News of Science

Science and International Relations

The *Saturday Review* reported in its issue of 29 May that the National Academy of Sciences is prodding the present administration to give science a direct and active role in the formulation of U.S. foreign policy. An article by John Lear states that at the recent NAS annual meeting a resolution was adopted supporting the academy president, Detlev Bronk, in his efforts to encourage the appointment of distinguished scientists by the Department of State as "Ambassadors of Knowledge."

During the previous administration, a special science adviser to the Undersecretary of State was designated, and his office was given jurisdiction over ten science attaches who were stationed in five of the capitals of Europe. A program drafted by an academy committee at that time called for eventual expansion of the science attache network to include regional representatives in London, Johannesburg, Rio de Janeiro, Sidney, and perhaps New Delhi and Cairo; other representatives were to be assigned on an individual country basis in Paris, Rome, Berne, Stockholm, Ottawa, Lima, Oslo, the Hague, and Brussels.

The article points out that now "all the Science Attaches have come home, none has been replaced, and the office of Science Advisor is occupied by an economist." Lear then invited readers to "consider the situation in our foreign relations in its full absurdity," and goes on to say:

"Soviet Russia is assigning scientific attaches to its embassies for the first time in its history. In its school at home it is training thousands of its youth in the scientific disciplines with the obvious intent of covering the globe with missionaries of technical know-how in the next generation.

"Britain, Canada, Australia, and India have science attaches in their embassies in Washington, backstopped by another science staff working jointly for the Commonwealth. Sweden stations an official scientist in this country. So do Norway, France, Germany, Austria and Japan. Little nations like Belgium, Holland, Denmark and Israel keep scientific specialists in our capital. Even the so-called backward lands—Egypt, South Africa, Yugoslavia—have scientific observers here. The United States . . . has no science attache anywhere."

In an editor's note, the *Saturday Review* asks:

"If the U.S. Navy can (as it does) keep a science staff of its own in London, and if the Atomic Energy Commission can (as it is beginning to do) plant its agents in U.S. embassies under disguised titles, why cannot the Department of State appoint Science Attaches concerned with the day-to-day effects of new discovery on our power for peace in the world?"

Glacier Campsite

Five scientists are returning this month to their campsite of last summer on a 1300-foot-thick glacier in Greenland, where they spent 2 months gathering geological data and measuring the flow of active glaciers and the formation of crevasses. The project is sponsored by the U.S. Army Corps of Engineers as part of a study of the polar regions. This year's party will be led by Thomas M. Griffis of the University of Denver.

According to conservative estimates, the massive ice fields are moving about a foot a day; the result is intense crevassing of the glaciers. These cracks in the ice are as deep as 150 feet and range from a few inches to 100 feet in width. They sometimes extend for miles across the ice sheet.

Exactly how the cracks form and grow is not fully understood. Last year, using mountain gear, the expedition members descended into a number of crevasses and planted instruments to record temperature changes and ice movements. This summer they hope to recover these instruments for reading.

The expeditions will be on the ice from about 16 June to 5 Sept. The group flew to Thule Air Force Base in Northern Greenland on 13 June, then traveled overland 20 miles to Camp Tuto, a temporary base camp maintained by the 1st Engineers Arctic Task Force. From Camp Tuto snow weasels will carry the expedition about 13 miles out onto the ice cap.

U.S. Visitors and Soviet Science

The 14 Americans who have been attending a conference in Moscow on the physics of high-energy particles issued a statement that said:

"A source of particular gratification to us has been the observation of a strong interest in pure science on the part of so many Soviet physicists. This has been reflected in our many discussions concerning basic ideas." [We are] "greatly impressed by the broad scope of the Soviet effort . . . and by the high level of both experimental and theoretical physics in the Soviet Union."

A spokesman for the group, Robert R. Wilson of Cornell University, told a news conference that the Soviets "are not just making practical things like missiles and atomic bombs, but have a big program of research." Robert E. Marshak of the University of Rochester commented that it was impossible to say whether the Soviets had swung away from research into the military applications of atomic energy to other fields, since the programs were not mutually exclusive.

Discussing their meetings with the Soviet physicists, Marshak and Wilson said the exchanges showed "no reflection of political ideas." They said: "We speak the same language. Their science shows no influence of Marxist ideology."

They also pointed out that the Soviet Government attracts the country's best minds to the natural science field through the prestige and rewards it offers. "Their scientists are relatively better off than ours," Marshak said.

Gibberellic Acid

Gibberellic acid may sound like gibberish, but it turns out to be an extremely important plant growth substance which before long may take its place beside auxin. Last year P. W. Brian and H. G. Hemming showed that gibberellic acid, which markedly stimulates the elongation of stems and leaves in a number of higher plants, acts more strikingly on slow-growing or dwarf forms of peas, broad beans, and French beans than on normal varieties (*Physiologia Plantarum* Sept. 1955). Recently B. O. Phinney of the University of California at Los Angeles found that when six genetically dwarf strains of maize were supplied with gibberellic acid, four of them responded by making normal growth as long as the compound was supplied, while two mutants remained dwarf, one of them showing only a very slight response. (*Proceedings of the National Academy U.S.A.*, April 1956).

It appears that gibberellic acid might be a normal growth-promoting substance, and that its production may be inter-

fered with by several independent gene mutations at different loci. Other mutations may, however, mimic the effect of a lack of gibberellic acid. This might be because the response of stem and leaf cells to gibberellic acid is in some way lessened, or it might be because there are other essential growth-promoting substances necessary for cell elongation. Gibberellic acid is a tetracyclic dihydroxylactonic acid, $C_{19}H_{22}O_6$.—B.G.

Amazon Fossil Search

Members of the paleontological expedition to the Juruá River, one of the major tributaries of the Amazon, left New York recently on a journey that will take them more than 2000 miles into the interior of Brazil. George Gaylord Simpson, chairman of the department of geology and paleontology at the American Museum of Natural History, is coleader of the expedition. The group has joined a party of Brazilian scientists from the National Department of Mineral Production and the Goeldi Museum that is led by Llewellyn Ivor Price. The expedition is traveling up the Juruá to the Peruvian border in search of fossil remains of early animal life.

Before his departure Simpson commented that "Although no previous paleontological study of the Juruá region has ever been attempted, small scraps of fossils brought out by traders and explorers indicate that the area may be rich in fossil deposits. Since almost nothing is now known about the evolution of the fauna of the region, any material we find should be of considerable scientific importance."

Atomic Power Plants

The British Atomic Energy Authority has announced that the first of two atomic piles at the Calder Hall atomic power station in Cumberland has begun to work. Construction of the experimental station began 3 years ago. Queen Elizabeth is to open the station officially 17 Oct.

The Authority's statement said: "For the first time in the history of the world electricity on a large scale will then be supplied from a nuclear power station to a national electricity network." In a few weeks the first electricity will be generated, but the plant will not be on full power until later. Its projected capacity is 50,000 to 70,000 kilowatts.

The only United States counterpart to the British installation at Calder Hall is the plant of approximately 60,000 kilowatts capacity that is being constructed at Shippingport, Pa. According to present plans it will be completed in late 1957. Power from Shippingport will be distributed by the Duquesne Light Company of Pittsburgh, which is contributing substantially to construction costs of the plant.

The Soviet Union plans to install five new atomic power stations in Moscow, Leningrad, and the Urals. The size of these power plants will range from 400,000 kilowatts to 600,000 kilowatts each. They are expected to be in operation by the end of the current 5-year plan in 1960. Several pilot atomic installations, each with a capacity of 50,000 kilowatts, will be operating by 1959 or 1960. A 200,000-kilowatt pilot plant also is being planned in addition to the big commercial installations.

News Briefs

■ President Eisenhower recently began a series of meetings with an advisory committee to consider the possibilities of creating some type of decoration, comparable to the Order of the British Empire and the French Legion of Honor, for citizens who distinguish themselves in the arts, letters and sciences. The President is discussing his plan with a committee consisting of Harold W. Dodds of Princeton University, Leonard Carmichael of the Smithsonian Institution, Percival Brundage, budget director, Sherman Adams, and Howard Pyle.

■ The U.S. Air Force plans to build a large solar furnace at approximately the 9000-foot level in the Sacramento Mountains near the Holloman Air Development Center, Alamogordo, N.M. This furnace, a system of mirrors that will bring the sun's rays to a focus, will be used for high-temperature research and for testing of materials and components of weapons. France has a comparable solar furnace, probably the largest there is, that is located on Mount Louis in the Pyrenees.

■ Wilhelm Reich, who developed the "orgone energy accumulator," and his colleague Michael Silvert, have been held in contempt of court and sentenced to prison. Having filed an appeal, the two men were released on $15,000 bail each.

The contempt charges grew from their failure to comply with a Federal injunction that prohibited shipment of orgone accumulators in interstate commerce and the distribution of literature concerning orgone energy. Reich used his accumulator, pronounced worthless by the U.S. Food and Drug Administration, as an adjunct to psychiatric therapy. He maintained that a patient sitting in a box he devised could build up lost energy.

Scientists in the News

The U.S. Department of Agriculture has presented Distinguished Service Awards to seven of its employees for their achievements in research and improved administration. The recipients are as follows:

LYLE T. ALEXANDER, chief of the Soil Survey Laboratories, Soil Conservation Service, Beltsville, Md., who is a leader in soil science. He has done considerable work on the use of radioactive material in agricultural research and on the effects of radioactive fallout on soils.

MERTON R. CLARKSON, deputy administrator, Agricultural Research Service, Washington, who has played a major part in control and eradication of foot-and-mouth disease in Mexico during the past several years.

ELWOOD L. DEMMON, director of the Southeastern Forest and Range Experiment Station, Ashville, N.C., who has directed forest management work in several areas. Among his achievements is leadership in developing new methods of harvesting gum naval stores and in improving the management of several million acres of industrially owned forest throughout the pine region of the South.

CLARENCE M. FERGUSON, administrator, Federal Extension Service, Washington, who has promoted development of new extension educational methods for reaching and serving rural people.

JAMES B. HASSELMAN, director of information, Commodity Stabilization Service, who has spent nearly 40 years in state and federal agricultural information work. He now directs the information program that is required for the operation of acreage adjustments and price supports and for the sale, barter, and donation of Government-owned agricultural stocks.

SYLVESTER R. SMITH, director, Fruit and Vegetable Division, Agricultural Marketing Service, who provided the leadership and vision that resulted in a continuation of acreage and production guides for commercial growers after the war. These guides have helped to keep vegetable production in line with market needs.

PERCY A. WELLS, chief of the Eastern Utilization Research Branch, Wyndmoor, Pa., who directed research that led to development of new uses for many abundant farm products such as white potatoes, animal fats, and tobacco.

LEO E. MELCHERS, formerly head of the department of botany and plant pathology at Kansas State College, will retire from active duty on 1 July. He will have completed 43 years of service as teacher, administrator, and research worker at the college.