is about 70 miles from Kiska and 250 from Attu. The two latter American islands, now occupied by probably some 10,000 Japs, will be cleaned up more easily as even the brief intervals between heavy fogs may be used for air attacks.

Both islands are treeless and barren. Amchitka is some 15 miles long and five wide. It has about the same area as Kiska. Building airways for bombers is reported to have been an easier job there than the Japs encountered in Kiska. During construction the Japs were kept at a distance by the American forces, according to reports, so that the airways were ready for use in a minimum of time.

Adak lies about 180 miles east of Amchitka and 450 miles west of Dutch Harbor. Kiska, only 250 miles to the west, is within easy striking distance. Adak is about 425 miles from Attu. Consolidated attacks on either Kiska or Attu seem easily possible.

The several good harbors of Adak will prove of value to warships, transports and cargo boats. Its snow-capped peaks on one hand and the warm Pacific current on the other keep the temperature without very extreme variations. Its facilities may be used throughout the year.

Science News Letter, May 22, 1943

GENERAL SCIENCE

Laboratory Apparatus Is On War-Scarce List

► **SCIENTIFIC** laboratory apparatus is on the list of scarce articles; that is unless the laboratory needing the apparatus is doing war work. Physics equipment will be particularly short because the 240,000 service men now being sent to 450 colleges and universities will all be required to take courses in physics.

The Army and Navy need hundreds of thousands of physicists and men with a knowledge of the fundamentals of physics. War is technical. Fighting, transportation and communication articles of equipment are all technical also. Most of them are based on the principles of physics. They were developed and constructed by physicists and engineers. In the military service they are used by service men, and they must be kept in repair by service men.

The institutions where these service men are now being trained will need large quantities of new apparatus. Much of their old equipment does not fit into the exact courses the armed services require. They will need also instruments of the exact types the services are using so that the trainees will be familiar with the appliances they will use in the field.

The scientific instrument manufacturers will meet the needs as far as possible. Their capacities to produce the required apparatus at this time are somewhat limited. Long ago many of them converted part or even all of their facilities to war work, constructing physical apparatus needed in the war industries and in the armed services. They will be able to produce what is needed in the college training courses for men in the service, but probably very little if any for civilian laboratories not in war work.

Restrictions placed on the purchase of

laboratory apparatus nearly a year ago by the War Production Board to save critical material and permit the factories to concentrate on war needs, have now been amended. Laboratory apparatus for the college military training programs now falls into the category of purchase orders for which applications must be made to the War Production Board, irrespective of the value of the items desired. This procedure is intended to control the distribution of the available equipment so that the war needs will be served first.

The needs of pre-induction courses in high schools will probably not be overlooked. These courses for young men who will reach induction age soon are given by the schools at the request of the Army.

Laboratories working on radio programs for the Army or Navy hereafter will be able to get from a central agency

the supply of critical electronic components not quickly available in commercial channels. This agency is the Electronic Research Supply Agency, formed under the Defense Supplies Corporation at the request of the armed services, the Office of Scientific Research and Development, and the War Production Board.

Active operation of the Electronic Research Supply Agency has already begun under an executive committee representing the government divisions concerned. Its office and stockroom is located in New York City. As a central source of electronic parts, it expects to save laboratories the necessity of building up their own complete stockpiles of components. Laboratories, however, will not be compelled to use this central agency. It is merely for their convenience.

Science News Letter, May 22, 1943

PSYCHIATRY

Novel Dual Personality

Case reported to Psychiatric Association of scholar in whom amnesia united another personality with mind of new-born infant.

A STRANGE CASE of dual personality, in which amnesia united in one person a highly intelligent, learned theologian well-versed in Greek, Latin and Hebrew and also another man who was mentally like a newborn infant reaching for the moon, was described by Dr. S. Philip Goodhart, of New York, speaking before the American Psychiatric Association in Detroit.

Literature, Dr. Goodhart said, does not record a single authentic case in which the splitting between the two personalities was so complete or the suppression of knowledge of the other personality so absolute.

It happened when a young Connecticut minister was thrown from his carriage to the ground head foremost. After a period of unconsciousness, he awoke bewildered and completely out of contact with his surroundings. All previous knowledge, all memories were gone.

"He was like a newly born infant, opening his eyes for the first time upon the world," Dr. Goodhart said.

Through dream analysis, the young man was induced to re-live past experiences. One day he awoke completely restored to his original personality. After

another sleep, however, he awoke in his new personality with the knowledge and experience only of an infant. He had no knowledge of distances, so that he would reach out the window for the moon.

In his original personality, the patient was right-handed. In his infantile personality, he was ambidextrous.

The two personalities would alternate, separated by periods of profound sleep.

Medical examinations revealed no organic or physical injury to the brain, Dr. Goodhart said. The trouble seemed to be due to severe emotional conflict. In his personality as young clergyman, the patient had suffered from deep philosophical, religious and social conflicts, from which he got relief by the amnesia.

To complete the merging of the two personalities, the patient was confronted with both simultaneously. After an intense struggle, his two personalities merged and he recovered. He changed from religious work.

Science News Letter, May 22, 1943

Drawings Reveal Problems

➤ A FIERCE tiger, snake or lion drawn by a child may be a sign that the young-

ster is suffering from severe emotional disorder, Dr. Laurretta Bender and Dr. Jack Rapoport, of Bellevue Hospital, New York, reported to the meeting.

Study of the drawings made by children in the observation ward at Bellevue revealed that when the children portray such aggressive animals, they are usually very ill emotionally. When they draw friendly pussy-cats or puppies or ducks, the youngsters have only mild behavior problems.

Children and primitive people identify themselves with animals, the psychologists pointed out, and this seems to apply to children who feel depressed and rejected or who suffer from feelings of inferiority.

The child may also replace the father in his drawings with an animal symbol, since children do not as yet recognize the gulf that separates human beings from the animals.

The child who draws pictures of aggressive animals may therefore be revealing fear of his father and even a desire to kill him, the psychologists said.

Science News Letter, May 22, 1943

"V" Symphony Reassures

➤ THE FAMOUS "V" signal in the opening of Beethoven's Fifth Symphony can produce an effect on mentally ill patients so cut off from the world that they cannot respond to spoken words at all, Dr. Ira M. Altshuler, of Eloise Hospital, Eloise, Mich., reported to the meeting of the American Psychiatric Association.

"Patients who are considerably disturbed or deeply withdrawn from the outer world may respond to music by a tap of the foot, a swing of the body, or a drumming of the fingers, in tempo with the music," Dr. Altshuler said. "We have observed frequently that if the music tempo is changed the tap is correspondingly affected."

The change from fast to slow tempo as in the "V" signal is reassuring, he said. Ascending scales produce a feeling of rising and a tendency to make ascending movements. Variations in pitch and volume also affect the hearer.

Music reaches the patients through that part of the brain known as the thalamus, which has to do with emotions and feeling. The spoken word, to be reacted to, must travel to the cortex and call forth response there.

Science News Letter, May 22, 1943