Singer Acquitted

The U.S. Court of Appeals has reversed itself and ordered acquittal of Marcus Singer, professor of zoology at Cornell University who had been convicted of contempt of Congress. In 1953 Singer told the House Committee on Un-American Activities that he had once been a Communist, but he refused to name others with whom he had been associated in Communist activities. He was indicted in 1954 and since that time has been suspended from teaching duties, although receiving full salary.

He has continued his research in the fields of growth and regeneration, work supported in part by the American Cancer Society. After the court decision was announced, Provost Sanford S. Atwood of Cornell told the press that the legal proceedings had "produced no evidence of Prof. Singer's unfitness to teach and he is being reinstated as a teaching member of the faculty."

Asian Nuclear Center

Representatives of 16 nations met in Washington this month to work on the organizational and financial structure of an Asian nuclear center to be established at Manila. The United States has offered $20 million to equip the center and pay initial operating costs.

The United States invited the members of the Consultative Committee of the Colombo Plan to Washington for the following purposes: to decide finally whether they wish to go ahead with the idea of establishing the center; to see for themselves at the Brookhaven National Laboratory, Upton, N.Y., the kind of institution toward which they would be working; to set up a plan for the organization and future financing of the center.

The Colombo Plan Committee consists of representatives of all the non-Communist Asian nations from Pakistan to Japan, except South Korea and Nationalist China, plus contributing members—Australia, Britain, Canada, New Zealand, and the United States. Together these countries form a loose organization for mutual assistance. Robert McClintock, chairman of the U.S. delegation, was elected permanent chairman of the meeting.

Europeans Tour Nuclear Power Facilities

A group of 50 industrialists and government officials from Belgium, France, West Germany, Italy, Luxembourg, and the Netherlands toured various installations of the U.S. Atomic Energy Commission and the plants of several private companies during July. The purpose of the tour, which was sponsored by the AEC, was to provide the visitors with firsthand knowledge of the technology associated with setting up large power reactor complexes.

Since the primary interest of the visitors was in reactors that can be built in Europe at an early date, their itinerary took them to facilities actually engaged in various phases of work on the pressurized and boiling-water reactor systems. Included were commission sites where pressurized and boiling-water reactors have been designed, constructed, and operated, and plants engaged in fuel-element fabrication, manufacture of pressure vessels and other components, and chemical processing.

The governments of the six countries represented in the group signed in Rome on 25 Mar. the treaty which, when ratified, will establish the European Community for Atomic Energy, known as EURATOM. The purpose of EURATOM is to contribute to the formation and the rapid growth of a European nuclear industry. Early this year three representatives of these countries surveyed the nuclear power programs of the United States, Canada, and the United Kingdom and in May issued a report, *A Target for EURATOM,* that recommends a goal of 15 million kilowatts of installed nuclear electric capacity by the end of 1967. The report stated that to meet the goal it would be necessary to begin with reactor systems that are the most advanced technologically.

New High-Strength Steel

The National Bureau of Standards has experimentally produced steel that can be heat-treated to a strength of 285,000 pounds per inch with sufficient ductility for structural applications. Developed by Samuel J. Rosenberg and Carolyn R. Irish of the bureau's thermal metallurgy laboratory, the steel is made by normal melting and working processes and should not be difficult to manufacture.

In recent years the increasing demand for reduced weight in aircraft structures has been a constant stimulus for the development of high-strength steels. One of the principal applications for such materials is in aircraft landing gears. Because landing gears constitute approximately 10 percent of the weight of an empty military plane, the use of an ultra-high-strength steel in such components can save considerable dead weight. Because of the urgent need for stronger steels in this particular application, the Navy Bureau of Aeronautics has sponsored an investigation at NBS to develop a steel having a tensile strength of approximately 300,000 pounds per inch.

Although many steels can be heat-treated to strengths of 300,000 pounds per inch and higher, they are normally quite brittle at this strength level. Such brittleness prohibits their use in structural applications where a certain amount of ductility and toughness is required. The present investigation therefore concentrated on developing a steel that would not only be strong but would also have high impact resistance.

New Missing Link Discovered

To zoologists the recently reported discovery by the Galathea Expedition of the extraordinary deep-sea mollusk *Neopilina galatheae* [H. Lemche, *Nature* (23 Feb. 1957)] will seem even more incredible than the famous discovery in recent times of *Latimeria,* the living coelacanth, even though the layman may see less of interest in the mollusk than in the fish. *Latimeria,* however, represents a group of fishes which survived into the Cretaceous period, and became extinct only some 70 to 90 million years ago; whereas the new-found mollusk represents a class that existed in the Cambrian to Devonian periods of the Paleozoic, and was supposed to have become extinct about 280 million years ago, when the coelacanths were just beginning to branch off as a special side-group of the other lobe-finned fishes (crossopterygians). *Latimeria,* moreover, seems to be a conventional sort of coelacanth, except for its salt-water habitat; but *Neopilina* is an obviously *segmented* mollusk, violating one of the general criteria by which mollusks are most readily known, their unsegmented body plan. *Neopilina,* of which 10 specimens and 3 additional shells were dredged up from a depth of 3590 meters off the west Mexican coast on 6 May 1952, has a fragile shell somewhat resembling that of a limpet, but there the similarity to any gastropod ends. The fossils of the class had already given evidence of symmetrically arranged pairs of shell muscles. The living animal exhibits segmentation in other significant features as well. There are five pairs of auricles that receive blood from the gills, one pair of auricles for each of the pairs of comblike gills (ctenidia). There are also paired excretory organs, nephridia, again one pair for each of the five segments of the mollusk's body. There may be other internal organs which are segmented in arrangement, but further study of the internal anatomy will be required to clarify such matters.

Neopilina represents a primitive form of mollusk intermediate between the amphineurans (chitons) and the cephalopods, but best placed, according to Lemche, in a distinct class, the Mono-

placophora. Some of its fossil relatives which have even higher numbers of paired muscle scars on the inside of the shell may well have been the connecting links between the mollusks and the typically segmented annelid worms and arthropods.—BENTLEY GLASS

Carnegie Petroleum Laboratory

The Chemical and Petroleum Research Laboratory was incorporated at Carnegie Institute of Technology on 14 July. The new facility is composed of three chemical research units: the Petroleum Research Laboratory, the Manufacturing Chemists Association Research Project, and the Thermochemical Laboratory.

The incorporation was made in order to make it possible to carry on, within one administrative organization, a number of related continuing research projects of a permanent character. The new laboratory is affiliated with the department of chemistry and will be under the direction of Frederick D. Rossini, head of the department of chemistry. Beveridge J. Mair is assistant director.

IGY Bulletin

The first issue of the *IGY Bulletin,* a new publication of the U.S. National Committee for the International Geophysical Year, was released this month. Reprints of the *Bulletin* will be distributed monthly to scientists and others directly concerned with the IGY program. (In alternate months, two issues will be published in the bimonthly *Transactions of the American Geophysical Union.*)

The first number of the *Bulletin* reports on some major aspects of the IGY program as it stands at the beginning of the Year. Similar treatment will be given the remaining program areas in the next few issues, thereby establishing a base for the reporting of IGY events, activities, and findings as the Year progresses.

U.N. on Natural Energy Sources

New ways in which man can conserve the earth's dwindling fuel supplies by harnessing certain natural forces now chiefly wasted are described in a report released recently by the United Nations. The report, to be considered by the Economic and Social Council this summer, was written to meet a request by the council last year for studies on the practical use of five new sources of energy: solar energy, wind energy, geothermic energy, tidal energy, and thermal energy of the seas. As called for by the council resolution, it pays special attention to the possibilities of raising the living standards and economic development of less developed countries.

In preparing this report, the secretariat had the help of five specialists who wrote background studies on each of the new energy sources. They were: on solar energy, Farrington Daniels, chairman of the chemistry department of the University of Wisconsin; on wind power, E. W. Golding, Electrical Research Association, London; on tidal energy, Robert Gibrat, professor of industrial power, Ecole Nationale Superieure des Mines, Paris; on geothermic energy, Ing. Remo Alessandri, Director General of the Societa Larderello, Florence; and on thermal energy of the seas, Christian Beau, inspector general of bridges and highways, Energie des Mers, Paris.

The new U.N. report is the first section of what will eventually be a three-part printed volume. It describes in a general way the five natural energy sources, reviews briefly methods which have been devised to use them for economic purposes, and evaluates their main features. Next, it examines the role which each energy source may play in the production of electric power as well as its nonelectrical applications. Finally, lines of action are suggested for developments which seem to be more important than others. The second and third parts of the report will consist of extracts from the technical background studies of the specialists and a comprehensive annotated bibliography prepared by the U.N. Educational, Scientific and Cultural Organization.

Ultrastructure Research

Academic Press Inc. has announced publication of the *Journal of Ultrastructure Research,* which is to be edited by Fritiof S. Sjöstrand and Arne Engström, both associated with the Karolinska Institutet, Stockholm, Sweden. The purpose of the new journal is to assemble in one medium papers dealing with the ultrastructure of the elementary structural as well as functional components of cells and tissues. Papers on biological material analyzed by means of electron microscopy, x-ray diffraction techniques, x-ray microscopy, polarization optical analysis, and polarized infrared analysis will be acceptable, as will those describing techniques and instruments of importance for the development of ultrastructure research.

The editorial board will consist of F. B. Bang (U.S.A.), W. Bernhard (France), A. Claude (Belgium), V. E. Cosslett (England), Albert J. Dalton (U.S.A.), John Farrant (Australia), A. Frey-Wyssling (Switzerland), Alan J. Hodge (Australia), Daniel C. Pease (U.S.A.), J. B. Le Poole (Netherlands), J. T. Randall (England), Ernst Ruska (Germany), W. J. Schmidt (Germany), Hugo Theorell (Sweden), Arne Tiselius (Sweden), and R. W. G. Wyckoff (U.S.A.).

The first volume, priced at $15, will have four issues. Manuscripts by Ebba Andersson, A. J. Dalton, R. Ekholm, E. Fauré-Fremiet, D. Ferreira, A. Frey-Wyssling, B. Vincent Hall, E. L. Kuff, M. G. Menefee, and C. Rouiller have been accepted for publication in the initial issues. Manuscripts and queries concerning details of editorial policy and rules regarding the preparation of papers should be sent to the Editorial Office, Journal of Ultrastructure Research, Department of Anatomy (Karolinska Institutet, Stockholm 60, Sweden. Subscription orders should be sent to the publishers, Academic Press Inc., 111 Fifth Ave., New York 3, N.Y.

IT&T Standards Laboratory

A new standards laboratory for testing and certifying master mechanical and electrical measuring devices was opened recently at Clifton, N.J., by International Telephone and Telegraph Corporation. The dedication ceremonies featured an address by Allen V. Astin, director of the National Bureau of Standards.

To be known as the IT&T Standards Laboratory, the new facility is located within the IT&T Federal Telephone and Radio Company division's factory building, and within a short distance of Federal Telecommunication Laboratories, IT&T's research division. One of the best equipped privately owned installations of its kind, it is designed to provide a convenient service in the field of mechanical and electrical measurements, supplementing and extending that of the National Bureau of Standards, to private companies, to organizations such as universities and scientific foundations, to U. S. government agencies, and to IT&T system companies throughout the world.

IAEA Preparatory Commission

The Preparatory Commission of the International Atomic Energy Agency, composed of representatives of 18 countries, has completed its sixth session at United Nations Headquarters in New York under the presidency of Carlos A. Bernardes (Brazil) and with Pavel Winkler (Czechoslovakia) as its vice president. The commission reached unanimous agreement on a recommendation for a program of activities of the agency for its initial year as well as on the budget, staff establishment, and financing required to carry out this program. The