sonnel to build a center," while this situation persists, could be awkward, he explained.

However, NSF subsequently determined that it could find the sum—reported then at about $1.4 million—from other parts of its SFC authorization. NSF's Head of the Office of International Programs, Bodo Bartocha, says that he is ready to entertain a proposal from the Poles. Bartocha is careful to say that a proposal for such a center will be subjected to a normal review procedure. But it is obvious that it has received enthusiastic preliminary boosting from top-ranking science officials in government.

"When I think of celebrating Copernicus' birthday I think of something that's going to produce results—namely hardware and facilities for Polish astronomy," says C. R. O'Dell, of the Yerkes Observatory, University of Chicago, and an active member of the NAS Copernicus committee. O'Dell's chief concern has been trying to obtain for the Poles a big computer —a project that turns out to be surprisingly difficult, despite the favorable setting for such a gesture.

The first computer suggested as a possibility came to the attention of the Smithsonian Institution several months ago. It was an older IBM 7097 which had found it way onto the General Services Administration's surplus lists. However, says O'Dell, the Polish astronomers, as well as some at the Smithsonian, "looked the gift horse in the mouth and counted its teeth," only to discover that the machine was not usable at present, and that the price of putting it into good repair and keeping it so—a price to be borne by the Poles—would be fairly high. Moreover, a number of officials who were aware of the Smithsonian suggestion indicated that it was not sufficiently sophisticated for the advanced work planned for it.

O'Dell explains that the Poles now are planning to develop their own big computer several years from now, but that there will be "a need, anyway, for an intermediate class computer," and all sides seem to have settled on an IBM 1130, which costs, in the United States, roughly $100,000.

Ironically, while the NAS group could raise the money privately, buy the computer, and give it to the Poles, the group could not make such a gesture if the money came through the Foreign Assistance Act. The act, which governs U.S. foreign aid, prohibits aid to Communist-ruled countries.

Nor can the NSF use part of its SFC Program funds to pay IBM for the computer; Polish money, like that of other Communist-governed countries is nonconvertible; that is, on the world currency market, Polish zlotys are not readily exchangeable into dollars. Conceivably the Poles themselves could buy the computer and pay for it in zlotys; but, as Larry Mitchell, of NAS, who has been dealing with the Copernican celebration says, "IBM doesn't want zlotys."

Barring an outright gift, or a sale of an 1130 computer to the Poles, the only alternative is some form of long-term loan arrangement. The NAS committee is now trying to raise the money privately, and O'Dell is optimistic that the amount can be raised, perhaps through a dinner. Should a lesser sum be raised, however, it could be used to buy an MH2-equipped spectrograph that would be used by the observatory in Torun, where Copernicus was born.

The final question, and one asked frequently about this country's sometimes-misguided attempts to benefit less well-to-do countries abroad, is what the United States will get from a Copernicus Astronomical Center in Poland housing an IBM computer. Bartocha, of NSF, who will act in effect as broker for the center deal, replied in the vein of most of those interviewed. "We will get a recognition of having honored one of the great sons of Poland." Scientifically, he said, the work done at the center will become known in this country because of the pressure on the American astronomers, who will also be using the center, to publish their results as quickly as possible. This way "we do get research results for which we do not have to pay in dollars." Making arrangements for a building and a computer would seem to be a small price to pay for an event which only occurs once every 500 years.

—DEBORAH SHAPLEY

APPOINTMENTS

H. E. Hoelscher, dean, School of Engineering, University of Pittsburgh, to president, Asian Institute of Technology, Bangkok, Thailand. . . . **Robert D. Sparks**, dean, School of Medicine, Tulane University, to chancellor, Medical Center, University of Nebraska. . . . **Frank A. Camm**, division engineer, U.S. Army Engineer Division, South Pacific, San Francisco, California, to assistant general manager for military application, Atomic Energy Commission. . . . **Bernard R. Gifford**, fellow, Institute of Politics, John F. Kennedy School of Government, Harvard University, to president, New York City–Rand Institute. . . . **Norman H. Cromwell**, executive dean for graduate studies and research, University of Nebraska, Lincoln, to vice president for graduate studies and research and dean, Graduate College, University of Nebraska System. . . . **Hans Popper**, dean for academic affairs, Mount Sinai School of Medicine, City University of New York, to acting president and acting dean of the school. . . . **Hans W. Liepmann**, professor of aeronautics, California Institute of Technology, to director, Graduate Aeronautics Laboratory at Caltech. . . . **Bernard G. Greenberg**, chairman, biostatistics department, University of North Carolina School of Public Health, to dean of the school. . . . **Adrian H. Daane**, professor of chemistry, Kansas State University, to dean, College of Arts and Sciences, University of Missouri, Rolla. . . . **May Brodbeck**, professor of philosophy, University of Minnesota, to dean, Graduate School at the university. . . . **Robert O. Schulze**, executive director, Thomas J. Watson Foundation, to dean, College of Arts and Sciences, University of Northern Colorado. . . . **Clarence K. Williamson**, chairman, microbiology department, Miami University, to dean, College of Arts and Sciences at the university. . . . **Lee Taylor**, professor of sociology, Louisiana State University, New Orleans, to chairman, sociology department, University of Texas, Arlington. . . . **Robert C. Ward**, physician, Mt. Clemens, Michigan, to chairman, family medicine department, Michigan State University. . . . **Stanley C. Grenda**, associate professor of chemistry, University of Nevada, Las Vegas, to chairman of the department. . . . **John S. Garvin**, clinical professor of neurology, University of Illinois College of Medicine, to head, neurology department, Abraham Lincoln School of Medicine and University of Illinois College of Medicine, Chicago. . . . **Calderon Howe**, professor of microbiology, College of Physicians and Surgeons, Columbia University, to head, microbiology department, Louisiana State University Medical Center. . . . **Allan M. Cartter**, chancellor and executive vice president, New York University, to senior re-

(*Continued on page 733*)

(*Continued from page 684*)

search fellow, Carnegie Commission on Higher Education. . . . **David V. Ragone**, dean, School of Engineering, Dartmouth College, to dean, College of Engineering, University of Michigan.

RECENT DEATHS

Richard A. Bloomfield, 39; acting dean, Graduate School, University of Missouri; 19 April.

Robert W. Dickey, 79; professor emeritus of physics, Washington and Lee University; 24 March.

Julius Fox, 57; associate clinical professor of dental surgery, Albert Einstein College of Medicine; 5 May.

Harry Gold, 72; professor emeritus of clinical pharmacology, Cornell University Medical College; 21 April.

Julius Halpern, 60; professor of physics, University of Pennsylvania; 13 May.

Frederick V. Hunt, 67; professor of physics, Harvard University; 21 April.

Edward C. Kendall, 86; visiting professor of chemistry, Princeton University; 4 May.

Aubrey E. Landry, 91; professor emeritus of mathematics, Catholic University; 3 May.

Ernest L. Mackie, 79; professor emeritus of mathematics, University of North Carolina; 18 April.

John N. McDonnell, 62; former president, College of Pharmacy, Columbia University; 11 April.

Sandor Rado, 82; retired president and dean, New York School of Psychiatry; 14 May.

Melvin C. Rigg, 76; former chairman, philosophy and psychology department, Wisconsin State University, Eau Claire; 15 March.

Wendell G. Scott, 66; professor of clinical radiology, Washington University School of Medicine; 4 May.

John Q. Stewart, 77; retired professor of astronomy, Princeton University; 19 March.

Joseph Stokes, Jr., 76; professor emeritus of pediatrics, University of Pennsylvania; 10 March.

Lloyd E. Swearingen, 75; professor emeritus of chemistry, University of Oklahoma; 9 March.

Laszlo Zechmeister, 82; professor emeritus of organic chemistry, California Institute of Technology; 28 February.

Personnel Placement

POSITIONS WANTED

Anthropologist: Near Ph.D.; 4 years of teaching experience. Academic specialties: kinship and social organization, evolution and culture change, theoretical anthropology, ethnology of North America. Research experience and interest in psychology. Immediate availability in United States or foreign country. J. Vernon Shehan, 1572 June Avenue, San Jose, California 95122. X

Biochemist Ph.D. 1962. Physical and chemical properties of carbohydrates and interacting enzymes. Desires teaching and/or research position. Write O. S. Fisher, Blackfoot, Idaho 83221. X

Electron Microscopy, technician with 1 year of experience in most phases of electron microscopy work. Box 334, SCIENCE. X

Ophthalmologist. Subspecialist in corneal diseases and ocular microbiology and immunology. Director of large academic research group and clinical service with major grants and contracts. Considerable experience with anti-infectines, anti-inflammatories, and FDA procedure. Interested in product development and promotion internationally. Desires creative top management position. Call 319-337-4734. X

Ph.D. Nutritional Biochemistry, Massachusetts Institute of Technology, 1970; D.M.D., Tufts, 1964. Experience includes biostatistics, electron microprobe, SEM. A. J. Saffir, 1342 Fieldfair Court, Sunnyvale, California 94087. X

Ph.D. Pharmacology; physiology, microbiology minors, medical background, experienced teacher seeks medical, biology, nonacademic position, available September. Box 335, SCIENCE. X

Pharmacology M.S., chemistry B.S.; 25, recent graduate. Lab experience in chemistry spectroscopy, physiology and pharmacology; adaptable. Desires industrial position. Box 336, SCIENCE. X

Physicist Ph.D. 1972. Light scatterer. Diverse experience in laser excited light scattering and fluorescence. Desires to apply background to environmentally or biologically related research. Available in September. Box 337, SCIENCE. X

POSITIONS OPEN

UNIVERSITY OF LOUISVILLE COLLEGE OF ARTS AND SCIENCES

Applications are invited for the position of **Dean**, College of Arts and Sciences. Earned doctorate, college teaching, and faculty committee experience required. Administrative experience desirable. Address all inquiries to **Professor William G. Bos, Chairman, A & S Search Committee, University of Louisville, Louisville, Kentucky 40208.** The University is a state-supported Urban University and is an Equal Opportunity Employer.

AGRICULTURAL BIOCHEMIST

Faculty position with dual research title of comparable rank in the Agricultural Experiment Station. To teach chemistry and metabolism of nucleic acids and develop research program in plant proteins, nucleic acids, or virus metabolism at the cellular and sub-cellular level. Minimum of 13 years of postdoctoral experience with publication record demonstrating capacity for independent productive research. Rank and salary will be based on qualifications and experience.

Applications including curriculum vitae, names of three referees, list of publications, and a statement of research interest should be sent to **Dr. Mitchell G. Vavich, Head, Department of Agricultural Biochemistry, University of Arizona, Tucson, Arizona 85721.**

An Equal Opportunity Employer

CELL BIOLOGIST, Ph.D.

To join a team effort to study mechanism of chemical carcinogenesis for nonprofit medical research organization in New York City. Send curriculum vitae and salary requirements to: **Box SM 447, 810 7th Ave., New York, N.Y. 10019.**